Lowland Area Groundwater, Surface Water and Sediment Technical Memorandum

Everett Smelter Cleanup Site
FSID 2744, ISIS Cleanup Site ID 4298

Lowland Area
Everett, Washington

for
Washington State Department of Ecology

July 16, 2013

GeoEngineers
Earth Science + Technology

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Project No. 0504-068-00

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1.0 INTRODUCTION

This memorandum summarizes field investigation activities completed at the Everett Smelter Lowland Area. The Lowland Area is a part of the Everett Smelter Cleanup Site and is generally located in northeast Everett, Washington (Figure 1). The Lowland Area includes multiple parcels and the right-of-ways that are located adjacent to the parcels as shown in Figure 2.

The purpose of the Lowland Area study is to characterize metals concentrations in soil, groundwater, surface water, and sediment within and near the Lowland Area in order to evaluate potential environmental impacts from the historical smelter activities. For this study, 57 soil borings were advanced in and adjacent to the Lowland Area between December 4, 2012 and January 24, 2013. Soil sampling and analysis was completed as part of soil boring work and 54 of the borings were completed as groundwater monitoring wells. The groundwater monitoring wells were installed in the shallow and deep aquifers (23 "shallow" wells, 30 "deep" wells and one "deeper deep" well) identified in the Lowland Area. The results of the soil sampling activities completed as part of soil boring advancement and monitoring well installation and development were presented in a separate memorandum titled "Draft Monitoring Well Installation Technical Memorandum," dated February 19, 2013.

Groundwater sampling, and sampling of surface water and sediment from ponds present in the Lowland Area, hydraulic conductivity testing, and a tidal study were performed as part of the Lowland Area study between January 1 and March 8 2013. Water samples were collected and analyzed from a total of 87 new and existing monitoring wells and five surface water ponds to characterize metals concentrations in groundwater and surface water throughout the Lowland Area. Hydraulic conductivity testing and a tidal study were performed on a subset of the groundwater monitoring wells to measure aquifer characteristics. Sediment from the surface water ponds was also collected and analyzed. The investigation activities were completed in general accordance with the Washington State Department of Ecology (Ecology)-approved Final Sampling and Analysis Plan (SAP), Quality Assurance Project Plan (QAPP) and Health and Safety Plan (HASP) for the project dated August 31, 2012.

The purpose of this technical memorandum is to describe field activities completed as part of the investigation of groundwater, pond surface water and sediment, hydraulic testing, and the tidal study performed in the Lowland Area and to summarize the investigation results. The results of this and future field activities will be used to develop a preliminary Feasibility Study so that a Cleanup Action Plan can be developed for the Lowland Area that is protective of human health and the environment. The results of groundwater and pond surface water and sediment sampling and analysis, hydraulic testing and the tidal study are presented in the following sections.

1.1. Site History and Background

The Everett Smelter Lowland Area is part of the Everett Smelter Cleanup Site. The Everett Smelter Cleanup Site has been divided into an Upland Area and Lowland Area. The Benson Property Site is a sub-area of the Lowland Area. Historically, a smelter was located in the Upland Area, west of the Lowland Area. Beginning in the 1890s, the smelter produced lead, copper, gold and silver from

ore. An arsenic extraction plant was added in 1901. The entire smelter was shut down by 1912 and dismantled by 1915.

The historic smelting activities resulted in the release of metals including arsenic and lead to the soil, groundwater and air. The arsenic extraction plant where arsenic trioxide was produced was demolished. However, arsenic trioxide remained on site in the former plant area. This portion of the Everett Smelter Cleanup Site has been referred to as the former arsenic trioxide processing area and as the fenced area[1]. This area underwent environmental cleanup in approximately 2004 through 2006 to remove or consolidate soil that had been contaminated by smelter operations including the arsenic extraction plant.

Historically, slag waste from former smelter activities was poured down the bluff located on the east side of the Upland portion of the Everett Smelter Site and onto an adjacent property, currently known as the Benson Property. Slag present on the Benson Property was historically used for the manufacture of "rock wool". Additionally, slag was excavated from the Benson Property and transported for use on and off site. Although slag was historically reused, not all of it was removed. Slag still remains on the Benson Property and potentially in other parts of the Lowland Area.

Air emissions from the former smelter stacks are likely to have deposited particulates containing metals onto the historic land surface surrounding the Smelter Site. The extent of contamination from the smelter has been characterized in the Upland portion of the Everett Smelter Cleanup Site and is currently under remedial action. The extent of contamination in the Lowland portion of the Site is being investigated to evaluate potential environmental impacts from historical smelter activities.

Multiple soil and groundwater investigations have been performed in the Lowland Area since the 1990s related to the Everett Smelter contamination. Groundwater monitoring in the late 1990s identified metals-contaminated groundwater east of the former smelter in the Lowland Area. Previous investigations at the Lowland Area identified two aquifers, identified as the shallow and deep aquifers, which were noted to have similar flow directions toward the river and appear to be hydraulically separated by a silt aquitard across much of the area. In 2011 and 2012, GeoEngineers installed 20 monitoring wells (in ten well pairs - "shallow" and "deep" wells BP-01S/D through BP-10S/D) along the eastern portion of the Benson Property and collected soil and groundwater samples at these locations to evaluate soil and groundwater quality in the two aquifers. Additionally, GeoEngineers collected groundwater samples from three existing wells (EV-20B and EV-22A/B). Soil and groundwater samples were analyzed for arsenic, lead, cadmium, mercury, antimony and thallium. The results indicated that soil and groundwater contain elevated metals concentrations (predominantly arsenic and lead) on and adjacent to the Benson Property. Of note, the metals concentrations in groundwater identified in the late 1990s were similar to the metals concentrations detected in 2012. The results of the soil and groundwater sampling activities performed as part of soil boring advancement and monitoring well installation on the

[1] The former arsenic trioxide processing area has sufficiently high contamination that it was purchased by Asarco soon after the Site was rediscovered, the homes vacated, and the area fenced off.

Benson Property were presented in the memorandum titled "Final Groundwater Monitoring Technical Memorandum Lowland Area – Benson Property," dated May 7, 2012.

2.0 FIELD INVESTIGATION

Field investigation activities performed as part of the Lowland Area study between January 1 and March 8, 2013 included the following:

- Groundwater sampling and analysis;
- Surface water and sediment sampling and analysis;
- Hydraulic conductivity testing; and a
- Tidal study.

The field investigation activities are summarized in the following sections.

2.1. Groundwater Sampling

Field investigation activities included collecting groundwater samples from 87 new and existing groundwater monitoring wells located in and adjacent to the Lowland Area. Forty two (42) of the monitoring wells that were sampled are "shallow" wells, installed in the shallow aquifer and 45 of the wells are "deep" wells, installed in the deep aquifer (Table 1). The groundwater monitoring wells that were sampled are shown in Figure 2. The well naming convention (i.e., well name prefixes), general investigation name and installation period are summarized in the table below.

Monitoring Well Name	Number of Wells	Investigation Name and Installation Period
"BP" wells	21	Benson Property/Lowland Area Investigations – 2011 through 2013
"EV" wells	7	Lowland Area Remedial Investigations – Mid to late 1990s
"LLMW" wells	53	Lowland Area Investigation – 2012 and 2013
"MW" wells	5	Weyerhaeuser West Investigation – Mid 1990s and 2011[1]
"PZ" wells	3	Weyerhaeuser Mill E Investigation – Mid 1990s
"UNK" well	1	Unknown
Total	90[2]	

Notes:

[1] Five MW wells were installed in the mid 1990s; four were abandoned in 2011 and new wells were installed.

[2] Three wells were dry and therefore 87 groundwater samples were collected.

Groundwater sample collection was completed between January 7 and February 1, 2013.

Groundwater elevations were measured and recorded prior to sampling each well using an electronic water level indicator. In addition, groundwater elevations were measured at 15 shallow aquifer and 18 deep aquifer monitoring wells within a three-hour period on January 21, 2013 to provide a "snapshot" of groundwater levels/elevations and gradients in the Lowland Area (Table 1).

Groundwater purging and sample collection was completed using low-flow/low-turbidity sampling techniques to minimize the suspension of sediment in the groundwater samples. The wells were purged and groundwater samples were obtained from the wells using dedicated polyethylene tubing and either peristaltic pumps (77 wells) or submersible well pumps (10 wells). Submersible pumps, were used when groundwater depths were greater than the peristaltic pump lift capacity (depths greater than approximately 30 feet). Groundwater was purged from the wells at a rate of up to 0.5 liters per minute.

A Horiba U-22 water quality measuring system with a flow-through cell was used to monitor water quality parameters during purging. Water quality parameters that were measured include pH, electrical conductivity, dissolved oxygen, temperature, and oxidation-reduction potential. Turbidity was measured using a LaMotte turbidimeter. Samples were collected from the wells after the measured values for the water quality parameters varied by less than 10 percent on three consecutive measurements. The field measurements were documented on field logs.

Following completion of well purging, the flow through cell was disconnected and ferrous and total iron were measured using Hach color disk field test kits and groundwater samples were collected in laboratory-prepared containers. Samples were logged on the chain-of-custody, placed in a cooler with ice, and delivered to Analytical Resources, Inc., in Tukwila, Washington for analysis. Analysis included total and dissolved metals (i.e., antimony, arsenic, cadmium, lead, mercury, and thallium) by EPA Methods 200.8 and SW7470A. The samples that were collected for dissolved metals analysis were filtered in the field using disposable 0.45-micron filters. The laboratory analytical reports for metals analyses on groundwater are provided in Appendix A. Additionally, a data quality review was performed on the analytical data resulting from laboratory analysis of water samples. The data quality assessment report is provided in Appendix B.

2.2. Surface Water and Sediment Sampling

Surface water and sediment samples were collected on February 4 and 5, 2013, at seven locations within five ponds that are in the Lowland Area. The surface water and sediment sampling locations are shown on Figure 2. Sample locations were selected based on several criteria:

- Where samples had been previously collected by others, an attempt was made to sample near the previous sampling locations.
- Where one sample was collected per pond, the sample location was selected to be on the presumed upgradient (inlet) side of the pond. Where two samples were collected, a sample near the presumed outlet was also sampled.
- Locations needed to be safe and accessible.

Water samples were collected using disposable polyethylene tubing and a peristaltic pump. The tubing inlet was placed approximately 6 to 8 inches beneath the water surface. Water was purged at approximately 0.5 liters per minute.

A Horiba U-22 water quality measuring system with a flow-through cell was used to monitor water quality parameters during purging that included pH, electrical conductivity, dissolved oxygen, temperature, and oxidation-reduction potential. The water flowing through the cell was discharged

on land adjacent to the pond so as not to disturb the water or cause elevated turbidity. Turbidity was measured using a Hach turbidimeter. Samples were collected after the measured values for the water quality parameters varied by less than 10 percent on three consecutive measurements. The field measurements were documented on field logs.

Following completion of purging, the flow-through cell was disconnected and ferrous and total iron were measured using Hach color disk field test kits and surface water samples were collected in laboratory-prepared containers. Samples were logged on the chain-of-custody, placed in a cooler with ice, and delivered to Analytical Resources, Inc., in Tukwila, Washington for analysis. Analyses included total and dissolved metals (i.e., antimony, arsenic, cadmium, lead, mercury, and thallium) by EPA Method 200.8 and SW7470A. Samples that were collected for dissolved metals analysis were filtered in the field using disposable 0.45-micron filters. The laboratory analytical reports for metals analyses on surface water are provided in Appendix A. Additionally, a data quality review was performed on the analytical data resulting from laboratory analysis of water samples. The data quality assessment report is provided in Appendix B.

Sediment sampling was performed at each location following collection of surface water samples. Sediment samples were collected from the sediment directly beneath the location from where surface water samples were collected. Samples were collected of the top 10 cm (i.e., from the surface to a depth of 10 cm) of sediment using a decontaminated hand auger. Sediment observations were recorded on field forms.

The sediment was placed in a stainless steel bowl and thoroughly mixed before distributing the sediment to laboratory-prepared containers. Samples were logged on the chain-of-custody, placed in a cooler with ice, and delivered to Analytical Resources, Inc., in Tukwila, Washington for analysis of metals (i.e., antimony, arsenic, cadmium, lead, mercury, and thallium) by EPA Methods SW6010, 200.8, and SW7470A. The laboratory analytical reports for metals analyses on sediment are provided in Appendix C. Additionally, a data quality review was performed on the analytical data resulting from laboratory analysis of sediment samples. The data quality assessment report is provided in Appendix D.

2.3. Hydraulic Conductivity Testing

Hydraulic conductivity testing included performing slug tests and drawdown testing on selected groundwater monitoring wells in the Lowland Area. The following sections discuss the field activities and data analysis for slug and drawdown tests.

2.3.1. Slug Testing

Slug tests were performed on multiple well pairs at the Site between January 29 and February 1, 2013 to evaluate the hydraulic conductivity (*K*) within the shallow and deep aquifers (Table 1). Slug tests were performed on well pairs LLMW-03S/D, LLMW-11S/D, LLMW-12S/D, LLMW-16S/D, LLMW-22S/D, LLMW-27D, EV22A/B, BP05S/D and BP05D2, and BP08S/D. These wells were selected for slug testing because they are generally located downgradient of the former smelter location between the former smelter and the Snohomish River and are generally evenly distributed within the Lowland Area.

Prior to conducting the slug test in each well, a decontaminated electronic water-level sensor consisting of a pressure transducer and automated datalogger (INW Model PT2X vented transducer with a 15-psi range) was installed in the well and depth to groundwater was measured manually using a decontaminated electronic water level indicator. The depth to groundwater was measured to document the static groundwater level prior to initiating the slug tests. Then a falling head slug test and rising head slug test were performed.

The falling head slug test was performed by rapidly lowering a decontaminated slug constructed of a sealed and weighted 5-foot-long section of polyvinyl chloride (PVC) pipe of known volume into the well causing the water level to rise rapidly above the initial, static water level. The groundwater level was then monitored until it returned (fell) to the approximate initial water level. A rising head slug test was then conducted by rapidly removing the slug from the well causing the water level to fall rapidly below the initial level. The groundwater level was monitored until it returned (rose) to the approximate initial water level. The hydraulic response was measured by pressure transducer which was programmed to record the hydraulic pressure at 1-second intervals as well as with manual electronic water level indicator measurements before, during, and after each slug test.

Data from the falling head and/or rising head tests were used to estimate hydraulic conductivity at each well using the Bouwer-Rice (1976) method. The falling head data was not analyzed in wells LLMW-11S, LLMW-12S and LLMW-22S because the water level in these wells was below the top of the well screen at the time of the test. The Bouwer-Rice method for calculating the hydraulic conductivity requires that the well screen be entirely submerged and therefore, the results of the falling head tests could not be used and the results from the rising head test were used to evaluate the hydraulic conductivity in these wells. Note that while it is preferred to have falling and rising head data, the rising head data at LLMW-11S, LLMW-12S, LLMW-16S and LLMW-22S was sufficient to estimate hydraulic conductivity. Graphs showing the slug test data used for the hydraulic conductivity calculations are shown in Appendix E.

2.3.2. Drawdown Testing

Short-duration drawdown testing was performed on wells LLMW-11S/D, LLMW-16D, and BP05S/D/D2 on January 29 and February 1, 2013 to provide additional hydraulic conductivity data for the shallow and deep aquifers in the Lowland Area (Table 1). Wells were pumped for 30 minutes using decontaminated submersible pumps to allow a cone of depression in the groundwater aquifer to propagate beyond the radius of influence achieved during slug tests to observe the aquifer response over a larger area. The aquifer response to the removal of water by the pumping, as well as the recovery of the groundwater in the aquifer following the end of pumping, provided additional hydraulic characterization of the soil around each tested well.

Prior to conducting the drawdown test in each well, a decontaminated pressure transducer was installed in the well and depth to groundwater was measured manually using a decontaminated electronic water level indicator to document the initial static groundwater level. Then the groundwater was pumped from the well using a submersible pump and discharged into a 55-gallon drum. The water generated by the drawdown tests was subsequently transferred into a 6,000-gallon polyethylene holding tank located at the Site.

The groundwater level was monitored throughout the pumping and recovery phases of each drawdown test until the water level returned to the static pre-test level. A pressure transducer was installed in the Snohomish River near monitoring wells LLMW-08S/D to monitor and record the river stage and tidal elevations during each test so that the effects of changes in the tidal elevation could be identified and a tidal correction applied to water levels for the analysis of the drawdown and recovery phases.

Drawdown data was initially analyzed using the Cooper-Jacob (1946) analytical method for data collected during the pumping phase and using the Theis Recovery Method (1935) for the data collected during the recovery phase. Graphs showing the data used for the calculations are provided in Appendix E. Data collected from wells that were tidally influenced required correction to compensate for the groundwater level changes due to tidal influences described below over the duration of the test.

2.4. Tidal Study

A tidal study was conducted on a subset of the Lowland Area monitoring wells between February 5 and February 13, 2013 (Table 1). The tidal study was completed to evaluate the influence of changes in the level of surface water due to tidal variations in the Snohomish River on shallow and deep groundwater levels. Monitoring well pairs at varying distances from the Snohomish River shoreline were selected for the tidal study to evaluate the lateral and vertical influences of tidal action on groundwater. The tidal study included monitoring of groundwater levels in 12 monitoring wells (BP-05S/D, BP-08S/D, LLMW-06S/D, LLMW-11S/D, LLMW-12S/D and LLMW-13S/D) to record groundwater level response to tidal fluctuations using pressure transducers that were programmed to record the hydraulic pressure in the monitoring wells at 1-minute intervals for the duration of the study. Additionally, a pressure transducer was installed in the Snohomish River near monitoring wells LLMW-08S/D to directly monitor and record the surface water level in the Snohomish River for comparison to water levels recorded in monitoring wells in the Lowland Area (Figure 2). The water-level sensors were removed from the monitoring wells after completion of the data collection and the data was later downloaded for analysis.

The 72-hour period selected for analysis was between February 5, at 15:00 and February 8 at 14:59. This 72-hour period was selected because it captured the largest tidal range (i.e., an estimated 12-foot change in elevation) of the surface water in the Snohomish River adjacent to the Lowland Area resulting from tidal fluctuations during the period of February 5 to February 13. The tidal range of 12 feet is considered an estimate because the transducer in the river was dry during the lowest stages of the tide; although a 9-foot change was observed, extrapolation of the observed tidal curves yielded an estimate of 12 feet of total tidal fluctuation during the 72-hour tidal period.

The data generated as part of the tidal study were analyzed using the Serfes (1987) method to identify the mean groundwater elevations and flow direction for the shallow and deep aquifers and the Ferris (1951) method to identify the hydraulic diffusivity of the deep aquifer. Additional information, and the results from the tidal study for each well presented on graphs, are provided in Appendix F.

2.5. Decontamination

Non-disposable sampling equipment was decontaminated using the procedures specified in the QAPP.

2.6. Disposal of Investigation-Derived Materials

Groundwater was removed from the monitoring wells during monitoring well purging, sampling, and drawdown testing. Groundwater and decontamination water generated during all investigation activities was placed in one 6,000 gallon upright aboveground polyethylene storage tank pending analysis for disposal. The water storage tank was located within a fenced staging area on property owned by the Port of Everett and made available for the investigation. After analysis and waste profiling, the water was disposed of at Emerald Services Airport Way Facility in Seattle, Washington on May 1, 2013. Incidental waste (i.e., gloves, disposable polyethylene tubing, paper towels, etc.) were disposed of off site as solid waste.

2.7. Deviations from the SAP

Field activities were performed in general accordance with the SAP, QAPP and HASP created for this project, with the exceptions listed below. Deviations included the following:

- Hydraulic testing was completed on monitoring wells LLMW-16S/D rather than wells LLMW-13S/D. Wells LLMW-16S/D are located approximately 600 feet south-southeast of wells LLMW-13S/D and are generally downgradient of the former smelter location. It is our opinion that this deviation does not significantly affect the analysis of aquifer conditions and provides representative hydraulic data for shallow and deep groundwater in the south-central portion of the Site.
- Hydraulic testing was not conducted on well LLMW-27S because it was dry at the time of testing.
- Total and ferrous iron were omitted from the field form for wells EV-6A/6B.
- The SAP indicated that drawdown test data would be analyzed by Bower & Rice. Due to high K response, additional methods were used to analyze the data.

3.0 RESULTS

3.1. Groundwater Elevations and Gradients

Groundwater elevations and gradients in the Lowland Area were evaluated using the results from snapshot groundwater level measurements and the tidal study.

Snapshot groundwater level measurements were collected from the top of the well casing at 15 shallow aquifer and 18 deep aquifer monitoring wells within a three-hour period on January 21, 2013 (Table 1). The depth to water measurements are provided in Table 3. Survey information identifying the elevation of the top of the casing at each of the wells was used to estimate the groundwater elevation. The groundwater elevations were used to provide a snapshot of the groundwater gradients in the shallow and deep aquifers as shown in Figures 3 and 4, respectively.

The groundwater gradient observed in the shallow aquifer in the Lowland Area, based on the snapshot groundwater level measurements, was generally to the east-northeast (Figure 3). It should be noted that the water level measurements indicated a groundwater high in the Lowland Area, in an area in which recent filling has occurred. Snapshot groundwater levels/elevations measured at monitoring wells LLMW-13S and LLMW-16S were higher than levels/elevations observed in adjacent wells (Figure 3).

The groundwater gradient observed in the deep aquifer in the Lowland Area, based on the snapshot groundwater level measurements, was also generally to the east-northeast (Figure 4). It should be noted that groundwater levels/elevations in the deep aquifer were observed to be directly affected by tidal fluctuations. Additional information concerning the response of groundwater in the deep aquifer as a result of tidal fluctuations is presented in Section 3.2.

As part of the tidal study, groundwater levels were recorded at one-minute intervals by pressure transducers installed in six shallow and six deep aquifer monitoring wells between February 5 and February 8, 2013 (Table 1). The groundwater level data from the tidal study was used to estimate the mean groundwater elevation for each well completed in the shallow and deep aquifers. Graphs showing the results of the tidal study for groundwater in the wells that were monitored are presented in Appendix F. The groundwater elevations from the tidal study were used to identify the mean groundwater gradients in the shallow and deep aquifers as shown in Figures 5 and 6, respectively.

The mean groundwater gradients in the shallow and deep aquifers, based on the tidal study, were generally to the east-northeast (Figures 5 and 6). Similar to the results of the snapshot groundwater level measurements, the water levels for the shallow aquifer measured as part of the tidal study indicated a groundwater high in the Lowland Area in an area of recent filling. The groundwater levels/elevations measured at monitoring well LLMW-13S was higher than levels/elevations observed in adjacent wells (Figure 5).

3.2. Water Quality Parameters

Water quality parameters including pH, temperature, conductivity, dissolved oxygen, oxidation-reduction potential, total and ferrous iron, and turbidity were measured at all monitoring wells and surface water locations prior to sampling. Water quality parameter values measured during sample collection are presented in Table 2. The following summarizes the results for the water quality parameter measurements in groundwater and surface water samples:

- pH ranged from approximately 5 to 7, except at monitoring wells BP-04S, BP-05S, EV-6B, LLMW-24D and “UNK,” where the pH in ranged from approximately 7 to 8.
- Conductivity in the majority of samples ranged from 0.000147 to 0.2 Siemens per meter (S/m) with relatively higher conductivity in the range of 0.2 to 0.72 S/m measured in groundwater from 10 wells located throughout the Lowland Area.
- Turbidity ranged from 0 to 95 Nephelometric Turbidity Units (NTU) with approximately 80 percent of the samples having turbidities less than 20 NTU.
- Dissolved oxygen concentrations ranged from 0 to 2 mg/L in the majority of groundwater monitoring wells. Dissolved oxygen was relatively high (approximately 3 to 9 mg/L) in

groundwater from LLMW-25D, LLMW-27D, LLMW-29D, EV-19B and EV-20B. Dissolved oxygen concentrations ranged from approximately 3 to 14 mg/L in the surface water samples.

- Temperature ranged from approximately 6 to 16 degrees Celsius.
- Oxidation-reduction potential measurements indicate groundwater is generally reducing or slightly oxidizing in the majority of wells (i.e., approximately -350 to 50 mV). Oxidation-reduction potential measurements of the surface water ranged from 46 to 164 mV.
- Total iron was measured at concentrations ranging from 0 to 7 mg/L and ferrous (reduced) iron was measured at concentrations ranging from 0 to 4 mg/L in the groundwater monitoring well samples. Total iron was measured at concentrations ranging between 0 and 1 mg/L in surface water samples; no ferrous iron was present in surface water samples.

3.3. Chemical Analytical Results for Groundwater and Surface Water

Ninety-one groundwater samples and seven surface water samples were submitted for total and dissolved metals analyses (i.e., antimony, arsenic, cadmium, lead, mercury and thallium). The results for groundwater and surface water sample analyses are presented in Table 4. Table 5 presents the results for total and dissolved metals analyses for deep aquifer groundwater. The results for dissolved arsenic concentrations in shallow groundwater and surface water are shown on Figure 7 and the results for dissolved arsenic concentrations in deep groundwater are shown on Figure 8. The laboratory analytical reports for metals analyses on water are provided in Appendix A.

A data quality review was performed on the analytical data resulting from laboratory analysis of groundwater and surface water samples. The data quality review was performed in general conformance with an EPA "Stage-2B" validation. The data were deemed acceptable for use as qualified. The data quality assessment report is provided in Appendix B.

The following summarizes the results for the metals analyses on groundwater and surface water samples:

- Antimony was detected in approximately one-half of the groundwater and surface water samples collected from the Lowland Area. Where detected, antimony concentrations ranged from near the detection limit of 0.2 micrograms per liter (µg/L) to 15.6 µg/L. The highest antimony concentrations were detected in groundwater from monitoring well EV-6A. Dissolved antimony results were typically equal to or slightly less than the total antimony results indicating that antimony is largely present in the dissolved phase.
- Arsenic was detected in all wells and surface water samples at concentrations ranging from 0.3 µg/L to 16,400 µg/L. The highest arsenic concentrations were detected in groundwater from BP-05D. Dissolved arsenic concentrations were typically equal to or slightly less than the total concentrations indicating that arsenic is largely present in the dissolved phase.
- The highest arsenic concentrations in shallow groundwater and surface water were generally detected on the Benson Property (Figure 7). Arsenic concentrations in shallow groundwater were also higher in monitoring wells LLMW-08S, LLMW09S, LLMW-16S, PZ-1B and UNK in relationship to adjacent monitoring locations.
- An area of higher arsenic concentrations was detected in deep groundwater present in monitoring wells LLMW-27D, EV-19B, EV-20B, BP-04D through BP-07D, LLMW-12D, and

LLMW-13D (Figure 8). Arsenic concentrations in deep groundwater were also higher in monitoring wells LLMW-01D, LLMW-17D, and BP-09D relative to adjacent monitoring locations.

- Arsenic concentrations are typically one to two orders of magnitude different between shallow and deep groundwater at the majority of well pair locations, suggesting that the silt aquitard separates the shallow and deep aquifers at these locations.
- Cadmium was detected in approximately one-half of the groundwater samples and in only one surface water sample. Where detected, total cadmium was frequently detected but dissolved cadmium was not detected indicating that the cadmium may be sorbed to solids that are filtered out by the 0.45 micrometer field filter. Cadmium concentrations ranged from non-detect to 27.4 µg/L. The highest cadmium concentrations were detected in groundwater from EV-6A.
- Total lead was detected in almost all wells and surface water samples with concentrations ranging from 0.1 µg/L to 291 µg/L. The highest lead concentrations were detected in groundwater from EV-6A. Dissolved lead was not detected in the majority of wells indicating lead may be sorbed to solids that are filtered out by the 0.45 micrometer field filter. While median lead values in the shallow and deep aquifers were approximately equal (approximately 0.6 µg/L), lead concentrations in selected wells in the shallow aquifer were relatively elevated compared to the deep aquifer.
- Mercury was detected relatively infrequently in groundwater (i.e., 11 samples) and surface water samples (three samples). Where detected, mercury concentrations ranged from near the reporting limit of 0.02 µg/L to approximately 0.06 µg/L. The highest mercury concentrations were detected in groundwater from the monitoring well designated UNK (i.e., unknown well designation).
- Thallium was only detected in one well sample, EV-6A at total and dissolved thallium concentrations of 0.3 µg/L.

3.4. Chemical Analytical Results For Sediment

Seven sediment samples were submitted for metals analysis (i.e., antimony, arsenic, cadmium, lead, mercury and thallium). The results for sediment sample analyses are presented in Table 6.

Neither antimony nor thallium were detected in the sediment samples. Arsenic, cadmium, and lead were detected in all of the sediment samples and mercury was detected in five sediment samples.

Arsenic was detected at concentrations ranging from 11.5 mg/kg to 219 mg/kg. The highest arsenic concentrations were detected in sediment samples collected from the pond located on the Benson property (i.e., LLSD-04 and LLSD-05). Cadmium was detected at concentrations ranging from 0.5 to 2.7 mg/kg and lead was detected at concentrations ranging from 10 to 532 mg/kg. The highest concentrations of cadmium, lead, and mercury were also detected in sediment collected from the pond located on the Benson property LLSD-05.

3.5 Hydraulic Conditions in the Shallow and Deep Aquifers

The hydraulic conditions in the shallow and deep aquifers were evaluated using slug tests performed on 18 well pairs, short-duration drawdown testing performed on three well pairs, and a tidal study utilizing data collected from six well pairs located in the Lowland Area (Table 1). The hydraulic conditions identified in the Lowland Area based on the slug and drawdown tests and tidal study include the following:

- Hydraulic conductivity values (*K*) estimated from slug and drawdown test data for the shallow aquifer ranged from approximately 2 ft/day to 250 ft/day and averaged 61 ft/day; the hydraulic conductivity values for the deep aquifer ranged from approximately 2 ft/day to 173 ft/day and averaged 49 ft/day. The hydraulic conductivity values for the monitoring wells tested in the shallow and deep aquifers are presented in Table 7. The hydraulic conductivity values that were observed for the shallow and deep aquifers based on the slug and drawdown tests are consistent with conductivity values for unconsolidated sand deposits.
- Hydraulic conductivity values were also estimated from the tidal study data for the deep aquifer using aquifer diffusivity values estimated from both time lag and tidal stage ratio. Based on the observed tidal responses in the deep aquifer, hydraulic conductivity values were between 21 and 26 ft/day, which are slightly lower than the average values estimated from slug and drawdown test data for the deep aquifer.
- Estimated horizontal groundwater velocities were calculated at selected wells completed in the shallow and deep aquifers using hydraulic conductivity values derived from slug and drawdown testing data, effective porosity values from available literature, and the average groundwater gradient at each well. The effective porosity values used are from available literature and are based on soil types observed when the wells were installed. The average groundwater gradient that was used for each well was calculated using the groundwater elevations in adjacent upgradient and/or downgradient test wells. The estimated groundwater velocities for the four wells that were evaluated (i.e., LLMW-11S/D and LLMW-12S/D) ranged from 0.04 to 6.30 ft/day. The estimated horizontal groundwater velocities are presented in Table 8. The horizontal groundwater velocities are estimated as they are based on effective porosity values for a soil type.
- The results of the tidal study indicate that wells completed in the deep aquifer show a direct hydraulic response to tidal fluctuations in the Snohomish River. The graphs presenting the data from the tidal study for wells completed in the deep aquifer that show the hydraulic response of groundwater from tidal fluctuation in the Snohomish River are provided in Appendix F.
- The results of the tidal study indicate that there is no appreciable effect on wells completed in the shallow aquifer in response to tidal fluctuations in the Snohomish River during the time the study was performed (see graphs in Appendix F). Therefore, groundwater in the shallow aquifer, based on the tidal study, appeared to be hydraulically distinct from surface water in the Snohomish River as well as groundwater in the deep aquifer during the time the study was performed.

- A tidal effect was observed in groundwater within the deep aquifer at a distance of approximately 1,700 feet from the shoreline of the Snohomish River in monitoring well BP-08D indicating that the deep aquifer behaves as a confined system.
- A reversal of the deep groundwater gradient direction (i.e., when deep groundwater briefly reversed flow direction inland away from the Snohomish River) was observed at the high tides during the tidal study. The tidally-influenced reversal of the groundwater gradient was observed to a distance of approximately 1,000 feet from the shoreline of the Snohomish River at monitoring well LLMW-12D during the highest tide of the study.
- As previously discussed in Section 3.1, the results of the tidal study indicate that the mean groundwater flow direction for groundwater in the shallow and deep aquifers is to the east-northeast toward the Snohomish River (Figures 5 and 6).

Based on the observed hydraulic responses to tidal fluctuations and the results of hydraulic testing in both the shallow and deep aquifers, the two aquifers appear to be hydraulically distinct, with the deep aquifer in hydraulic continuity with surface water in the Snohomish River.

4.0 LIMITATIONS

We have prepared this report for the exclusive use of Washington State Department of Ecology and their authorized agents.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted practices in the field of environmental investigation in this area at the time this report was prepared. No warranty or other conditions express or implied should be understood.

Please refer to Appendix G titled “Report Limitations and Guidelines for Use” for additional information pertaining to use of this report.

5.0 REFERENCES

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Table 1

Summary of Lowland Groundwater Investigation Activities

Everett Smelter - Lowland Area

Everett, Washington

Location Designation	Groundwater Aquifer	Groundwater Sampling	Depth to Groundwater "Snapshot"[1]	Hydraulic Conductivity Testing		Tidal Study
				Slug Testing	Drawdown Testing	
Monitoring Wells						
BP-01S	Shallow	X	--	--	--	--
BP-01D	Deep	X	--	--	--	--
BP-02S	Shallow	X	--	--	--	--
BP-02D	Deep	X	--	--	--	--
BP-03S	Shallow	X	--	--	--	--
BP-03D	Deep	X	--	--	--	--
BP-04S	Shallow	X	--	--	--	--
BP-04D	Deep	X	--	--	--	--
BP-05S	Shallow	X	X	X		X
BP-05D	Deep	X	--	X	X	X
BP-05D2	Deep	X	--	X	X	--
BP-06S	Shallow	X	--	--	--	--
BP-06D	Deep	X	--	--	--	--
BP-07S	Shallow	X	--	--	--	--
BP-07D	Deep	X	--	--	--	--
BP-08S	Shallow	X	X	X	--	X
BP-08D	Deep	X	--	X	--	X
BP-09S	Shallow	X	--	--	--	--
BP-09D	Deep	X	--	--	--	--
BP-10S	Shallow	X	--	--	--	--
BP-10D	Deep	X	--	--	--	--
EV-6A	Shallow	X	--	--	--	--
EV-6B	Deep	X	--	--	--	--
EV-13[2]	Shallow	--	--	--	--	--
EV-19B	Deep	X	--	--	--	--
EV-20B	Deep	X	--	--	--	--
EV-22A	Deep	X	X	X	--	--
EV-22B	Deep	X	X	X	--	--
LLMW-01D	Deep	X	X	--	--	--
LLMW-02D	Deep	X	X	--	--	--
LLMW-03S	Shallow	X	X	X	--	--
LLMW-03D	Deep	X	X	X	--	--
LLMW-04S	Shallow	X	X	--	--	--
LLMW-04D	Deep	X	X	--	--	--
LLMW-05S	Shallow	X		--	--	--
LLMW-05D	Deep	X	X	--	--	--
LLMW-06S	Shallow	X	X	--	--	X
LLMW-06D	Deep	X	X	--	--	X
LLMW-07S	Shallow	X	--	--	--	--
LLMW-07D	Deep	X	--	--	--	--
LLMW-08S	Shallow	X	X	--	--	--
LLMW-08D	Deep	X	X	--	--	--
LLMW-09S	Shallow	X	--	--	--	--
LLMW-09D	Deep	X	--	--	--	--
LLMW-10S	Shallow	X	X	--	--	--
LLMW-10D	Deep	X	X	--	--	--
LLMW-11S	Shallow	X	--	X	X	X
LLMW-11D	Deep	X	--	X	X	X
LLMW-12S	Shallow	X	--	X	--	X
LLMW-12D	Deep	X	--	X	--	X
LLMW-13S	Shallow	X	X	--	--	X
LLMW-13D	Deep	X	X	--	--	X
LLMW-14S	Shallow	X	--	--	--	--
LLMW14D	Deep	X	--	--	--	--
LLMW-15S	Shallow	X	X	--	--	--
LLMW-15D	Deep	X	X	--	--	--
LLMW-16S	Shallow	X	X	X	--	--
LLMW-16D	Deep	X	X	X	X	--
LLMW-17S	Shallow	X	X	--	--	--
LLMW-17D	Deep	X	X	--	--	--
LLMW-18S	Shallow	X	--	--	--	--
LLMW-18D	Deep	X	--	--	--	--
LLMW-19D	Deep	X	--	--	--	--
LLMW-20D	Deep	X	--	--	--	--
LLMW-21S	Shallow	X	X	--	--	--
LLMW-21D	Deep	X	X	--	--	--
LLMW-22S	Shallow	X	X	X	--	--
LLMW-22D	Deep	X	X	X	--	--
LLMW-23S	Shallow	X	--	--	--	--
LLMW-23D	Deep	X	--	--	--	--
LLMW-24D	Deep	X	--	--	--	--
LLMW-25D	Deep	X	--	--	--	--
LLMW-27S[2]	Shallow	--	--	--	--	--
LLMW-27D	Deep	X	X	X	--	--

Location Designation	Groundwater Aquifer	Groundwater Sampling	Depth to Groundwater "Snapshot"[1]	Hydraulic Conductivity Testing		Tidal Study
				Slug Testing	Drawdown Testing	
Monitoring Wells						
LLMW-29S[2]	Shallow	--	--	--	--	--
LLMW-29D	Deep	X	X	--	--	--
LLMW-31D	Deep	X	--	--	--	--
LLMW-33S	Shallow	X	--	--	--	--
LLMW-33D	Deep	X	--	--	--	--
LLMW-34S	Shallow	X	--	--	--	--
LLMW-34D	Deep	X	--	--	--	--
MW1202R	Shallow	X	--	--	--	--
MW1203R	Shallow	X	X	--	--	--
MW1301R	Shallow	X	--	--	--	--
MW1501R	Shallow	X	--	--	--	--
MW1701	Shallow	X	--	--	--	--
PZ-1B	Shallow	X	--	--	--	--
PZ-2B	Shallow	X	--	--	--	--
PZ-3B	Shallow	X	--	--	--	--
UNK	Shallow	X	--	--	--	--

Notes:

[1] Depth-to-water was measured within a three-hour window on January 21, 2013.

[2] The monitoring well was dry and therefore could not be sampled.

-- The investigation activity was not performed at the identified location.

Table 2

Water Quality Parameters for Groundwater and Surface Water - January 2013

Everett Smelter - Lowland Area

Everett, Washington

Location Designation	pH	Temperature (C)	Conductivity (mS/m)	Dissolved Oxygen (mg/L)	Oxidization Reduction Potential (mV)	Total Iron (mg/L)	Ferrous Iron (mg/L)	Turbidity (NTU)	Depth to Water[1] (feet)
Monitoring Wells									
BP-01S	5.98	7.46	102	0.49	-111	5	1.2	11	4.2
BP-01D	6.1	10.17	56.5	0.8	-70	0	0	16.8	6.79
BP-02S	6.7	8.32	52.3	0.39	-151	5.5	0.5	25	4.3
BP-02D	6.14	10.62	45.6	0.52	-14	0	0	19	11.68
BP-03S	6.76	7.95	40.4	0.61	-143	5.5	2	3.4	3.3
BP-03D	6.32	9.8	49.8	0.87	-104	0.5	0	6.5	10.44
BP-04S	7.1	5.99	32.1	1.17	-56	0	0	15	3.64
BP-04D	6.3	16.65	59.9	0.82	-59	0.5	0.1	49	10.7
BP-05D	6	11.35	39.5	1.98	53	0	0	18	10.18
BP-05S	7.5	7.99	31	0.53	-171	0.5	0	6	3.61
BP-05D2	6.92	10.5	30.1	0.94	-46	0	0	13	6.8
BP-06S	6.41	7.4	51	0.8	-140	7	1	5.1	3.53
BP-06D	6.23	10.7	47	0.6	-54	1	0.5	6.3	10.93
BP-07S	6.76	9.2	134	0.7	-258	3	2	8.7	3.22
BP-07D	6.43	11	49	0.7	-156	0.5	0.5	5.5	10.55
BP-08S	6.41	6.8	166	0.7	-147	7	2	6.3	3.2
BP-08D	6.46	10	171	0.6	-68	1.5	0.5	8.6	10.97
BP-09S	6.3	8.43	80.1	0.64	-135	5.5	1	69	3.13
BP-09D	6.18	9.84	87.7	0.66	-101	6.25	1	19	10.84
BP-10S	6.26	6.6	72	0.5	-133	7	2	7.6	2.61
BP-10D	6.23	10.3	122	0.4	-95	7	4	12.9	9.19
EV-6A	5.99	10	34.4	1.99	170	0	0	1.2	46.29
EV-6B	7.76	10.92	61	0.48	-345	NR	NR	33	50.95
EV-13[2]	--	--	--	--	--	--	--	--	--
EV-19B	6.12	12.5	53	6.5	63	0.5	0	5	47.3
EV-20B	6.22	12.2	29	9.6	52	4	0	5.3	50.01
EV-22A	6.3	9.85	0.147	0.54	0.104	5	2.5	4.4	13.07
EV-22B	6.57	9.16	411	0.63	-119	4.7	1.5	10.5	19.61
LLMW-01D	5.72	12.13	59.8	0.87	-101	4.5	2.4	95	6.72
LLMW-02D	5.5	12.5	118	0.6	-94	5.1	1.75	14.8	7.16
LLMW-03S	5.1	9.61	26500	0.71	-40	5.1	1.5	24	5.34
LLMW-03D	5.34	11.96	55.8	0.72	-57	0.6	0.6	15	7.96
LLMW-04S	6.37	9.65	162	0.59	-136	5.6	2	25	7.42
LLMW-04D	6.82	11	229	0.58	-174	0.5	0	19	12.65
LLMW-05S	5.1	10.99	99	1.21	-34	6.8	1.3	3.1	4.78
LLMW-05D	5.59	11.92	129	0.49	-72	5.8	1.7	9.1	6.03
LLMW-06S	6.07	7.8	70	0.6	-76	7	2	7.2	3.23
LLMW-06D	6.71	11.5	640	1.5	-77	1.5	0.5	12.3	4.68
LLMW-07S	6.06	8.5	187	1.73	-3	0.5	0.2	0.95	8.75
LLMW-07D	5.94	10.1	133	1.35	-88	5	2.6	45	4.05
LLMW-08S	6.3	10.11	370	0.8	-111	5.8	1.4	35	6.02
LLMW-08D	6.56	11.6	520	0.82	-147	6	2	6	7.7
LLMW-09S	6.18	7.7	36	0.3	-64	7	1	8.3	3.48
LLMW-09D	6.5	14.18	55	0.5	-52	1.5	1	10.8	5.14
LLMW-10S	6.44	8.2	69	0.8	-54	5	1	4.3	7.25
LLMW-10D	6.58	11.4	41	0.6	-101	6	1	8.9	8.94
LLMW-11S	5.67	9.3	58	1.1	59	0.5	0.5	8.7	11.41
LLMW-11D	5.97	10.6	65	7	-27	4.5	1	8.3	11.15
LLMW-12S	6.29	8.5	35	0.6	-13	6.5	3	10.3	6.6
LLMW-12D	6.51	11.6	44	1	-89	1.5	0.5	5.6	9.82
LLMW-13S	6.2	10.5	120	0.5	-134	7	4	7.2	11.86
LLMW-13D	6.43	11.1	80	0.4	-94	3	2.5	25.6	13.63
LLMW-14S	6.44	6.3	4	0.8	42	0.5	0	7.7	5.32
LLMW14D	6.57	11.3	53	1.3	-262	0.5	0.5	5.4	7.71
LLMW-15S	6.54	9.4	52	0.8	-243	7	1.5	1.4	6.46
LLMW-15D	6.49	11.2	85	1.1	-333	0	0	6.1	8.32
LLMW-16S	6.57	10.14	109	0.65	-149	4.5	2.4	16	10.1
LLMW-16D	6.48	11.63	127	0.53	-84	1.3	0	79	13.73
LLMW-17S	6.65	8.8	41	1.7	-32	0	0	5.4	11.36
LLMW-17D	6.72	10.3	40	0.7	-187	2.5	1.5	33.2	11.1
LLMW-18S	6.26	8.3	43	1.1	-89	4	1.5	8.2	6.78
LLMW-18D	6.48	10.7	123	0.6	-347	0.5	0	23.4	8.06
LLMW-19D	5.85	11.35	61.8	0.76	-107	1.4	1	30	7.03
LLMW-20D	5.5	7.03	381	0.84	1.09	0.2	0.2	0	8.23
LLMW-21S	6.37	9.6	34	1	-5	0.5	0.5	8.3	6.62
LLMW-21D	6.57	11.8	79	0.8	-320	0.2	0.2	12.2	8.12
LLMW-22S	6.17	9	720	1.4	-64	4	2.6	4.6	4.26
LLMW-22D	6.31	12	138	1	-48	0.6	0.6	4.7	5.89
LLMW-23S	5.26	13.57	78800	0.95	-92	5.2	1.5	11	10.21
LLMW-23D	5.71	12.81	0.204	0.47	-110	1.8	1.5	33	18.16
LLMW-24D	6.15	10.49	31.4	0.69	65	0.05	0	71	44.28
LLMW-25D	5.77	11	32.5	3.49	88	0	0	43	51.72
LLMW-27S[2]	--	--	--	--	--	--	--	--	--
LLMW-27D	6.36	12.3	41	3.4	61	0.5	0	9.5	47.51

Location Designation	pH	Temperature (C)	Conductivity (mS/m)	Dissolved Oxygen (mg/L)	Oxidization Reduction Potential (mV)	Total Iron (mg/L)	Ferrous Iron (mg/L)	Turbidity (NTU)	Depth to Water[1] (feet)
Monitoring Wells									
LLMW-29S[2]	--	--	--	--	--	--	--	--	--
LLMW-29D	6.38	9.55	32.9	2.85	29	0	0	59	41.36
LLMW-31D	6.59	12.8	50	1.9	39	0.5	0	2	44
LLMW-33S	5.58	9.81	30.7	7	171	0.7	0	OR	8.38
LLMW-33D	5.94	10.9	29.1	2.04	151	1	0	3.2	26.32
LLMW-34S	5.43	11.03	34.3	1.1	155	0	0	8.4	6.72
LLMW-34D	8.04	10.23	33	0.7	-125	0	0	11	31.25
MW1202R	6.3	9.53	217	0.91	-48	0.7	0.6	2.5	5.91
MW1203R	5.79	9.96	122	0.78	-11	2	0.6	2.4	8.62
MW1301R	6.06	8.56	79	0.41	-14	0.5	0	2	5.48
MW1501R	6.24	7.29	344	1.79	10	1.5	0.5	5	3.24
MW1701	6.41	9.48	68.7	0.4	-124	7	1.5	7	2.22
PZ-1B	6.09	8.2	76	0.5	-95	7	2.5	7.3	2.13
PZ-2B	6.28	5.9	33	0.5	44	0.5	0	5.2	2.63
PZ-3B	6.26	6.4	273	0.6	96	0	0	3.2	3.63
UNK	8.05	9.6	74	1.6	-250	2.5	0	10.3	8.86
Surface Water									
LLSW-01	6.55	6.98	19.9	11.01	164	0	0	5.65	NA
LLSW-02	6.12	8.7	35.5	6.75	142	1	0	4.17	NA
LLSW-03	5.59	7.44	10.4	8.13	162	0	0	2.49	NA
LLSW-04	6.32	8.02	33.4	3.6	131	1	0	30.1	NA
LLSW-05	6.62	8.96	28.1	9.48	126	0.5	0	7.27	NA
LLSW-06	6.1	7.18	38.9	3.50	46	1	0	12.4	NA
LLSW-07	6.29	7.45	26.4	14.24	128	0	0	27.1	NA

Notes:

[1] Depth to water measured in feet below top of casing at time of sampling.

[2] The monitoring well was dry and therefore could not be sampled.

OR = Over-reading

NR = Not recorded

S/m - Siemens per meter

NTU = Nephelometric turbidity units

mg/L = milligrams per liter

mV = Millivolts

-- The investigation activity was not performed at the identified location.

Table 3

Groundwater Level Measurements on January 21, 2013

Everett Smelter - Lowland Area

Everett, Washington

Shallow Aquifer Monitoring Wells						
Location Designation	Time	Northing (Y) [1]	Easting (X) [1]	TOC Elevation [2]	DTW TOC (ft)	GW Elevation [2] (ft)
EV-22A	13:26	372106.2793	1308333.578	28.59	13.43	15.16
BP-05S	13:53	371481.4942	1308791.423	18.56	3.75	14.81
BP-08S	13:46	371143.3462	1308839.017	18.73	3.31	15.42
LLMW-03S	13:03	372968.3797	1308356.38	17.45	5.67	11.78
LLMW-04S	13:19	372644.1374	1308250.391	21.91	7.75	14.16
LLMW-06S	13:49	372477.6634	1309132.426	12.49	3.86	8.63
LLMW-08S	14:05	372213.2542	1309788.249	16.21	9.57	6.64
LLMW-10S	13:43	371722.2934	1309357.791	15.91	7.64	8.27
LLMW-13S	14:17	371682.6131	1309796.93	21.49	11.86	9.63
LLMW-15S	13:36	371051.1506	1309535.419	15.94	7.28	8.66
LLMW-16S	14:35	371159.2967	1310164.452	20.02	10.82	9.20
LLMW-17S	12:52	371320.3207	1310602.283	18.27	11.85	6.42
LLMW-21S	13:28	370010.9467	1309885.453	16.04	7.39	8.65
LLMW-22S	13:15	369173.009	1310445.634	12.87	4.63	8.24
MW-1203R	12:40	373910.15	1307960.38	15.7	8.51	7.19

Deep Aquifer Monitoring Wells						
Location Designation	Time	Northing (Y) [1]	Easting (X) [1]	TOC Elevation [2]	DTW TOC (ft)	GW Elevation [2] (ft)
EV-22B	13:27	372111.4369	1308337.155	29.02	19.99	9.03
BP-05D	13:54	371477.267	1308791.557	18.65	10.23	8.42
BP-08D	13:47	371139.579	1308839.538	18.59	10.71	7.88
LLMW-01D	12:40	373911.1708	1307952.929	15.74	8.03	7.71
LLMW-02D	12:52	372887.009	1307921.39	15.15	7.18	7.97
LLMW-03D	13:04	372965.5718	1308351.511	17.45	9.42	8.03
LLMW-04D	13:20	372642.8382	1308246.252	21.98	13.88	8.10
LLMW-06D	13:52	372472.7325	1309133.872	12.29	4.92	7.37
LLMW-08D	14:07	372209.3701	1309788.569	16.26	9.02	7.24
LLMW-10D	13:44	371725.4255	1309359.407	15.97	8.34	7.63
LLMW-13D	14:15	371682.4624	1309793.149	21.24	13.94	7.30
LLMW-15D	13:35	371053.2175	1309536.612	16.07	8.68	7.39
LLMW-16D	14:34	371158.166	1310160.437	20.14	13.15	6.99
LLMW-17D	13:00	371317.6575	1310603.072	18.29	11.01	7.28
LLMW-21D	13:26	370011.1759	1309881.28	16.03	8.87	7.16
LLMW-22D	13:18	369167.8357	1310446.091	12.80	5.47	7.33
LLMW-27D	14:08	371259.2652	1308465.435	61.71	47.48	14.23
LLMW-29D	14:13	370982.4647	1308556.215	55.62	41.31	14.31

Notes:

[1] Northing (Y) and Easting (X) are in Washington State Plane North Coordinate System, 83/91 grid values

[2] Vertical datum is NAVD88, US survey feet

TOC = Top of PVC well casing

DTW = Depth to water below top of casing as measured from the north rim of the casing

GW = Groundwater

Table 4

Chemical Analytical Data for Shallow Groundwater and Surface Water

Everett Smelter - Lowland Area

Everett, Washington

Location Designation	Analyte	Antimony		Arsenic		Cadmium		Lead		Mercury		Thallium	
	Unit	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
		Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total
	Sample ID												
Monitoring Wells													
BP01S	BP01S-130114-W	0.2 U	**0.7**	**83.8 J**	**88.4 J**	0.1 U	**0.2**	0.1 U	**11.9 J**	0.0200 U	0.0200 U	0.2 U	0.2 U
	DUP02-130114-W	0.2 U	**0.7**	**84.8 J**	**90.9 J**	0.1 U	**0.2**	0.1 U	**12.1 J**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP02S	BP02S-130114-W	0.2 U	**0.4**	**94.5**	**132**	0.1 U	**0.1**	0.1 U	**10.1**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP03S	BP03S-130114-W	**0.4**	0.2 U	**36.8**	**34.4**	**0.2**	0.1 U	**9.6**	**0.2**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP04S	BP04S-130115-W	**3.3**	**3.8**	**24.3**	**30.5**	**0.2**	**0.6**	**2.2**	**35.5**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP05S	BP05S-130115-W	**1.1**	**1.3**	**26.2**	**29.9**	0.1 U	**7.9**	**0.3**	**1.4**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP06S	BP06S-130114-W	0.2 U	0.2 U	**52.3**	**59**	0.1 U	**0.3**	0.1 U	**1.1**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP07S	BP07S-130114-W	**0.2**	**0.3**	**277**	**274**	0.1 U	0.1 U	0.1 U	**0.8**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP08S	BP08S-130114-W	0.2 U	0.2 U	**57.5**	**71.7**	0.1 U	0.1 U	0.1 U	**0.1**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP09S	BP09S-130114-W	**0.5**	**1.1**	**164**	**279**	0.1 U	**5.6**	0.1 U	**0.9**	0.0200 U	**0.0394**	0.2 U	0.2 U
BP10S	BP10S-130114-W	**0.4**	**0.4**	**94.8**	**115**	0.1 U	**0.2**	0.1 U	**0.5**	0.0200 U	0.0200 U	0.2 U	0.2 U
EV6A	EV6A-130117-W	**14.9**	**15.6**	**28.4**	**136**	**27.1**	**27.4**	**67.8**	**291**	0.0200 U	**0.0404**	**0.3**	**0.3**
EV22A	EV22A-130116-W	**0.6**	**0.6**	**11.8**	**11.9**	0.1 U	**0.1**	**5.2**	**6.5**	0.0200 U	**0.0366**	0.2 U	0.2 U
LLMW03S	LLMW03S-130107-W	0.2 U	0.2 U	**1.8**	**2.4**	0.1 U	**0.2**	0.1 U	**1.5**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW04S	LLMW04S-130110-W	**0.2**	0.5 U	**8.3**	**9.1**	0.1 U	0.2 U	0.1 U	**1.3**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW05S	LLMW05S-130109-W	**0.2**	**0.2**	**8.4**	**8**	0.1 U	0.1 U	0.1 U	**0.2**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW06S	LLMW06S-130109-W	**0.3**	**0.4**	**12.4**	**13.7**	0.1 U	**0.2**	0.1 U	**0.3**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW07S	LLMW07S-130109-W	**1.3**	**1.5**	**15.6**	**17.2**	**0.1**	**0.6**	0.1 U	**0.3**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW08S	LLMW08S-130108-W	**0.9**	**1.2**	**192**	**206**	**0.3**	**0.4**	**30.5**	**43.4**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW09S	LLMW09S-130116-W	**0.3**	**0.3**	**59**	**61.5**	0.1 U	**2.2**	0.1 U	**0.6**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW10S	LLMW10S-130116-W	**0.5**	**0.5**	**4.4**	**4.5**	0.1 U	**0.3**	**0.1**	**0.7**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW11S	LLMW11S-130109-W	**0.2**	**0.2**	**1.1**	**1.1**	0.1 U	**0.2**	0.1 U	**0.3**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW12S	LLMW12S-130116-W	0.2 U	0.2 U	**16.6**	**20**	0.1 U	**5.5**	0.1 U	**0.2**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW13S	LLMW13S-130116-W	0.2 U	0.2 U	**25.5**	**27.1**	0.1 U	0.1 U	0.1 U	**0.4**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW14S	LLMW14S-130111-W	**1.3**	**1.2**	**2.7**	**2.8**	**0.1**	**0.3**	**2.3**	**2.3**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW15S	LLMW15S-130111-W	0.2 U	0.5 U	**4.6**	**4.5**	0.1 U	0.2 U	0.1 U	**0.3**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW16S	LLMW16S-130111-W	0.2 U	0.2 U	**1,700**	**1,700**	0.1 U	**0.1**	0.1 U	**0.8**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW17S	LLMW17S-130109-W	**1.9**	**1.8**	**2.6**	**2.8**	0.1 U	0.2 U	0.1 U	**0.2**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW18S	LLMW18S-130108-W	**0.4**	**0.4**	**4.9**	**4.7**	**0.2**	**0.2**	0.1 U	**0.3**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW21S	LLMW21S-030108-W	**0.4**	**0.4**	**28.9**	**31.1**	0.1 U	0.1 U	0.1 U	**0.3**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW22S	LLMW22S-130108-W	2 U	5 U	**6**	**8**	1 U	**3**	1 U	**3**	0.0200 U	**0.0351**	2 U	5 U
LLMW23S	LLMW23S-130108-W	0.2 U	0.2 U	**15**	**15.4**	0.1 U	0.1 U	**0.7**	**1.8**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW33S	LLMW33S-130117-W	**0.4**	**0.4**	**0.3**	**3.1**	0.1 U	**0.4**	0.1 U	**3.5**	0.0200 U	**0.0328**	0.2 U	0.2 U
LLMW34S	LLMW34S-130116-W	0.2 U	0.2 U	**0.5**	**0.5**	0.1 U	**0.2**	0.1 U	**0.2**	**0.0222**	**0.0275**	0.2 U	0.2 U
MW1202R	MW1202R-130129-W	**1.2**	**1.2**	**2.9**	**3**	0.1 U	0.1 U	**0.1**	**0.2**	0.0200 U	**0.0238**	0.2 U	0.2 U
MW1203R	MW1203R-130129-W	0.2 U	0.2 U	**1.2**	**1.2**	0.1 U	**0.1**	0.1 U	0.1 U	0.0200 U	0.0200 U	0.2 U	0.2 U
MW1301R	MW1301R-130129-W	**1**	**1**	**1.5**	**1.5**	0.1 U	0.1 U	0.1 U	0.1 U	0.0200 U	0.0200 U	0.2 U	0.2 U
MW1501R	MW1501R-130129-W	**2.9**	**2.9**	**1.7**	**1.8**	0.1 U	0.1 U	**0.7**	**1**	0.0200 U	0.0200 U	0.2 U	0.2 U
MW1701	MW1701-130129-W	0.2 U	0.2 U	**2.2**	**2.8**	0.1 U	**0.2**	0.1 U	**0.2**	0.0200 U	0.0200 U	0.2 U	0.2 U
PZ1B	PZ1B-130117-W	**0.2**	**0.2**	**131**	**122**	0.1 U	**0.1**	0.1 U	**0.3**	0.0200 U	0.0200 U	0.2 U	0.2 U
PZ2B	PZ2B-130117-W	**0.4**	**0.4**	**22.9**	**21**	**0.1**	**0.4**	**0.2**	**0.3**	0.0200 U	0.0200 U	0.2 U	0.2 U
PZ3B	PZ3B-130117-W	**1.2**	**1.2**	**5.8**	**6.6**	0.1 U	0.1 U	**0.1**	**0.8**	0.0200 U	0.0200 U	0.2 U	0.2 U
UNK	UNK-130121-W	**7**	**11.6**	**71.6**	**86.9**	0.1 U	**0.2**	**3.1**	**4.2**	**0.044**	**0.0599**	0.2 U	0.2 U
Surface Water													
LLSW01	LLSW01-130205	**0.6**	**0.5**	**2.5**	**4**	0.1 U	0.1 U	**0.1**	**0.6**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLSW02	LLSW02-130204	**0.7**	**0.6**	**5**	**6.7**	0.1 U	0.1 U	**0.3**	**0.9**	0.0200 U	**0.0217**	0.2 U	0.2 U
LLSW03	LLSW03-130204	**0.3**	**0.2**	**0.7**	**1.2**	0.1 U	0.1 U	0.1 U	**0.4**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLSW04	LLSW04-130205	**1.5**	**1.3**	**263**	**378**	0.1 U	0.1 U	**0.3**	**1.9**	0.0200 U	**0.0234**	0.2 U	0.2 U
LLSW05	LLSW05-130205	**9.1**	**9.1**	**233**	**347**	0.1 U	**0.2**	**2.3**	**6.2**	**0.0291**	**0.0413**	0.2 U	0.2 U
LLSW06	LLSW06-130204	**0.3**	**0.3**	**2.1**	**3.5**	0.1 U	0.1 U	0.1 U	**0.3**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLSW07	LLSW07-130204	**0.4**	**0.3**	**0.8**	**1.4**	0.1 U	0.1 U	0.1 U	**0.3**	0.0200 U	0.0200 U	0.2 U	0.2 U

Notes:

U = The analyte was not detected at the indicated reporting limit

J = The result is an estimate

Bold text indicates the analyte was detected.

Table 5

Chemical Analytical Data for Deep Groundwater

Everett Smelter - Lowland Area

Everett, Washington

Location Designation	Analyte	Antimony		Arsenic		Cadmium		Lead		Mercury		Thallium	
	Unit	µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
		Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total	Dissolved	Total
	Sample ID												
Monitoring Wells													
BP01D	BP01D-130114-W	0.2 U	0.2 U	**0.3**	**0.5 J**	0.1 U	**0.5**	0.1 U	**0.4**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP02D	BP02D-130114-W	0.2 U	0.2 U	**0.3**	**1**	0.1 U	**0.1**	0.1 U	**0.5**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP03D	BP03D-130114-W	0.2 U	0.2 U	**0.3**	**0.9**	0.1 U	**0.7**	0.1 U	**0.6**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP04D	BP04D-130115-W	0.2 U	0.2 U	**3,620**	**3,740**	0.1 U	**0.5**	0.1 U	**3.8**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP05D	BP05D-130115-W	**0.5**	**0.6**	**14,800**	**16,400**	0.1 U	**0.3**	0.1 U	**0.6**	0.0200 U	0.0200 U	0.2 U	0.2 U
	DUP03-130115-W	**0.6**	**0.6**	**16,100**	**16,500**	**0.2**	**0.2**	0.1 U	**0.8**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP05D	BP05D2-130115-W	**0.6**	**0.7**	**25.6**	**25.3**	0.1 U	**0.6**	0.1 U	**1.2**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP06D	BP06D-130114-W	**0.4**	**0.4**	**1,780**	**1,820**	0.1 U	**0.2**	0.1 U	**0.4**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP07D	BP07D-130114-W	**0.4**	**0.4**	**5,020**	**4,940**	0.1 U	0.1 U	0.1 U	**0.3**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP08D	BP08D-130114-W	0.2 U	0.2 U	**0.8**	**0.9**	0.1 U	0.1 U	0.1 U	**0.2**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP09D	BP09D-130114-W	0.2 U	0.2 U	**22.4**	**23**	0.1 U	**0.7**	0.1 U	**0.5**	0.0200 U	0.0200 U	0.2 U	0.2 U
BP10D	BP10D-130114-W	**0.3**	**0.3**	**8.3**	**8.1**	0.1 U	**0.1**	**0.1**	**0.7**	0.0200 U	**0.0239**	0.2 U	0.2 U
EV6B	EV6B-130117-W	**0.3**	**0.4**	**12.6**	**10.2**	0.1 U	0.1 U	**0.1**	**1.2**	0.0200 U	0.0200 U	0.2 U	0.2 U
EV19B	EV19B-130118-W	**0.2**	**0.2**	**3,970**	**4,050**	**0.1**	**0.3**	0.1 U	0.1 U	0.0200 U	0.0200 U	0.2 U	0.2 U
EV20B	EV20B-130118-W	**0.3**	**0.7**	**14,000**	**13,900**	0.1 U	**0.1**	0.1 U	**0.2**	0.0200 U	0.0200 U	0.2 U	0.2 U
EV22B	EV22B-130116-W	**0.4**	**0.6**	**3.3**	**3.4**	0.1 U	0.2 U	0.1 U	**0.6**	**0.0371**	**0.0518**	0.2 U	0.2 U
LLMW01D	LLMW01D-130108-W	**0.2**	**0.3**	**23.8**	**24.5**	0.1 U	0.1 U	**0.1**	**2.1**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW02D	LLMW02D-130107-W	0.2 U	0.2 U	**2.4**	**2.6**	0.1 U	0.1 U	0.1 U	**0.2**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW03D	LLMW03D-130107-W	0.2 U	0.2 U	**0.6**	**1.1**	0.1 U	0.1 U	0.1 U	**0.6**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW04D	LLMW04D-130110-W	**0.3**	**0.3**	**31.1**	**35**	0.1 U	0.1 U	**0.6**	**1.2**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW05D	LLMW05D-130109-W	0.2 U	0.2 U	**1.7**	**1.4**	0.1 U	0.1 U	0.1 U	**0.3**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW06D	LLMW06D-130201-W	0.2 U	0.2 U	**5.5**	**7**	0.1 U	0.1 U	**0.3**	**1**	0.0200 U	**0.0232**	0.2 U	0.2 U
LLMW07D	LLMW07D-130109-W	0.5 U	0.2 U	**5.9**	**6.9**	0.2 U	0.1 U	0.2 U	**1.5**	0.0200 U	0.0200 U	0.5 U	0.2 U
LLMW08D	LLMW08D-130108-W	0.2 U	0.2 U	**2**	**2**	0.1 U	0.1 U	0.1 U	**0.1**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW09D	LLMW09D-130116-W	0.2 U	0.2 U	**0.9**	**1.7**	0.1 U	**2**	**0.3**	**0.9**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW10D	LLMW10D-130116-W	0.2 U	0.2 U	**2.4**	**3**	0.1 U	0.1 U	0.1 U	**1.7**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW11D	LLMW11D-130109-W	0.2 U	0.2 U	**1.7**	**1.7**	0.1 U	**0.5**	0.1 U	**0.3**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW12D	LLMW12D-130116-W	0.2 U	0.2 U	**1,980**	**1,880**	0.1 U	**0.4**	0.1 U	**0.4**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW13D	LLMW13D-130116-W	0.2 U	0.2 U	**22.4**	**25.4**	0.1 U	0.1 U	0.1 U	**0.6**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW14D	LLMW14D-130111-W	0.2 U	0.2 U	**313**	**274**	0.1 U	**0.4**	**0.2**	**0.6**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW15D	LLMW15D-130111-W	0.2 U	0.5 U	**0.5**	**0.9**	0.1 U	0.2 U	0.1 U	**0.2**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW16D	LLMW16D-130111-W	0.2 U	**0.2**	0.5 U	**1.8**	0.1 U	0.1 U	**0.2**	**1.2**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW17D	LLMW17D-130109-W	0.2 U	0.5 U	**14.9**	**15.8**	0.1 U	0.2 U	0.1 U	**0.5**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW18D	LLMW18D-130109-W	0.2 U	0.2 U	**0.7**	**1.4**	0.1 U	0.1 U	0.1 U	**0.5**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW19D	LLMW19D-130110-W	0.2 U	0.5 U	**4.9**	**8.7**	0.1 U	**1.8**	**0.1**	**0.9**	0.0200 U	0.0200 U	0.2 U	0.5 U
LLMW20D	LLMW20D-130110-W	**0.9**	**1**	**8.7**	**9.2**	**0.3 J**	0.2 U	0.1 U	0.1 U	0.0200 U	0.0200 U	0.2 U	0.2 U
	LLMWDUP1-130110-W	**0.9**	**1**	**8.6**	**11**	0.1 UJ	0.5 U	0.1 U	0.1 U	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW21D	LLMW21D-130108-W	0.2 U	0.2 U	**0.5**	**1.3**	0.1 U	**0.2**	0.1 U	**0.4**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW22D	LLMW22D-130108-W	0.2 U	0.2 U	**0.4**	**0.7**	0.1 U	0.1 U	0.1 U	**0.4**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW23D	LLMW23D-130108-W	0.2 U	0.2 U	**0.8**	**1.4**	0.1 U	0.1 U	0.1 U	**0.5**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW24D	LLMW24D-130121-W	**0.4**	**0.4**	**0.8**	**2.6 J**	**0.4 J**	**0.2**	0.1 U	**2.1 J**	0.0200 U	0.0200 U	0.2 U	0.2 U
	DUP04-130121-W	**0.4**	**0.4**	**1.1**	**1.6 J**	**0.2 J**	**0.3**	0.1 U	**0.9 J**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW25D	LLMW25D-130121-W	**0.5**	**0.5**	**0.9**	**1.5**	**0.7**	**0.3**	0.1 U	**0.9**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW27D	LLMW27D-130121-W	**0.6**	**0.5**	**814**	**941**	**0.1**	**0.2**	0.1 U	**1**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW29D	LLMW29D-130118-W	**0.4**	**0.4**	**4.5**	**7.1**	0.1 U	**0.2**	0.1 U	**0.9**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW31D	LLMW31D-130201-W	**0.4**	**0.3**	**0.7**	**0.8**	**2.2**	**2.4**	**0.7**	**0.8**	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW33D	LLMW33D-130117-W	0.2 U	0.2 U	**1.3**	**1.4**	0.1 U	**0.8**	0.1 U	0.1 U	0.0200 U	0.0200 U	0.2 U	0.2 U
LLMW34D	LLMW34D-130116-W	**1**	**0.9**	**2.2**	**3.1**	0.1 U	0.1 U	0.1 U	**0.4**	0.0200 U	0.0200 U	0.2 U	0.2 U

Notes:

U = The analyte was not detected at the indicated reporting limit

J = The result is an estimate

Bold text indicates the analyte was detected.

Table 6

Chemical Analytical Data for Sediment

Everett Smelter - Lowland Area

Everett, Washington

Analyte	Antimony	Arsenic	Cadmium	Lead	Mercury	Thallium
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Location Designation/Sample ID						
LLSD-01	6 U	**6.3**	**0.5**	**10**	0.03 U	0.3 U
LLSD-02	7 U	**14.3**	**0.6**	**86**	**0.05**	0.2 U
LLSD-03	9 U	**18.7**	**0.8**	**30**	**0.07**	0.4 U
LLSD-04	10 U	**219**	**0.9**	**31**	0.03 U	0.4 U
LLSD-05	10 U	**157**	**2.7**	**532**	**0.15**	0.4 U
LLSD-06	20 U	**105**	**1.8**	**78**	**0.1**	0.8 U
LLSD-07	10 U	**11.5**	**0.8**	**24**	**0.06**	0.5 U

Notes:

U = The analyte was not detected at the indicated reporting limit

Bold text indicates the analyte was detected.

Table 7

Hydraulic Conductivity

Everett Smelter - Lowland Area
Everett, Washington

Location Designation	Test Performed [1]	Hydraulic Conductivity [2] (ft/day)
Shallow Aquifer Wells		
BP05S	Slug Test	1.97
BP08S	Slug Test	1.78
EV22A	Slug Test	1.55
LLMW03S	Slug Test	50.33
LLMW11S	Slug Test	85.57
LLMW12S	Slug Test	196.92
LLMW16S	Slug Test, Drawdown Test[3]	8.18
LLMW22S	Slug Test	254.12
Deep Aquifer Wells		
BP05D	Slug Test, Drawdown Test	27.71
BP05D2	Slug Test, Drawdown Test	2.11
BP08D	Slug Test	14.33
EV22B	Slug Test	0.01
LLMW03D	Slug Test	91.05
LLMW11D	Slug Test, Drawdown Test	24.77
LLMW12D	Slug Test	173.07
LLMW16D	Slug Test, Drawdown Test	91.42
LLMW22D	Slug Test	145.43
LLMW27D	Slug Test	2.74

Notes:

[1] Slug and/or drawdown tests were performed at the indicated wells. See report for methods.

[2] Where both slug and drawdown tests were performed, the indicated hydraulic conductivity result is from the drawdown test (except LLMW16S, see footnote 3). Hydraulic conductivities were calculated for slug tests using Bouwer and Rice (1976) or Butler and Garnett (2000). Hydraulic conductivity values for drawdown tests were calculated from Cooper-Jacob (1946) and Theis Recovery (1935) methods by converting average T values calculated from pumping and recovery phases to K values using assumed aquifer thickness of 35 feet, based on lithology observed at BP-05D2.

[3] Drawdown testing results affected by insufficient water in well. Results presented are from slug test analysis.

Table 8

Average Groundwater Velocity for Select Tidal Study Wells[1]

Everett Smelter - Lowland Area

Everett, Washington

Location ID	Screened Interval Soil Type [2]	Average Effective Porosity (n_e) by Soil Type [3]	Hydraulic Conductivity (K) [4] (ft/day)	Groundwater Gradient (i) [5]	Estimated Average Horizontal Groundwater Velocity [6] (ft/day)
LLMW11S	Sand with occ gravel (SP)	0.30	51.30	0.0026	0.44
LLMW11D	Sand with occ gravel (SP)	0.30	32.19	0.0004	0.04
LLMW12S	Sand with occ gravel (SP)	0.30	196.92	0.0096	6.30
LLMW12D	Sand (SP)	0.32	173.07	0.0027	1.46

Notes:

[1] Horizontal groundwater velocities were calculated for wells that were both part of the tidal study and were slug and/or drawdown tested.

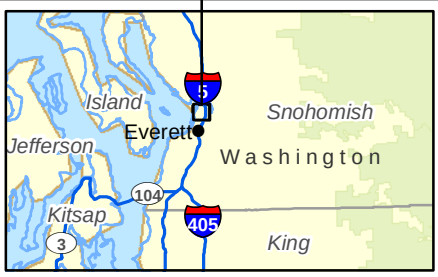
[2] Soil type based on visual classification during well installation (USCS) and grain size analysis to confirm/calibrate visual classifications.

[3] Average effective porosity values by soil type (Argonne National Laboratory Environmental Science Division, U.S. Department of Energy, 2001).

[4] Hydraulic conductivities were calculated from slug tests using Bouwer and Rice (1976) or Butler and Garnett (2000), and from drawdown tests using Cooper-Jacob (1946) and Theis Recovery Method (1935).

[5] Hydraulic gradient at the well calculated using two wells as end points.

[6] Horizontal groundwater velocities are based on average published effective porosities for soil type and hydraulic gradients calculated from a limited number of data points. Groundwater velocities should be considered an estimate. Calculation: v=K/ne*i



N
W E
S

2,000 0 2,000
Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. can not guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. It is unlawful to copy or reproduce all or any part thereof, whether for personal use or resale, without permission.

Data Sources: ESRI Data & Maps

Projection: NAD 1983 UTM Zone 10N

Vicinity Map

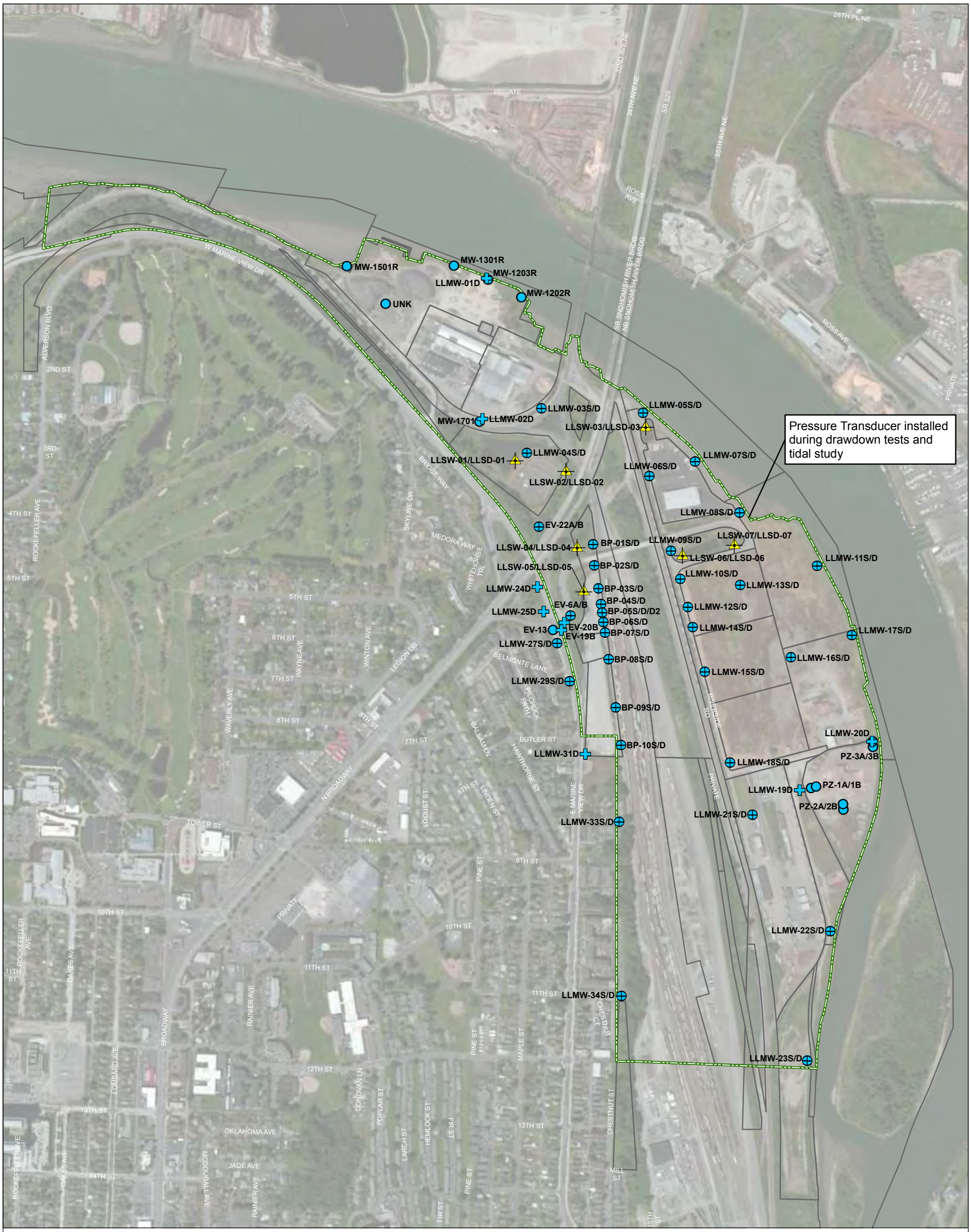
Everett Smelter - Lowland Area

GeoEngineers

Figure 1

Path: \\seaprojects\0\0504068\GIS\050406800_T1000_VicinityMap_Lowland.mxd Map Revised: 28 May 2013 tward

Path: \\sea\projects\0\0504068\GIS\050406800_T800_SitePlan.mxd Map Revised: 06 June 2013 bmagdasy



Legend

- Lowland Area
- Snohomish County Parcel Boundary

Investigation Locations

- Shallow Aquifer Monitoring Well
- Shallow and Deep Aquifer Monitoring Well Pair
- Deep Aquifer Monitoring Well
- Surface Water and Sediment Sample Location

Notes:
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Data Source: Aerial Image from Microsoft, 2010. Snohomish County GIS, 2012.

N W E S

700 0 700
Feet

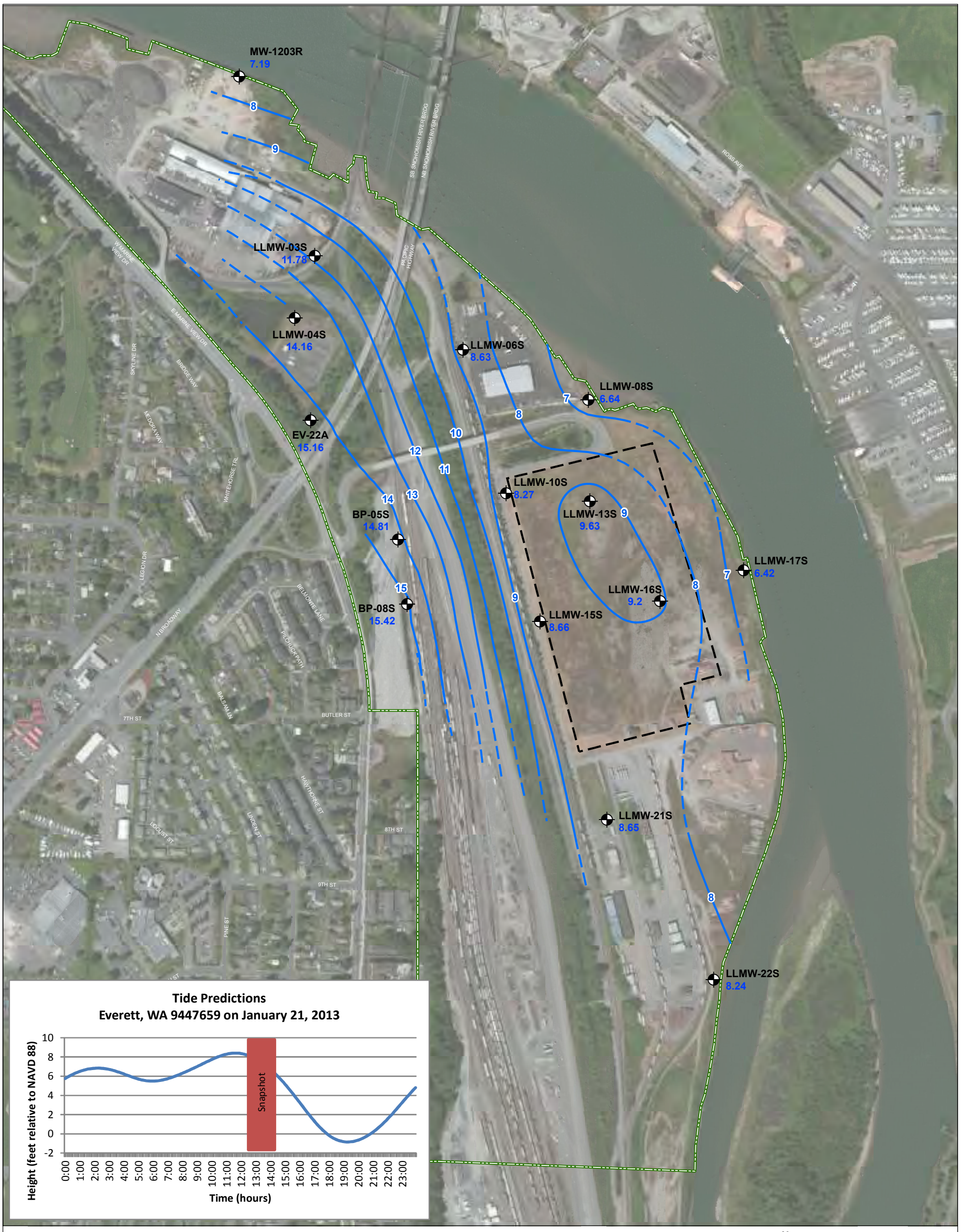
Lowland Area Investigation Locations

Everett Smelter - Lowland Area

GeoEngineers

Figure 2

Path: \\sea\projects\0\0504068\GIS\050406800_T800_GWElev_Shallow.mxd Map Revised: 26 June 2013 bmagdasy



Legend

Lowland Area

LLMW-10S 8.27 — Monitoring well designation and groundwater elevation (NAVD88) on January 21, 2013.

Estimated Groundwater Elevation Contour, ft (dashed where inferred)

Extent of Recent Filling (2011 to present)

N W E S

400 0 400
Feet

Notes:
1. The locations of all features shown are approximate.
2. Inset tidal prediction chart generated using National Oceanic and Atmospheric Administration (NOAA) tidal prediction data for January 21, 2013. http://tidesandcurrents.noaa.gov/
3. Red overlay box on tidal prediction chart represents the time period for groundwater measurements on January 21, 2013.
4. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Aerial Image from Microsoft, 2010. Snohomish County GIS, 2012.

Groundwater Elevations
January 21, 2013 – Shallow Aquifer

Everett Smelter - Lowland Area

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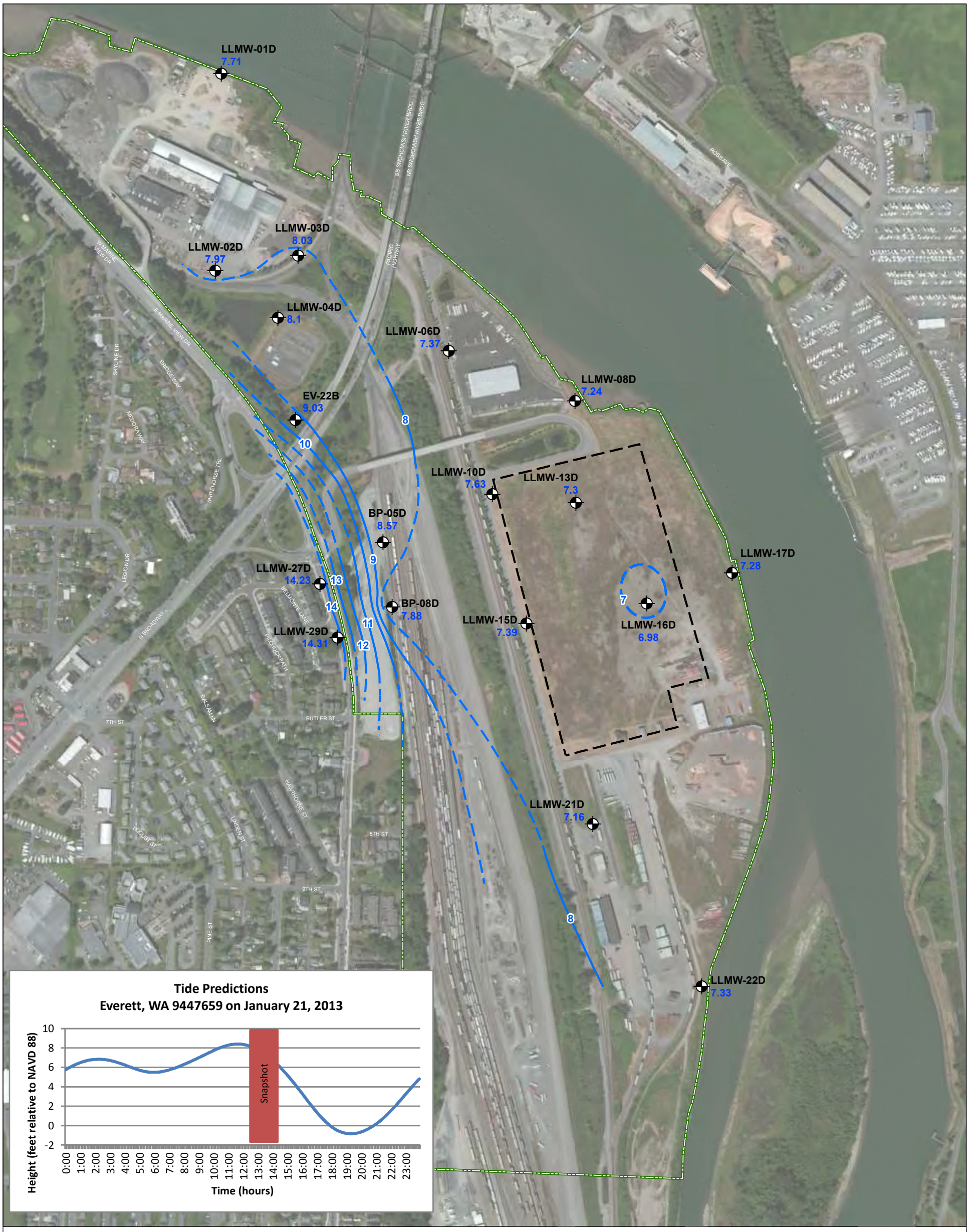
Figure 3

Path: \\sea\projects\0\0504068\GIS\050406800_T800_GWElev_Deep.mxd Map Revised: 26 June 2013 bmagdasy



Legend

Lowland Area

LLMW-10D 7.63 — Monitoring well groundwater elevation (NAVD88) on January 21, 2013.

Estimated Groundwater Elevation Contour, ft (dashed where inferred)

Extent of Recent Filling (2011 to present)

N W E S

400 0 400
Feet

Notes:
1. The locations of all features shown are approximate.
2. Inset tidal prediction chart generated using National Oceanic and Atmospheric Administration (NOAA) tidal prediction data for January 21, 2013. http://tidesandcurrents.noaa.gov/
3. Red overlay box on tidal prediction chart represents the time period for groundwater measurements on January 21, 2013.
4. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Aerial Image from Microsoft, 2010. Snohomish County GIS, 2012.

Groundwater Elevations
January 21, 2013 – Deep Aquifer

Everett Smelter - Lowland Area

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Figure 4

Path: \\sea\projects\0\0504068\GIS\050406800_T800_MeanGWElev_Shallow.mxd Map Revised: 26 June 2013 bmagdasy

Legend

- Lowland Area
- MW12S 9.01 — Monitoring well designation and mean groundwater elevation for selected 72 hour tidal cycle[3] (NAVD88)
- Estimated Groundwater Elevation Contour, ft (dashed where inferred)
- Inferred Groundwater Flow Direction
- Extent of Recent Filling (2011 to present)

N W E S

200 0 200
Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. Mean groundwater elevations calculated using Serfes (1987) Method.

Data Source: Aerial Image from Microsoft, 2010. Snohomish County GIS, 2012.

Mean Groundwater Elevations - Shallow Aquifer

Everett Smelter - Lowland Area

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Figure 5

Path: \\sea\projects\0\0504068\GIS\050406800_T800_MeanGWElev_Deep.mxd Map Revised: 26 June 2013 bmagdasy

Legend

- Lowland Area
- MW12D 6.57 — Monitoring well designation and mean groundwater elevation for selected 72 hour tidal cycle[3] (NAVD88)
- Estimated Groundwater Elevation Contour, ft (dashed where inferred)
- Inferred Groundwater Flow Direction
- Extent of Recent Filling (2011 to present)

N W E S

200 0 200
Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.
3. Mean groundwater elevations calculated using Serfes (1987) Method.

Data Source: Aerial Image from Microsoft, 2010. Snohomish County GIS, 2012.

Mean Groundwater Elevations - Deep Aquifer

Everett Smelter - Lowland Area

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Figure 6

Path: \\sea\projects\0\0504068\GIS\050406800_T800_GW_Arsenic_Shallow_ed.mxd Map Revised: 20 June 2013 bmagdasy

Legend

Lowland Area

Investigation Locations

- Shallow Aquifer Monitoring Well
- Shallow and Deep Aquifer Monitoring Well Pair
- Surface Water and Sediment Sample Location

LLMW-10S → Monitoring Well Designation
4.4 → Dissolved Arsenic Concentration in ug/L

J = Result is an estimate
DRY = Well was dry and therefore no sample could be obtained

N W E S

700 0 700
Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Aerial Image from Microsoft, 2010. Snohomish County GIS, 2012.

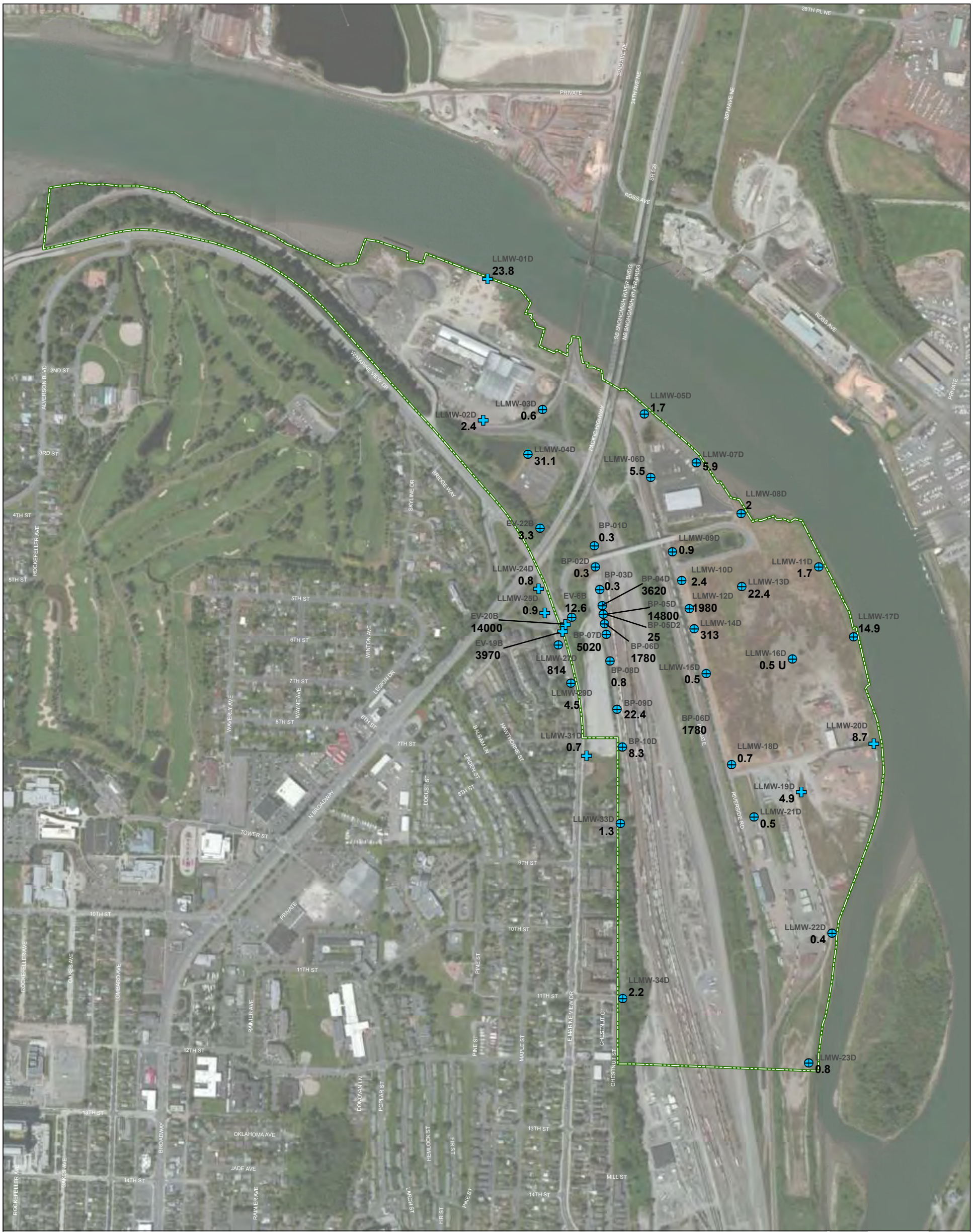
Dissolved Arsenic Concentrations in Shallow Aquifer Groundwater and Surface Water

Everett Smelter - Lowland Area

GeoEngineers

Figure 7

Path: \\sea\projects\0\0504068\GIS\050406800_T800_GW_Arsenic_Deep_ed.mxd Map Revised: 20 June 2013 bmagdasy



Legend

Lowland Area

Investigation Locations

Shallow and Deep Aquifer Monitoring Well Pair

Deep Aquifer Monitoring Well

LLMW-10D → Monitoring Well Designation
2.4 → Dissolved Arsenic Concentration in ug/L

U = The analyte was not detected at the indicated reporting limit

N W E S

700 0 700
Feet

Notes:
1. The locations of all features shown are approximate.
2. This drawing is for information purposes. It is intended to assist in showing features discussed in an attached document. GeoEngineers, Inc. cannot guarantee the accuracy and content of electronic files. The master file is stored by GeoEngineers, Inc. and will serve as the official record of this communication.

Data Source: Aerial Image from Microsoft, 2010. Snohomish County GIS, 2012.

Dissolved Arsenic Concentrations in Deep Aquifer Groundwater

Everett Smelter - Lowland Area

GeoEngineers

Figure 8

APPENDIX A
Laboratory Analytical Reports for Metals in Water

Table of Contents: ARI Job VZ23, VZ24

Client: GeoEngineers

Project: 0504-068-00 ECY-Everett Lowland

	Page From:	Page To:
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Mercury Analysis		
Report and Summary QC Forms	80	97
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Preparation Bench Sheets and Notes	281	284
Run Logs, Continuing Calibrations, and Raw Data	285	295

BL

Signature

January-24-2013

Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

January 25, 2013

Garrett Leque
GeoEngineers, Inc.
1101 Fawcett, Suite 200
Tacoma, WA 98402

RE: ECY-Everett Lowland, 0504-068-00
ARI Job Nos.: VZ23 & VZ24

Dear Garrett:

Please find enclosed the Chain-of-Custody records (COCs), sample receipt documentation, and the data package for samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile VZ23_VZ24

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: VZ23, VZ24

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: VZ23	Turn-around Requested:
ARI Client Company: GeoEngineers	Phone: 253 383 4940
Client Contact: Garrett Leque	
Client Project Name: Ely · Everett Longland	
Client Project #: 0504-008-00	Samplers: ADR / JSA

Page: 1	of 2
Date: 01/09/13	Ice Present? Y
No. of Coolers: 1	Cooler Temps: 5.7

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No Containers	METALS TOTAL*	METALS DISSOLVED*	DSEP TOC						Notes/Comments
					Analysis Requested								EPA 6010B EPA 7471A
LLMW-21S-130108-W	01/08	1342	W	2	X	X	X						
LLMW-21D-130108-W	01/08	1428	W	2	X	X	X						
LLMW-22S-130108-W	01/08	1112	W	2	X	X	X						
LLMW-22D-130108-W	01/08	1016	W	2	X	X	X						
LLMW-18S-130108-W	01/08	1558	W	2	X	X	X						
LLMW-18D-130109-W	01/09	0832	W	2	X	X	X						
LLMW08D-130108-W	01/08	1535	W	2	X	X	X						
LLMW08S-130108-W	1/8	1428	W	2	X	X	X						
LLMW01D-130108-W	1/8	1250	W	2	X	X	X						
LLMW02D-130107-W	1/7	1028	W	2	X	X	X						

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by (Signature)
*metals include= Arsenic, Lead, Cadmium, Antimony Thallium, Mercury	Printed Name: Paul Robinette	Printed Name: A. Volgardsen	Printed Name:	Printed Name:
	Company: GEI	Company: ARI	Company:	Company:
	Date & Time: 01/09 1150	Date & Time: 1/9/13 1150	Date & Time:	Date & Time

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: V723	Turn-around Requested:	Page: 2 of 2	
ARI Client Company: GEI	Phone: 253 383 4940	Date: 01/08	Ice Present? Y
Client Contact: Barrett Legue		No. of Coolers: 1	Cooler Temps: 5.7
Client Project Name: Ecy - Everett Lowlands			
Client Project #: 0504-068-00	Samplers: PBR		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No Containers	metals Total *	metals Dissolved *	BEP Tox						Notes/Comments
LLMW03D-130107-W	1/7	1317	W	2	X	X	X						
LLMW03S-130107-W	1/8	1213	W	2	X	X	X						
LLMW23D-130108-W	1/8	1045	W	2	X	X	X						
LLMW23S-130108-W	1/8	0924	W	2	X	X	X						

Comments/Special Instructions	Relinquished by (Signature)	Received by. (Signature)	Relinquished by: (Signature)	Received by. (Signature)
* metals include: Arsenic, Lead, Cadmium, Antimony, Thallium, Mercury	Paul Robinette	A. Volgardsen		
	Printed Name: PAUL ROBINETTE	Printed Name: ARI	Printed Name	Printed Name.
	Company: GEI	Company	Company	Company
	Date & Time: 01/09 1150	Date & Time: 1/9/13 1150	Date & Time	Date & Time

V723 : 00000

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: GeoEngineers
Project Name: ECY - Everett Lowland
COC No(s) _____ (NA)
Delivered by Fed-Ex UPS Courier Hand Delivered Other: _____
Assigned ARI Job No: VZ23
Tracking No _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry): 5.7 ___ ___ ___
If cooler temperature is out of compliance fill out form 00070F
Temp Gun ID#: 90877952

Cooler Accepted by: AV Date: 1/9/13 Time: 1150

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		YES	(NO)
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		YES	(NO)
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	(YES)	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Was Sample Split by ARI: (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: JM Date: 1/10/13 Time: 1514

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:
All sample IDs on containers are missing (- 130107-W) per client email.
By: JM Date: 1/10/13

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm	
			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client GeoEngineers
COC No(s) _____ (NA)
Assigned ARI Job No ~~VZ23~~ VZ24

Project Name: ECY - Everett Lowland
Delivered by Fed-Ex UPS Courier Hand Delivered Other: _____
Tracking No _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry): 5.7 ___ ___ ___

If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID#: 90879952

Cooler Accepted by AV Date 1/9/13 Time: 1150

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used?	Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		YES	(NO)
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		YES	(NO)
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	(YES)	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI.	(NA)		

Was Sample Split by ARI (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: JM Date: 1/10/13 Time: 1514

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

All sample IDs on containers are missing (- 130107-W) per client email.

By: JM Date: 1/10/13

Small Air Bubbles <2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm	
			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

PRESERVATION VERIFICATION 01/10/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **VZ23**

PC: Cheronne
VTSR: 01/09/13

Inquiry Number: NONE
Analysis Requested: 01/09/13
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: JM
Sample Set Used: Yes-481
Validatable Package: LV4
Deliverables:

Project #: 0504-068-00
Project: ECY-Everett Lowland
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-595 **VZ23A**	LLMW-21S-030108-W						TOT															
13-596 **VZ23B**	LLMW-21D-130108-W						TOT															
13-597 **VZ23C**	LLMW-22S-130108-W						TOT															
13-598 **VZ23D**	LLMW-22D-130108-W						TOT															
13-599 **VZ23E**	LLMW-18S-130108-W						TOT															
13-600 **VZ23F**	LLMW-18D-130109-W						TOT															
13-601 **VZ23G**	LLMW08D-130108-W						TOT															
13-602 **VZ23H**	LLMW08S-130108-W						TOT															
13-603 **VZ23I**	LLMW01D-130108-W						TOT															
13-604 **VZ23J**	LLMW02D-130107-W						TOT															
13-605 **VZ23K**	LLMW03D-130107-W						TOT															
13-606 **VZ23L**	LLMW03S-130107-W						TOT															
13-607 **VZ23M**	LLMW23D-130108-W						TOT															
13-608 **VZ23N**	LLMW23S-130108-W						TOT															

P-Pad

Checked By JM Date 1/10/13

PRESERVATION VERIFICATION 01/10/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **VZ23**

Client: GeoEngineers

Project #: 0504-068-00
Project: ECY-Everett Lowland

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-609 **VZ23O**	LLMW-21S-130108-W						DIS P									Y						
13-610 **VZ23P**	LLMW-21D-130108-W						DIS									Y						
13-611 **VZ23Q**	LLMW-22S-130108-W						DIS									Y						
13-612 **VZ23R**	LLMW-22D-130108-W						DIS									Y						
13-613 **VZ23S**	LLMW-18S-130108-W						DIS									Y						
13-614 **VZ23T**	LLMW-18D-130107-W						DIS									Y						
13-615 **VZ23U**	LLMW08D-130108-W						DIS									Y						
13-616 **VZ23V**	LLMW08S-130108-W						DIS									Y						
13-617 **VZ23W**	LLMW01D-130108-W						DIS									Y						
13-618 **VZ23X**	LLMW02D-130107-W						DIS									Y						
13-619 **VZ23Y**	LLMW03D-130107-W						DIS									Y						
13-620 **VZ23Z**	LLMW03S-130107-W						DIS									Y						
13-621 **VZ23AA**	LLMW23D-130108-W						DIS									Y						
13-622 **VZ23AB**	LLMW23S-130108-W						DIS									Y						

P = pass

Checked By JM Date 1/10/13

PRESERVATION VERIFICATION 01/11/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **VZ24**

Inquiry Number: NONE
Analysis Requested: 01/09/13
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: JM
Sample Set Used: Yes-481
Validatable Package: LV4
Deliverables:

PC: Cheronne
VTSR: 01/09/13

Project #: 0504-068-00
Project: ECY-Everett Lowland
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-629 **VZ24A**	LLMW-21S-130108-W						TOT P															
13-630 **VZ24B**	LLMW-21D-130108-W						TOT															
13-631 **VZ24C**	LLMW-22S-130108-W						TOT															
13-632 **VZ24D**	LLMW-22D-130108-W						TOT															
13-633 **VZ24E**	LLMW-18S-130108-W						TOT															
13-634 **VZ24F**	LLMW-18D-130107-W						TOT															
13-635 **VZ24G**	LLMW08D-130108-W						TOT															
13-636 **VZ24H**	LLMW08S-130108-W						TOT															
13-637 **VZ24I**	LLMW01D-130108-W						TOT															
13-638 **VZ24J**	LLMW02D-130107-W						TOT															
13-639 **VZ24K**	LLMW03D-130107-W						TOT															
13-640 **VZ24L**	LLMW03S-130107-W						TOT															
13-641 **VZ24M**	LLMW23D-130108-W						TOT															
13-642 **VZ24N**	LLMW23S-130108-W						TOT															

P = Pass

Checked By JM Date 1/10/13

PRESERVATION VERIFICATION 01/11/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **VZ24**

Client: GeoEngineers

Project #: 0504-068-00
Project: ECY-Everett Lowland

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-643 **VZ24O**	LLMW-21S-130108-W						DIS P									Y						
13-644 **VZ24P**	LLMW-21D-130108-W						DIS									Y						
13-645 **VZ24Q**	LLMW-22S-130108-W						DIS									Y						
13-646 **VZ24R**	LLMW-22D-130108-W						DIS									Y						
13-647 **VZ24S**	LLMW-18S-130108-W						DIS									Y						
13-648 **VZ24T**	LLMW-18D-130107-W						DIS									Y						
13-649 **VZ24U**	LLMW08D-130108-W						DIS									Y						
13-650 **VZ24V**	LLMW08S-130108-W						DIS									Y						
13-651 **VZ24W**	LLMW01D-130108-W						DIS									Y						
13-652 **VZ24X**	LLMW02D-130107-W						DIS									Y						
13-653 **VZ24Y**	LLMW03D-130107-W						DIS									Y						
13-654 **VZ24Z**	LLMW03S-130107-W						DIS									Y						
13-655 **VZ24AA**	LLMW23D-130108-W						DIS									Y						
13-656 **VZ24AB**	LLMW23S-130108-W						DIS									Y						

Checked By JM Date 1/10/13

Subject: Re: Bottle Order / labeling
From: Sue Dunnihoo <sue@arilabs.com>
Date: 1/4/2013 4:19 PM
To: "Garrett R. Leque" <gleque@geoengineers.com>
CC: Brian Anderson <banderson@geoengineers.com>, "Paul D. Robinette" <probinette@geoengineers.com>, Cheronne Oreiro <cheronneo@arilabs.com>

Login has you set up for delivery Monday and everyone says we should be fine on the naming.

Cheers - Sue

On 1/4/2013 4:11 PM, Garrett R. Leque wrote:

> Hi Sue,
>
> As we discussed please have delivered about 20 nitric-preserved bottles and labels to the Everett Lowlands project if possible Monday.
>
> Also, just want to confirm that it is okay to do the following labeling scheme:
>
> For a sample called LLMW06S-130107-W, that name will be recorded on the COC, however the sample label name will just be LLMW06S (see attached).
>
> We'd like everything to be recorded and reported and carried forward with the full name, of course...
>
> Have a good weekend, thanks!
>
> **Garrett Leque, LG**
> **Geologist | GeoEngineers**
> **t:** 253.383.4940
> **f:** 253.383.4923
> **c:** 253.312.7958
>
> Confidentiality: This message is confidential and intended solely for use of the individual or entity to whom it is addressed. If you are not the person for whom this message is intended, please delete it and notify me immediately, and please do not copy or send this message to anyone else.

--

Susan D. Dunnihoo
Director, Client Services
ANALYTICAL RESOURCES, INC.
206-695-6207
sue@arilabs.com
www.arilabs.com

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If you have received this correspondence in error, please

notify sender immediately. Thank you.

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: VZ23, VZ24

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Case Narrative

Client: GeoEngineers
Project: ECY-Everett Lowland, 0504-068-00
ARI Job Nos.: VZ23 & VZ24

Sample Receipt

Fourteen water samples were received on January 9, 2013 under ARI jobs VZ23 and VZ24. The cooler temperature measured by IR thermometer following ARI SOP was 5.7°C. For details regarding sample receipt, refer to the Cooler Receipt Forms.

Total and Dissolved Metals by 200.8

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial and continuing calibrations were within limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

Total and Dissolved Mercury by SW7470A

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial and continuing calibrations were within limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VZ23
Client: GeoEngineers
Project Event: 0504-068-00
Project Name: ECY-Everett Lowland

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	LLMW-21S-030108-W	VZ23A	13-595	Water	01/08/13 13:42	01/09/13 11:50
2.	LLMW-21D-130108-W	VZ23B	13-596	Water	01/08/13 14:28	01/09/13 11:50
3.	LLMW-22S-130108-W	VZ23C	13-597	Water	01/08/13 11:12	01/09/13 11:50
4.	LLMW-22D-130108-W	VZ23D	13-598	Water	01/08/13 10:16	01/09/13 11:50
5.	LLMW-18S-130108-W	VZ23E	13-599	Water	01/08/13 15:58	01/09/13 11:50
6.	LLMW-18D-130109-W	VZ23F	13-600	Water	01/09/13 08:32	01/09/13 11:50
7.	LLMW08D-130108-W	VZ23G	13-601	Water	01/08/13 15:35	01/09/13 11:50
8.	LLMW08S-130108-W	VZ23H	13-602	Water	01/08/13 14:28	01/09/13 11:50
9.	LLMW01D-130108-W	VZ23I	13-603	Water	01/08/13 12:50	01/09/13 11:50
10.	LLMW02D-130107-W	VZ23J	13-604	Water	01/07/13 10:28	01/09/13 11:50
11.	LLMW03D-130107-W	VZ23K	13-605	Water	01/07/13 13:17	01/09/13 11:50
12.	LLMW03S-130107-W	VZ23L	13-606	Water	01/08/13 12:13	01/09/13 11:50
13.	LLMW23D-130108-W	VZ23M	13-607	Water	01/08/13 10:45	01/09/13 11:50
14.	LLMW23S-130108-W	VZ23N	13-608	Water	01/08/13 09:24	01/09/13 11:50
15.	LLMW-21S-130108-W	VZ23O	13-609	Water	01/08/13 13:42	01/09/13 11:50
16.	LLMW-21D-130108-W	VZ23P	13-610	Water	01/08/13 14:28	01/09/13 11:50
17.	LLMW-22S-130108-W	VZ23Q	13-611	Water	01/08/13 11:12	01/09/13 11:50
18.	LLMW-22D-130108-W	VZ23R	13-612	Water	01/08/13 10:16	01/09/13 11:50
19.	LLMW-18S-130108-W	VZ23S	13-613	Water	01/08/13 15:58	01/09/13 11:50
20.	LLMW-18D-130109-W	VZ23T	13-614	Water	01/09/13 08:32	01/09/13 11:50
21.	LLMW08D-130108-W	VZ23U	13-615	Water	01/08/13 15:35	01/09/13 11:50
22.	LLMW08S-130108-W	VZ23V	13-616	Water	01/08/13 14:28	01/09/13 11:50
23.	LLMW01D-130108-W	VZ23W	13-617	Water	01/08/13 12:50	01/09/13 11:50
24.	LLMW02D-130107-W	VZ23X	13-618	Water	01/07/13 10:28	01/09/13 11:50
25.	LLMW03D-130107-W	VZ23Y	13-619	Water	01/07/13 13:17	01/09/13 11:50
26.	LLMW03S-130107-W	VZ23Z	13-620	Water	01/07/13 12:13	01/09/13 11:50
27.	LLMW23D-130108-W	VZ23AA	13-621	Water	01/08/13 10:45	01/09/13 11:50
28.	LLMW23S-130108-W	VZ23AB	13-622	Water	01/08/13 09:24	01/09/13 11:50

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VZ24
Client: GeoEngineers
Project Event: 0504-068-00
Project Name: ECY-Everett Lowland

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	LLMW-21S-130108-W	VZ24A	13-629	Water	01/08/13 13:42	01/09/13 11:50
2.	LLMW-21D-130108-W	VZ24B	13-630	Water	01/08/13 14:28	01/09/13 11:50
3.	LLMW-22S-130108-W	VZ24C	13-631	Water	01/08/13 11:12	01/09/13 11:50
4.	LLMW-22D-130108-W	VZ24D	13-632	Water	01/08/13 10:16	01/09/13 11:50
5.	LLMW-18S-130108-W	VZ24E	13-633	Water	01/08/13 15:58	01/09/13 11:50
6.	LLMW-18D-130109-W	VZ24F	13-634	Water	01/09/13 08:32	01/09/13 11:50
7.	LLMW08D-130108-W	VZ24G	13-635	Water	01/08/13 15:35	01/09/13 11:50
8.	LLMW08S-130108-W	VZ24H	13-636	Water	01/08/13 14:28	01/09/13 11:50
9.	LLMW01D-130108-W	VZ24I	13-637	Water	01/08/13 12:50	01/09/13 11:50
10.	LLMW02D-130107-W	VZ24J	13-638	Water	01/07/13 10:28	01/09/13 11:50
11.	LLMW03D-130107-W	VZ24K	13-639	Water	01/07/13 13:17	01/09/13 11:50
12.	LLMW03S-130107-W	VZ24L	13-640	Water	01/08/13 12:13	01/09/13 11:50
13.	LLMW23D-130108-W	VZ24M	13-641	Water	01/08/13 10:45	01/09/13 11:50
14.	LLMW23S-130108-W	VZ24N	13-642	Water	01/08/13 09:24	01/09/13 11:50
15.	LLMW-21S-130108-W	VZ24O	13-643	Water	01/08/13 13:42	01/09/13 11:50
16.	LLMW-21D-130108-W	VZ24P	13-644	Water	01/08/13 14:28	01/09/13 11:50
17.	LLMW-22S-130108-W	VZ24Q	13-645	Water	01/08/13 11:12	01/09/13 11:50
18.	LLMW-22D-130108-W	VZ24R	13-646	Water	01/08/13 10:16	01/09/13 11:50
19.	LLMW-18S-130108-W	VZ24S	13-647	Water	01/08/13 15:58	01/09/13 11:50
20.	LLMW-18D-130109-W	VZ24T	13-648	Water	01/09/13 08:32	01/09/13 11:50
21.	LLMW08D-130108-W	VZ24U	13-649	Water	01/08/13 15:35	01/09/13 11:50
22.	LLMW08S-130108-W	VZ24V	13-650	Water	01/08/13 14:28	01/09/13 11:50
23.	LLMW01D-130108-W	VZ24W	13-651	Water	01/08/13 12:50	01/09/13 11:50
24.	LLMW02D-130107-W	VZ24X	13-652	Water	01/07/13 10:28	01/09/13 11:50
25.	LLMW03D-130107-W	VZ24Y	13-653	Water	01/07/13 13:17	01/09/13 11:50
26.	LLMW03S-130107-W	VZ24Z	13-654	Water	01/08/13 12:13	01/09/13 11:50
27.	LLMW23D-130108-W	VZ24AA	13-655	Water	01/08/13 10:45	01/09/13 11:50
28.	LLMW23S-130108-W	VZ24AB	13-656	Water	01/08/13 09:24	01/09/13 11:50

VZ23 00016

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Duplicate RPD is not within established control limits
B	Reported value is less than the CRDL but ≥ the Reporting Limit
N	Matrix Spike recovery not within established control limits
NA	Not Applicable, analyte not spiked
H	The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
L	Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Flagged value is not within established control limits
B	Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
J	Estimated concentration when the value is less than ARI's established reporting limits
D	The spiked compound was not detected due to sample extract dilution
E	Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

V223 : 00017

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2 5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

Geotechnical Data

A	The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
F	Samples were frozen prior to particle size determination
SM	Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
SS	Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
W	Weight of sample in some pipette aliquots was below the level required for accurate weighting

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Quality Control Parameters for Metals Analysis ICP-MS EPA Methods 200.8 or 6020A

Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[3]	Solids[2]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium[4]	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium[4]	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume Solids LOQ based on 100% solids using 1.0 g sample 100 mL final volume.
(3) Relative Percent Difference in replicate analyzes. $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$ where C_O=Original, C_D=Duplicate
(4) ARI has no accreditation for these elements.

VZ23 : 00020

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Quality Control Parameters for Metals Analysis-ICP-OES
EPA Methods 200.7 and 6010C

	Aqueous Samples[2]			Spike Recovery		RPD[5]	Solids[3]	Tissue[4]
Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ mg/kg	LOQ mg/kg
Aluminum	7.57	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Antimony	6.28	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Arsenic	3.33	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Barium	1.33	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Beryllium	0.16	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Boron	7.39	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Cadmium	0.18	0.5	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Calcium	11.27	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Chromium	1.24	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Cobalt	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Copper	0.92	1.0	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Iron	7.50	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Lead	1.55	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Magnesium	9.61	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Manganese	0.28	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Molybdenum	0.79	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Nickel	3.86	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Potassium	65.70	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Selenium	4.99	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Silicon	8.17	30	**60**	75 – 125	80 – 120	≤ 20	**(6)**	**(6)**
Silver	0.43	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Sodium	11.35	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Strontium	0.09	1.0	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Thallium	3.10	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Tin	1.41	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Titanium	2.11	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.01**
Vanadium	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Zinc	1.45	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(6) ARI does not analyze for Silicon in solids or tissue samples

VZ23 00021

Metals Analysis
Report and Summary QC Forms

ARI Job ID: VZ23, VZ24

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ23

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLMW-21S-030108-W	VZ23A	13-595	
LLMW-21S-030108-WD	VZ23ADUP	13-595	
LLMW-21S-030108-WS	VZ23ASPK	13-595	
LLMW-21D-130108-W	VZ23B	13-596	
PBW	VZ23MB1	13-596	
LCSW	VZ23MB1SPK	13-596	
LLMW-22S-130108-W	VZ23C	13-597	
LLMW-22D-130108-W	VZ23D	13-598	
LLMW-18S-130108-W	VZ23E	13-599	
LLMW-18D-130109-W	VZ23F	13-600	
LLMW08D-130108-W	VZ23G	13-601	
LLMW08S-130108-W	VZ23H	13-602	
LLMW01D-130108-W	VZ23I	13-603	
LLMW02D-130107-W	VZ23J	13-604	
LLMW03D-130107-W	VZ23K	13-605	
LLMW03S-130107-W	VZ23L	13-606	
LLMW23D-130108-W	VZ23M	13-607	
LLMW23S-130108-W	VZ23N	13-608	
LLMW-21S-130108-W	VZ23O	13-609	
LLMW-21S-130108-WD	VZ23ODUP	13-609	
LLMW-21S-130108-WS	VZ23OSPK	13-609	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: Jay Kuhn Name: Jay Kuhn

Date: 1/24/13 Title: Inorganics Director

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ23

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
PBW	VZ23MB2	13-610	
LCSW	VZ23MB2SPK	13-610	
LLMW-21D-130108-W	VZ23P	13-610	
LLMW-22S-130108-W	VZ23Q	13-611	
LLMW-22D-130108-W	VZ23R	13-612	
LLMW-18S-130108-W	VZ23S	13-613	
LLMW-18D-130109-W	VZ23T	13-614	
LLMW08D-130108-W	VZ23U	13-615	
LLMW08S-130108-W	VZ23V	13-616	
LLMW01D-130108-W	VZ23W	13-617	
LLMW02D-130107-W	VZ23X	13-618	
LLMW03D-130107-W	VZ23Y	13-619	
LLMW03S-130107-W	VZ23Z	13-620	
LLMW23D-130108-W	VZ23AA	13-621	
LLMW23S-130108-W	VZ23AB	13-622	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 1/24/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW-21S-030108-W
SAMPLE

Lab Sample ID: VZ23A
LIMS ID: 13-595
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**31.1**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW-21D-130108-W
SAMPLE

Lab Sample ID: VZ23B
LIMS ID: 13-596
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**1.3**	
200.8	01/14/13	200.8	01/17/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/14/13	200.8	01/17/13	**7439-92-1**	**Lead**	0.1	**0.4**	
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW-22S-130108-W
SAMPLE

Lab Sample ID: VZ23C
LIMS ID: 13-597
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/21/13	7440-36-0	Antimony	5	5	U
200.8	01/14/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	5	**8**	
200.8	01/14/13	200.8	01/21/13	**7440-43-9**	**Cadmium**	2	**3**	
200.8	01/14/13	200.8	01/21/13	**7439-92-1**	**Lead**	2	**3**	
200.8	01/14/13	200.8	01/21/13	7440-28-0	Thallium	5	5	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW-22D-130108-W
SAMPLE

Lab Sample ID: VZ23D
LIMS ID: 13-598
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**0.7**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	**7439-92-1**	**Lead**	0.1	**0.4**	
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW-18S-130108-W
SAMPLE

Lab Sample ID: VZ23E
LIMS ID: 13-599
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**4.7**	
200.8	01/14/13	200.8	01/17/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/14/13	200.8	01/17/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW-18D-130109-W
SAMPLE

Lab Sample ID: VZ23F
LIMS ID: 13-600
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**1.4**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	**7439-92-1**	**Lead**	0.1	**0.5**	
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW08D-130108-W
SAMPLE

Lab Sample ID: VZ23G
LIMS ID: 13-601
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/18/13	**7440-38-2**	**Arsenic**	1	**2**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	**7439-92-1**	**Lead**	0.1	**0.1**	
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW08S-130108-W
SAMPLE

Lab Sample ID: VZ23H
LIMS ID: 13-602
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	**7440-36-0**	**Antimony**	0.2	**1.2**	
200.8	01/14/13	200.8	01/18/13	**7440-38-2**	**Arsenic**	1	**206**	
200.8	01/14/13	200.8	01/17/13	**7440-43-9**	**Cadmium**	0.1	**0.4**	
200.8	01/14/13	200.8	01/17/13	**7439-92-1**	**Lead**	0.1	**43.4**	
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW01D-130108-W
SAMPLE

Lab Sample ID: VZ23I
LIMS ID: 13-603
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	**7440-36-0**	**Antimony**	0.2	**0.3**	
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**24.5**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	**7439-92-1**	**Lead**	0.1	**2.1**	
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW02D-130107-W
SAMPLE

Lab Sample ID: VZ23J
LIMS ID: 13-604
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/07/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**2.6**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	**7439-92-1**	**Lead**	0.1	**0.2**	
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW03D-130107-W
SAMPLE

Lab Sample ID: VZ23K
LIMS ID: 13-605
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/07/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**1.1**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	**7439-92-1**	**Lead**	0.1	**0.6**	
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW03S-130107-W
SAMPLE

Lab Sample ID: VZ23L
LIMS ID: 13-606
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**2.4**	
200.8	01/14/13	200.8	01/17/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/14/13	200.8	01/17/13	**7439-92-1**	**Lead**	0.1	**1.5**	
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW23D-130108-W
SAMPLE

Lab Sample ID: VZ23M
LIMS ID: 13-607
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**1.4**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	**7439-92-1**	**Lead**	0.1	**0.5**	
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW23S-130108-W
SAMPLE

Lab Sample ID: VZ23N
LIMS ID: 13-608
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**15.4**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	**7439-92-1**	**Lead**	0.1	**1.8**	
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW-21S-030108-W
MATRIX SPIKE

Lab Sample ID: VZ23A
LIMS ID: 13-595
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.4	26.1	25.0	103%	
Arsenic	200.8	31.1	57.0	25.0	104%	
Cadmium	200.8	0.1 U	25.5	25.0	102%	
Lead	200.8	0.3	26.7	25.0	106%	
Thallium	200.8	0.2 U	26.4	25.0	106%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked
NR-Not Recovered

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW-21S-030108-W
DUPLICATE

Lab Sample ID: VZ23A
LIMS ID: 13-595
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.4	0.4	0.0%	+/- 0.2	L
Arsenic	200.8	31.1	31.5	1.3%	+/- 20%	
Cadmium	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Lead	200.8	0.3	0.2	40.0%	+/- 0.1	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW-21S-130108-W
SAMPLE

Lab Sample ID: VZ23O
LIMS ID: 13-609
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**28.9**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW-21D-130108-W
SAMPLE

Lab Sample ID: VZ23P
LIMS ID: 13-610
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**0.5**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW-22S-130108-W
SAMPLE

Lab Sample ID: VZ23Q
LIMS ID: 13-611
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/18/13	7440-36-0	Antimony	2	2	U
200.8	01/14/13	200.8	01/18/13	**7440-38-2**	**Arsenic**	2	**6**	
200.8	01/14/13	200.8	01/18/13	7440-43-9	Cadmium	1	1	U
200.8	01/14/13	200.8	01/18/13	7439-92-1	Lead	1	1	U
200.8	01/14/13	200.8	01/18/13	7440-28-0	Thallium	2	2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW-22D-130108-W
SAMPLE

Lab Sample ID: VZ23R
LIMS ID: 13-612
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**0.4**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW-18S-130108-W
SAMPLE

Lab Sample ID: VZ23S
LIMS ID: 13-613
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**4.9**	
200.8	01/14/13	200.8	01/17/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/14/13	200.8	01/17/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW-18D-130109-W
SAMPLE

Lab Sample ID: VZ23T
LIMS ID: 13-614
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**0.7**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW08D-130108-W
SAMPLE

Lab Sample ID: VZ23U
LIMS ID: 13-615
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/18/13	**7440-38-2**	**Arsenic**	1	**2**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW08S-130108-W
SAMPLE

Lab Sample ID: VZ23V
LIMS ID: 13-616
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	**7440-36-0**	**Antimony**	0.2	**0.9**	
200.8	01/14/13	200.8	01/18/13	**7440-38-2**	**Arsenic**	1	**192**	
200.8	01/14/13	200.8	01/17/13	**7440-43-9**	**Cadmium**	0.1	**0.3**	
200.8	01/14/13	200.8	01/17/13	**7439-92-1**	**Lead**	0.1	**30.5**	
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW01D-130108-W
SAMPLE

Lab Sample ID: VZ23W
LIMS ID: 13-617
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	**7440-36-0**	**Antimony**	0.2	**0.2**	
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**23.8**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	**7439-92-1**	**Lead**	0.1	**0.1**	
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW02D-130107-W
SAMPLE

Lab Sample ID: VZ23X
LIMS ID: 13-618
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/07/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**2.4**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW03D-130107-W
SAMPLE

Lab Sample ID: VZ23Y
LIMS ID: 13-619
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/07/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**0.6**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW03S-130107-W
SAMPLE

Lab Sample ID: VZ23Z
LIMS ID: 13-620
Matrix: Water
Data Release Authorized
Reported: 01/25/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**1.8**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW23D-130108-W
SAMPLE

Lab Sample ID: VZ23AA
LIMS ID: 13-621
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**0.8**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW23S-130108-W
SAMPLE

Lab Sample ID: VZ23AB
LIMS ID: 13-622
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	**7440-38-2**	**Arsenic**	0.2	**15.0**	
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	**7439-92-1**	**Lead**	0.1	**0.7**	
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW-21S-130108-W
MATRIX SPIKE

Lab Sample ID: VZ23O
LIMS ID: 13-609
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.4	27.7	25.0	109%	
Arsenic	200.8	28.9	58.6	25.0	119%	
Cadmium	200.8	0.1 U	26.5	25.0	106%	
Lead	200.8	0.1 U	27.2	25.0	109%	
Thallium	200.8	0.2 U	27.0	25.0	108%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW-21S-130108-W
DUPLICATE

Lab Sample ID: VZ23O
LIMS ID: 13-609
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.4	0.5	22.2%	+/- 0.2	L
Arsenic	200.8	28.9	30.6	5.7%	+/- 20%	
Cadmium	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Lead	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: VZ23LCS
LIMS ID: 13-596
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	26.4	25.0	106%	
Arsenic	200.8	27.4	25.0	110%	
Cadmium	200.8	26.6	25.0	106%	
Lead	200.8	28.3	25.0	113%	
Thallium	200.8	27.5	25.0	110%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: METHOD BLANK

Lab Sample ID: VZ23MB
LIMS ID: 13-596
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: VZ23LCS
LIMS ID: 13-610
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	27.4	25.0	110%	
Arsenic	200.8	27.2	25.0	109%	
Cadmium	200.8	26.6	25.0	106%	
Lead	200.8	28.3	25.0	113%	
Thallium	200.8	27.8	25.0	111%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: METHOD BLANK

Lab Sample ID: VZ23MB
LIMS ID: 13-610
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: VZ23-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/14/13	200.8	01/17/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	01/14/13	200.8	01/17/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/14/13	200.8	01/17/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ23

UNITS:ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS011711	50.0	48.86	**97.7**	50.0	50.41	**100.8**	50.67	**101.3**	49.74	**99.5**	49.45	**98.9**	51.68	**103.4**
Arsenic	AS	PMS	MS011711	50.0	51.73	**103.5**	50.0	50.53	**101.1**	49.72	**99.4**	49.48	**99.0**	50.41	**100.8**	51.16	**102.3**
Cadmium	CD	PMS	MS011711	50.0	49.66	**99.3**	50.0	50.85	**101.7**	51.00	**102.0**	51.32	**102.6**	50.59	**101.2**	51.50	**103.0**
Lead	PB	PMS	MS011711	50.0	50.81	**101.6**	50.0	50.33	**100.7**	50.60	**101.2**	49.63	**99.3**	50.49	**101.0**	50.91	**101.8**
Thallium	TL	PMS	MS011711	50.0	51.84	**103.7**	50.0	51.73	**103.5**	52.07	**104.1**	51.04	**102.1**	52.42	**104.8**	50.00	**100.0**

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

VZ23 . 00031

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ23

UNITS:ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	PMS	MS011711	50.0	51.52	**103.0**	49.97	**99.9**	51.43	**102.9**	50.82	**101.6**				
Arsenic	AS	PMS	MS011711	50.0	50.44	**100.9**	50.14	**100.3**	49.53	**99.1**	48.64	**97.3**				
Cadmium	CD	PMS	MS011711	50.0	50.52	**101.0**	48.71	**97.4**	52.29	**104.6**	51.90	**103.8**				
Lead	PB	PMS	MS011711	50.0	50.97	**101.9**	53.05	**106.1**	52.95	**105.9**	51.81	**103.6**				
Thallium	TL	PMS	MS011711	50.0	49.81	**99.6**	52.05	**104.1**	52.28	**104.6**	51.19	**102.4**				

Control Limits: Mercury 80-120; Other Metals 90-110

VZ23:00062

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ23

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS011811	50.0	48.62	**97.2**	50.0	49.39	**98.8**	49.60	**99.2**	50.45	**100.9**				
Arsenic	AS	PMS	MS011811	50.0	51.42	**102.8**	50.0	49.89	**99.8**	49.97	**99.9**	49.75	**99.5**				
Cadmium	CD	PMS	MS011811	50.0	49.52	**99.0**	50.0	49.48	**99.0**	50.11	**100.2**	51.81	**103.6**				
Lead	PB	PMS	MS011811	50.0	49.48	**99.0**	50.0	50.09	**100.2**	50.05	**100.1**	50.55	**101.1**				
Thallium	TL	PMS	MS011811	50.0	50.38	**100.8**	50.0	51.39	**102.8**	51.81	**103.6**	50.38	**100.8**				

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

VZ23 000053

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ23

UNITS:ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS012111	50.0	49.60	**99.2**	50.0	50.78	**101.6**	50.09	**100.2**	50.47	**100.9**				
Arsenic	AS	PMS	MS012111	50.0	53.09	**106.2**	50.0	50.95	**101.9**	50.36	**100.7**	50.34	**100.7**				
Cadmium	CD	PMS	MS012111	50.0	49.37	**98.7**	50.0	50.77	**101.5**	50.48	**101.0**	51.47	**102.9**				
Lead	PB	PMS	MS012111	50.0	52.23	**104.5**	50.0	51.16	**102.3**	50.76	**101.5**	51.00	**102.0**				
Thallium	TL	PMS	MS012111	50.0	53.33	**106.7**	50.0	51.99	**104.0**	51.96	**103.9**	53.21	**106.4**				

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

VZ23 . 000064

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

UNITS:ug/L

SDG: VZ23

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Antimony	SB	PMS	MS011711	0.2	0.21	**105.0**										
Arsenic	AS	PMS	MS011711	0.2	0.25	**125.0**										
Cadmium	CD	PMS	MS011711	0.1	0.11	**110.0**										
Lead	PB	PMS	MS011711	0.1	0.11	**110.0**										
Thallium	TL	PMS	MS011711	0.2	0.21	**105.0**										
Antimony	SB	PMS	MS011811	0.2	0.20	**100.0**										
Arsenic	AS	PMS	MS011811	0.2	0.19	**95.0**										
Cadmium	CD	PMS	MS011811	0.1	0.11	**110.0**										
Lead	PB	PMS	MS011811	0.1	0.10	**100.0**										
Thallium	TL	PMS	MS011811	0.2	0.21	**105.0**										
Antimony	SB	PMS	MS012111	0.2	0.21	**105.0**										
Arsenic	AS	PMS	MS012111	0.2	0.20	**100.0**										
Cadmium	CD	PMS	MS012111	0.1	0.11	**110.0**										
Lead	PB	PMS	MS012111	0.1	0.11	**110.0**										
Thallium	TL	PMS	MS012111	0.2	0.21	**105.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

VZ23:00065

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ23

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS011711	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS011711	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS011711	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Lead	PB	PMS	MS011711	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Thallium	TL	PMS	MS011711	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

VZ23 : 000055

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ23

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	PMS	MS011711	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				
Arsenic	AS	PMS	MS011711	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				
Cadmium	CD	PMS	MS011711	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U				
Lead	PB	PMS	MS011711	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U				
Thallium	TL	PMS	MS011711	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				

VZ23 . 000067

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ23

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS011811	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				
Arsenic	AS	PMS	MS011811	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				
Cadmium	CD	PMS	MS011811	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U				
Lead	PB	PMS	MS011811	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U				
Thallium	TL	PMS	MS011811	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				

VZ23 : 000058

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ23

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS012111	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				
Arsenic	AS	PMS	MS012111	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				
Cadmium	CD	PMS	MS012111	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U				
Lead	PB	PMS	MS012111	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U				
Thallium	TL	PMS	MS012111	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				

VZ23 . 55655

ICP Interference
Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ23

ICS SOURCE: I.V.

RUNID: MS011711

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.2	**96.0**						
Cadmium		20	0.2	19.8	**99.0**						
Copper		20	0.8	20.3	**101.5**						
Nickel		20	0.3	20.1	**100.5**						
Selenium			-0.2	-0.2							
Silver		20	0.0	20.6	**103.0**						
Thorium			0.1	0.1							
Zinc		20	0.9	19.9	**99.5**						

VZ23 . 00070

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ23

ICS SOURCE: I.V.

RUNID: MS011811

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	18.9	**94.5**						
Cadmium		20	0.2	19.0	**95.0**						
Copper		20	1.1	20.8	**104.0**						
Nickel		20	0.3	20.2	**101.0**						
Selenium			-0.4	-0.3							
Silver		20	0.0	19.5	**97.5**						
Thorium			0.2	0.1							
Zinc		20	0.8	20.6	**103.0**						

VZ23 : 000071

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ23

ICS SOURCE: I.V.

RUNID: MS012111

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.5	**97.5**						
Cadmium		20	0.2	19.4	**97.0**						
Copper		20	0.8	20.7	**103.5**						
Nickel		20	0.4	20.1	**100.5**						
Selenium			-0.2	-0.4							
Silver		20	0.0	19.8	**99.0**						
Thorium			0.2	0.1							
Zinc		20	1.1	20.6	**103.0**						

VZ23 . 000072

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ23 UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Antimony	SB	PMS	NEXION 300D MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Cadmium	CD	PMS	NEXION 300D MS	0.00		5	0.1	4/1/2012		
Lead	PB	PMS	NEXION 300D MS	0.00		3	0.1	4/1/2012		
Thallium	TL	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ23

ANALYSIS METHOD: PMS

ARI PREP CODE: REN

PREPDATE: 1/14/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
LLMW-21S-030108-W	VZ23A	0.000	50.0	25.0
LLMW23D-130108-W	VZ23AA	0.000	50.0	25.0
LLMW23S-130108-W	VZ23AB	0.000	50.0	25.0
LLMW-21S-030108-WD	VZ23ADUP	0.000	50.0	25.0
LLMW-21S-030108-WS	VZ23ASPK	0.000	50.0	25.0
LLMW-21D-130108-W	VZ23B	0.000	50.0	25.0
LLMW-22S-130108-W	VZ23C	0.000	50.0	25.0
LLMW-22D-130108-W	VZ23D	0.000	50.0	25.0
LLMW-18S-130108-W	VZ23E	0.000	50.0	25.0
LLMW-18D-130109-W	VZ23F	0.000	50.0	25.0
LLMW08D-130108-W	VZ23G	0.000	50.0	25.0
LLMW08S-130108-W	VZ23H	0.000	50.0	25.0
LLMW01D-130108-W	VZ23I	0.000	50.0	25.0
LLMW02D-130107-W	VZ23J	0.000	50.0	25.0
LLMW03D-130107-W	VZ23K	0.000	50.0	25.0
LLMW03S-130107-W	VZ23L	0.000	50.0	25.0
LLMW23D-130108-W	VZ23M	0.000	50.0	25.0
PBW	VZ23MB1	0.000	50.0	25.0
LCSW	VZ23MB1SPK	0.000	50.0	25.0
PBW	VZ23MB2	0.000	50.0	25.0
LCSW	VZ23MB2SPK	0.000	50.0	25.0
LLMW23S-130108-W	VZ23N	0.000	50.0	25.0
LLMW-21S-130108-W	VZ23O	0.000	50.0	25.0
LLMW-21S-130108-WD	VZ23ODUP	0.000	50.0	25.0
LLMW-21S-130108-WS	VZ23OSPK	0.000	50.0	25.0
LLMW-21D-130108-W	VZ23P	0.000	50.0	25.0
LLMW-22S-130108-W	VZ23Q	0.000	50.0	25.0
LLMW-22D-130108-W	VZ23R	0.000	50.0	25.0
LLMW-18S-130108-W	VZ23S	0.000	50.0	25.0
LLMW-18D-130109-W	VZ23T	0.000	50.0	25.0
LLMW08D-130108-W	VZ23U	0.000	50.0	25.0
LLMW08S-130108-W	VZ23V	0.000	50.0	25.0
LLMW01D-130108-W	VZ23W	0.000	50.0	25.0
LLMW02D-130107-W	VZ23X	0.000	50.0	25.0
LLMW03D-130107-W	VZ23Y	0.000	50.0	25.0
LLMW03S-130107-W	VZ23Z	0.000	50.0	25.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland | INSTRUMENT ID: NEXION 300D MS | START DATE: 1/17/2013

SDG: VZ23 | RUNID: MS011711 METHOD: PMS | END DATE: 1/17/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09310				X					X												X	X					X			
S1	S1	1.00	09350				X					X												X	X					X			
S2	S2	1.00	09380				X					X												X	X					X			
S3	S3	1.00	09420				X					X												X	X					X			
S4	S4	1.00	09460				X					X												X	X					X			
S5	S5	1.00	09520																														
ZZZZZZ	Rinse sampl	1.00	09580																														
ICV	MICV	1.00	10040				X					X												X	X					X			
ICB	ICB	1.00	10100				X					X												X	X					X			
CCV	MCCV1	1.00	10140				X					X												X	X					X			
CCB	CCB1	1.00	10200				X					X												X	X					X			
CRI	MCRI	1.00	10230				X					X												X	X					X			
ICSA	ICSAI	1.00	10270				X					X												X	X					X			
ICSAB	ICSABI	1.00	10330				X					X												X	X					X			
ZZZZZZ	LR200	1.00	10390																														
ZZZZZZ	LR300	1.00	10450																														
ZZZZZZ	B1	1.00	10520																														
CCV	MCCV2	1.00	10570				X					X												X	X					X			
CCB	CCB2	1.00	11030				X					X												X	X					X			
ZZZZZZ	VY91MB1	2.00	11070																														
ZZZZZZ	VY89I	2.00	11110																														
ZZZZZZ	VY89J	2.00	11140																														
ZZZZZZ	VY89K	2.00	11180																														
ZZZZZZ	VY89L	2.00	11210																														
ZZZZZZ	VY91A-L	10.00	11250																														
ZZZZZZ	VY91A	2.00	11280																														
ZZZZZZ	VY91ADUP	2.00	11320																														
ZZZZZZ	VY91ASPK	2.00	11350																														
ZZZZZZ	VY91MB1SPK	2.00	11390																														
CCV	MCCV3	1.00	11440				X					X												X	X					X			
CCB	CCB3	1.00	11500				X					X												X	X					X			
ZZZZZZ	VY91MB2	2.00	12010																														
LLMW01D-130108-W	VZ23W	2.00	12040				X					X												X	X					X			
LLMW02D-130107-W	VZ23X	2.00	12080				X					X												X	X					X			
ZZZZZZ	VY91B	2.00	12110																														

FORM XIV

VZ23 00075

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland | INSTRUMENT ID: NEXION 300D MS | START DATE: 1/17/2013

SDG: VZ23 | RUNID: MS011711 METHOD: PMS | END DATE: 1/17/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	VY91F	2.00	12150																														
ZZZZZZ	VY91E-L	10.00	12180																														
ZZZZZZ	VY91E	2.00	12220																														
ZZZZZZ	VY91EDUP	2.00	12260																														
ZZZZZZ	VY91ESPK	2.00	12300																														
ZZZZZZ	VY91MB2SPK	2.00	12340																														
CCV	MCCV4	1.00	12370				X					X												X	X					X			
CCB	CCB4	1.00	12440				X					X												X	X					X			
S0	S0	1.00	13030				X					X												X	X					X			
CCV	MCCV5	1.00	13070				X					X												X	X					X			
CCB	CCB5	1.00	13130				X					X												X	X					X			
PBW	VZ23MB1	2.00	13160				X					X												X	X					X			
ZZZZZZ	VY89I	2.00	13200																														
LLMW-21S-030108-WD	VZ23ADUP	2.00	13240				X					X												X	X					X			
LLMW-21S-030108-W	VZ23A	2.00	13270				X					X												X	X					X			
LLMW-21S-030108-WS	VZ23ASPK	2.00	13310				X					X												X	X					X			
LLMW-21S-130108-WD	VZ23ODUP	2.00	13340				X					X												X	X					X			
LLMW-21S-130108-W	VZ23O	2.00	13380				X					X												X	X					X			
LLMW-21S-130108-WS	VZ23OSPK	2.00	13410				X					X												X	X					X			
LCSW	VZ23MB1SPK	2.00	13450				X					X												X	X					X			
LCSW	VZ23MB2SPK	2.00	13480				X					X												X	X					X			
CCV	MCCV6	1.00	13530				X					X												X	X					X			
CCB	CCB6	1.00	13590				X					X												X	X					X			
LLMW-21D-130108-W	VZ23B	2.00	14180				X					X												X	X					X			
LLMW-22S-130108-W	VZ23C	2.00	14210																														
LLMW-22D-130108-W	VZ23D	2.00	14250				X					X												X	X					X			
LLMW-18S-130108-W	VZ23E	2.00	14290				X					X												X	X					X			
LLMW-18D-130109-W	VZ23F	2.00	14320				X					X												X	X					X			
LLMW08D-130108-W	VZ23G	2.00	14360									X												X	X					X			
LLMW08S-130108-W	VZ23H	2.00	14390									X												X	X					X			
LLMW01D-130108-W	VZ23I	2.00	14430				X					X												X	X					X			
LLMW02D-130107-W	VZ23J	2.00	14460				X					X												X	X					X			
LLMW03D-130107-W	VZ23K	2.00	14500				X					X												X	X					X			
CCV	MCCV7	1.00	14540				X					X												X	X					X			
CCB	CCB7	1.00	15010				X					X												X	X					X			

FORM XIV

VZ23:000076

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland | INSTRUMENT ID: NEXION 300D MS | START DATE: 1/17/2013

SDG: VZ23 | RUNID: MS011711 METHOD: PMS | END DATE: 1/17/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
LLMW03S-130107-W	VZ23L	2.00	15040				X					X												X	X					X			
LLMW23D-130108-W	VZ23M	2.00	15080				X					X												X	X					X			
LLMW23S-130108-W	VZ23N	2.00	15110				X					X												X	X					X			
LLMW-21D-130108-W	VZ23P	2.00	15150				X					X												X	X					X			
LLMW-22S-130108-W	VZ23Q	2.00	15180																														
LLMW-22D-130108-W	VZ23R	2.00	15220				X					X												X	X					X			
LLMW-18S-130108-W	VZ23S	2.00	15250				X					X												X	X					X			
LLMW-18D-130109-W	VZ23T	2.00	15290				X					X												X	X					X			
LLMW08D-130108-W	VZ23U	2.00	15320									X												X	X					X			
LLMW08S-130108-W	VZ23V	2.00	15360									X												X	X					X			
CCV	MCCV8	1.00	15410				X					X												X	X					X			
CCB	CCB8	1.00	15470				X					X												X	X					X			
PBW	VZ23MB2	2.00	15510				X					X												X	X					X			
LLMW03D-130107-W	VZ23Y	2.00	15540				X					X												X	X					X			
LLMW03S-130107-W	VZ23Z	2.00	15580				X					X												X	X					X			
LLMW23D-130108-W	VZ23AA	2.00	16010				X					X												X	X					X			
LLMW23S-130108-W	VZ23AB	2.00	16050				X					X												X	X					X			
CCV	MCCV9	1.00	16080				X					X												X	X					X			
CCB	CCB9	1.00	16150				X					X												X	X					X			

VZ23 : 000177

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland | INSTRUMENT ID: NEXION 300D MS | START DATE: 1/18/2013

SDG: VZ23 | RUNID: MS011811 METHOD: PMS | END DATE: 1/18/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	13040				X					X												X	X					X			
S1	S1	1.00	13080				X					X												X	X					X			
S2	S2	1.00	13110				X					X												X	X					X			
S3	S3	1.00	13150				X					X												X	X					X			
S4	S4	1.00	13190				X					X												X	X					X			
S5	S5	1.00	13250																														
ZZZZZZ	Rinse sampl	1.00	13310																														
ICV	MICV	1.00	13410				X					X												X	X					X			
ICB	ICB	1.00	13450				X					X												X	X					X			
CCV	MCCV1	1.00	13490				X					X												X	X					X			
CCB	CCB1	1.00	13530				X					X												X	X					X			
CRI	MCRI	1.00	13570				X					X												X	X					X			
ICSA	ICSAI	1.00	14000				X					X												X	X					X			
ICSAB	ICSABI	1.00	14050				X					X												X	X					X			
ZZZZZZ	LR200	1.00	14090																														
ZZZZZZ	LR300	1.00	14140																														
ZZZZZZ	B1	1.00	14190																														
CCV	MCCV2	1.00	14220				X					X												X	X					X			
CCB	CCB2	1.00	14270				X					X												X	X					X			
LLMW-22S-130108-W	VZ23C	20.00	14350																														
LLMW-22S-130108-W	VZ23Q	20.00	14380																														
LLMW08D-130108-W	VZ23G	10.00	14420				X																										
LLMW08S-130108-W	VZ23H	10.00	14480				X																										
LLMW08D-130108-W	VZ23U	10.00	14520				X																										
LLMW08S-130108-W	VZ23V	10.00	14550				X																										
LLMW-22S-130108-W	VZ23Q	20.00	14590				X					X												X	X					X			
CCV	MCCV3	1.00	15020				X					X												X	X					X			
CCB	CCB3	1.00	15060				X					X												X	X					X			

VZ23 . 000078

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland | INSTRUMENT ID: NEXION 300D MS | START DATE: 1/21/2013

SDG: VZ23 | RUNID: MS012111 METHOD: PMS | END DATE: 1/21/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10290				X					X												X	X					X			
S1	S1	1.00	10330				X					X												X	X					X			
S2	S2	1.00	10360				X					X												X	X					X			
S3	S3	1.00	10400				X					X												X	X					X			
S4	S4	1.00	10440				X					X												X	X					X			
S5	S5	1.00	10500																														
ZZZZZZ	Rinse sampl	1.00	10560																														
ICV	MICV	1.00	11020				X					X												X	X					X			
ICB	ICB	1.00	11090				X					X												X	X					X			
CCV	MCCV1	1.00	11120				X					X												X	X					X			
CCB	CCB1	1.00	11180				X					X												X	X					X			
CRI	MCRI	1.00	11220				X					X												X	X					X			
ICSA	ICSAI	1.00	11250				X					X												X	X					X			
ICSAB	ICSABI	1.00	11310				X					X												X	X					X			
ZZZZZZ	LR200	1.00	11370																														
ZZZZZZ	B1	1.00	11440																														
ZZZZZZ	B2	1.00	11480																														
CCV	MCCV2	1.00	11530				X					X												X	X					X			
CCB	CCB2	1.00	11590				X					X												X	X					X			
ZZZZZZ	WA06MB1	2.00	12050																														
ZZZZZZ	WA06MB2	2.00	12080																														
LLMW-22S-130108-W	VZ23C	50.00	12120				X					X												X	X					X			
ZZZZZZ	WA06ADUP	2.00	12150																														
ZZZZZZ	WA06A	2.00	12190																														
ZZZZZZ	WA06ASPK	2.00	12220																														
ZZZZZZ	WA06GDUP	2.00	12260																														
ZZZZZZ	WA06G	2.00	12290																														
ZZZZZZ	WA06GSPK	2.00	12330																														
ZZZZZZ	WA06MB1SPK	2.00	12360																														
CCV	MCCV3	1.00	12410				X					X												X	X					X			
CCB	CCB3	1.00	12470				X					X												X	X					X			

VZ23 : 000179

Mercury Analysis
Report and Summary QC Forms

ARI Job ID: VZ23, VZ24

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ24

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLMW-21S-130108-W	VZ24A	13-629	
LLMW-21D-130108-W	VZ24B	13-630	
LLMW-21D-130108-WD	VZ24BDUP	13-630	
LLMW-21D-130108-WS	VZ24BSPK	13-630	
LLMW-22S-130108-W	VZ24C	13-631	
PBW	VZ24MB1	13-631	
LCSW	VZ24MB1SPK	13-631	
LLMW-22D-130108-W	VZ24D	13-632	
LLMW-18S-130108-W	VZ24E	13-633	
LLMW-18D-130109-W	VZ24F	13-634	
LLMW08D-130108-W	VZ24G	13-635	
LLMW08S-130108-W	VZ24H	13-636	
LLMW01D-130108-W	VZ24I	13-637	
LLMW02D-130107-W	VZ24J	13-638	
LLMW03D-130107-W	VZ24K	13-639	
LLMW03S-130107-W	VZ24L	13-640	
LLMW23D-130108-W	VZ24M	13-641	
LLMW23S-130108-W	VZ24N	13-642	
LLMW-21S-130108-W	VZ24O	13-643	
LLMW-21D-130108-W	VZ24P	13-644	
LLMW-21D-130108-WD	VZ24PDUP	13-644	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 1/18/13 Title: Inorganics Director

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ24

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLMW-21D-130108-WS	VZ24PSPK	13-644	
PBW	VZ24MB2	13-645	
LCSW	VZ24MB2SPK	13-645	
LLMW-22S-130108-W	VZ24Q	13-645	
LLMW-22D-130108-W	VZ24R	13-646	
LLMW-18S-130108-W	VZ24S	13-647	
LLMW-18D-130109-W	VZ24T	13-648	
LLMW08D-130108-W	VZ24U	13-649	
LLMW08S-130108-W	VZ24V	13-650	
LLMW01D-130108-W	VZ24W	13-651	
LLMW02D-130107-W	VZ24X	13-652	
LLMW03D-130107-W	VZ24Y	13-653	
LLMW03S-130107-W	VZ24Z	13-654	
LLMW23D-130108-W	VZ24AA	13-655	
LLMW23S-130108-W	VZ24AB	13-656	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 1/13/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Total Mercury by Method SW7470A

Data Release Authorized:
Reported: 01/18/13
Date Received: 01/09/13
Page 1 of 1

QC Report No: VZ24-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
LLMW-21S-130108-W VZ24A 13-629	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW-21D-130108-W VZ24B 13-630	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW-22S-130108-W VZ24C 13-631	01/08/13	Water	01/14/13 01/17/13	**20.0**	**35.1**
LLMW-22D-130108-W VZ24D 13-632	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW-18S-130108-W VZ24E 13-633	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW-18D-130109-W VZ24F 13-634	01/09/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW08D-130108-W VZ24G 13-635	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW08S-130108-W VZ24H 13-636	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW01D-130108-W VZ24I 13-637	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW02D-130107-W VZ24J 13-638	01/07/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW03D-130107-W VZ24K 13-639	01/07/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW03S-130107-W VZ24L 13-640	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW23D-130108-W VZ24M 13-641	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW23S-130108-W VZ24N 13-642	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
MB-011413 Method Blank	NA	Water	01/14/13 01/17/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

FORM-I

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW-21D-130108-W
MATRIX SPIKE

Lab Sample ID: VZ24B
LIMS ID: 13-630
Matrix: Water
Data Release Authorized:
Reported: 01/18/13

QC Report No: VZ24-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	92.4	100	92.4%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW-21D-130108-W
DUPLICATE

Lab Sample ID: VZ24B
LIMS ID: 13-630
Matrix: Water
Data Release Authorized:
Reported: 01/18/13

QC Report No: VZ24-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: VZ24LCS
LIMS ID: 13-631
Matrix: Water
Data Release Authorized:
Reported: 01/18/13

QC Report No: VZ24-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	184	200	92.0%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Dissolved Mercury by Method SW7470A

Data Release Authorized:
Reported: 01/18/13
Date Received: 01/09/13

QC Report No238: VZ24-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
LLMW-21S-130108-W VZ24O 13-643	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW-21D-130108-W VZ24P 13-644	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW-22S-130108-W VZ24Q 13-645	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW-22D-130108-W VZ24R 13-646	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW-18S-130108-W VZ24S 13-647	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW-18D-130109-W VZ24T 13-648	01/09/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW08D-130108-W VZ24U 13-649	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW08S-130108-W VZ24V 13-650	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW01D-130108-W VZ24W 13-651	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW02D-130107-W VZ24X 13-652	01/07/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW03D-130107-W VZ24Y 13-653	01/07/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW03S-130107-W VZ24Z 13-654	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW23D-130108-W VZ24AA 13-655	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
LLMW23S-130108-W VZ24AB 13-656	01/08/13	Water	01/14/13 01/17/13	20.0	20.0 U
MB-011413 Method Blank	NA	Water	01/14/13 01/17/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW-21D-130108-W
MATRIX SPIKE

Lab Sample ID: VZ24P
LIMS ID: 13-644
Matrix: Water
Data Release Authorized:
Reported: 01/18/13

QC Report No: VZ24-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	93.4	100	93.4%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW-21D-130108-W
DUPLICATE

Lab Sample ID: VZ24P
LIMS ID: 13-644
Matrix: Water
Data Release Authorized:
Reported: 01/18/13

QC Report No: VZ24-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 01/08/13
Date Received: 01/09/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: VZ24LCS
LIMS ID: 13-645
Matrix: Water
Data Release Authorized:
Reported: 01/18/13

QC Report No: VZ24-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	189	200	94.5%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

UNITS: ng/L

SDG: VZ24

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Mercury	HG	CVL	HG011701	500.0	458.00	**91.6**	500.0	462.00	**92.4**	469.00	**93.8**	470.00	**94.0**	473.00	**94.6**	474.00	**94.8**

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

VZ23 00091

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

UNITS:ng/L

SDG: VZ24

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Mercury	HG	CVL	HG011701		20.0	24.00	**120.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

VZ23 00092

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ24

UNITS:ng/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Mercury	HG	CVL	HG011701	25.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U

VZ23 : 000093

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ24

UNITS: ng/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ng/L)	ICP LR DATE
Mercury	HG	CVL	CETAC MERCURY	253.70		25	20.0	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: VZ24

ANALYSIS METHOD: CVL

ARI PREP CODE: TLM

PREPDATE: 1/14/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
LLMW-21S-130108-W	VZ24A	0.000	20.0	20.0
LLMW23D-130108-W	VZ24AA	0.000	20.0	20.0
LLMW23S-130108-W	VZ24AB	0.000	20.0	20.0
LLMW-21D-130108-W	VZ24B	0.000	20.0	20.0
LLMW-21D-130108-WD	VZ24BDUP	0.000	20.0	20.0
LLMW-21D-130108-WS	VZ24BSPK	0.000	20.0	20.0
LLMW-22S-130108-W	VZ24C	0.000	20.0	20.0
LLMW-22D-130108-W	VZ24D	0.000	20.0	20.0
LLMW-18S-130108-W	VZ24E	0.000	20.0	20.0
LLMW-18D-130109-W	VZ24F	0.000	20.0	20.0
LLMW08D-130108-W	VZ24G	0.000	20.0	20.0
LLMW08S-130108-W	VZ24H	0.000	20.0	20.0
LLMW01D-130108-W	VZ24I	0.000	20.0	20.0
LLMW02D-130107-W	VZ24J	0.000	20.0	20.0
LLMW03D-130107-W	VZ24K	0.000	20.0	20.0
LLMW03S-130107-W	VZ24L	0.000	20.0	20.0
LLMW23D-130108-W	VZ24M	0.000	20.0	20.0
PBW	VZ24MB1	0.000	20.0	20.0
LCSW	VZ24MB1SPK	0.000	20.0	20.0
PBW	VZ24MB2	0.000	20.0	20.0
LCSW	VZ24MB2SPK	0.000	20.0	20.0
LLMW23S-130108-W	VZ24N	0.000	20.0	20.0
LLMW-21S-130108-W	VZ24O	0.000	20.0	20.0
LLMW-21D-130108-W	VZ24P	0.000	20.0	20.0
LLMW-21D-130108-WD	VZ24PDUP	0.000	20.0	20.0
LLMW-21D-130108-WS	VZ24PSPK	0.000	20.0	20.0
LLMW-22S-130108-W	VZ24Q	0.000	20.0	20.0
LLMW-22D-130108-W	VZ24R	0.000	20.0	20.0
LLMW-18S-130108-W	VZ24S	0.000	20.0	20.0
LLMW-18D-130109-W	VZ24T	0.000	20.0	20.0
LLMW08D-130108-W	VZ24U	0.000	20.0	20.0
LLMW08S-130108-W	VZ24V	0.000	20.0	20.0
LLMW01D-130108-W	VZ24W	0.000	20.0	20.0
LLMW02D-130107-W	VZ24X	0.000	20.0	20.0
LLMW03D-130107-W	VZ24Y	0.000	20.0	20.0
LLMW03S-130107-W	VZ24Z	0.000	20.0	20.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland INSTRUMENT ID: CETAC MERCURY START DATE: 1/17/2013

SDG: VZ24 RUNID: HG011701 METHOD: CVL END DATE: 1/17/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	08144														X																
S20	S20	1.00	08172														X																
S50	S50	1.00	08200														X																
S100	S100	1.00	08224														X																
S200	S200	1.00	08253														X																
S400	S400	1.00	08281														X																
S1000	S1000	1.00	08305														X																
ICV	AICV	1.00	08353														X																
ICB	ICB	1.00	08381														X																
CCV	ACCV1	1.00	08410														X																
CCB	CCB1	1.00	08434														X																
CRA	CRA	1.00	08462														X																
PBW	VZ24MB1	1.00	08490														X																
LCSW	VZ24MB1SPK	1.00	08515														X																
LLMW-21S-130108-W	VZ24A	1.00	08543														X																
LLMW-21D-130108-W	VZ24B	1.00	08571														X																
LLMW-21D-130108-WD	VZ24BDUP	1.00	08595														X																
LLMW-21D-130108-WS	VZ24BSPK	1.00	09023														X																
LLMW-22S-130108-W	VZ24C	1.00	09051														X																
LLMW-22D-130108-W	VZ24D	1.00	09080														X																
LLMW-18S-130108-W	VZ24E	1.00	09104														X																
CCV	ACCV2	1.00	09132														X																
CCB	CCB2	1.00	09161														X																
LLMW-18D-130109-W	VZ24F	1.00	09185														X																
LLMW08D-130108-W	VZ24G	1.00	09213														X																
LLMW08S-130108-W	VZ24H	1.00	09241														X																
LLMW01D-130108-W	VZ24I	1.00	09265														X																
LLMW02D-130107-W	VZ24J	1.00	09293														X																
LLMW03D-130107-W	VZ24K	1.00	09322														X																
LLMW03S-130107-W	VZ24L	1.00	09350														X																
LLMW23D-130108-W	VZ24M	1.00	09374														X																
LLMW23S-130108-W	VZ24N	1.00	09402														X																
PBW	VZ24MB2	1.00	09431														X																
CCV	ACCV3	1.00	09455														X																
CCB	CCB3	1.00	09484														X																

FORM XIV

VZ23:00095

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland INSTRUMENT ID: CETAC MERCURY START DATE: 1/17/2013

SDG: VZ24 RUNID: HG011701 METHOD: CVL END DATE: 1/17/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
LCSW	VZ24MB2SPK	1.00	09512														X																
LLMW-21S-130108-W	VZ24O	1.00	09540														X																
LLMW-21D-130108-W	VZ24P	1.00	09564														X																
LLMW-21D-130108-WD	VZ24PDUP	1.00	09593														X																
LLMW-21D-130108-WS	VZ24PSPK	1.00	10021														X																
LLMW-22S-130108-W	VZ24Q	1.00	10045														X																
LLMW-22D-130108-W	VZ24R	1.00	10073														X																
LLMW-18S-130108-W	VZ24S	1.00	10101														X																
LLMW-18D-130109-W	VZ24T	1.00	10125														X																
LLMW08D-130108-W	VZ24U	1.00	10153														X																
CCV	ACCV4	1.00	10182														X																
CCB	CCB4	1.00	10210														X																
LLMW08S-130108-W	VZ24V	1.00	10235														X																
LLMW01D-130108-W	VZ24W	1.00	10263														X																
LLMW02D-130107-W	VZ24X	1.00	10292														X																
LLMW03D-130107-W	VZ24Y	1.00	10320														X																
LLMW03S-130107-W	VZ24Z	1.00	10344														X																
LLMW23D-130108-W	VZ24AA	1.00	10372														X																
LLMW23S-130108-W	VZ24AB	1.00	10400														X																
CCV	ACCV5	1.00	10425														X																
CCB	CCB5	1.00	10453														X																

VZ23:00097

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: VZ23, VZ24

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: TDM

Date: 01-14-13

Final Volume 25

Final Volume (Hg):

Sample ID V223 ASPK, MBISPK, OSPK, MBOSPK

	Prepcode:			
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:			
	Vol Added (mL):			
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	REN	REN	
	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
	2967.2	2956.7	
	0.05	0.05	
Ag	25		
Al			500
As	25 ✓		
Ba	25		
Be	25		
Ca			500
Cd	25 ✓		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25 ✓		
Sb		25 ✓	
Se	80		
Tl	25 ✓		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg		CVA	1.0		
Hg MBSPK		CVA	1.0		
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: DM Date: 01-14-13 Time: 0735

Matrix: Water Block ID: #12 Block Temp: 91°C Thermometer: MP54

ARI Sample ID	Btl #	pH<2	Prep Code: REN Initial ~~Wt (g)~~ Vol (mL)	Prep Code: REN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
V223 A	1	✓	50.0	25.0			
" ADUP	1	✓					
" AEPK	1	✓					
" B	1	✓					
" C	1	✓					
" D	1	✓					
" E	1	✓					
" F	1	✓					
" G	1	✓					
" H	1	✓					
" I	1	✓					
" J	1	✓					
" K	1	✓					
" L	1	✓					
" M	1	✓					
" N	1	✓					
" MB1	—	✓					
" MB1SPK	—	✓					
V232 A	1	✓					
" ADUP	1	✓					
" AEPK	1	✓					
" MB1	—	✓	↓	↓			
" MBEPK	—	✓	50.0	25.0			
			01-14-13 DM				

Chemical/Reagent ID:

HNO_3: MP2416 HCl: — H_2O_2: I7845 Tube Lot #: 1208057

V223-00100

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: DM Date: 01-14-13 Time: 0735

Matrix: Water Block ID: #12 Block Temp: 91°C Thermometer: MP54

ARI Sample ID	Btl #	pH<2	Prep Code: REN Initial ~~Wt (g)~~ Vol (mL)	Prep Code: REN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
V223 O	1	✓	50.0	25.0			
" ODUP	1	✓					
" OSPK	1	✓					
" P	1	✓					
" Q	1	✓					
" R	1	✓					
" S	1	✓					
" T	1	✓					
" U	1	✓					
" V	1	✓					
" W	1	✓					
" X	1	✓					
" Y	1	✓					
" Z	1	✓					
" AA	1	✓					
" AB	1	✓					
" MB2	—	✓					
" MB2SPK	—	✓					
V245 A	1	✓					
" ADUP	1	✓					
" ASPK	1	✓					
" MB1	—	✓					
" MB1SPK	—	✓	50.0	25.0			
				1-14-13 DM			

Chemical/Reagent ID:

HNO_3: MP241C HCl: — H_2O_2: I7845 Tube Lot #: 1208057

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: VZ23, VZ24

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-7-13 **Analyst:** M **Page:** 1 **of** 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2995-15
		1			2998-7
		2			3005-6
		3			3005-7
		4			3006-1
		5			3006-1
		Rinse Sample			
		ICV			2926-1
		ICB			
		CCV1			
		CCB1			
		Low Check			
		ICSA			
		ICSAB			
		LR200			
		LR300			
		B1			
		CCV2			
		CCB2			
		VY91 M91	REN	2	Ag
	✓	VY89 1			Missed tube
		J			
		K			
		L			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-17-13 **Analyst:** [illegible] **Page:** 2 **of** 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
dil		VY91 A-L	REN	10	Ag PbZn
		A		2	
		ADup			
		Aspl			
		MBlspk			Ag
		CCV3			
		CCB3			
		VY91 MB2	REN	2	Ag, Zn
		VZ23 W			
REN		X			
		VY91 B			Ag
		F			
		E-L		10	
		E		2	
		EDup			
		Espl			
		MB2spk			, As
		CCV4			
		CCB4			
		torch out restart		recal	cal
		STD			
		CCV5			
		CCB5			
		VZ23 MB1	REN	2	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-17-13 **Analyst:** A **Page:** 3 **of** 4

All corrections made by analyst unless otherwise noted. A 1/17/13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VY89 I	REN	2	Ag
		VZ23 ADup			✓
		A			
		Aspk			✓
		DDup			✓
		D			
		Dspk			✓
		MB1spk			✓
		MB2spk			✓
		CCV6			
		CCB6			
		VZ23 B	REN	2	
	✓	C			High Salt RR 1/20
		D			
		E			
		F			
		G			RR As ~~1/10~~ 1/10
		H			
		I			
		J			
		K			
		CCV7			^{62}Ni
		CCB7			^{62}Ni, ^{63}Cu
		VZ33 L	REN	2	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-17-13 **Analyst:** [illegible] **Page:** 4 **of** 4

All corrections made by analyst unless otherwise noted. [illegible] 1-18-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VZ23 M	REN	2	
		N			
		O P			
	✓	RQ			RR 1/20 Salty
		R			
		S			
		T			
		U			RR AS 1/10
		V			
		CCV8			^{62}Ni, ^{63}Cu
		CCB8			
		VZ23 MB2	REN	2	
		Y			
		Z			
		AA			
		AB			
		CCV9			^{62}Ni
		CCB9			^{62}Ni ^{63}Cu
		Rins DI			

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA

Analysis Date: 1-17-13

M2	Analyst AJ 1-18	Peer 1-18-13	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	See Log
ICB/CCB	✓	✓	b
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and C.A.F.'s	—	—	

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 1/17/2013 8:20:06 AM
End Time: 1/17/2013 8:22:43 AM

Initial

Daily Performance Check - [Failed]

Obtained Intensity (Be 9.0122): 2242.44 - <Target not achieved>
Obtained Intensity (Mg 23.985): 19189.67 - <Target not achieved>
Obtained Intensity (In 114.904): 48168.10 - <Target not achieved>
Obtained Intensity (Pb 207.977): 26186.21
Obtained Intensity (U 238.05): 44538.11
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (CeO 155.9 / Ce 139.905): 0.009 (=569.35 / 61235.70)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.006 (=379.48 / 61235.70)

VZ23 : 00108

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/17/2013 8:33:12 AM
nd Time: 1/17/2013 8:34:12 AM

orch Alignment - [Passed]

Vertical	Horizontal	Intensity
-0.98 mm	1.50 mm	66140.44

VZ23 : 00109

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/17/2013 8:34:21 AM
nd Time: 1/17/2013 8:36:33 AM

ass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.718)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.727)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.696)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.700)

VZ23 00110

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/17/2013 8:38:19 AM
nd Time: 1/17/2013 8:42:30 AM

utoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 1.000; Intercept = -10.92

V323 00111

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time. Thursday, January 17, 2013 08 45 42
Sample Description:
Method File C \NexION Data\Method\Daily Performancenew mth
Dataset File C \NexION Data\Dataset\Default\Daily Performance Check.1724
MassCal File C \NexION Data\MassCal\Default tun
Conditions File C \NexION Data\Conditions\Default dac
Dual Detector Mode Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns). 60
Torch Z position (mm) 0 00

Summary

	Analyte	Mass	Meas Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	5714.3	5714.292	48.917	0 9	Standard
	Mg	24.0	39011.1	39011.103	289 949	0 7	Standard
	In	114.9	83628.9	83628.872	371 507	0 4	Standard
	Pb	208.0	39351.2	39351 162	254.404	0.6	Standard
	U	238 1	67254.2	67254.184	661.359	1 0	Standard
	CeO	155.9	989.1	0.011	0 000	3.9	Standard
>	Ce	139.9	93382.5	93382 458	692.474	0.7	Standard
	Ce++	70 0	831.8	0.009	0.000	1.7	Standard
	Bkgd	220 0	0.2	0.200	0.139	69.7	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18 00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1712 00	Analog Stage Voltage
1300 00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2 50	DRC Mode CRO
-4 00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250 00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0 00	KED Cell Gas A
4.00	KED Cell Gas B

UZ23 00112

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 09:31:37
Number of Replicates: 3
Method File. C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L				116162	0
	Cl	37		ug/L				4581141	1
>	Ge	72		ug/L				701707	0
	Ni	60		ug/L				29	37
	Ni	62		ug/L				58	7
	Cu	63		ug/L				81	4
	Cu	65		ug/L				35	16
	Zn	66		ug/L				180	5
	Zn	67		ug/L				28	6
	Zn	68		ug/L				184	3
	As	75		ug/L				651	3
	As-1	75		ug/L				8877	0
	Se	82		ug/L				-19	109
	Se	78		ug/L				8963	0
	Y	89		ug/L				456413	1
	Kr	83		ug/L				1031	3
>	In	115		ug/L				1152711	1
	Ag	107		ug/L				19	22
	Cd	111		ug/L				58	11
	Cd	114		ug/L				28	16
	Sb	121		ug/L				34	23
	Sb	123		ug/L				25	39
>	Tb	159		ug/L				1461185	1
	Tl	205		ug/L				42	8
	Pb	208		ug/L				154	5
	Bi	209		ug/L				3256797	0
	Th	232		ug/L				117	29
	U	238		ug/L				1	124

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 09:35:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200 8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			116162	117906	1
	Cl	37		ug/L			4581141	4602638	1
>	Ge	72		ug/L			701707	696081	2
	Ni	60	0.500	ug/L	0 006	1	29	2088	1
	Ni	62	0.500	ug/L	0 024	4	58	319	5
	Cu	63	0.500	ug/L	0 018	3	81	4539	3
	Cu	65	0.500	ug/L	0.013	2	35	2085	0
	Zn	66	4.000	ug/L	0 220	5	180	10034	3
	Zn	67	4.000	ug/L	0 288	7	28	1493	4
	Zn	68	4.000	ug/L	0 078	1	184	6918	1
	As	75	0.200	ug/L	0 017	8	651	1083	2
	As-1	75	0.200	ug/L	0 076	38	8877	9371	0
	Se	82	0.500	ug/L	0 116	23	-19	93	29
	Se	78	0.500	ug/L	0 220	44	8963	9319	0
	Y	89		ug/L			456413	459253	3
	Kr	83		ug/L			1031	1040	2
>	In	115		ug/L			1152711	1136232	0
	Ag	107	0.200	ug/L	0.008	3	19	1961	4
	Cd	111	0.100	ug/L	0.006	5	58	602	4
	Cd	114	0.100	ug/L	0 002	2	28	1380	1
	Sb	121	0.200	ug/L	0 002	0	34	2942	1
	Sb	123	0.200	ug/L	0 008	4	25	2236	4
>	Tb	159		ug/L			1461185	1469741	1
	Tl	205	0.200	ug/L	0 001	0	42	8598	1
	Pb	208	0.100	ug/L	0 001	0	154	6046	0
	Bi	209		ug/L			3256797	3229653	1
	Th	232	0.200	ug/L	0 006	2	117	8530	2
	U	238	0.200	ug/L	0 003	1	1	10498	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 09:38:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			116162	117137	0
	Cl	37		ug/L			4581141	4688146	1
>	Ge	72		ug/L			701707	714288	0
	Ni	60	10.000	ug/L	0 020	0	29	42340	0
	Ni	62	10.003	ug/L	0 177	1	58	6257	1
	Cu	63	9.999	ug/L	0 110	1	81	88645	1
	Cu	65	9.999	ug/L	0 212	2	35	40180	1
	Zn	66	9.913	ug/L	0 211	2	180	23968	1
	Zn	67	10.053	ug/L	0 077	0	28	3942	0
	Zn	68	9.975	ug/L	0 121	1	184	17160	1
	As	75	10.000	ug/L	0 163	1	651	21854	1
	As-1	75	9.998	ug/L	0 199	1	8877	30015	1
	Se	82	10.000	ug/L	0 126	1	-19	2265	0
	Se	78	9.985	ug/L	0 218	2	8963	14678	0
	Y	89		ug/L			456413	456157	0
	Kr	83		ug/L			1031	1002	3
>	In	115		ug/L			1152711	1155934	2
	Ag	107	10.000	ug/L	0.399	3	19	95001	2
	Cd	111	10.000	ug/L	0 335	3	58	51407	1
	Cd	114	10.000	ug/L	0 344	3	28	131168	1
	Sb	121	10.000	ug/L	0 161	1	34	150903	1
	Sb	123	10.000	ug/L	0 207	2	25	114180	0
>	Tb	159		ug/L			1461185	1469203	1
	Tl	205	10.000	ug/L	0 263	2	42	416833	1
	Pb	208	10.000	ug/L	0 024	0	154	558736	0
	Bi	209		ug/L			3256797	3240250	0
	Th	232	10.001	ug/L	0 138	1	117	492185	0
	U	238	10.000	ug/L	0 293	2	1	525201	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 09:42:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File. C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			116162	115479	2
	Cl	37		ug/L			4581141	4886561	0
>	Ge	72		ug/L			701707	702095	3
	Ni	60	19.913	ug/L	0 448	2	29	81386	2
	Ni	62	19.682	ug/L	0 500	2	58	11326	3
	Cu	63	20.017	ug/L	0 508	2	81	174856	2
	Cu	65	20.030	ug/L	1 313	6	35	79439	3
	Zn	66	20.076	ug/L	0 714	3	180	48119	0
	Zn	67	20.044	ug/L	1 094	5	28	7747	1
	Zn	68	20.068	ug/L	0.275	1	184	34135	2
	As	75	20.007	ug/L	1 241	6	651	42318	2
	As-1	75	20.006	ug/L	1 204	6	8877	50127	1
	Se	82	19.995	ug/L	1 279	6	-19	4460	2
	Se	78	20.001	ug/L	1 228	6	8963	19889	0
	Y	89		ug/L			456413	460721	4
	Kr	83		ug/L			1031	984	3
>	In	115		ug/L			1152711	1155535	1
	Ag	107	20.050	ug/L	0 754	3	19	192396	2
	Cd	111	19.943	ug/L	0 300	1	58	101311	1
	Cd	114	19.972	ug/L	0 153	0	28	260523	0
	Sb	121	19.966	ug/L	0 233	1	34	299186	0
	Sb	123	19.917	ug/L	0 365	1	25	223627	0
>	Tb	159		ug/L			1461185	1464989	1
	Tl	205	19.956	ug/L	0 361	1	42	822351	1
	Pb	208	19.955	ug/L	0 464	2	154	1101600	1
	Bi	209		ug/L			3256797	3233081	1
	Th	232	20.116	ug/L	0.180	0	117	1010369	0
	U	238	20.024	ug/L	0 355	1	1	1053660	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 09:46:25
Number of Replicates 3
Method File C.\NexION Data\Method\200.8GFA+.mth
Tuning File C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			116162	112869	2
	Cl	37		ug/L			4581141	5206820	1
>	Ge	72		ug/L			701707	676541	1
	Ni	60	49.917	ug/L	1 256	2	29	194978	1
	Ni	62	50.009	ug/L	1 099	2	58	27678	3
	Cu	63	50.013	ug/L	0 834	1	81	421532	0
	Cu	65	49.947	ug/L	1 410	2	35	190082	1
	Zn	66	49.898	ug/L	2 241	4	180	113915	3
	Zn	67	50.099	ug/L	1 307	2	28	18825	2
	Zn	68	49.833	ug/L	0 173	0	184	80154	1
	As	75	50.126	ug/L	1 977	3	651	102634	2
	As-1	75	50.154	ug/L	2 118	4	8877	109865	2
	Se	82	50.137	ug/L	0.771	1	-19	10973	1
	Se	78	50.269	ug/L	1.561	3	8963	35860	2
	Y	89		ug/L			456413	447794	2
	Kr	83		ug/L			1031	992	4
>	In	115		ug/L			1152711	1131954	1
	Ag	107	49.633	ug/L	1 135	2	19	450027	1
	Cd	111	49.856	ug/L	1 485	2	58	244464	2
	Cd	114	49.899	ug/L	0.353	0	28	631202	1
	Sb	121	49.909	ug/L	1 045	2	34	725881	0
	Sb	123	50.039	ug/L	1 097	2	25	552440	0
>	Tb	159		ug/L			1461185	1450639	1
	Tl	205	50.087	ug/L	1 512	3	42	2061522	2
	Pb	208	49.812	ug/L	0 971	1	154	2672499	0
	Bi	209		ug/L			3256797	3140847	0
	Th	232	50.469	ug/L	0 709	1	117	2633400	1
	U	238	50.183	ug/L	0 774	1	1	2663539	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 09:52:01
Number of Replicates: 3
Method File C.\NexIONData\Method\200 8GFA+.mth
Tuning File: C \NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
C	13		ug/L			116162	123100	5
Cl	37		ug/L			4581141	5363418	2
> Ge	72		ug/L			701707	671938	2
Ni	60	99.915	ug/L	2 115	2	29	386475	0
Ni	62	99.655	ug/L	1 399	1	58	54110	3
Cu	63	99.540	ug/L	1.906	1	81	820656	2
Cu	65	99.616	ug/L	2 441	2	35	371726	0
Zn	66	99.303	ug/L	4.011	4	180	219907	2
Zn	67	99.877	ug/L	1.759	1	28	37091	1
Zn	68	99.452	ug/L	2 050	2	184	155823	0
As	75	99.851	ug/L	2 492	2	651	201475	1
As-1	75	99.887	ug/L	2.412	2	8877	208170	1
Se	82	99.477	ug/L	2.800	2	-19	21268	2
Se	78	99.656	ug/L	3 140	3	8963	61553	0
Y	89		ug/L			456413	453359	1
Kr	83		ug/L			1031	1094	3
> In	115		ug/L			1152711	1105312	0
Ag	107	99.932	ug/L	2 136	2	19	883008	2
Cd	111	99.361	ug/L	1 325	1	58	465863	0
Cd	114	99.655	ug/L	2 847	2	28	1216815	2
Sb	121	100.180	ug/L	0 504	0	34	1431553	0
Sb	123	99.892	ug/L	1 423	1	25	1073178	0
> Tb	159		ug/L			1461185	1434972	0
Tl	205	99.879	ug/L	1.249	1	42	4050298	0
Pb	208	100.064	ug/L	1 026	1	154	5322565	0
Bi	209		ug/L			3256797	3023462	1
Th	232	100.057	ug/L	2 129	2	117	5174096	1
U	238	99.933	ug/L	2 049	2	1	5235311	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 09:58:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens	Intens. RSD
	C	13		ug/L			116162	118613	2
	Cl	37		ug/L			4581141	5033092	0
>	Ge	72		ug/L			701707	697023	3
	Ni	60	-0.000	ug/L	0.000	122	29	28	0
	Ni	62	-0.001	ug/L	0.010	1166	58	57	6
	Cu	63	0.006	ug/L	0.001	21	81	130	5
	Cu	65	0.002	ug/L	0.002	84	35	43	13
	Zn	66	-0.008	ug/L	0.008	93	180	160	9
	Zn	67	-0.001	ug/L	0.009	824	28	27	9
	Zn	68	0.007	ug/L	0.006	86	184	195	4
	As	75	0.011	ug/L	0.001	4	651	669	3
	As-1	75	0.025	ug/L	0.137	538	8877	8864	0
	Se	82	0.044	ug/L	0.032	72	-19	-9	75
	Se	78	0.098	ug/L	0.530	543	8963	8950	0
	Y	89		ug/L			456413	450558	2
	Kr	83		ug/L			1031	1023	4
>	In	115		ug/L			1152711	1136626	1
	Ag	107	0.003	ug/L	0.002	73	19	42	39
	Cd	111	0.006	ug/L	0.002	33	58	83	10
	Cd	114	0.002	ug/L	0.001	44	28	49	18
	Sb	121	0.053	ug/L	0.002	4	34	819	4
	Sb	123	0.055	ug/L	0.003	5	25	633	6
>	Tb	159		ug/L			1461185	1406548	0
	Tl	205	0.013	ug/L	0.002	18	42	556	16
	Pb	208	0.004	ug/L	0.001	28	154	341	16
	Bi	209		ug/L			3256797	3200795	0
	Th	232	0.244	ug/L	0.038	15	117	12494	15
	U	238	0.003	ug/L	0.001	29	1	130	28

Sample Information

Sample Date/Time: Thursday, January 17, 2013 09:52:01
Method File: C:\NexION Data\Method\200.8GFA+.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

Calibration

Analyte	Mass	**r Corr Coef**	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Ge	72							
Ni	60	**1.0000**	0.006	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**1.0000**	0.012	0.50	10	20	50	100
Cu	65	**1.0000**	0 006	0.50	10	20	50	100
Zn	66	**0.9999**	0.003	4.00	10	20	50	100
Zn	67	**1.0000**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0 002	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9997**	0.000	0.50	10	20	50	100
Se	78	**1.0000**	0.001	0 50	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.008	0.20	10	20	50	100
Cd	111	**0.9999**	0 004	0.10	10	20	50	100
Cd	114	**1.0000**	0.011	0 10	10	20	50	100
Sb	121	**1.0000**	0.013	0.20	10	20	50	100
Sb	123	**1.0000**	0.010	0.20	10	20	50	100
Tb	159							
Tl	205	**1.0000**	0.028	0.20	10	20	50	100
Pb	208	**1.0000**	0.037	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	0.036	0.20	10	20	50	100
U	238	**1.0000**	0.037	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 10:04:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C.\NexION Data\MassCal\Default tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			116162	122492	5
	Cl	37		ug/L			4581141	5169266	2
>	Ge	72		ug/L			701707	670983	1
	Ni	60	52.075	ug/L	1 105	2	29	201183	1
	Ni	62	51.429	ug/L	1 109	2	58	27903	1
	Cu	63	52.067	ug/L	0 164	0	81	428727	0
	Cu	65	52.202	ug/L	0 949	1	35	194619	2
	Zn	66	51.057	ug/L	0.672	1	180	113047	2
	Zn	67	50.117	ug/L	0 851	1	28	18600	0
	Zn	68	50.741	ug/L	2 301	4	184	79479	3
	As	75	51.733	ug/L	0 389	0	651	104565	1
	As-1	75	51.390	ug/L	0 219	0	8877	111097	1
	Se	82	83.233	ug/L	0 164	0	-19	17285	1
	Se	78	80.343	ug/L	0 944	1	8963	51215	0
	Y	89		ug/L			456413	452365	2
	Kr	83		ug/L			1031	1017	4
>	In	115		ug/L			1152711	1137613	2
	Ag	107	50.580	ug/L	0 734	1	19	459891	1
	Cd	111	49.659	ug/L	0 904	1	58	239607	0
	Cd	114	49.141	ug/L	0.404	0	28	617571	1
	Sb	121	48.858	ug/L	1 155	2	34	718382	1
	Sb	123	48.925	ug/L	1.364	2	25	540798	0
>	Tb	159		ug/L			1461185	1435086	1
	Tl	205	51.841	ug/L	1 598	3	42	2103145	4
	Pb	208	50.809	ug/L	0.510	1	154	2702848	0
	Bi	209		ug/L			3256797	3071768	1
	Th	232	52.570	ug/L	0 889	1	117	2719068	2
	U	238	51.900	ug/L	0 585	1	1	2719476	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 10:10:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			116162	118716	3
	Cl	37		ug/L			4581141	5019095	3
>	Ge	72		ug/L			701707	684952	1
	Ni	60	0.003	ug/L	0 001	28	29	38	7
	Ni	62	-0.001	ug/L	0 009	833	58	56	9
	Cu	63	0.004	ug/L	0 001	21	81	110	6
	Cu	65	0.003	ug/L	0 000	14	35	47	3
	Zn	66	0.092	ug/L	0 049	52	180	383	27
	Zn	67	0.078	ug/L	0.026	32	28	57	16
	Zn	68	0.095	ug/L	0 020	21	184	330	8
	As	75	0.037	ug/L	0.021	56	651	711	4
	As-1	75	0.094	ug/L	0 068	72	8877	8856	0
	Se	82	0.089	ug/L	0 080	89	-19	0	3561
	Se	78	0.322	ug/L	0 221	68	8963	8922	0
	Y	89		ug/L			456413	456574	2
	Kr	83		ug/L			1031	1020	3
>	In	115		ug/L			1152711	1123366	1
	Ag	107	0.001	ug/L	0 001	72	19	32	30
	Cd	111	0.004	ug/L	0 002	38	58	77	10
	Cd	114	0.002	ug/L	0 000	27	28	46	11
	Sb	121	0.015	ug/L	0 003	17	34	257	14
	Sb	123	0.017	ug/L	0 004	20	25	212	16
>	Tb	159		ug/L			1461185	1412916	0
	Tl	205	0.004	ug/L	0 001	12	42	212	9
	Pb	208	0.004	ug/L	0 000	2	154	356	0
	Bi	209		ug/L			3256797	3174847	0
	Th	232	0.136	ug/L	0 022	15	117	7031	15
	U	238	0.002	ug/L	0 000	20	1	85	20

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 10:14:25
Number of Replicates: 3
Method File. C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas Intens	Intens. RSD
	C	13		ug/L			116162	117046	3
	Cl	37		ug/L			4581141	5271368	0
>	Ge	72		ug/L			701707	674114	2
	Ni	60	49.847	ug/L	0.956	1	29	193454	0
	Ni	62	50.605	ug/L	1 829	3	58	27575	1
	Cu	63	51.223	ug/L	0.689	1	81	423704	1
	Cu	65	51.302	ug/L	0 854	1	35	192094	0
	Zn	66	50.752	ug/L	0 596	1	180	112875	0
	Zn	67	50.179	ug/L	0 914	1	28	18707	0
	Zn	68	52.071	ug/L	1 934	3	184	81916	1
	As	75	50.534	ug/L	0 865	1	651	102617	1
	As-1	75	50.618	ug/L	1 106	2	8877	110047	1
	Se	82	52.381	ug/L	0.464	0	-19	10920	1
	Se	78	51.273	ug/L	1 490	2	8963	35944	0
	Y	89		ug/L			456413	451992	1
	Kr	83		ug/L			1031	1016	2
>	In	115		ug/L			1152711	1110199	1
	Ag	107	52.094	ug/L	1 571	3	19	462225	2
	Cd	111	50.845	ug/L	0 927	1	58	239456	1
	Cd	114	49.940	ug/L	0.736	1	28	612527	1
	Sb	121	50.405	ug/L	0 695	1	34	723410	0
	Sb	123	50.433	ug/L	0 583	1	25	544217	0
>	Tb	159		ug/L			1461185	1430254	1
	Tl	205	51.732	ug/L	0 954	1	42	2090787	0
	Pb	208	50.332	ug/L	0 919	1	154	2668255	0
	Bi	209		ug/L			3256797	3098096	1
	Th	232	50.752	ug/L	1.086	2	117	2615773	1
	U	238	51.392	ug/L	0 570	1	1	2683414	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 10:20:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens. RSD
	C	13		ug/L			116162	118513	1
	Cl	37		ug/L			4581141	4980845	1
>	Ge	72		ug/L			701707	696235	0
	Ni	60	0.000	ug/L	0 001	119	29	30	6
	Ni	62	-0.007	ug/L	0 015	208	58	54	15
	Cu	63	0.003	ug/L	0 001	22	81	105	4
	Cu	65	0.002	ug/L	0.001	79	35	42	14
	Zn	66	-0.014	ug/L	0.005	37	180	147	7
	Zn	67	-0.004	ug/L	0.010	250	28	26	14
	Zn	68	0.000	ug/L	0 006	10178	184	183	5
	As	75	0.027	ug/L	0 016	59	651	702	4
	As-1	75	0.046	ug/L	0 049	106	8877	8902	0
	Se	82	0.141	ug/L	0 070	49	-19	10	139
	Se	78	0.180	ug/L	0 163	90	8963	8992	0
	Y	89		ug/L			456413	458521	0
	Kr	83		ug/L			1031	1002	3
>	In	115		ug/L			1152711	1121473	0
	Ag	107	0.001	ug/L	0 001	101	19	31	39
	Cd	111	0.006	ug/L	0 001	9	58	85	2
	Cd	114	0.002	ug/L	0 000	16	28	47	6
	Sb	121	0.029	ug/L	0 002	7	34	456	6
	Sb	123	0.028	ug/L	0 001	4	25	325	4
>	Tb	159		ug/L			1461185	1405565	0
	Tl	205	0.010	ug/L	0.002	22	42	457	19
	Pb	208	0.003	ug/L	0 000	14	154	288	7
	Bi	209		ug/L			3256797	3170351	0
	Th	232	0.185	ug/L	0 021	11	117	9468	10
	U	238	0.002	ug/L	0 000	7	1	80	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 10:23:55
Number of Replicates: 3
Method File. C:\NexIONData\Method\200.8GFA+.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens. RSD
	C	13		ug/L			116162	118983	1
	Cl	37		ug/L			4581141	4979800	1
>	Ge	72		ug/L			701707	688730	1
	Ni	60	0.534	ug/L	0 007	1	29	2144	1
	Ni	62	0.561	ug/L	0 021	3	58	369	4
	Cu	63	0.536	ug/L	0 005	1	81	4610	2
	Cu	65	0.524	ug/L	0 018	3	35	2037	2
	Zn	66	4.271	ug/L	0 198	4	180	9864	3
	Zn	67	3.812	ug/L	0 175	4	28	1477	3
	Zn	68	4.202	ug/L	0 185	4	184	6921	2
	As	75	0.246	ug/L	0 032	13	651	1146	6
	As-1	75	0.339	ug/L	0 062	18	8877	9407	1
	Se	82	0.679	ug/L	0 158	23	-19	125	27
	Se	78	1.020	ug/L	0 197	19	8963	9352	0
	Y	89		ug/L			456413	473606	1
	Kr	83		ug/L			1031	1012	6
>	In	115		ug/L			1152711	1125822	0
	Ag	107	0.214	ug/L	0 005	2	19	1941	3
	Cd	111	0.113	ug/L	0.001	0	58	594	1
	Cd	114	0.106	ug/L	0 001	0	28	1341	1
	Sb	121	0.207	ug/L	0 003	1	34	3046	1
	Sb	123	0.207	ug/L	0 003	1	25	2284	1
>	Tb	159		ug/L			1461185	1409318	1
	Tl	205	0.213	ug/L	0 003	1	42	8538	1
	Pb	208	0.108	ug/L	0 004	3	154	5787	2
	Bi	209		ug/L			3256797	3173917	0
	Th	232	0.229	ug/L	0 007	3	117	11738	1
	U	238	0.201	ug/L	0 007	3	1	10315	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 10:27:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117 cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			116162	215535	1
	Cl	37		ug/L			4581141	13154183	2
>	Ge	72		ug/L			701707	673663	1
	Ni	60	0.326	ug/L	0 008	2	29	1291	3
	Ni	62	1.637	ug/L	0 081	4	58	946	5
	Cu	63	0.751	ug/L	0 023	3	81	6284	3
	Cu	65	0.335	ug/L	0.015	4	35	1287	3
	Zn	66	0.939	ug/L	0 033	3	180	2257	2
	Zn	67	4.937	ug/L	0 024	0	28	1864	1
	Zn	68	0.462	ug/L	0.014	2	184	902	3
	As	75	0.120	ug/L	0.043	35	651	866	8
	As-1	75	0.294	ug/L	0.164	55	8877	9108	2
	Se	82	-0.161	ug/L	0 150	93	-19	-52	60
	Se	78	0.896	ug/L	0 545	60	8963	9079	1
	Y	89		ug/L			456413	452794	0
	Kr	83		ug/L			1031	1265	6
>	In	115		ug/L			1152711	1085795	1
	Ag	107	0.021	ug/L	0 001	7	19	196	6
	Cd	111	0.162	ug/L	0 016	10	58	802	7
	Cd	114	0.235	ug/L	0 008	3	28	2850	2
	Sb	121	0.067	ug/L	0 003	4	34	971	4
	Sb	123	0.071	ug/L	0 003	4	25	769	2
>	Tb	159		ug/L			1461185	1434531	0
	Tl	205	0.039	ug/L	0 002	3	42	1639	3
	Pb	208	0.034	ug/L	0 001	1	154	1971	1
	Bi	209		ug/L			3256797	2939322	0
	Th	232	0.140	ug/L	0.050	35	117	7357	34
	U	238	0.001	ug/L	0 000	41	1	42	40

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 10:33:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File. C:\NexION Data\MassCal\Default.tun
Optimization File: C.\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens. RSD
	C	13		ug/L			116162	223321	0
	Cl	37		ug/L			4581141	13734751	3
>	Ge	72		ug/L			701707	689063	1
	Ni	60	20.050	ug/L	0 440	2	29	79585	3
	Ni	62	21.417	ug/L	0 660	3	58	11965	2
	Cu	63	20.328	ug/L	0 226	1	81	171958	2
	Cu	65	19.720	ug/L	0 210	1	35	75509	0
	Zn	66	19.890	ug/L	0.371	1	180	45338	2
	Zn	67	21.752	ug/L	0.337	1	28	8306	0
	Zn	68	18.869	ug/L	0 320	1	184	30470	0
	As	75	19.245	ug/L	0 167	0	651	40347	1
	As-1	75	19.429	ug/L	0 159	0	8877	48556	1
	Se	82	-0.162	ug/L	0 087	53	-19	-54	34
	Se	78	0.422	ug/L	0.068	16	8963	9031	0
	Y	89		ug/L			456413	455873	1
	Kr	83		ug/L			1031	1248	3
>	In	115		ug/L			1152711	1142468	2
	Ag	107	20.623	ug/L	0 574	2	19	188309	1
	Cd	111	19.810	ug/L	0 457	2	58	96025	0
	Cd	114	19.435	ug/L	0 203	1	28	245309	0
	Sb	121	0.066	ug/L	0 001	1	34	1015	3
	Sb	123	0.066	ug/L	0 002	2	25	760	1
>	Tb	159		ug/L			1461185	1469648	1
	Tl	205	0.034	ug/L	0.001	1	42	1452	2
	Pb	208	0.033	ug/L	0 001	2	154	1931	3
	Bi	209		ug/L			3256797	2970582	0
	Th	232	0.052	ug/L	0 004	8	117	2862	7
	U	238	0.001	ug/L	0 000	12	1	34	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 10:39:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			116162	116607	2
	Cl	37		ug/L			4581141	5443500	1
>	Ge	72		ug/L			701707	659478	2
	Ni	60	198.878	ug/L	3 629	1	29	754989	0
	Ni	62	199.331	ug/L	3.881	1	58	106119	0
	Cu	63	195.631	ug/L	2 015	1	81	1582952	2
	Cu	65	192.840	ug/L	6.166	3	35	706135	1
	Zn	66	193.166	ug/L	4 252	2	180	419738	0
	Zn	67	193.944	ug/L	7.364	3	28	70640	1
	Zn	68	197.597	ug/L	3 306	1	184	303739	2
	As	75	199.487	ug/L	5 069	2	651	394383	0
	As-1	75	200.314	ug/L	5 680	2	8877	401279	0
	Se	82	200.676	ug/L	2 783	1	-19	40980	1
	Se	78	198.397	ug/L	4 721	2	8963	111896	0
	Y	89		ug/L			456413	437303	1
	Kr	83		ug/L			1031	1194	0
>	In	115		ug/L			1152711	1106469	0
	Ag	107	203.001	ug/L	6 465	3	19	1795162	2
	Cd	111	200.552	ug/L	4.516	2	58	941201	1
	Cd	114	205.133	ug/L	1 307	0	28	2507552	0
	Sb	121	207.768	ug/L	4 209	2	34	2971811	1
	Sb	123	213.892	ug/L	3 175	1	25	2300277	0
>	Tb	159		ug/L			1461185	1434157	1
	Tl	205	198.385	ug/L	1 678	0	42	8040581	0
	Pb	208	201.640	ug/L	4 110	2	154	10718291	0
	Bi	209		ug/L			3256797	2933579	0
	Th	232	196.923	ug/L	2 148	1	117	10177835	0
	U	238	194.333	ug/L	1 334	0	1	10175447	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 10:45:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens. RSD
	C	13		ug/L			116162	117014	2
	Cl	37		ug/L			4581141	5456105	0
>	Ge	72		ug/L			701707	643216	1
	Ni	60	295.192	ug/L	0 582	0	29	1093282	1
	Ni	62	298.540	ug/L	5 296	1	58	155054	2
	Cu	63	307.526	ug/L	2 882	0	81	2427073	1
	Cu	65	287.937	ug/L	4 954	1	35	1028666	0
	Zn	66	282.856	ug/L	3 563	1	180	599594	1
	Zn	67	279.042	ug/L	9 489	3	28	99145	2
	Zn	68	285.870	ug/L	2 074	0	184	428591	1
	As	75	295.034	ug/L	3 204	1	651	568778	0
	As-1	75	295.586	ug/L	3 145	1	8877	573859	0
	Se	82	293.867	ug/L	2 837	0	-19	58545	0
	Se	78	288.137	ug/L	2.818	0	8963	154833	1
	Y	89		ug/L			456413	431016	2
	Kr	83		ug/L			1031	1365	0
>	In	115		ug/L			1152711	1061238	1
	Ag	107	319.054	ug/L	5 559	1	19	2706853	3
	Cd	111	294.193	ug/L	4 619	1	58	1324073	0
	Cd	114	304.519	ug/L	6 693	2	28	3569485	0
	Sb	121	313.532	ug/L	7 487	2	34	4300387	0
	Sb	123	315.230	ug/L	11 453	3	25	3250275	1
>	Tb	159		ug/L			1461185	1425209	1
	Tl	205	289.340	ug/L	2 678	0	42	11653385	0
	Pb	208	291.437	ug/L	5 646	1	154	15394265	0
	Bi	209		ug/L			3256797	2839190	1
	Th	232	290.855	ug/L	8 220	2	117	14935652	1
	U	238	285.763	ug/L	7 461	2	1	14866036	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 10:52:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File. C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			116162	116881	3
	Cl	37		ug/L			4581141	5146102	1
>	Ge	72		ug/L			701707	680264	1
	Ni	60	0.449	ug/L	0.015	3	29	1786	1
	Ni	62	0.951	ug/L	0.059	6	58	578	6
	Cu	63	0.074	ug/L	0 011	15	81	700	13
	Cu	65	0.038	ug/L	0 007	18	35	178	16
	Zn	66	0.778	ug/L	0 039	5	180	1917	3
	Zn	67	0.661	ug/L	0.015	2	28	275	3
	Zn	68	0.764	ug/L	0 096	12	184	1391	12
	As	75	0.124	ug/L	0 109	87	651	885	26
	As-1	75	0.235	ug/L	0 047	20	8877	9083	2
	Se	82	0.214	ug/L	0.041	19	-19	25	33
	Se	78	0.598	ug/L	0 188	31	8963	9010	0
	Y	89		ug/L			456413	453543	3
	Kr	83		ug/L			1031	979	3
>	In	115		ug/L			1152711	1130353	1
	Ag	107	0.019	ug/L	0 023	118	19	196	107
	Cd	111	0.021	ug/L	0 017	78	58	159	50
	Cd	114	0.017	ug/L	0 021	126	28	238	112
	Sb	121	0.125	ug/L	0 009	7	34	1861	6
	Sb	123	0.125	ug/L	0 012	9	25	1394	8
>	Tb	159		ug/L			1461185	1414156	2
	Tl	205	0.042	ug/L	0 003	8	42	1733	8
	Pb	208	0.023	ug/L	0 009	41	154	1356	39
	Bi	209		ug/L			3256797	3235039	1
	Th	232	0.327	ug/L	0 040	12	117	16753	9
	U	238	0.009	ug/L	0 007	79	1	493	81

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 10:57:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens.	Intens. RSD
	C	13		ug/L			116162	117020	1
	Cl	37		ug/L			4581141	5418827	2
>	Ge	72		ug/L			701707	696103	0
	Ni	60	49.749	ug/L	1 407	2	29	199405	2
	Ni	62	50.433	ug/L	1 488	2	58	28394	3
	Cu	63	51.259	ug/L	1.075	2	81	437913	2
	Cu	65	49.894	ug/L	1.293	2	35	192958	2
	Zn	66	50.484	ug/L	1 660	3	180	115949	2
	Zn	67	49.713	ug/L	0 945	1	28	19142	1
	Zn	68	51.222	ug/L	0 576	1	184	83254	1
	As	75	49.721	ug/L	1 213	2	651	104274	2
	As-1	75	49.513	ug/L	1 616	3	8877	111359	2
	Se	82	52.114	ug/L	0 293	0	-19	11220	0
	Se	78	49.920	ug/L	1 861	3	8963	36379	2
	Y	89		ug/L			456413	463687	1
	Kr	83		ug/L			1031	1039	3
>	In	115		ug/L			1152711	1140020	1
	Ag	107	52.151	ug/L	1 236	2	19	475221	2
	Cd	111	51.000	ug/L	1 939	3	58	246604	2
	Cd	114	50.700	ug/L	0 992	1	28	638526	1
	Sb	121	50.670	ug/L	0 912	1	34	746776	1
	Sb	123	50.622	ug/L	0 358	0	25	560951	0
>	Tb	159		ug/L			1461185	1444207	2
	Tl	205	52.065	ug/L	1 172	2	42	2124441	0
	Pb	208	50.604	ug/L	1 166	2	154	2708369	0
	Bi	209		ug/L			3256797	3175168	1
	Th	232	51.532	ug/L	0 747	1	117	2681903	1
	U	238	50.584	ug/L	1 193	2	1	2666668	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 11:03:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C \NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default dac
Calibration File: C \NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			116162	115336	1
	Cl	37		ug/L			4581141	5188906	3
>	Ge	72		ug/L			701707	679353	1
	Ni	60	0.002	ug/L	0.002	98	29	34	16
	Ni	62	0.091	ug/L	0 047	51	58	106	23
	Cu	63	0.013	ug/L	0 000	3	81	189	2
	Cu	65	0.005	ug/L	0.002	38	35	53	13
	Zn	66	-0.003	ug/L	0 007	255	180	168	10
	Zn	67	-0.002	ug/L	0 012	606	28	26	15
	Zn	68	0.003	ug/L	0 005	166	184	183	5
	As	75	0.040	ug/L	0 008	20	651	711	3
	As-1	75	0.138	ug/L	0.119	85	8877	8872	1
	Se	82	0.089	ug/L	0 125	141	-19	0	12950
	Se	78	0.509	ug/L	0.417	81	8963	8949	1
	Y	89		ug/L			456413	449314	2
	Kr	83		ug/L			1031	1033	5
>	In	115		ug/L			1152711	1137803	1
	Ag	107	0.002	ug/L	0 001	45	19	38	21
	Cd	111	0.006	ug/L	0 001	22	58	88	9
	Cd	114	0.002	ug/L	0 001	28	28	57	14
	Sb	121	0.041	ug/L	0 004	8	34	638	8
	Sb	123	0.043	ug/L	0 004	8	25	504	7
>	Tb	159		ug/L			1461185	1422540	0
	Tl	205	0.016	ug/L	0.004	22	42	685	20
	Pb	208	0.004	ug/L	0 001	18	154	353	9
	Bi	209		ug/L			3256797	3193360	2
	Th	232	0.197	ug/L	0 032	16	117	10233	15
	U	238	0.002	ug/L	0 000	7	1	99	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY91 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 11:07:32
Number of Replicates 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default tun
Optimization File: C:\NexION Data\Conditions\Default dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			116162	125272	0
	Cl	37		ug/L			4581141	5083353	1
>	Ge	72		ug/L			701707	704761	2
	Ni	60	0.059	ug/L	0 001	1	29	267	1
	Ni	62	0.113	ug/L	0 018	15	58	122	7
	Cu	63	0.088	ug/L	0 006	6	81	842	4
	Cu	65	0.081	ug/L	0.007	8	35	354	7
	Zn	66	0.502	ug/L	0 026	5	180	1346	2
	Zn	67	0.476	ug/L	0 048	9	28	213	7
	Zn	68	0.503	ug/L	0 025	4	184	1009	2
	As	75	0.034	ug/L	0 021	61	651	726	7
	As-1	75	0.072	ug/L	0 142	198	8877	9061	1
	Se	82	0.108	ug/L	0 092	84	-19	4	499
	Se	78	0.253	ug/L	0 534	210	8963	9138	1
	Y	89		ug/L			456413	468954	1
	Kr	83		ug/L			1031	1039	0
>	In	115		ug/L			1152711	1161872	2
	Ag	107	0.002	ug/L	0.000	24	19	37	13
	Cd	111	0.009	ug/L	0 000	4	58	100	3
	Cd	114	0.002	ug/L	0 000	10	28	56	5
	Sb	121	0.025	ug/L	0 002	6	34	402	6
	Sb	123	0.024	ug/L	0 003	12	25	299	10
>	Tb	159		ug/L			1461185	1449745	2
	Tl	205	0.041	ug/L	0.007	17	42	1728	16
	Pb	208	0.005	ug/L	0 005	88	154	441	56
	Bi	209		ug/L			3256797	3245526	1
	Th	232	0.117	ug/L	0.013	11	117	6214	10
	U	238	0.003	ug/L	0 003	92	1	144	90

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY89 I REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 11:11:04
Number of Replicates 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File C:\NexION Data\MassCal\Default.tun
Optimization File. C:\NexION Data\Conditions\Default dac
Calibration File. C:\NexION Data\System\130117.cal

Del missed tube

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			116162	84119	15
	Cl	37		ug/L			4581141	2855016	17
>	Ge	72		ug/L			701707	1223400	22
	Ni	60	-0.002	ug/L	0 001	48	29	36	37
	Ni	62	-0.017	ug/L	0 004	20	58	85	22
	Cu	63	0.000	ug/L	0.002	482	81	143	5
	Cu	65	-0.001	ug/L	0 001	120	35	52	12
	Zn	66	-0.041	ug/L	0.008	20	180	152	43
	Zn	67	-0.039	ug/L	0.013	33	28	21	30
	Zn	68	-0.043	ug/L	0 003	6	184	198	20
	As	75	-0.058	ug/L	0 087	149	651	921	38
	As-1	75	-2.128	ug/L	0 280	13	8877	7584	10
	Se	82	0.068	ug/L	0 030	44	-19	-10	121
	Se	78	-8.158	ug/L	1.051	12	8963	7587	10
	Y	89		ug/L			456413	832438	19
	Kr	83		ug/L			1031	1230	38
>	In	115		ug/L			1152711	2089330	21
	Ag	107	-0.000	ug/L	0 000	24	19	27	20
	Cd	111	-0.001	ug/L	0 001	194	58	100	33
	Cd	114	0.001	ug/L	0 000	73	28	62	8
	Sb	121	0.007	ug/L	0 004	52	34	248	49
	Sb	123	0.007	ug/L	0 004	57	25	191	52
>	Tb	159		ug/L			1461185	2869233	17
	Tl	205	0.002	ug/L	0.002	73	42	290	67
	Pb	208	-0.001	ug/L	0 000	18	154	177	29
	Bi	209		ug/L			3256797	6315800	15
	Th	232	0.112	ug/L	0 092	81	117	12300	91
	U	238	0.000	ug/L	0.000	63	1	42	50

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY89 J REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 11:14:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File C:\NexION Data\MassCal\Default.tun
Optimization File C.\NexION Data\Conditions\Default dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			116162	133545	1
	Cl	37		ug/L			4581141	5389788	1
>	Ge	72		ug/L			701707	696046	2
	Ni	60	0.872	ug/L	0.046	5	29	3521	2
	Ni	62	0.540	ug/L	0 070	12	58	360	8
	Cu	63	0.724	ug/L	0 012	1	81	6259	2
	Cu	65	0.363	ug/L	0 023	6	35	1435	5
	Zn	66	1.045	ug/L	0 007	0	180	2576	2
	Zn	67	2.687	ug/L	0 016	0	28	1061	3
	Zn	68	3.227	ug/L	0.145	4	184	5412	2
	As	75	12.676	ug/L	0 211	1	651	27061	2
	As-1	75	12.767	ug/L	0 292	2	8877	35241	1
	Se	82	0.274	ug/L	0 043	15	-19	39	22
	Se	78	0.335	ug/L	0 426	127	8963	9071	0
	Y	89		ug/L			456413	467850	1
	Kr	83		ug/L			1031	1035	4
>	In	115		ug/L			1152711	1138592	1
	Ag	107	0.002	ug/L	0.001	34	19	41	19
	Cd	111	0.016	ug/L	0 002	11	58	136	7
	Cd	114	0.010	ug/L	0 000	4	28	151	2
	Sb	121	0.026	ug/L	0 004	14	34	410	12
	Sb	123	0.027	ug/L	0 002	6	25	322	5
>	Tb	159		ug/L			1461185	1468244	1
	Tl	205	0.014	ug/L	0.002	15	42	604	15
	Pb	208	0.010	ug/L	0 001	8	154	718	5
	Bi	209		ug/L			3256797	3006655	0
	Th	232	0.024	ug/L	0 001	5	117	1385	4
	U	238	1.020	ug/L	0 018	1	1	54693	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY89 K REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 11:18:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens.	Intens RSD
	C	13		ug/L			116162	131047	2
	Cl	37		ug/L			4581141	5382390	1
>	Ge	72		ug/L			701707	691116	1
	Ni	60	0.560	ug/L	0 024	4	29	2256	4
	Ni	62	0.407	ug/L	0 009	2	58	284	3
	Cu	63	1.167	ug/L	0.015	1	81	9975	2
	Cu	65	1.029	ug/L	0.010	0	35	3984	0
	Zn	66	0.823	ug/L	0 023	2	180	2051	1
	Zn	67	1.195	ug/L	0 066	5	28	483	4
	Zn	68	1.382	ug/L	0.046	3	184	2407	3
	As	75	0.237	ug/L	0.031	12	651	1130	6
	As-1	75	0.249	ug/L	0 059	23	8877	9253	0
	Se	82	0.235	ug/L	0 131	55	-19	30	91
	Se	78	0.292	ug/L	0 248	84	8963	8986	0
	Y	89		ug/L			456413	471191	1
	Kr	83		ug/L			1031	1028	4
>	In	115		ug/L			1152711	1142774	1
	Ag	107	0.001	ug/L	0 001	34	19	33	13
	Cd	111	0.015	ug/L	0 004	23	58	131	12
	Cd	114	0.008	ug/L	0 001	7	28	135	7
	Sb	121	0.134	ug/L	0 001	0	34	2014	1
	Sb	123	0.135	ug/L	0 008	5	25	1519	5
>	Tb	159		ug/L			1461185	1452013	0
	Tl	205	0.009	ug/L	0 001	9	42	391	8
	Pb	208	0.006	ug/L	0 000	5	154	482	3
	Bi	209		ug/L			3256797	3115839	0
	Th	232	0.015	ug/L	0 001	7	117	913	7
	U	238	0.032	ug/L	0 000	1	1	1709	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY89 L REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 11:21:41
Number of Replicates. 3
Method File. C:\NexION Data\Method\200.8GFA+.mth
Tuning File C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas Intens	Intens. RSD
	C	13		ug/L			116162	125707	0
	Cl	37		ug/L			4581141	5233220	2
>	Ge	72		ug/L			701707	691749	2
	Ni	60	**0.510**	ug/L	0.024	4	29	2057	2
	Ni	62	**0.383**	ug/L	0 014	3	58	271	1
	Cu	63	**0.615**	ug/L	0 011	1	81	5303	3
	Cu	65	**0.444**	ug/L	0.015	3	35	1739	3
	Zn	66	**1.388**	ug/L	0 082	5	180	3339	3
	Zn	67	**1.859**	ug/L	0 062	3	28	737	0
	Zn	68	**2.797**	ug/L	0 168	5	184	4685	3
	As	75	**14.814**	ug/L	0 312	2	651	31318	1
	As-1	75	**14.940**	ug/L	0 368	2	8877	39496	1
	Se	82	**0.168**	ug/L	0 041	24	-19	16	54
	Se	78	**0.290**	ug/L	0 315	108	8963	8992	0
	Y	89		ug/L			456413	466416	3
	Kr	83		ug/L			1031	1012	2
>	In	115		ug/L			1152711	1156873	1
	Ag	107	U **0.002**	ug/L	0 001	33	19	37	16
	Cd	111	**0.024**	ug/L	0 003	12	58	174	7
	Cd	114	**0.018**	ug/L	0 001	3	28	255	4
	Sb	121	**0.019**	ug/L	0 001	6	34	319	6
	Sb	123	**0.019**	ug/L	0 002	8	25	233	6
>	Tb	159		ug/L			1461185	1494681	1
	Tl	205	**0.004**	ug/L	0.000	8	42	227	6
	Pb	208	**0.019**	ug/L	0 000	1	154	1215	0
	Bi	209		ug/L			3256797	3155945	1
	Th	232	**0.018**	ug/L	0 002	9	117	1098	7
	U	238	**0.024**	ug/L	0.001	2	1	1304	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY91 A-L REN
Sample Dil Factor: ~~20~~ 10 A1-1713
Comments:
Sample Date/Time: Thursday, January 17, 2013 11:25:14
Number of Replicates 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File. C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			116162	117874	1
	Cl	37		ug/L			4581141	5122937	1
>	Ge	72		ug/L			701707	694638	1
	Ni	60	0.529	ug/L	0 014	2	29	2142	3
	Ni	62	0.602	ug/L	0 024	3	58	395	1
	Cu	63	5.772	ug/L	0 089	1	81	49266	1
	Cu	65	5.822	ug/L	0.145	2	35	22493	1
	Zn	66	9.616	ug/L	0 436	4	180	22174	2
	Zn	67	9.027	ug/L	0 153	1	28	3491	2
	Zn	68	9.452	ug/L	0.211	2	184	15475	1
	As	75	0.726	ug/L	0 029	3	651	2153	2
	As-1	75	0.792	ug/L	0 080	10	8877	10424	1
	Se	82	0.046	ug/L	0 013	27	-19	-9	26
	Se	78	0.280	ug/L	0 250	89	8963	9025	0
	Y	89		ug/L			456413	460590	1
	Kr	83		ug/L			1031	1021	3
>	In	115		ug/L			1152711	1149801	0
	Ag	107	U 0.008	ug/L	0 000	1	19	95	1
	Cd	111	0.018	ug/L	0 004	21	58	146	12
	Cd	114	0.015	ug/L	0 002	10	28	220	9
	Sb	121	0.092	ug/L	0 001	0	34	1408	0
	Sb	123	0.092	ug/L	0 003	2	25	1054	3
>	Tb	159		ug/L			1461185	1459653	1
	Tl	205	0.004	ug/L	0 000	1	42	200	0
	Pb	208	0.311	ug/L	0 001	0	154	16982	0
	Bi	209		ug/L			3256797	3293607	0
	Th	232	0.032	ug/L	0 001	2	117	1777	1
	U	238	0.041	ug/L	0 001	1	1	2212	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY91 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 11:28:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C \NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			116162	130269	3
	Cl	37		ug/L			4581141	5262143	1
>	Ge	72		ug/L			701707	704939	2
	Ni	60	2.668	ug/L	0 093	3	29	10856	3
	Ni	62	2.866	ug/L	0 074	2	58	1689	2
	Cu	63	28.620	ug/L	0 361	1	81	247668	3
	Cu	65	28.762	ug/L	0 787	2	35	112680	4
	Zn	66	41.200	ug/L	1.803	4	180	95829	3
	Zn	67	39.172	ug/L	1 122	2	28	15276	1
	Zn	68	41.592	ug/L	1 271	3	184	68467	1
	As	75	3.505	ug/L	0 092	2	651	8049	0
	As-1	75	3.543	ug/L	0 176	4	8877	16344	0
	Se	82	0.117	ug/L	0 023	19	-19	5	87
	Se	78	0.217	ug/L	0 371	171	8963	9122	0
	Y	89		ug/L			456413	473254	1
	Kr	83		ug/L			1031	1063	2
>	In	115		ug/L			1152711	1147195	1
	Ag	107	0.033	ug/L	0 002	5	19	324	4
	Cd	111	0.079	ug/L	0 002	2	58	443	1
	Cd	114	0.066	ug/L	0 004	5	28	868	6
	Sb	121	0.444	ug/L	0 010	2	34	6618	1
	Sb	123	0.440	ug/L	0 005	1	25	4931	0
>	Tb	159		ug/L			1461185	1477890	1
	Tl	205	0.013	ug/L	0 001	7	42	569	5
	Pb	208	1.508	ug/L	0 008	0	154	82766	0
	Bi	209		ug/L			3256797	3220188	1
	Th	232	0.170	ug/L	0 003	1	117	9177	0
	U	238	0.211	ug/L	0 002	0	1	11404	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY91 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 11:32:18
Number of Replicates: 3
Method File C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			116162	130028	3
	Cl	37		ug/L			4581141	5351117	3
>	Ge	72		ug/L			701707	690226	2
	Ni	60	2.612	ug/L	0.078	2	29	10409	3
	Ni	62	2.883	ug/L	0 112	3	58	1662	1
	Cu	63	28.053	ug/L	0.902	3	81	237535	1
	Cu	65	27.902	ug/L	0 561	2	35	106979	1
	Zn	66	40.833	ug/L	1 240	3	180	92995	1
	Zn	67	38.442	ug/L	1.343	3	28	14679	2
	Zn	68	41.046	ug/L	1 354	3	184	66199	4
	As	75	3.487	ug/L	0 131	3	651	7841	0
	As-1	75	3.555	ug/L	0.228	6	8877	16026	0
	Se	82	0.140	ug/L	0 067	47	-19	10	135
	Se	78	0.380	ug/L	0 429	112	8963	9020	0
	Y	89		ug/L			456413	477483	0
	Kr	83		ug/L			1031	1058	3
>	In	115		ug/L			1152711	1153709	1
	Ag	107	u 0.039	ug/L	0 002	6	19	376	5
	Cd	111	0.081	ug/L	0 001	1	58	454	0
	Cd	114	0.069	ug/L	0 008	11	28	909	9
	Sb	121	0.428	ug/L	0 006	1	34	6423	1
	Sb	123	0.434	ug/L	0.007	1	25	4894	1
>	Tb	159		ug/L			1461185	1471790	1
	Tl	205	0.012	ug/L	0 000	2	42	531	2
	Pb	208	1.467	ug/L	0 031	2	154	80200	1
	Bi	209		ug/L			3256797	3225826	0
	Th	232	0.166	ug/L	0 005	2	117	8908	2
	U	238	0.205	ug/L	0 005	2	1	11000	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY91 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 11:35:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			116162	124929	1
	Cl	37		ug/L			4581141	5430533	2
>	Ge	72		ug/L			701707	703204	1
	Ni	60	28.507	ug/L	1 082	3	29	115411	2
	Ni	62	28.717	ug/L	1 167	4	58	16356	4
	Cu	63	53.988	ug/L	0 889	1	81	465836	0
	Cu	65	53.335	ug/L	1 164	2	35	208406	3
	Zn	66	118.770	ug/L	1.208	1	180	275332	1
	Zn	67	111.215	ug/L	1.664	1	28	43222	0
	Zn	68	116.354	ug/L	3 787	3	184	190766	2
	As	75	29.535	ug/L	0 387	1	651	62835	0
	As-1	75	29.083	ug/L	0 724	2	8877	69739	0
	Se	82	80.537	ug/L	0 663	0	-19	17527	1
	Se	78	77.789	ug/L	1 734	2	8963	52249	0
	Y	89		ug/L			456413	481276	1
	Kr	83		ug/L			1031	1078	1
>	In	115		ug/L			1152711	1155548	2
	Ag	107	26.159	ug/L	0 597	2	19	241611	2
	Cd	111	25.711	ug/L	0 930	3	58	126015	1
	Cd	114	25.386	ug/L	0 595	2	28	324022	0
	Sb	121	23.474	ug/L	0 862	3	34	350544	1
	Sb	123	23.513	ug/L	0 719	3	25	264015	0
>	Tb	159		ug/L			1461185	1490609	1
	Tl	205	25.848	ug/L	0 476	1	42	1088970	2
	Pb	208	27.567	ug/L	0 500	1	154	1523194	0
	Bi	209		ug/L			3256797	3249293	0
	Th	232	25.165	ug/L	0.362	1	117	1352030	1
	U	238	25.359	ug/L	0 675	2	1	1379915	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY91 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 11:39:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200 8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default dac
Calibration File: C:\NexION Data\System\130117 cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
	C	13		ug/L			116162	125303	3
	Cl	37		ug/L			4581141	5464634	1
>	Ge	72		ug/L			701707	687968	0
	Ni	60	27.601	ug/L	0 599	2	29	109361	2
	Ni	62	27.517	ug/L	0 444	1	58	15336	1
	Cu	63	28.428	ug/L	0 455	1	81	240041	1
	Cu	65	27.789	ug/L	0 548	1	35	106225	1
	Zn	66	86.353	ug/L	2.048	2	180	195913	2
	Zn	67	80.413	ug/L	2.351	2	28	30585	2
	Zn	68	85.351	ug/L	1 017	1	184	136987	1
	As	75	27.307	ug/L	0 403	1	651	56890	1
	As-1	75	26.616	ug/L	0 342	1	8877	63193	1
	Se	82	86.857	ug/L	0.518	0	-19	18495	0
	Se	78	83.211	ug/L	1 294	1	8963	54078	1
	Y	89		ug/L			456413	464053	2
	Kr	83		ug/L			1031	1039	3
>	In	115		ug/L			1152711	1166958	0
	Ag	107	27.087	ug/L	0.740	2	19	252658	2
	Cd	111	26.255	ug/L	0 131	0	58	130009	0
	Cd	114	26.214	ug/L	0 293	1	28	338009	1
	Sb	121	25.682	ug/L	0 525	2	34	387455	1
	Sb	123	25.751	ug/L	0 832	3	25	292068	2
>	Tb	159		ug/L			1461185	1460993	0
	Tl	205	27.470	ug/L	0 216	0	42	1134295	1
	Pb	208	27.821	ug/L	0.417	1	154	1506817	0
	Bi	209		ug/L			3256797	3301637	1
	Th	232	26.356	ug/L	0.196	0	117	1387858	0
	U	238	26.003	ug/L	0.309	1	1	1387061	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 11:44:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			116162	114979	1
	Cl	37		ug/L			4581141	5496256	0
>	Ge	72		ug/L			701707	694488	2
	Ni	60	49.122	ug/L	2 558	5	29	196282	2
	Ni	62	49.418	ug/L	0 929	1	58	27748	1
	Cu	63	49.345	ug/L	0.932	1	81	420420	0
	Cu	65	49.459	ug/L	1 071	2	35	190759	0
	Zn	66	48.680	ug/L	1.846	3	180	111494	1
	Zn	67	49.706	ug/L	2.043	4	28	19082	1
	Zn	68	49.862	ug/L	1 209	2	184	80848	2
	As	75	49.480	ug/L	1 573	3	651	103479	0
	As-1	75	49.295	ug/L	1 983	4	8877	110588	1
	Se	82	51.855	ug/L	0 741	1	-19	11136	1
	Se	78	49.745	ug/L	2 443	4	8963	36179	1
	Y	89		ug/L			456413	466737	1
	Kr	83		ug/L			1031	1027	4
>	In	115		ug/L			1152711	1127937	0
	Ag	107	50.297	ug/L	1 438	2	19	453476	2
	Cd	111	51.319	ug/L	0 630	1	58	245577	1
	Cd	114	51.677	ug/L	1.009	1	28	643929	1
	Sb	121	49.737	ug/L	0 559	1	34	725265	0
	Sb	123	50.959	ug/L	0.923	1	25	558669	0
>	Tb	159		ug/L			1461185	1475822	0
	Tl	205	51.038	ug/L	0 543	1	42	2128712	0
	Pb	208	49.626	ug/L	0 436	0	154	2714994	0
	Bi	209		ug/L			3256797	3161651	0
	Th	232	50.226	ug/L	1 333	2	117	2671261	1
	U	238	49.916	ug/L	0 967	1	1	2689409	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 11:50:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas Intens	Intens. RSD
	C	13		ug/L			116162	115758	1
	Cl	37		ug/L			4581141	5189530	1
>	Ge	72		ug/L			701707	678456	2
	Ni	60	-0.001	ug/L	0.001	170	29	25	20
	Ni	62	0.017	ug/L	0.017	97	58	66	15
	Cu	63	0.002	ug/L	0.002	89	81	94	14
	Cu	65	0.002	ug/L	0.002	95	35	42	19
	Zn	66	0.002	ug/L	0.002	111	180	178	4
	Zn	67	0.006	ug/L	0.011	184	28	29	15
	Zn	68	-0.006	ug/L	0.012	201	184	168	9
	As	75	0.035	ug/L	0.020	57	651	699	4
	As-1	75	0.137	ug/L	0.110	80	8877	8856	0
	Se	82	0.119	ug/L	0.034	28	-19	5	120
	Se	78	0.526	ug/L	0.401	76	8963	8945	0
	Y	89		ug/L			456413	455464	2
	Kr	83		ug/L			1031	1012	4
>	In	115		ug/L			1152711	1131646	2
	Ag	107	0.002	ug/L	0.000	29	19	34	14
	Cd	111	0.006	ug/L	0.003	49	58	84	14
	Cd	114	0.001	ug/L	0.000	32	28	41	12
	Sb	121	0.029	ug/L	0.001	4	34	450	4
	Sb	123	0.028	ug/L	0.004	13	25	333	12
>	Tb	159		ug/L			1461185	1414810	0
	Tl	205	0.009	ug/L	0.003	26	42	414	23
	Pb	208	0.004	ug/L	0.000	5	154	344	2
	Bi	209		ug/L			3256797	3248569	0
	Th	232	0.178	ug/L	0.030	16	117	9187	16
	U	238	0.001	ug/L	0.000	5	1	77	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY91 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 12:01:15
Number of Replicates 3
Method File: C:\NexIONData\Method\200.8GFA+.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			116162	129974	1
	Cl	37		ug/L			4581141	5181277	0
>	Ge	72		ug/L			701707	702436	1
	Ni	60	0.006	ug/L	0 002	39	29	53	17
	Ni	62	0.035	ug/L	0 020	56	58	78	13
	Cu	63	0.155	ug/L	0 008	5	81	1420	3
	Cu	65	0.156	ug/L	0 004	2	35	644	2
	Zn	66	1.462	ug/L	0 025	1	180	3563	0
	Zn	67	1.281	ug/L	0 012	0	28	525	1
	Zn	68	1.410	ug/L	0.022	1	184	2492	1
	As	75	0.030	ug/L	0.015	48	651	715	3
	As-1	75	0.097	ug/L	0.016	16	8877	9089	0
	Se	82	0.103	ug/L	0 007	6	-19	2	56
	Se	78	0.350	ug/L	0 037	10	8963	9167	0
	Y	89		ug/L			456413	472950	2
	Kr	83		ug/L			1031	1031	1
>	In	115		ug/L			1152711	1175924	1
	Ag	107	0.001	ug/L	0 000	30	19	33	12
	Cd	111	0.004	ug/L	0 001	22	58	79	6
	Cd	114	0.002	ug/L	0 001	30	28	51	12
	Sb	121	0.013	ug/L	0 001	4	34	225	2
	Sb	123	0.014	ug/L	0 002	14	25	180	11
>	Tb	159		ug/L			1461185	1488646	1
	Tl	205	0.006	ug/L	0 001	14	42	290	13
	Pb	208	0.012	ug/L	0 000	3	154	800	2
	Bi	209		ug/L			3256797	3322786	0
	Th	232	0.094	ug/L	0 013	13	117	5150	14
	U	238	0.001	ug/L	0 000	24	1	34	23

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 W REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 12:04:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			116162	134318	4
	Cl	37		ug/L			4581141	5891869	1
>	Ge	72		ug/L			701707	649355	1
	Ni	60	0.496	ug/L	0 012	2	29	1882	1
	Ni	62	9.960	ug/L	3.829	38	58	5277	38
	Cu	63	4.206	ug/L	0 328	7	81	33593	8
	Cu	65	0.901	ug/L	0 047	5	35	3282	5
	Zn	66	1.951	ug/L	0.021	1	180	4342	2
	Zn	67	2.846	ug/L	0 082	2	28	1046	3
	Zn	68	3.567	ug/L	0 051	1	184	5567	1
	As	75	23.786	ug/L	0 099	0	651	46849	1
	As-1	75	24.323	ug/L	0.118	0	8877	55214	1
	Se	82	0.237	ug/L	0 142	59	-19	29	97
	Se	78	1.807	ug/L	0.133	7	8963	9223	1
	Y	89		ug/L			456413	460301	2
	Kr	83		ug/L			1031	1028	9
>	In	115		ug/L			1152711	1057338	0
	Ag	107	0.006	ug/L	0.001	26	19	65	18
	Cd	111	0.001	ug/L	0 004	622	58	56	31
	Cd	114	0.005	ug/L	0 001	12	28	85	9
	Sb	121	0.236	ug/L	0 002	0	34	3256	0
	Sb	123	0.244	ug/L	0 010	3	25	2530	3
>	Tb	159		ug/L			1461185	1409482	1
	Tl	205	0.003	ug/L	0 000	9	42	171	7
	Pb	208	0.126	ug/L	0 001	0	154	6715	1
	Bi	209		ug/L			3256797	2849755	0
	Th	232	0.111	ug/L	0 009	7	117	5730	8
	U	238	0.282	ug/L	0 003	1	1	14531	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 X ~~REM~~ REU 1-17-13
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 12:08:20
Number of Replicates. 3
Method File: C:\NexIONData\Method\200 8GFA+.mth
Tuning File: C:\NexIONData\MassCal\Default tun
Optimization File: C:\NexIONData\Conditions\Default dac
Calibration File C:\NexIONData\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens. RSD
	C	13		ug/L			116162	126836	1
	Cl	37		ug/L			4581141	5830570	0
>	Ge	72		ug/L			701707	634389	2
	Ni	60	0.891	ug/L	0 058	6	29	3278	4
	Ni	62	32.265	ug/L	15 773	48	58	16461	46
	Cu	63	6.978	ug/L	1 547	22	81	54227	19
	Cu	65	0.536	ug/L	0 066	12	35	1918	10
	Zn	66	1.730	ug/L	0 095	5	180	3775	3
	Zn	67	2.838	ug/L	0 157	5	28	1019	4
	Zn	68	3.274	ug/L	0 054	1	184	5004	1
	As	75	2.351	ug/L	0 021	0	651	5053	1
	As-1	75	2.855	ug/L	0 125	4	8877	13412	0
	Se	82	0.247	ug/L	0.057	22	-19	30	34
	Se	78	2.256	ug/L	0 390	17	8963	9233	0
	Y	89		ug/L			456413	449121	1
	Kr	83		ug/L			1031	1044	5
>	In	115		ug/L			1152711	1046138	1
	Ag	107	0.002	ug/L	0 001	25	19	35	11
	Cd	111	u 0.005	ug/L	0 005	91	58	77	30
	Cd	114	0.003	ug/L	0 001	21	28	62	13
	Sb	121	u 0.132	ug/L	0 004	3	34	1810	1
	Sb	123	0.131	ug/L	0 002	1	25	1353	3
>	Tb	159		ug/L			1461185	1412384	1
	Tl	205	u 0.002	ug/L	0 000	9	42	112	8
	Pb	208	u 0.015	ug/L	0 001	4	154	932	1
	Bi	209		ug/L			3256797	2693333	1
	Th	232	0.026	ug/L	0.003	11	117	1413	10
	U	238	0.231	ug/L	0 004	1	1	11926	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY91 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 12:11:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			116162	122678	2
	Cl	37		ug/L			4581141	5413591	1
>	Ge	72		ug/L			701707	712888	1
	Ni	60	2.483	ug/L	0.117	4	29	10218	3
	Ni	62	7.029	ug/L	0.613	8	58	4100	7
	Cu	63	28.055	ug/L	0 828	2	81	245460	2
	Cu	65	27.789	ug/L	0 393	1	35	110064	0
	Zn	66	40.079	ug/L	1 689	4	180	94281	2
	Zn	67	37.767	ug/L	0 664	1	28	14899	1
	Zn	68	40.528	ug/L	0 224	0	184	67498	1
	As	75	3.391	ug/L	0.056	1	651	7899	0
	As-1	75	3.442	ug/L	0 099	2	8877	16317	0
	Se	82	0.110	ug/L	0 036	32	-19	4	186
	Se	78	0.314	ug/L	0 238	75	8963	9282	0
	Y	89		ug/L			456413	496718	0
	Kr	83		ug/L			1031	1115	1
>	In	115		ug/L			1152711	1140613	1
	Ag	107	0.037	ug/L	0 001	1	19	360	2
	Cd	111	0.080	ug/L	0 005	5	58	444	6
	Cd	114	0.066	ug/L	0 001	2	28	864	2
	Sb	121	0.417	ug/L	0 007	1	34	6181	1
	Sb	123	0.413	ug/L	0 014	3	25	4606	2
>	Tb	159		ug/L			1461185	1474922	3
	Tl	205	0.011	ug/L	0 000	0	42	515	3
	Pb	208	1.448	ug/L	0 037	2	154	79290	0
	Bi	209		ug/L			3256797	3245118	1
	Th	232	0.154	ug/L	0 007	4	117	8271	2
	U	238	0.201	ug/L	0 010	5	1	10834	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY91 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 12:15:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File. C:\NexION Data\MassCal\Default tun
Optimization File. C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			116162	131994	2
	Cl	37		ug/L			4581141	5528820	1
>	Ge	72		ug/L			701707	705969	1
	Ni	60	0.378	ug/L	0 022	5	29	1563	4
	Ni	62	1.667	ug/L	0 527	31	58	1009	30
	Cu	63	4.153	ug/L	0 057	1	81	36054	2
	Cu	65	3.985	ug/L	0 061	1	35	15660	0
	Zn	66	10.173	ug/L	0.122	1	180	23841	0
	Zn	67	9.262	ug/L	0.289	3	28	3639	2
	Zn	68	10.289	ug/L	0 319	3	184	17107	2
	As	75	2.273	ug/L	0 041	1	651	5458	0
	As-1	75	2.358	ug/L	0 056	2	8877	13884	0
	Se	82	0.088	ug/L	0 087	99	-19	0	2394
	Se	78	0.387	ug/L	0 139	35	8963	9233	1
	Y	89		ug/L			456413	487004	1
	Kr	83		ug/L			1031	1060	5
>	In	115		ug/L			1152711	1151858	0
	Ag	107	u 0.007	ug/L	0 001	13	19	83	10
	Cd	111	0.024	ug/L	0 001	4	58	173	2
	Cd	114	0.019	ug/L	0 001	5	28	272	5
	Sb	121	0.370	ug/L	0 007	1	34	5547	1
	Sb	123	0.368	ug/L	0 005	1	25	4142	1
>	Tb	159		ug/L			1461185	1476294	0
	Tl	205	0.004	ug/L	0 001	15	42	190	11
	Pb	208	0.077	ug/L	0 000	0	154	4360	0
	Bi	209		ug/L			3256797	3253762	1
	Th	232	0.022	ug/L	0 001	6	117	1296	5
	U	238	0.136	ug/L	0 003	1	1	7308	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY91 E-L REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, January 17, 2013 12:18:57
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8GFA+.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			116162	118608	1
	Cl	37		ug/L			4581141	5447663	2
>	Ge	72		ug/L			701707	698254	1
	Ni	60	0.083	ug/L	0.002	2	29	361	3
	Ni	62	0.752	ug/L	0 079	10	58	482	9
	Cu	63	0.907	ug/L	0 029	3	81	7851	4
	Cu	65	0.838	ug/L	0 028	3	35	3286	2
	Zn	66	3.140	ug/L	0 064	2	180	7402	1
	Zn	67	2.887	ug/L	0 075	2	28	1141	1
	Zn	68	3.093	ug/L	0.025	0	184	5215	2
	As	75	0.490	ug/L	0 004	0	651	1672	0
	As-1	75	0.520	ug/L	0 089	17	8877	9911	0
	Se	82	0.079	ug/L	0 024	30	-19	-2	208
	Se	78	0.191	ug/L	0 313	163	8963	9023	0
	Y	89		ug/L			456413	474785	1
	Kr	83		ug/L			1031	1035	0
>	In	115		ug/L			1152711	1139263	1
	Ag	107	U 0.002	ug/L	0 000	9	19	33	4
	Cd	111	0.013	ug/L	0 000	1	58	118	1
	Cd	114	0.005	ug/L	0 001	15	28	92	10
	Sb	121	0.078	ug/L	0 005	6	34	1186	5
	Sb	123	0.076	ug/L	0 004	5	25	863	5
>	Tb	159		ug/L			1461185	1445342	0
	Tl	205	0.001	ug/L	0 000	23	42	82	11
	Pb	208	0.032	ug/L	0 001	3	154	1870	2
	Bi	209		ug/L			3256797	3306840	0
	Th	232	0.003	ug/L	0 000	10	117	249	5
	U	238	0.027	ug/L	0.001	3	1	1451	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY91 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 12:22:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			116162	128147	0
	Cl	37		ug/L			4581141	5619419	0
>	Ge	72		ug/L			701707	701549	3
	Ni	60	0.368	ug/L	0 020	5	29	1515	2
	Ni	62	0.732	ug/L	0 054	7	58	473	8
	Cu	63	4.707	ug/L	0.178	3	81	40568	1
	Cu	65	4.476	ug/L	0 211	4	35	17463	1
	Zn	66	10.480	ug/L	0 601	5	180	24375	2
	Zn	67	9.811	ug/L	0 201	2	28	3828	1
	Zn	68	10.267	ug/L	0 079	0	184	16962	2
	As	75	2.283	ug/L	0 102	4	651	5442	1
	As-1	75	2.298	ug/L	0 187	8	8877	13664	0
	Se	82	0.152	ug/L	0 056	36	-19	13	88
	Se	78	0.178	ug/L	0.390	219	8963	9055	1
	Y	89		ug/L			456413	482627	1
	Kr	83		ug/L			1031	1047	2
>	In	115		ug/L			1152711	1142055	2
	Ag	107	0.006	ug/L	0 000	3	19	70	4
	Cd	111	0.026	ug/L	0 003	10	58	181	4
	Cd	114	0.019	ug/L	0 001	3	28	269	1
	Sb	121	0.367	ug/L	0 009	2	34	5447	0
	Sb	123	0.369	ug/L	0 017	4	25	4117	2
>	Tb	159		ug/L			1461185	1473961	1
	Tl	205	0.003	ug/L	0 000	9	42	185	6
	Pb	208	0.129	ug/L	0 002	1	154	7200	1
	Bi	209		ug/L			3256797	3220509	0
	Th	232	0.017	ug/L	0 001	3	117	1045	2
	U	238	0.135	ug/L	0 001	0	1	7260	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY91 EDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 12:26:01
Number of Replicates: 3
Method File. C:\NexION Data\Method\200 8GFA+.mth
Tuning File. C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			116162	131433	0
	Cl	37		ug/L			4581141	5748616	0
>	Ge	72		ug/L			701707	689129	0
	Ni	60	0.325	ug/L	0.009	2	29	1318	2
	Ni	62	0.602	ug/L	0 042	7	58	392	6
	Cu	63	3.919	ug/L	0 154	3	81	33220	4
	Cu	65	3.784	ug/L	0 163	4	35	14515	3
	Zn	66	9.505	ug/L	0 186	1	180	21756	1
	Zn	67	9.112	ug/L	0 366	4	28	3495	3
	Zn	68	9.696	ug/L	0 300	3	184	15747	2
	As	75	2.232	ug/L	0.034	1	651	5243	0
	As-1	75	2.286	ug/L	0 107	4	8877	13405	0
	Se	82	0.242	ug/L	0 061	25	-19	32	39
	Se	78	0.365	ug/L	0 296	81	8963	9000	1
	Y	89		ug/L			456413	478440	1
	Kr	83		ug/L			1031	993	4
>	In	115		ug/L			1152711	1143268	1
	Ag	107	¿^ 0.006	ug/L	0 001	12	19	76	7
	Cd	111	0.026	ug/L	0 002	7	58	183	5
	Cd	114	0.018	ug/L	0 001	7	28	257	6
	Sb	121	0.352	ug/L	0 005	1	34	5244	3
	Sb	123	0.356	ug/L	0 010	2	25	3976	2
>	Tb	159		ug/L			1461185	1463408	2
	Tl	205	0.003	ug/L	0.000	17	42	154	10
	Pb	208	0.063	ug/L	0 000	0	154	3548	1
	Bi	209		ug/L			3256797	3229690	0
	Th	232	0.014	ug/L	0 001	6	117	868	3
	U	238	0.132	ug/L	0 002	1	1	7045	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY91 ESPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 12:30:38
Number of Replicates: 3
Method File C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens.	Intens. RSD
	C	13		ug/L			116162	127953	1
	Cl	37		ug/L			4581141	5687027	1
>	Ge	72		ug/L			701707	694783	0
	Ni	60	28.474	ug/L	0 940	3	29	113917	2
	Ni	62	28.664	ug/L	0 542	1	58	16130	1
	Cu	63	31.338	ug/L	0 980	3	81	267228	3
	Cu	65	31.225	ug/L	0 247	0	35	120540	0
	Zn	66	92.664	ug/L	2.514	2	180	212268	2
	Zn	67	85.961	ug/L	2 497	2	28	33014	2
	Zn	68	91.958	ug/L	1.315	1	184	149038	1
	As	75	29.371	ug/L	0.634	2	651	61740	1
	As-1	75	28.654	ug/L	0 999	3	8877	68022	2
	Se	82	83.047	ug/L	0.716	0	-19	17858	0
	Se	78	79.233	ug/L	2 048	2	8963	52420	1
	Y	89		ug/L			456413	475862	2
	Kr	83		ug/L			1031	1018	0
>	In	115		ug/L			1152711	1139470	1
	Ag	107	27.936	ug/L	1 828	6	19	254264	4
	Cd	111	26.034	ug/L	0 446	1	58	125860	1
	Cd	114	26.001	ug/L	0 394	1	28	327305	1
	Sb	121	26.611	ug/L	0 599	2	34	391938	0
	Sb	123	26.834	ug/L	0 693	2	25	297138	0
>	Tb	159		ug/L			1461185	1477494	1
	Tl	205	27.438	ug/L	0 688	2	42	1145533	1
	Pb	208	27.798	ug/L	0 297	1	154	1522521	0
	Bi	209		ug/L			3256797	3220655	0
	Th	232	27.059	ug/L	0.367	1	117	1440870	0
	U	238	27.191	ug/L	0 649	2	1	1466565	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY91 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 12:34:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			116162	127381	5
	Cl	37		ug/L			4581141	5781078	2
>	Ge	72		ug/L			701707	685831	0
	Ni	60	27.308	ug/L	0 726	2	29	107864	2
	Ni	62	27.172	ug/L	1.225	4	58	15095	4
	Cu	63	27.237	ug/L	0 034	0	81	229280	0
	Cu	65	27.586	ug/L	0 863	3	35	105124	3
	Zn	66	83.825	ug/L	1 334	1	180	189591	1
	Zn	67	76.917	ug/L	2 095	2	28	29164	2
	Zn	68	81.527	ug/L	0 280	0	184	130449	0
	As	75	26.479	ug/L	0.643	2	651	55008	1
	As-1	75	25.911	ug/L	1 120	4	8877	61548	3
	Se	82	81.640	ug/L	0 916	1	-19	17328	0
	Se	78	78.498	ug/L	2.463	3	8963	51346	2
	Y	89		ug/L			456413	466743	2
	Kr	83		ug/L			1031	1034	1
>	In	115		ug/L			1152711	1154874	0
	Ag	107	26.862	ug/L	0 565	2	19	248010	2
	Cd	111	24.702	ug/L	0 231	0	58	121062	1
	Cd	114	25.141	ug/L	0 743	2	28	320780	2
	Sb	121	25.138	ug/L	0 292	1	34	375344	0
	Sb	123	25.025	ug/L	0 279	1	25	280941	0
>	Tb	159		ug/L			1461185	1443104	0
	Tl	205	27.261	ug/L	0 242	0	42	1111794	0
	Pb	208	27.895	ug/L	0.443	1	154	1492268	0
	Bi	209		ug/L			3256797	3234026	1
	Th	232	26.973	ug/L	0 258	0	117	1402931	0
	U	238	26.434	ug/L	0.263	0	1	1392727	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 12:37:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200 8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default tun
Optimization File: C:\NexION Data\Conditions\Default dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			116162	117102	3
	Cl	37		ug/L			4581141	5848252	1
>	Ge	72		ug/L			701707	674027	1
	Ni	60	49.655	ug/L	0 834	1	29	192707	1
	Ni	62	51.035	ug/L	1.589	3	58	27810	1
	Cu	63	50.473	ug/L	1 578	3	81	417577	4
	Cu	65	49.689	ug/L	0 507	1	35	186076	2
	Zn	66	49.833	ug/L	0 530	1	180	110823	0
	Zn	67	49.445	ug/L	0.934	1	28	18432	0
	Zn	68	50.585	ug/L	1 146	2	184	79597	1
	As	75	50.410	ug/L	1 271	2	651	102335	0
	As-1	75	50.327	ug/L	1 278	2	8877	109438	0
	Se	82	53.551	ug/L	0 832	1	-19	11163	0
	Se	78	51.816	ug/L	0 849	1	8963	36234	0
	Y	89		ug/L			456413	459865	3
	Kr	83		ug/L			1031	1017	3
>	In	115		ug/L			1152711	1109279	2
	Ag	107	49.935	ug/L	1 113	2	19	442701	2
	Cd	111	50.593	ug/L	1 116	2	58	238009	0
	Cd	114	50.427	ug/L	1.071	2	28	617823	1
	Sb	121	49.446	ug/L	1 599	3	34	708787	1
	Sb	123	50.207	ug/L	1 853	3	25	541023	1
>	Tb	159		ug/L			1461185	1437401	1
	Tl	205	52.416	ug/L	0 833	1	42	2129246	1
	Pb	208	50.487	ug/L	0 627	1	154	2690057	0
	Bi	209		ug/L			3256797	3176961	1
	Th	232	52.336	ug/L	0 686	1	117	2711495	2
	U	238	52.093	ug/L	0 924	1	1	2733788	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 12:44:01
Number of Replicates. 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File. C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens	Meas Intens.	Intens RSD
	C	13		ug/L			116162	114148	2
	Cl	37		ug/L			4581141	5796715	0
>	Ge	72		ug/L			701707	675132	1
	Ni	60	-0.000	ug/L	0 001	719	29	27	16
	Ni	62	0.212	ug/L	0 018	8	58	171	6
	Cu	63	0.016	ug/L	0 001	5	81	210	3
	Cu	65	0.003	ug/L	0.002	78	35	45	19
	Zn	66	0.005	ug/L	0 010	217	180	184	11
	Zn	67	-0.009	ug/L	0 006	67	28	23	8
	Zn	68	-0.000	ug/L	0.001	3477	184	177	1
	As	75	0.035	ug/L	0 009	27	651	697	3
	As-1	75	0.133	ug/L	0 037	27	8877	8807	0
	Se	82	0.049	ug/L	0 022	45	-19	-8	52
	Se	78	0.496	ug/L	0 172	34	8963	8888	0
	Y	89		ug/L			456413	449103	1
	Kr	83		ug/L			1031	1046	1
>	In	115		ug/L			1152711	1106624	0
	Ag	107	0.003	ug/L	0.001	23	19	42	13
	Cd	111	0.009	ug/L	0 002	26	58	98	11
	Cd	114	0.001	ug/L	0 001	64	28	40	20
	Sb	121	0.028	ug/L	0.001	4	34	429	3
	Sb	123	0.028	ug/L	0 002	8	25	325	7
>	Tb	159		ug/L			1461185	1430584	1
	Tl	205	0.009	ug/L	0 003	29	42	417	26
	Pb	208	0.004	ug/L	0 001	18	154	374	10
	Bi	209		ug/L			3256797	3207116	0
	Th	232	0.195	ug/L	0 020	10	117	10189	10
	U	238	0.002	ug/L	0 001	27	1	108	27

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 13:03:34
Number of Replicates: 3
Method File C:\NexION Data\Method\200 8GFA+ mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens.	Meas Intens	Intens RSD
C	13		ug/L				94482	2
Cl	37		ug/L				4549027	2
> Ge	72		ug/L				611974	2
Ni	60		ug/L				28	24
Ni	62		ug/L				54	8
Cu	63		ug/L				107	3
Cu	65		ug/L				45	7
Zn	66		ug/L				158	5
Zn	67		ug/L				25	36
Zn	68		ug/L				171	8
As	75		ug/L				635	1
As-1	75		ug/L				8597	0
Se	82		ug/L				-23	46
Se	78		ug/L				8659	0
Y	89		ug/L				406121	3
Kr	83		ug/L				991	4
> In	115		ug/L				1051967	2
Ag	107		ug/L				32	9
Cd	111		ug/L				73	19
Cd	114		ug/L				39	23
Sb	121		ug/L				132	11
Sb	123		ug/L				101	20
> Tb	159		ug/L				1340679	2
Tl	205		ug/L				155	15
Pb	208		ug/L				348	4
Bi	209		ug/L				3042681	0
Th	232		ug/L				1500	24
U	238		ug/L				16	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 13:07:07
Number of Replicates. 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens. RSD
	C	13		ug/L			94482	101685	2
	Cl	37		ug/L			4549027	5043579	2
>	Ge	72		ug/L			611974	612806	2
	Ni	60	50.788	ug/L	1.148	2	28	179173	0
	Ni	62	50.244	ug/L	0.249	0	54	24905	2
	Cu	63	51.014	ug/L	2.116	4	107	383519	3
	Cu	65	51.019	ug/L	2 314	4	45	173603	2
	Zn	66	50.977	ug/L	1.242	2	158	103047	0
	Zn	67	49.688	ug/L	1.584	3	25	16838	1
	Zn	68	52.362	ug/L	1 199	2	171	74908	0
	As	75	51.161	ug/L	1 048	2	635	94488	0
	As-1	75	50.795	ug/L	1 244	2	8597	101205	0
	Se	82	53.391	ug/L	0 991	1	-23	10112	0
	Se	78	50.505	ug/L	1 693	3	8659	33145	0
	Y	89		ug/L			406121	419982	0
	Kr	83		ug/L			991	971	2
>	In	115		ug/L			1051967	1061466	1
	Ag	107	48.566	ug/L	0 806	1	32	412119	2
	Cd	111	51.496	ug/L	0.943	1	73	231882	0
	Cd	114	50.603	ug/L	1 855	3	39	593232	2
	Sb	121	51.677	ug/L	0 462	0	132	709230	0
	Sb	123	51.638	ug/L	1.179	2	101	532751	0
>	Tb	159		ug/L			1340679	1379052	1
	Tl	205	49.999	ug/L	0 687	1	155	1948513	0
	Pb	208	50.908	ug/L	0 729	1	348	2602311	0
	Bi	209		ug/L			3042681	3033702	0
	Th	232	51.105	ug/L	1.227	2	1500	2540781	0
	U	238	50.942	ug/L	1 198	2	16	2564378	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 13:13:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	100440	4
	Cl	37		ug/L			4549027	4782618	1
>	Ge	72		ug/L			611974	625491	1
	Ni	60	-0.000	ug/L	0 002	543	28	27	33
	Ni	62	0.027	ug/L	0 006	22	54	69	3
	Cu	63	0.001	ug/L	0 002	346	107	115	15
	Cu	65	-0.001	ug/L	0 001	60	45	41	6
	Zn	66	-0.006	ug/L	0 007	114	158	149	8
	Zn	67	0.012	ug/L	0 015	126	25	29	18
	Zn	68	-0.010	ug/L	0 011	115	171	160	9
	As	75	0.010	ug/L	0 004	39	635	668	1
	As-1	75	-0.122	ug/L	0.086	70	8597	8558	0
	Se	82	0.116	ug/L	0 036	30	-23	-1	654
	Se	78	-0.458	ug/L	0 344	75	8659	8622	0
	Y	89		ug/L			406121	414281	0
	Kr	83		ug/L			991	964	2
>	In	115		ug/L			1051967	1066692	1
	Ag	107	-0.001	ug/L	0 001	170	32	28	28
	Cd	111	-0.001	ug/L	0 002	338	73	72	14
	Cd	114	-0.000	ug/L	0 000	345	39	39	9
	Sb	121	0.019	ug/L	0 002	11	132	393	9
	Sb	123	0.019	ug/L	0 001	6	101	298	5
>	Tb	159		ug/L			1340679	1340757	1
	Tl	205	0.007	ug/L	0.003	51	155	408	30
	Pb	208	-0.003	ug/L	0 000	16	348	210	9
	Bi	209		ug/L			3042681	3034394	1
	Th	232	0.145	ug/L	0 031	21	1500	8491	16
	U	238	0.001	ug/L	0 000	21	16	84	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 13:16:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	106114	2
	Cl	37		ug/L			4549027	4730095	2
>	Ge	72		ug/L			611974	631709	0
	Ni	60	0.013	ug/L	0 004	34	28	75	21
	Ni	62	0.023	ug/L	0.012	50	54	68	8
	Cu	63	0.093	ug/L	0 005	5	107	829	5
	Cu	65	0.100	ug/L	0.005	5	45	397	3
	Zn	66	33.546	ug/L	0.785	2	158	69973	1
	Zn	67	29.684	ug/L	0.690	2	25	10383	2
	Zn	68	32.327	ug/L	0 727	2	171	47756	2
	As	75	0.017	ug/L	0 015	87	635	689	4
	As-1	75	-0.080	ug/L	0 082	102	8597	8723	0
	Se	82	0.114	ug/L	0 093	81	-23	-1	1324
	Se	78	-0.289	ug/L	0 284	98	8659	8793	0
	Y	89		ug/L			406121	420922	1
	Kr	83		ug/L			991	999	2
>	In	115		ug/L			1051967	1067751	1
	Ag	107	0.001	ug/L	0 001	102	32	39	16
	Cd	111	0.024	ug/L	0 004	17	73	183	10
	Cd	114	0.023	ug/L	0 000	0	39	310	0
	Sb	121	0.004	ug/L	0 001	30	132	187	7
	Sb	123	0.004	ug/L	0 001	34	101	140	9
>	Tb	159		ug/L			1340679	1344011	2
	Tl	205	0.015	ug/L	0 002	15	155	734	9
	Pb	208	0.025	ug/L	0 004	16	348	1588	15
	Bi	209		ug/L			3042681	3061552	1
	Th	232	0.083	ug/L	0.017	20	1500	5543	17
	U	238	0.004	ug/L	0 006	155	16	196	143

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VY89 I REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 13:20:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	112683	2
	Cl	37		ug/L			4549027	5126549	2
>	Ge	72		ug/L			611974	614645	2
	Ni	60	1.032	ug/L	0.019	1	28	3680	3
	Ni	62	0.781	ug/L	0.049	6	54	442	3
	Cu	63	1.651	ug/L	0.089	5	107	12555	5
	Cu	65	1.459	ug/L	0.031	2	45	5026	2
	Zn	66	11.296	ug/L	0.206	1	158	23031	2
	Zn	67	11.348	ug/L	0.487	4	25	3875	2
	Zn	68	12.471	ug/L	0.446	3	171	18024	2
	As	75	1.354	ug/L	0.051	3	635	3129	1
	As-1	75	1.198	ug/L	0.166	13	8597	10822	0
	Se	82	0.363	ug/L	0.047	13	-23	45	19
	Se	78	-0.306	ug/L	0.511	166	8659	8545	0
	Y	89		ug/L			406121	409830	1
	Kr	83		ug/L			991	963	1
>	In	115		ug/L			1051967	1041184	0
	Ag	107	0.001	ug/L	0.001	128	32	37	17
	Cd	111	0.018	ug/L	0.002	12	73	150	5
	Cd	114	0.012	ug/L	0.002	13	39	178	11
	Sb	121	0.103	ug/L	0.001	0	132	1516	1
	Sb	123	0.107	ug/L	0.004	3	101	1187	2
>	Tb	159		ug/L			1340679	1367999	1
	Tl	205	0.008	ug/L	0.001	8	155	476	6
	Pb	208	0.202	ug/L	0.004	2	348	10607	0
	Bi	209		ug/L			3042681	2919205	0
	Th	232	0.050	ug/L	0.016	31	1500	3989	19
	U	238	0.025	ug/L	0.001	2	16	1284	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 13:24:03
Number of Replicates. 3
Method File. C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			94482	113200	2
	Cl	37		ug/L			4549027	4924173	1
>	Ge	72		ug/L			611974	606107	1
	Ni	60	1.978	ug/L	0 082	4	28	6929	3
	Ni	62	1.733	ug/L	0 010	0	54	902	0
	Cu	63	1.321	ug/L	0 015	1	107	9928	1
	Cu	65	1.022	ug/L	0.075	7	45	3484	6
	Zn	66	5.942	ug/L	0 189	3	158	12018	2
	Zn	67	6.037	ug/L	0 122	2	25	2045	0
	Zn	68	6.816	ug/L	0 304	4	171	9793	4
	As	75	31.473	ug/L	0 720	2	635	57738	1
	As-1	75	31.594	ug/L	0 799	2	8597	65487	1
	Se	82	0.236	ug/L	0 012	5	-23	21	11
	Se	78	-0.058	ug/L	0.319	549	8659	8547	0
	Y	89		ug/L			406121	418027	0
	Kr	83		ug/L			991	974	2
>	In	115		ug/L			1051967	1064430	1
	Ag	107	0.001	ug/L	0 001	96	32	43	23
	Cd	111	0.038	ug/L	0 007	17	73	245	12
	Cd	114	0.033	ug/L	0 002	6	39	427	4
	Sb	121	0.444	ug/L	0 011	2	132	6244	1
	Sb	123	0.444	ug/L	0.015	3	101	4700	2
>	Tb	159		ug/L			1340679	1372194	1
	Tl	205	0.003	ug/L	0 001	44	155	274	17
	Pb	208	0.247	ug/L	0.008	3	348	12919	1
	Bi	209		ug/L			3042681	2925090	0
	Th	232	0.010	ug/L	0.001	13	1500	2049	4
	U	238	0.296	ug/L	0 004	1	16	14859	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 13:27:35
Number of Replicates. 3
Method File: C:\NexIONData\Method\200 8GFA+.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens.	Intens. RSD
	C	13		ug/L			94482	111641	1
	Cl	37		ug/L			4549027	4973795	2
>	Ge	72		ug/L			611974	605929	1
	Ni	60	2.011	ug/L	0 075	3	28	7043	2
	Ni	62	1.730	ug/L	0 005	0	54	900	1
	Cu	63	1.335	ug/L	0 021	1	107	10034	1
	Cu	65	1.048	ug/L	0 018	1	45	3570	0
	Zn	66	6.626	ug/L	0 136	2	158	13381	1
	Zn	67	6.725	ug/L	0.294	4	25	2274	2
	Zn	68	7.438	ug/L	0.242	3	171	10665	1
	As	75	31.116	ug/L	0.310	0	635	57078	0
	As-1	75	31.194	ug/L	0 383	1	8597	64751	0
	Se	82	0.261	ug/L	0 072	27	-23	26	50
	Se	78	-0.192	ug/L	0 363	188	8659	8480	0
	Y	89		ug/L			406121	412710	1
	Kr	83		ug/L			991	970	2
>	In	115		ug/L			1051967	1071683	1
	Ag	107	0.001	ug/L	0 000	20	32	43	5
	Cd	111	0.047	ug/L	0 007	14	73	290	11
	Cd	114	0.044	ug/L	0 004	8	39	563	9
	Sb	121	0.440	ug/L	0 012	2	132	6232	1
	Sb	123	0.448	ug/L	0 008	1	101	4773	1
>	Tb	159		ug/L			1340679	1395939	1
	Tl	205	0.002	ug/L	0 000	13	155	226	3
	Pb	208	0.256	ug/L	0 005	1	348	13585	1
	Bi	209		ug/L			3042681	2957817	1
	Th	232	-0.005	ug/L	0.001	13	1500	1312	2
	U	238	0.295	ug/L	0.003	1	16	15059	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 13:31:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File. C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	111333	2
	Cl	37		ug/L			4549027	5026608	1
>	Ge	72		ug/L			611974	606537	0
	Ni	60	28.000	ug/L	0.340	1	28	97807	0
	Ni	62	28.216	ug/L	0 792	2	54	13864	1
	Cu	63	27.377	ug/L	0.977	3	107	203850	3
	Cu	65	26.440	ug/L	0 542	2	45	89115	1
	Zn	66	83.598	ug/L	0 688	0	158	167217	1
	Zn	67	79.129	ug/L	1 556	1	25	26534	1
	Zn	68	83.402	ug/L	1.300	1	171	118016	0
	As	75	57.014	ug/L	0 977	1	635	104173	1
	As-1	75	56.236	ug/L	1 039	1	8597	110018	1
	Se	82	82.261	ug/L	1.006	1	-23	15435	0
	Se	78	77.508	ug/L	0 809	1	8659	45772	0
	Y	89		ug/L			406121	410581	1
	Kr	83		ug/L			991	940	2
>	In	115		ug/L			1051967	1070778	1
	Ag	107	25.066	ug/L	0 696	2	32	214519	1
	Cd	111	25.527	ug/L	0 513	2	73	116010	2
	Cd	114	25.462	ug/L	0 296	1	39	301242	1
	Sb	121	26.056	ug/L	0 349	1	132	360790	0
	Sb	123	26.502	ug/L	0 554	2	101	275885	0
>	Tb	159		ug/L			1340679	1373515	0
	Tl	205	26.379	ug/L	0 090	0	155	1024115	0
	Pb	208	26.663	ug/L	0.391	1	348	1357895	1
	Bi	209		ug/L			3042681	2964202	0
	Th	232	25.522	ug/L	0 278	1	1500	1264917	0
	U	238	26.163	ug/L	0 375	1	16	1312052	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 ODUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 13:34:40
Number of Replicates: 3
Method File: C.\NexIONData\Method\200 8GFA+ mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C \NexIONData\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens.	Meas Intens	Intens RSD
	C	13		ug/L			94482	115894	2
	Cl	37		ug/L			4549027	5277910	2
>	Ge	72		ug/L			611974	599581	0
	Ni	60	2.002	ug/L	0.079	3	28	6939	3
	Ni	62	1.694	ug/L	0.033	1	54	873	1
	Cu	63	1.086	ug/L	0 022	1	107	8093	1
	Cu	65	0.854	ug/L	0 015	1	45	2889	1
	Zn	66	5.571	ug/L	0 178	3	158	11160	3
	Zn	67	5.851	ug/L	0 115	1	25	1962	2
	Zn	68	6.376	ug/L	0 164	2	171	9074	2
	As	75	30.611	ug/L	0 342	1	635	55580	1
	As-1	75	30.628	ug/L	0 327	1	8597	63070	1
	Se	82	0.263	ug/L	0.152	57	-23	26	107
	Se	78	-0.424	ug/L	0.221	52	8659	8283	1
	Y	89		ug/L			406121	403559	3
	Kr	83		ug/L			991	951	4
>	In	115		ug/L			1051967	1063951	2
	Ag	107	0.001	ug/L	0 001	111	32	42	23
	Cd	111	0.022	ug/L	0 002	7	73	174	3
	Cd	114	0.020	ug/L	0 002	9	39	270	10
	Sb	121	0.465	ug/L	0 015	3	132	6521	1
	Sb	123	0.473	ug/L	0 013	2	101	4991	0
>	Tb	159		ug/L			1340679	1372590	0
	Tl	205	0.002	ug/L	0 000	29	155	225	9
	Pb	208	0.041	ug/L	0 001	3	348	2461	2
	Bi	209		ug/L			3042681	2936146	0
	Th	232	0.162	ug/L	0.074	46	1500	9530	38
	U	238	0.285	ug/L	0 006	2	16	14276	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 O REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 13:38:12
Number of Replicates 3
Method File: C:\NexION Data\Method\200.8GFA+ mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	116783	2
	Cl	37		ug/L			4549027	5328025	1
>	Ge	72		ug/L			611974	607699	1
	Ni	60	1.904	ug/L	0 056	2	28	6687	1
	Ni	62	1.600	ug/L	0 090	5	54	839	6
	Cu	63	1.041	ug/L	0 020	1	107	7865	1
	Cu	65	0.807	ug/L	0.037	4	45	2766	3
	Zn	66	5.367	ug/L	0 334	6	158	10897	4
	Zn	67	5.417	ug/L	0 191	3	25	1843	3
	Zn	68	6.093	ug/L	0 106	1	171	8796	2
	As	75	28.855	ug/L	0 369	1	635	53131	0
	As-1	75	28.796	ug/L	0 388	1	8597	60603	0
	Se	82	0.147	ug/L	0.069	46	-23	4	271
	Se	78	-0.765	ug/L	0 221	28	8659	8230	0
	Y	89		ug/L			406121	403975	0
	Kr	83		ug/L			991	976	4
>	In	115		ug/L			1051967	1069769	0
	Ag	107	0.001	ug/L	0 003	309	32	40	56
	Cd	111	0.025	ug/L	0 004	16	73	188	10
	Cd	114	0.022	ug/L	0 007	29	39	304	25
	Sb	121	0.422	ug/L	0 002	0	132	5974	0
	Sb	123	0.427	ug/L	0 011	2	101	4539	2
>	Tb	159		ug/L			1340679	1378207	0
	Tl	205	0.002	ug/L	0.003	125	155	238	41
	Pb	208	0.059	ug/L	0 003	5	348	3373	5
	Bi	209		ug/L			3042681	2949374	0
	Th	232	0.014	ug/L	0 004	29	1500	2220	9
	U	238	0.267	ug/L	0 005	1	16	13463	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 OSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 13:41:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File. C:\NexION Data\MassCal\Default.tun
Optimization File. C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens.	Meas Intens	Intens RSD
	C	13		ug/L			94482	115396	1
	Cl	37		ug/L			4549027	5336844	1
>	Ge	72		ug/L			611974	609216	1
	Ni	60	28.900	ug/L	0 626	2	28	101401	2
	Ni	62	28.406	ug/L	0 690	2	54	14017	0
	Cu	63	27.465	ug/L	0 459	1	107	205382	1
	Cu	65	27.370	ug/L	0 811	2	45	92639	1
	Zn	66	87.089	ug/L	2.603	2	158	174897	1
	Zn	67	80.725	ug/L	1 838	2	25	27185	1
	Zn	68	86.150	ug/L	1 661	1	171	122432	1
	As	75	58.579	ug/L	1 967	3	635	107452	1
	As-1	75	57.846	ug/L	2.083	3	8597	113382	1
	Se	82	84.131	ug/L	2.485	2	-23	15853	1
	Se	78	79.512	ug/L	3.336	4	8659	46924	1
	Y	89		ug/L			406121	411424	1
	Kr	83		ug/L			991	950	2
>	In	115		ug/L			1051967	1051911	1
	Ag	107	26.500	ug/L	0.891	3	32	222800	2
	Cd	111	26.462	ug/L	1 005	3	73	118091	2
	Cd	114	25.937	ug/L	0 319	1	39	301439	0
	Sb	121	27.737	ug/L	0 842	3	132	377216	1
	Sb	123	28.019	ug/L	0.954	3	101	286491	1
>	Tb	159		ug/L			1340679	1376223	0
	Tl	205	27.051	ug/L	0 304	1	155	1052320	1
	Pb	208	27.229	ug/L	0 236	0	348	1389429	0
	Bi	209		ug/L			3042681	2935752	0
	Th	232	26.648	ug/L	0 138	0	1500	1323303	0
	U	238	26.859	ug/L	0.528	1	16	1349638	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 13:45:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens	Intens. RSD
	C	13		ug/L			94482	112195	3
	Cl	37		ug/L			4549027	5395401	2
>	Ge	72		ug/L			611974	614177	2
	Ni	60	27.317	ug/L	1.028	3	28	96580	1
	Ni	62	27.659	ug/L	1 302	4	54	13758	3
	Cu	63	27.863	ug/L	0 691	2	107	210028	1
	Cu	65	27.100	ug/L	1 221	4	45	92454	3
	Zn	66	85.220	ug/L	0 903	1	158	172578	1
	Zn	67	79.562	ug/L	3.393	4	25	27002	2
	Zn	68	84.403	ug/L	3 890	4	171	120873	2
	As	75	27.360	ug/L	0 359	1	635	50946	1
	As-1	75	26.217	ug/L	0 928	3	8597	56521	1
	Se	82	86.428	ug/L	0 832	0	-23	16423	2
	Se	78	80.991	ug/L	2 261	2	8659	48029	0
	Y	89		ug/L			406121	413687	2
	Kr	83		ug/L			991	961	0
>	In	115		ug/L			1051967	1062644	2
	Ag	107	26.854	ug/L	0.585	2	32	228076	1
	Cd	111	26.548	ug/L	0 996	3	73	119667	1
	Cd	114	26.338	ug/L	0 668	2	39	309137	0
	Sb	121	26.442	ug/L	0 562	2	132	363281	0
	Sb	123	26.894	ug/L	1 017	3	101	277735	1
>	Tb	159		ug/L			1340679	1341094	1
	Tl	205	27.516	ug/L	0 540	1	155	1042953	1
	Pb	208	28.293	ug/L	0 511	1	348	1406713	0
	Bi	209		ug/L			3042681	3102230	1
	Th	232	27.045	ug/L	0 492	1	1500	1308643	1
	U	238	26.446	ug/L	0 241	0	16	1294872	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 13:48:49
Number of Replicates: 3
Method File: C:\NexIONData\Method\200 8GFA+.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			94482	109731	1
	Cl	37		ug/L			4549027	5407644	1
>	Ge	72		ug/L			611974	618400	1
	Ni	60	27.391	ug/L	0 978	3	28	97533	2
	Ni	62	27.276	ug/L	0 948	3	54	13663	1
	Cu	63	27.977	ug/L	0 576	2	107	212336	0
	Cu	65	27.313	ug/L	0 387	1	45	93866	2
	Zn	66	97.842	ug/L	2 612	2	158	199447	1
	Zn	67	90.362	ug/L	3 746	4	25	30878	2
	Zn	68	98.416	ug/L	3 652	3	171	141935	3
	As	75	27.225	ug/L	0 657	2	635	51040	1
	As-1	75	26.118	ug/L	0.567	2	8597	56741	1
	Se	82	86.214	ug/L	2 126	2	-23	16492	1
	Se	78	80.863	ug/L	2 047	2	8659	48304	1
	Y	89		ug/L			406121	404456	0
	Kr	83		ug/L			991	932	6
>	In	115		ug/L			1051967	1059942	0
	Ag	107	26.858	ug/L	0.594	2	32	227583	2
	Cd	111	26.598	ug/L	0 444	1	73	119650	1
	Cd	114	26.602	ug/L	0 502	1	39	311534	1
	Sb	121	27.425	ug/L	0.469	1	132	375919	1
	Sb	123	27.429	ug/L	0 333	1	101	282690	0
>	Tb	159		ug/L			1340679	1346416	1
	Tl	205	27.769	ug/L	0 321	1	155	1056730	0
	Pb	208	28.273	ug/L	0 601	2	348	1411194	0
	Bi	209		ug/L			3042681	3090772	0
	Th	232	27.192	ug/L	0 195	0	1500	1320937	0
	U	238	26.832	ug/L	0 234	0	16	1319092	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 13:53:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C \NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default dac
Calibration File: C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens. RSD
	C	13		ug/L			94482	98059	3
	Cl	37		ug/L			4549027	5646558	2
>	Ge	72		ug/L			611974	608224	0
	Ni	60	49.164	ug/L	0.812	1	28	172191	1
	Ni	62	49.303	ug/L	0 995	2	54	24256	2
	Cu	63	49.456	ug/L	0.744	1	107	369161	0
	Cu	65	49.871	ug/L	0.416	0	45	168541	1
	Zn	66	50.207	ug/L	0 911	1	158	100766	1
	Zn	67	49.324	ug/L	0 346	0	25	16596	1
	Zn	68	50.617	ug/L	0.423	0	171	71896	0
	As	75	50.436	ug/L	0.369	0	635	92482	0
	As-1	75	50.018	ug/L	0 353	0	8597	99070	0
	Se	82	51.947	ug/L	0.510	0	-23	9766	0
	Se	78	48.890	ug/L	0 492	1	8659	32130	0
	Y	89		ug/L			406121	407390	0
	Kr	83		ug/L			991	961	4
>	In	115		ug/L			1051967	1036410	1
	Ag	107	49.558	ug/L	0.670	1	32	410561	1
	Cd	111	50.524	ug/L	0 435	0	73	222184	1
	Cd	114	50.384	ug/L	0.596	1	39	576896	0
	Sb	121	51.520	ug/L	0 636	1	132	690398	1
	Sb	123	50.979	ug/L	1 132	2	101	513568	1
>	Tb	159		ug/L			1340679	1338236	0
	Tl	205	49.808	ug/L	0 416	0	155	1883903	0
	Pb	208	50.967	ug/L	0.163	0	348	2528677	0
	Bi	209		ug/L			3042681	2991515	1
	Th	232	51.897	ug/L	1.268	2	1500	2504357	2
	U	238	51.963	ug/L	0 572	1	16	2538914	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 13:59:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File C:\NexION Data\System\130117.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	99198	2
	Cl	37		ug/L			4549027	5429938	1
>	Ge	72		ug/L			611974	614003	2
	Ni	60	-0.000	ug/L	0.003	3289	28	28	30
	Ni	62	0.038	ug/L	0 024	63	54	73	14
	Cu	63	-0.003	ug/L	0 002	52	107	85	14
	Cu	65	-0.003	ug/L	0 001	27	45	35	8
	Zn	66	-0.004	ug/L	0.004	112	158	151	7
	Zn	67	-0.003	ug/L	0.027	789	25	24	39
	Zn	68	-0.016	ug/L	0 006	40	171	149	5
	As	75	0.004	ug/L	0 046	1157	635	644	11
	As-1	75	-0.217	ug/L	0 124	57	8597	8226	0
	Se	82	0.049	ug/L	0 085	173	-23	-13	116
	Se	78	-0.830	ug/L	0 454	54	8659	8282	0
	Y	89		ug/L			406121	412007	0
	Kr	83		ug/L			991	963	2
>	In	115		ug/L			1051967	1030893	1
	Ag	107	-0.000	ug/L	0 001	623	32	31	22
	Cd	111	0.006	ug/L	0 003	56	73	97	15
	Cd	114	0.001	ug/L	0 000	80	39	44	11
	Sb	121	0.027	ug/L	0 001	2	132	487	1
	Sb	123	0.027	ug/L	0 002	8	101	367	5
>	Tb	159		ug/L			1340679	1311546	2
	Tl	205	0.003	ug/L	0 002	47	155	279	19
	Pb	208	-0.002	ug/L	0 001	25	348	245	12
	Bi	209		ug/L			3042681	3061089	0
	Th	232	0.191	ug/L	0 037	19	1500	10471	14
	U	238	0.002	ug/L	0.000	8	16	95	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 14:18:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
C	13		ug/L			94482	116783	4
Cl	37		ug/L			4549027	6813525	1
> Ge	72		ug/L			611974	579727	3
Ni	60	1.841	ug/L	0.020	1	28	6169	2
Ni	62	2.451	ug/L	0 504	20	54	1196	18
Cu	63	4.263	ug/L	0.052	1	107	30420	2
Cu	65	1.971	ug/L	0 122	6	45	6383	3
Zn	66	4.720	ug/L	0 248	5	158	9156	2
Zn	67	4.869	ug/L	0 354	7	25	1580	4
Zn	68	5.516	ug/L	0 031	0	171	7613	3
As	75	1.257	ug/L	0.054	4	635	2783	2
As-1	75	1.166	ug/L	0 195	16	8597	10149	0
Se	82	0.364	ug/L	0 085	23	-23	43	37
Se	78	0.034	ug/L	0 619	1801	8659	8213	0
Y	89		ug/L			406121	423952	2
Kr	83		ug/L			991	962	4
> In	115		ug/L			1051967	993537	1
Ag	107	0.003	ug/L	0 001	36	32	54	14
Cd	111	0.220	ug/L	0 005	2	73	995	0
Cd	114	0.210	ug/L	0.005	2	39	2341	1
Sb	121	0.081	ug/L	0 002	2	132	1164	2
Sb	123	0.080	ug/L	0 003	3	101	866	3
> Tb	159		ug/L			1340679	1298814	0
Tl	205	0.003	ug/L	0 001	25	155	264	10
Pb	208	0.421	ug/L	0 003	0	348	20628	0
Bi	209		ug/L			3042681	2695955	0
Th	232	0.149	ug/L	0.005	3	1500	8411	2
U	238	0.150	ug/L	0 001	0	16	7114	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 14:21:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	117180	7
	Cl	37		ug/L			4549027	137252083	7
>	Ge	72		ug/L			611974	380764	4
	Ni	60	8.571	ug/L	0 186	2	28	18794	2
	Ni	62	923.893	ug/L	706 221	76	54	279278	73
	Cu	63	290.701	ug/L	165 003	56	107	1342493	53
	Cu	65	10.202	ug/L	1.659	16	45	21542	14
	Zn	66	14.923	ug/L	0 783	5	158	18789	1
	Zn	67	30.325	ug/L	1 369	4	25	6384	0
	Zn	68	18.853	ug/L	0 559	2	171	16816	2
	As	75	5.789	ug/L	0 267	4	635	6986	1
	As-1	75	10.341	ug/L	4 049	39	8597	17048	27
	Se	82	-45.550	ug/L	25.319	55	-23	-5323	52
	Se	78	21.543	ug/L	15 243	70	8659	11869	39
	Y	89		ug/L			406121	302342	3
	Kr	83		ug/L			991	19439	45
>	In	115		ug/L			1051967	539055	2
	Ag	107	0.026	ug/L	0 002	5	32	130	4
	Cd	111	2.531	ug/L	0 014	0	73	5824	2
	Cd	114	2.962	ug/L	0 055	1	39	17662	4
	Sb	121	0.421	ug/L	0 053	12	132	3004	13
	Sb	123	0.453	ug/L	0 051	11	101	2426	12
>	Tb	159		ug/L			1340679	806990	5
	Tl	205	0.029	ug/L	0 004	13	155	746	7
	Pb	208	2.972	ug/L	0 145	4	348	88973	0
	Bi	209		ug/L			3042681	1303052	1
	Th	232	0.361	ug/L	0 026	7	1500	11378	5
	U	238	0.732	ug/L	0 061	8	16	21509	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 14:25:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	102628	4
	Cl	37		ug/L			4549027	12879195	3
>	Ge	72		ug/L			611974	541966	1
	Ni	60	0.993	ug/L	0 054	5	28	3122	3
	Ni	62	323.396	ug/L	67.398	20	54	141750	21
	Cu	63	34.471	ug/L	5.052	14	107	229590	15
	Cu	65	2.032	ug/L	0.105	5	45	6161	6
	Zn	66	2.877	ug/L	0.068	2	158	5275	1
	Zn	67	4.038	ug/L	0 252	6	25	1230	5
	Zn	68	3.908	ug/L	0 175	4	171	5084	3
	As	75	0.715	ug/L	0 115	16	635	1721	9
	As-1	75	1.350	ug/L	0 205	15	8597	9787	2
	Se	82	0.118	ug/L	0.071	60	-23	0	1583
	Se	78	3.278	ug/L	0.477	14	8659	9073	2
	Y	89		ug/L			406121	405827	0
	Kr	83		ug/L			991	1310	5
>	In	115		ug/L			1051967	742623	0
	Ag	107	0.003	ug/L	0 001	49	32	40	20
	Cd	111	0.081	ug/L	0.009	11	73	306	9
	Cd	114	0.111	ug/L	0 004	3	39	937	3
	Sb	121	0.051	ug/L	0 001	2	132	585	2
	Sb	123	0.051	ug/L	0 003	5	101	437	4
>	Tb	159		ug/L			1340679	1031422	0
	Tl	205	0.003	ug/L	0 000	12	155	211	5
	Pb	208	0.357	ug/L	0 005	1	348	13911	0
	Bi	209		ug/L			3042681	2287199	1
	Th	232	0.197	ug/L	0 001	0	1500	8482	0
	U	238	0.176	ug/L	0 004	1	16	6639	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 14:29:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200 8GFA+.mth
Tuning File C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default dac
Calibration File: C.\NexION Data\System\130117a cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	98608	3
	Cl	37		ug/L			4549027	4797950	0
>	Ge	72		ug/L			611974	586787	0
	Ni	60	5.357	ug/L	0 088	1	28	18128	2
	Ni	62	103.642	ug/L	11 652	11	54	49151	11
	Cu	63	10.399	ug/L	0.897	8	107	74978	8
	Cu	65	2.345	ug/L	0 026	1	45	7686	1
	Zn	66	34.381	ug/L	0.396	1	158	66615	0
	Zn	67	32.565	ug/L	1.815	5	25	10578	5
	Zn	68	34.905	ug/L	0.245	0	171	47883	1
	As	75	4.738	ug/L	0 090	1	635	8933	0
	As-1	75	4.806	ug/L	0 150	3	8597	16634	0
	Se	82	0.239	ug/L	0 064	26	-23	21	55
	Se	78	0.388	ug/L	0 263	67	8659	8482	0
	Y	89		ug/L			406121	410520	1
	Kr	83		ug/L			991	953	2
>	In	115		ug/L			1051967	854082	1
	Ag	107	0.006	ug/L	0 000	7	32	70	4
	Cd	111	0.191	ug/L	0 020	10	73	751	9
	Cd	114	0.178	ug/L	0 003	1	39	1714	1
	Sb	121	0.395	ug/L	0 012	3	132	4467	2
	Sb	123	0.393	ug/L	0 014	3	101	3347	2
>	Tb	159		ug/L			1340679	1112217	1
	Tl	205	0.006	ug/L	0 000	2	155	326	0
	Pb	208	0.286	ug/L	0.001	0	348	12089	1
	Bi	209		ug/L			3042681	2631217	0
	Th	232	0.009	ug/L	0 000	2	1500	1596	1
	U	238	0.230	ug/L	0 001	0	16	9333	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 14:32:32
Number of Replicates 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	104136	2
	Cl	37		ug/L			4549027	6238150	2
>	Ge	72		ug/L			611974	544209	1
	Ni	60	2.096	ug/L	0 069	3	28	6591	1
	Ni	62	92.456	ug/L	7.867	8	54	40654	8
	Cu	63	14.122	ug/L	0 702	4	107	94374	4
	Cu	65	2.500	ug/L	0 087	3	45	7598	3
	Zn	66	4.195	ug/L	0 071	1	158	7661	0
	Zn	67	4.429	ug/L	0 093	2	25	1353	0
	Zn	68	4.900	ug/L	0 185	3	171	6362	2
	As	75	1.406	ug/L	0 112	7	635	2855	4
	As-1	75	1.659	ug/L	0 184	11	8597	10328	1
	Se	82	0.594	ug/L	0 077	13	-23	79	14
	Se	78	1.633	ug/L	0 381	23	8659	8402	0
	Y	89		ug/L			406121	402083	0
	Kr	83		ug/L			991	951	0
>	In	115		ug/L			1051967	823471	1
	Ag	107	0.005	ug/L	0 001	26	32	57	15
	Cd	111	0.070	ug/L	0.004	6	73	301	5
	Cd	114	0.079	ug/L	0 003	4	39	750	4
	Sb	121	0.102	ug/L	0 003	2	132	1188	2
	Sb	123	0.102	ug/L	0 004	3	101	894	2
>	Tb	159		ug/L			1340679	1113400	0
	Tl	205	0.003	ug/L	0.001	23	155	219	9
	Pb	208	0.508	ug/L	0 005	0	348	21246	0
	Bi	209		ug/L			3042681	2389852	0
	Th	232	0.093	ug/L	0.000	0	1500	4975	0
	U	238	0.132	ug/L	0 001	0	16	5397	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 14:36:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

CR As 1/2

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	107568	4
	Cl	37		ug/L			4549027	37640560	3
>	Ge	72		ug/L			611974	465009	2
	Ni	60	1.300	ug/L	0 033	2	28	3501	1
	Ni	62	731.659	ug/L	10 271	1	54	274580	1
	Cu	63	107.371	ug/L	2 208	2	107	612788	3
	Cu	65	2.193	ug/L	0 173	7	45	5705	10
	Zn	66	2.462	ug/L	0 081	3	158	3892	4
	Zn	67	9.688	ug/L	0 327	3	25	2508	4
	Zn	68	7.152	ug/L	0 352	4	171	7872	2
	As	75	2.210	ug/L	0 123	5	635	3558	4
	As-1	75	4.553	ug/L	0 229	5	8597	12827	0
	Se	82	-3.902	ug/L	0.718	18	-23	-581	20
	Se	78	11.762	ug/L	0 424	3	8659	10904	1
	Y	89		ug/L			406121	346182	1
	Kr	83		ug/L			991	3975	12
>	In	115		ug/L			1051967	711013	1
	Ag	107	0.004	ug/L	0 005	109	32	46	58
	Cd	111	0.042	ug/L	0 009	20	73	-76	32
	Cd	114	0.015	ug/L	0 003	21	39	142	19
	Sb	121	0.055	ug/L	0 004	6	132	591	7
	Sb	123	0.056	ug/L	0 003	4	101	459	4
>	Tb	159		ug/L			1340679	1015040	2
	Tl	205	0.002	ug/L	0 002	86	155	179	31
	Pb	208	0.136	ug/L	0 002	1	348	5369	0
	Bi	209		ug/L			3042681	1858247	1
	Th	232	-0.001	ug/L	0 001	74	1500	1085	5
	U	238	0.189	ug/L	0 004	2	16	6997	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 14:39:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C.\NexION Data\System\130117a.cal

RAS 1/13

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens.	Meas Intens	Intens RSD
	C	13		ug/L			94482	102309	3
	Cl	37		ug/L			4549027	24957779	2
>	Ge	72		ug/L			611974	482296	0
	Ni	60	4.141	ug/L	0 232	5	28	11518	5
	Ni	62	536.374	ug/L	15 687	2	54	208809	2
	Cu	63	89.953	ug/L	1 096	1	107	532379	0
	Cu	65	26.025	ug/L	0 472	1	45	69762	2
	Zn	66	15.942	ug/L	0.047	0	158	25456	0
	Zn	67	22.512	ug/L	0 668	2	25	6017	3
	Zn	68	21.867	ug/L	0.815	3	171	24702	3
	As	75	196.489	ug/L	0 991	0	635	284261	1
	As-1	75	199.156	ug/L	1 006	0	8597	292605	1
	Se	82	-0.825	ug/L	0.114	13	-23	-141	12
	Se	78	7.681	ug/L	0 101	1	8659	9755	0
	Y	89		ug/L			406121	345982	1
	Kr	83		ug/L			991	2274	2
>	In	115		ug/L			1051967	755352	1
	Ag	107	0.299	ug/L	0 014	4	32	1825	4
	Cd	111	0.432	ug/L	0 011	2	73	1438	2
	Cd	114	0.470	ug/L	0.011	2	39	3953	2
	Sb	121	1.155	ug/L	0 026	2	132	11368	1
	Sb	123	1.161	ug/L	0 049	4	101	8593	3
>	Tb	159		ug/L			1340679	1078398	1
	Tl	205	U 0.008	ug/L	0 000	2	155	370	2
	Pb	208	43.358	ug/L	0 753	1	348	1733399	1
	Bi	209		ug/L			3042681	1952335	1
	Th	232	0.037	ug/L	0 002	5	1500	2648	3
	U	238	1.338	ug/L	0.035	2	16	52701	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 I REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 14:43:09
Number of Replicates. 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas. Intens	Intens. RSD
	C	13		ug/L			94482	101051	3
	Cl	37		ug/L			4549027	5050266	1
>	Ge	72		ug/L			611974	558202	2
	Ni	60	7.195	ug/L	0 119	1	28	23143	0
	Ni	62	146.189	ug/L	14 862	10	54	65856	8
	Cu	63	23.351	ug/L	1 183	5	107	159940	3
	Cu	65	10.678	ug/L	0.224	2	45	33139	0
	Zn	66	12.544	ug/L	0 366	2	158	23208	2
	Zn	67	13.748	ug/L	0 382	2	25	4260	1
	Zn	68	14.084	ug/L	0.288	2	171	18468	1
	As	75	24.498	ug/L	0.595	2	635	41512	0
	As-1	75	24.958	ug/L	0 693	2	8597	49283	0
	Se	82	0.308	ug/L	0 161	52	-23	32	85
	Se	78	1.500	ug/L	0 412	27	8659	8559	1
	Y	89		ug/L			406121	406759	1
	Kr	83		ug/L			991	926	3
>	In	115		ug/L			1051967	876308	1
	Ag	107	0.015	ug/L	0 002	11	32	129	10
	Cd	111	0.061	ug/L	0 003	4	73	289	4
	Cd	114	0.064	ug/L	0 003	5	39	651	3
	Sb	121	0.267	ug/L	0.006	2	132	3139	2
	Sb	123	0.267	ug/L	0 011	4	101	2360	3
>	Tb	159		ug/L			1340679	1174056	1
	Tl	205	0.016	ug/L	0 001	5	155	666	4
	Pb	208	2.136	ug/L	0 018	0	348	93272	0
	Bi	209		ug/L			3042681	2564086	0
	Th	232	0.433	ug/L	0 004	0	1500	19627	1
	U	238	0.573	ug/L	0.018	3	16	24561	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 J REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 14:46:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File. C:\NexION Data\Conditions\Default.dac
Calibration File. C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens. RSD
	C	13		ug/L			94482	98804	1
	Cl	37		ug/L			4549027	5098206	1
>	Ge	72		ug/L			611974	534903	2
	Ni	60	1.404	ug/L	0.016	1	28	4348	2
	Ni	62	181.080	ug/L	10 344	5	54	78168	4
	Cu	63	19.978	ug/L	0 688	3	107	131142	2
	Cu	65	1.561	ug/L	0 105	6	45	4670	4
	Zn	66	3.285	ug/L	0.151	4	158	5923	1
	Zn	67	4.418	ug/L	0.213	4	25	1326	1
	Zn	68	4.803	ug/L	0 054	1	171	6134	2
	As	75	2.649	ug/L	0 119	4	635	4795	0
	As-1	75	3.165	ug/L	0 269	8	8597	12544	0
	Se	82	0.357	ug/L	0 075	21	-23	38	28
	Se	78	2.297	ug/L	0 605	26	8659	8536	0
	Y	89		ug/L			406121	365312	2
	Kr	83		ug/L			991	903	4
>	In	115		ug/L			1051967	836082	1
	Ag	107	0.002	ug/L	0 001	35	32	42	14
	Cd	111	0.005	ug/L	0 006	113	73	76	25
	Cd	114	0.011	ug/L	0 001	8	39	133	8
	Sb	121	0.155	ug/L	0 004	2	132	1778	1
	Sb	123	0.152	ug/L	0 006	3	101	1314	1
>	Tb	159		ug/L			1340679	1172588	0
	Tl	205	0.001	ug/L	0 000	57	155	157	7
	Pb	208	0.206	ug/L	0 001	0	348	9257	1
	Bi	209		ug/L			3042681	2415543	1
	Th	232	0.021	ug/L	0 003	14	1500	2217	6
	U	238	0.270	ug/L	0 002	0	16	11559	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 K REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 14:50:13
Number of Replicates. 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C.\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	102750	3
	Cl	37		ug/L			4549027	5373470	0
>	Ge	72		ug/L			611974	559983	2
	Ni	60	2.879	ug/L	0 146	5	28	9303	3
	Ni	62	90.207	ug/L	7.557	8	54	40780	6
	Cu	63	11.918	ug/L	0 689	5	107	81940	4
	Cu	65	3.316	ug/L	0 065	1	45	10355	2
	Zn	66	5.751	ug/L	0 088	1	158	10756	2
	Zn	67	6.172	ug/L	0 233	3	25	1931	1
	Zn	68	6.616	ug/L	0 314	4	171	8783	2
	As	75	1.121	ug/L	0 037	3	635	2460	0
	As-1	75	1.221	ug/L	0 162	13	8597	9898	0
	Se	82	0.429	ug/L	0 054	12	-23	53	15
	Se	78	0.757	ug/L	0 544	71	8659	8255	0
	Y	89		ug/L			406121	397266	1
	Kr	83		ug/L			991	896	2
>	In	115		ug/L			1051967	892227	2
	Ag	107	0.008	ug/L	0.002	20	32	88	11
	Cd	111	0.034	ug/L	0 005	15	73	191	12
	Cd	114	0.031	ug/L	0 003	10	39	340	10
	Sb	121	0.121	ug/L	0 003	2	132	1502	3
	Sb	123	0.120	ug/L	0 003	2	101	1126	2
>	Tb	159		ug/L			1340679	1185344	1
	Tl	205	0.006	ug/L	0 001	10	155	345	5
	Pb	208	0.594	ug/L	0.012	2	348	26412	1
	Bi	209		ug/L			3042681	2600365	1
	Th	232	0.198	ug/L	0 002	1	1500	9764	0
	U	238	0.205	ug/L	0.003	1	16	8876	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 14:54:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	85735	2
	Cl	37		ug/L			4549027	4941927	0
>	Ge	72		ug/L			611974	576426	2
	Ni	60	48.296	ug/L	0.342	0	28	160007	2
	Ni	62	104.939	ug/L	0.354	0	54	48872	2
	Cu	63	53.884	ug/L	0.502	0	107	381178	2
	Cu	65	49.089	ug/L	1.988	4	45	157149	3
	Zn	66	50.316	ug/L	0.464	0	158	95694	2
	Zn	67	48.961	ug/L	0.981	2	25	15608	1
	Zn	68	50.119	ug/L	0.804	1	171	67462	2
	As	75	50.142	ug/L	1.681	3	635	87104	2
	As-1	75	50.093	ug/L	1.623	3	8597	93977	1
	Se	82	51.107	ug/L	1.141	2	-23	9107	3
	Se	78	49.421	ug/L	0.313	0	8659	30691	2
	Y	89		ug/L			406121	386731	3
	Kr	83		ug/L			991	899	2
>	In	115		ug/L			1051967	932997	1
	Ag	107	47.350	ug/L	0.665	1	32	353111	0
	Cd	111	48.710	ug/L	1.072	2	73	192824	2
	Cd	114	49.554	ug/L	1.002	2	39	510748	1
	Sb	121	49.965	ug/L	0.394	0	132	602775	1
	Sb	123	50.047	ug/L	1.053	2	101	453876	0
>	Tb	159		ug/L			1340679	1193775	0
	Tl	205	52.051	ug/L	1.162	2	155	1756066	1
	Pb	208	53.049	ug/L	0.875	1	348	2347707	1
	Bi	209		ug/L			3042681	2815021	1
	Th	232	53.780	ug/L	1.025	1	1500	2315365	2
	U	238	52.694	ug/L	0.378	0	16	2296827	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 15:01:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	88508	5
	Cl	37		ug/L			4549027	4733039	1
>	Ge	72		ug/L			611974	581650	2
	Ni	60	0.000	ug/L	0 002	660	28	27	17
	Ni	62	49.403	ug/L	1 627	3	54	23231	0
	Cu	63	3.471	ug/L	0.049	1	107	24869	1
	Cu	65	0.090	ug/L	0 004	4	45	334	3
	Zn	66	0.003	ug/L	0 008	288	158	156	9
	Zn	67	0.039	ug/L	0 019	48	25	36	15
	Zn	68	-0.021	ug/L	0 007	34	171	133	4
	As	75	0.018	ug/L	0 005	27	635	636	1
	As-1	75	-0.061	ug/L	0 131	213	8597	8061	0
	Se	82	0.124	ug/L	0 027	21	-23	0	818
	Se	78	-0.249	ug/L	0.522	209	8659	8111	0
	Y	89		ug/L			406121	382399	2
	Kr	83		ug/L			991	898	3
>	In	115		ug/L			1051967	906699	0
	Ag	107	0.001	ug/L	0.001	101	32	37	24
	Cd	111	0.006	ug/L	0.005	80	73	86	21
	Cd	114	-0.001	ug/L	0 000	67	39	26	18
	Sb	121	0.019	ug/L	0 002	12	132	330	8
	Sb	123	0.020	ug/L	0 000	1	101	265	1
>	Tb	159		ug/L			1340679	1158156	1
	Tl	205	0.004	ug/L	0 001	31	155	255	15
	Pb	208	-0.002	ug/L	0 000	15	348	234	3
	Bi	209		ug/L			3042681	2838022	1
	Th	232	0.142	ug/L	0.028	19	1500	7237	16
	U	238	0.001	ug/L	0 000	32	16	72	26

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 L REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 15:04:42
Number of Replicates 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	102832	2
	Cl	37		ug/L			4549027	4967311	1
>	Ge	72		ug/L			611974	592461	3
	Ni	60	1.610	ug/L	0.054	3	28	5520	4
	Ni	62	54.345	ug/L	0 700	1	54	26046	4
	Cu	63	5.654	ug/L	0 146	2	107	41208	4
	Cu	65	1.681	ug/L	0 053	3	45	5572	1
	Zn	66	4.819	ug/L	0 239	4	158	9551	1
	Zn	67	5.409	ug/L	0 182	3	25	1794	4
	Zn	68	5.850	ug/L	0.012	0	171	8239	2
	As	75	2.402	ug/L	0 098	4	635	4873	0
	As-1	75	2.377	ug/L	0 186	7	8597	12507	0
	Se	82	0.171	ug/L	0.103	60	-23	8	213
	Se	78	-0.034	ug/L	0 386	1123	8659	8363	1
	Y	89		ug/L			406121	404485	2
	Kr	83		ug/L			991	928	3
>	In	115		ug/L			1051967	943668	0
	Ag	107	0.003	ug/L	0 000	16	32	52	6
	Cd	111	0.147	ug/L	0 011	7	73	653	6
	Cd	114	0.139	ug/L	0 006	4	39	1489	3
	Sb	121	0.170	ug/L	0 006	3	132	2188	3
	Sb	123	0.174	ug/L	0 006	3	101	1685	2
>	Tb	159		ug/L			1340679	1221956	0
	Tl	205	0.012	ug/L	0 002	20	155	543	16
	Pb	208	1.464	ug/L	0 031	2	348	66637	1
	Bi	209		ug/L			3042681	2757085	0
	Th	232	0.207	ug/L	0 053	25	1500	10498	21
	U	238	0.082	ug/L	0 002	2	16	3683	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 M REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 15:08:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default dac
Calibration File: C:\NexION Data\System\130117a cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	121717	1
	Cl	37		ug/L			4549027	15276487	1
>	Ge	72		ug/L			611974	527964	1
	Ni	60	3.030	ug/L	0 051	1	28	9234	0
	Ni	62	307.698	ug/L	23 361	7	54	131244	8
	Cu	63	41.506	ug/L	1 826	4	107	269058	5
	Cu	65	3.451	ug/L	0 032	0	45	10159	0
	Zn	66	4.957	ug/L	0 201	4	158	8755	2
	Zn	67	6.797	ug/L	0 188	2	25	2004	3
	Zn	68	6.558	ug/L	0 062	0	171	8215	2
	As	75	1.407	ug/L	0 032	2	635	2772	2
	As-1	75	2.258	ug/L	0.136	6	8597	10963	0
	Se	82	0.569	ug/L	0 076	13	-23	73	18
	Se	78	4.677	ug/L	0 506	10	8659	9422	1
	Y	89		ug/L			406121	415722	0
	Kr	83		ug/L			991	1356	2
>	In	115		ug/L			1051967	824603	0
	Ag	107	0.007	ug/L	0 002	23	32	71	14
	Cd	111	-0.028	ug/L	0.012	44	73	-38	110
	Cd	114	0.018	ug/L	0 000	2	39	199	2
	Sb	121	0.153	ug/L	0 003	1	132	1737	1
	Sb	123	0.150	ug/L	0.005	3	101	1281	3
>	Tb	159		ug/L			1340679	1115185	1
	Tl	205	0.006	ug/L	0 001	15	155	319	9
	Pb	208	0.518	ug/L	0 006	1	348	21698	0
	Bi	209		ug/L			3042681	2280090	1
	Th	232	0.244	ug/L	0 003	1	1500	11060	1
	U	238	0.305	ug/L	0 002	0	16	12445	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 N REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 15:11:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
C	13		ug/L			94482	110611	2
Cl	37		ug/L			4549027	5018195	2
> Ge	72		ug/L			611974	564060	1
Ni	60	1.048	ug/L	0 013	1	28	3428	0
Ni	62	77.874	ug/L	0 559	0	54	35500	0
Cu	63	9.439	ug/L	0 057	0	107	65431	1
Cu	65	2.245	ug/L	0 036	1	45	7075	2
Zn	66	2.924	ug/L	0 083	2	158	5579	1
Zn	67	4.204	ug/L	0 155	3	25	1332	2
Zn	68	4.669	ug/L	0 073	1	171	6293	0
As	75	15.388	ug/L	0 160	1	635	26574	1
As-1	75	15.606	ug/L	0.147	0	8597	34116	0
Se	82	0.432	ug/L	0.068	15	-23	54	22
Se	78	0.838	ug/L	0 221	26	8659	8354	1
Y	89		ug/L			406121	408031	1
Kr	83		ug/L			991	885	1
> In	115		ug/L			1051967	894298	1
Ag	107	0.010	ug/L	0 001	15	32	96	10
Cd	111	0.088	ug/L	0.008	9	73	395	7
Cd	114	0.077	ug/L	0.002	2	39	798	1
Sb	121	0.114	ug/L	0.005	4	132	1427	2
Sb	123	0.115	ug/L	0 009	7	101	1083	5
> Tb	159		ug/L			1340679	1232715	0
Tl	205	0.002	ug/L	0 000	17	155	206	4
Pb	208	1.806	ug/L	0 024	1	348	82853	1
Bi	209		ug/L			3042681	2616898	0
Th	232	0.113	ug/L	0.005	4	1500	6422	3
U	238	0.390	ug/L	0 010	2	16	17544	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 P REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 15:15:19
Number of Replicates 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	120099	1
	Cl	37		ug/L			4549027	6191907	2
>	Ge	72		ug/L			611974	562784	0
	Ni	60	0.537	ug/L	0.022	4	28	1765	3
	Ni	62	67.174	ug/L	2.800	4	54	30556	3
	Cu	63	7.308	ug/L	0 287	3	107	50553	3
	Cu	65	0.503	ug/L	0 012	2	45	1614	1
	Zn	66	1.238	ug/L	0.051	4	158	2440	3
	Zn	67	1.485	ug/L	0.061	4	25	484	4
	Zn	68	2.263	ug/L	0 054	2	171	3124	2
	As	75	0.486	ug/L	0 009	1	635	1404	0
	As-1	75	0.514	ug/L	0 125	24	8597	8765	1
	Se	82	0.440	ug/L	0 083	18	-23	55	26
	Se	78	0.531	ug/L	0 438	82	8659	8199	1
	Y	89		ug/L			406121	391467	2
	Kr	83		ug/L			991	912	2
>	In	115		ug/L			1051967	907770	0
	Ag	107	0.000	ug/L	0 001	988	32	28	16
	Cd	111	-0.005	ug/L	0 004	74	73	45	29
	Cd	114	0.002	ug/L	0 001	72	39	49	22
	Sb	121	0.069	ug/L	0 002	2	132	921	1
	Sb	123	0.069	ug/L	0 002	3	101	695	2
>	Tb	159		ug/L			1340679	1196183	0
	Tl	205	-0.001	ug/L	0 000	37	155	112	8
	Pb	208	0.012	ug/L	0 001	5	348	830	2
	Bi	209		ug/L			3042681	2550666	0
	Th	232	-0.009	ug/L	0.001	8	1500	964	3
	U	238	0.100	ug/L	0 002	2	16	4387	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 Q REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 15:18:51
Number of Replicates 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	112657	4
	Cl	37		ug/L			4549027	112777992	0
>	Ge	72		ug/L			611974	379897	2
	Ni	60	2.595	ug/L	0 048	1	28	5693	1
	Ni	62	1942.732	ug/L	152 356	7	54	595053	5
	Cu	63	403.446	ug/L	23 340	5	107	1879195	4
	Cu	65	5.549	ug/L	0 397	7	45	11725	4
	Zn	66	4.355	ug/L	0.187	4	158	5545	1
	Zn	67	11.666	ug/L	0 336	2	25	2462	0
	Zn	68	6.440	ug/L	0 196	3	171	5804	2
	As	75	3.994	ug/L	0 454	11	635	4933	9
	As-1	75	9.367	ug/L	0.542	5	8597	15916	1
	Se	82	-62.594	ug/L	3.521	5	-23	-7388	7
	Se	78	26.000	ug/L	1 513	5	8659	13184	1
	Y	89		ug/L			406121	280570	3
	Kr	83		ug/L			991	26581	6
>	In	115		ug/L			1051967	632919	0
	Ag	107	0.003	ug/L	0.001	17	32	35	8
	Cd	111	-0.167	ug/L	0 014	8	73	-404	8
	Cd	114	0.054	ug/L	0 001	1	39	404	1
	Sb	121	0.257	ug/L	0 011	4	132	2178	3
	Sb	123	0.266	ug/L	0.007	2	101	1698	1
>	Tb	159		ug/L			1340679	915411	1
	Tl	205	0.003	ug/L	0 001	30	155	181	11
	Pb	208	0.072	ug/L	0 004	5	348	2667	3
	Bi	209		ug/L			3042681	1491942	1
	Th	232	-0.012	ug/L	0 001	6	1500	612	6
	U	238	0.186	ug/L	0 005	2	16	6239	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 R REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 15:22:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens	Intens. RSD
	C	13		ug/L			94482	103630	2
	Cl	37		ug/L			4549027	13728644	0
>	Ge	72		ug/L			611974	532052	2
	Ni	60	0.411	ug/L	0.011	2	28	1284	5
	Ni	62	319.569	ug/L	49.927	15	54	137512	17
	Cu	63	33.263	ug/L	3.977	11	107	217519	13
	Cu	65	1.131	ug/L	0.077	6	45	3382	8
	Zn	66	1.863	ug/L	0.074	3	158	3402	2
	Zn	67	2.645	ug/L	0.120	4	25	798	2
	Zn	68	2.947	ug/L	0.062	2	171	3800	1
	As	75	0.448	ug/L	0.038	8	635	1266	4
	As-1	75	0.806	ug/L	0.139	17	8597	8747	2
	Se	82	0.166	ug/L	0.044	26	-23	7	98
	Se	78	2.133	ug/L	0.413	19	8659	8424	2
	Y	89		ug/L			406121	361184	3
	Kr	83		ug/L			991	1201	3
>	In	115		ug/L			1051967	892750	1
	Ag	107	0.001	ug/L	0.001	57	32	38	16
	Cd	111	0.004	ug/L	0.005	149	73	76	26
	Cd	114	0.035	ug/L	0.001	3	39	375	2
	Sb	121	0.067	ug/L	0.002	2	132	889	1
	Sb	123	0.070	ug/L	0.003	3	101	696	3
>	Tb	159		ug/L			1340679	1189305	1
	Tl	205	0.000	ug/L	0.001	235	155	150	17
	Pb	208	0.083	ug/L	0.002	2	348	3988	1
	Bi	209		ug/L			3042681	2478163	0
	Th	232	0.144	ug/L	0.001	0	1500	7498	1
	U	238	0.135	ug/L	0.003	2	16	5892	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 S REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 15:25:55
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8GFA+.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens.	Intens RSD
	C	13		ug/L			94482	100448	3
	Cl	37		ug/L			4549027	4814369	0
>	Ge	72		ug/L			611974	553016	0
	Ni	60	5.619	ug/L	0.186	3	28	17914	2
	Ni	62	135.858	ug/L	8 846	6	54	60684	6
	Cu	63	12.172	ug/L	0 690	5	107	82691	5
	Cu	65	2.513	ug/L	0 048	1	45	7761	2
	Zn	66	35.635	ug/L	0.313	0	158	65070	1
	Zn	67	32.851	ug/L	0.289	0	25	10058	1
	Zn	68	36.759	ug/L	0 752	2	171	47512	1
	As	75	4.896	ug/L	0.073	1	635	8682	1
	As-1	75	4.915	ug/L	0 053	1	8597	15858	1
	Se	82	0.189	ug/L	0.042	22	-23	11	62
	Se	78	0.125	ug/L	0 139	111	8659	7879	0
	Y	89		ug/L			406121	360887	2
	Kr	83		ug/L			991	883	3
>	In	115		ug/L			1051967	996144	1
	Ag	107	0.001	ug/L	0 002	105	32	42	27
	Cd	111	0.168	ug/L	0 013	7	73	780	5
	Cd	114	0.160	ug/L	0.006	3	39	1794	3
	Sb	121	0.434	ug/L	0 011	2	132	5715	1
	Sb	123	0.436	ug/L	0 002	0	101	4315	1
>	Tb	159		ug/L			1340679	1271189	1
	Tl	205	0.007	ug/L	0 000	6	155	384	5
	Pb	208	0.055	ug/L	0 002	3	348	2920	0
	Bi	209		ug/L			3042681	2762751	1
	Th	232	-0.006	ug/L	0.001	15	1500	1132	2
	U	238	0.200	ug/L	0 003	1	16	9302	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 T REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 15:29:27
Number of Replicates 3
Method File: C:\NexIONData\Method\200.8GFA+.mth
Tuning File: C.\NexIONData\MassCal\Default.tun
Optimization File. C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	120669	0
	Cl	37		ug/L			4549027	6584431	1
>	Ge	72		ug/L			611974	523084	1
	Ni	60	0.656	ug/L	0.021	3	28	1999	4
	Ni	62	117.837	ug/L	7 498	6	54	49824	7
	Cu	63	13.742	ug/L	0 727	5	107	88328	6
	Cu	65	0.708	ug/L	0 043	6	45	2097	7
	Zn	66	1.380	ug/L	0 085	6	158	2513	5
	Zn	67	1.664	ug/L	0 141	8	25	502	8
	Zn	68	2.062	ug/L	0 052	2	171	2659	3
	As	75	0.663	ug/L	0.054	8	635	1581	4
	As-1	75	0.736	ug/L	0 130	17	8597	8491	1
	Se	82	0.423	ug/L	0 047	10	-23	48	14
	Se	78	0.796	ug/L	0 360	45	8659	7729	0
	Y	89		ug/L			406121	353844	1
	Kr	83		ug/L			991	908	0
>	In	115		ug/L			1051967	935919	1
	Ag	107	0.002	ug/L	0.001	38	32	46	14
	Cd	111	-0.007	ug/L	0.008	123	73	39	81
	Cd	114	0.001	ug/L	0 001	258	39	40	36
	Sb	121	0.078	ug/L	0 001	1	132	1066	2
	Sb	123	0.080	ug/L	0 001	1	101	819	2
>	Tb	159		ug/L			1340679	1231300	0
	Tl	205	-0.000	ug/L	0 001	230	155	129	24
	Pb	208	0.010	ug/L	0 001	13	348	753	7
	Bi	209		ug/L			3042681	2507035	0
	Th	232	-0.000	ug/L	0 002	3001	1500	1375	5
	U	238	0.069	ug/L	0 003	4	16	3125	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 U REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 15:32:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

RR ks

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	104866	2
	Cl	37		ug/L			4549027	46180239	3
>	Ge	72		ug/L			611974	419289	2
	Ni	60	1.257	ug/L	0 041	3	28	3053	4
	Ni	62	1016.007	ug/L	54.316	5	54	344128	7
	Cu	63	141.723	ug/L	6 891	4	107	729720	7
	Cu	65	2.495	ug/L	0 168	6	45	5838	5
	Zn	66	2.169	ug/L	0 066	3	158	3103	0
	Zn	67	9.248	ug/L	0.143	1	25	2158	0
	Zn	68	7.014	ug/L	0 210	2	171	6966	1
	As	75	1.969	ug/L	0 145	7	635	2906	5
	As-1	75	4.877	ug/L	0 300	6	8597	11969	1
	Se	82	~~-10.411~~	ug/L	0 749	7	-23	-1367	6
	Se	78	14.090	ug/L	1 045	7	8659	10601	1
	Y	89		ug/L			406121	301266	2
	Kr	83		ug/L			991	6376	2
>	In	115		ug/L			1051967	786340	1
	Ag	107	0.003	ug/L	0 002	68	32	40	26
	Cd	111	-0.091	ug/L	0 015	16	73	-248	19
	Cd	114	0.003	ug/L	0 000	11	39	58	4
	Sb	121	0.054	ug/L	0 004	6	132	650	4
	Sb	123	0.059	ug/L	0 003	4	101	523	2
>	Tb	159		ug/L			1340679	1098909	1
	Tl	205	0.000	ug/L	0 000	86	155	142	7
	Pb	208	0.022	ug/L	0 001	4	348	1201	4
	Bi	209		ug/L			3042681	1876252	2
	Th	232	-0.022	ug/L	0 001	4	1500	370	9
	U	238	0.162	ug/L	0 002	1	16	6528	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 V REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 15:36:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default dac
Calibration File: C:\NexION Data\System\130117a.cal

RK As 1/10

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	99092	0
	Cl	37		ug/L			4549027	29247179	2
>	Ge	72		ug/L			611974	433545	2
	Ni	60	3.877	ug/L	0 096	2	28	9694	2
	Ni	62	593.585	ug/L	29.789	5	54	207597	3
	Cu	63	87.250	ug/L	4 840	5	107	463843	3
	Cu	65	18.329	ug/L	0 661	3	45	44165	3
	Zn	66	10.697	ug/L	0.161	1	158	15388	0
	Zn	67	17.526	ug/L	0.583	3	25	4214	2
	Zn	68	16.435	ug/L	0 241	1	171	16718	0
	As	75	182.691	ug/L	5 889	3	635	237512	1
	As-1	75	185.170	ug/L	6.130	3	8597	244877	1
	Se	82	-1.320	ug/L	0 151	11	-23	-193	12
	Se	78	7.514	ug/L	0 957	12	8659	8707	1
	Y	89		ug/L			406121	300707	1
	Kr	83		ug/L			991	2351	2
>	In	115		ug/L			1051967	817151	0
	Ag	107	0.204	ug/L	0 007	3	32	1356	3
	Cd	111	0.314	ug/L	0 026	8	73	1144	8
	Cd	114	0.325	ug/L	0 010	3	39	2966	3
	Sb	121	0.864	ug/L	0 011	1	132	9232	1
	Sb	123	0.876	ug/L	0 020	2	101	7035	1
>	Tb	159		ug/L			1340679	1144738	0
	Tl	205	0.006	ug/L	0 000	6	155	329	3
	Pb	208	30.539	ug/L	0 294	0	348	1296196	1
	Bi	209		ug/L			3042681	1917263	1
	Th	232	0.010	ug/L	0 002	19	1500	1676	4
	U	238	1.140	ug/L	0 013	1	16	47677	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 15:41:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens. RSD
	C	13		ug/L			94482	83474	2
	Cl	37		ug/L			4549027	4935386	0
>	Ge	72		ug/L			611974	535094	1
	Ni	60	49.276	ug/L	1.035	2	28	151825	1
	Ni	62	156.813	ug/L	7.173	4	54	67760	4
	Cu	63	56.834	ug/L	0.683	1	107	373240	1
	Cu	65	49.663	ug/L	0.674	1	45	147638	0
	Zn	66	49.328	ug/L	1.753	3	158	87081	2
	Zn	67	50.540	ug/L	1.725	3	25	14957	2
	Zn	68	50.548	ug/L	0.460	0	171	63169	1
	As	75	49.534	ug/L	1.210	2	635	79913	2
	As-1	75	49.630	ug/L	1.436	2	8597	86531	2
	Se	82	49.356	ug/L	0.536	1	-23	8162	1
	Se	78	48.270	ug/L	1.406	2	8659	28002	1
	Y	89		ug/L			406121	334069	1
	Kr	83		ug/L			991	853	2
>	In	115		ug/L			1051967	964122	1
	Ag	107	51.704	ug/L	0.189	0	32	398509	1
	Cd	111	52.289	ug/L	1.360	2	73	213840	1
	Cd	114	51.492	ug/L	0.712	1	39	548433	0
	Sb	121	51.434	ug/L	0.451	0	132	641155	0
	Sb	123	51.735	ug/L	0.905	1	101	484836	0
>	Tb	159		ug/L			1340679	1228319	0
	Tl	205	52.277	ug/L	0.036	0	155	1814904	0
	Pb	208	52.950	ug/L	0.347	0	348	2411214	0
	Bi	209		ug/L			3042681	2850503	0
	Th	232	50.559	ug/L	1.058	2	1500	2239547	2
	U	238	50.015	ug/L	0.165	0	16	2243117	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 15:47:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	88489	3
	Cl	37		ug/L			4549027	4828222	3
>	Ge	72		ug/L			611974	533063	1
	Ni	60	0.002	ug/L	0.002	113	28	30	21
	Ni	62	68.284	ug/L	3.891	5	54	29414	4
	Cu	63	4.725	ug/L	0.168	3	107	30993	2
	Cu	65	0.183	ug/L	0.011	6	45	582	4
	Zn	66	-0.004	ug/L	0.006	167	158	131	9
	Zn	67	0.044	ug/L	0.010	23	25	34	9
	Zn	68	-0.008	ug/L	0.002	19	171	139	0
	As	75	-0.005	ug/L	0.016	338	635	546	5
	As-1	75	-0.039	ug/L	0.046	116	8597	7426	1
	Se	82	0.066	ug/L	0.026	39	-23	-9	45
	Se	78	-0.122	ug/L	0.137	112	8659	7491	1
	Y	89		ug/L			406121	336699	0
	Kr	83		ug/L			991	832	3
>	In	115		ug/L			1051967	963908	0
	Ag	107	0.000	ug/L	0.001	280	32	31	15
	Cd	111	0.003	ug/L	0.002	50	73	80	7
	Cd	114	-0.001	ug/L	0.000	43	39	24	20
	Sb	121	0.022	ug/L	0.003	14	132	397	10
	Sb	123	0.024	ug/L	0.001	6	101	319	4
>	Tb	159		ug/L			1340679	1208077	1
	Tl	205	0.006	ug/L	0.003	46	155	339	26
	Pb	208	-0.001	ug/L	0.000	15	348	253	3
	Bi	209		ug/L			3042681	2889981	0
	Th	232	0.137	ug/L	0.033	24	1500	7288	18
	U	238	0.001	ug/L	0.000	14	16	69	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 15:51:00
Number of Replicates. 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File. C:\NexION Data\MassCal\Default tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens.	Meas Intens	Intens RSD
	C	13		ug/L			94482	94132	1
	Cl	37		ug/L			4549027	4875175	2
>	Ge	72		ug/L			611974	533784	0
	Ni	60	0.018	ug/L	0 001	6	28	79	4
	Ni	62	59.755	ug/L	1 638	2	54	25787	2
	Cu	63	4.206	ug/L	0 196	4	107	27635	3
	Cu	65	0.271	ug/L	0 007	2	45	843	1
	Zn	66	0.667	ug/L	0 021	3	158	1311	2
	Zn	67	0.649	ug/L	0 080	12	25	213	11
	Zn	68	0.634	ug/L	0 063	9	171	938	8
	As	75	0.018	ug/L	0 003	15	635	582	1
	As-1	75	-0.038	ug/L	0 041	106	8597	7437	1
	Se	82	0.042	ug/L	0 026	62	-23	-13	32
	Se	78	-0.164	ug/L	0.155	94	8659	7483	1
	Y	89		ug/L			406121	349368	3
	Kr	83		ug/L			991	867	1
>	In	115		ug/L			1051967	983122	1
	Ag	107	-0.001	ug/L	0.001	173	32	24	44
	Cd	111	0.005	ug/L	0.001	16	73	89	1
	Cd	114	0.000	ug/L	0.001	12186	39	37	30
	Sb	121	0.005	ug/L	0 001	10	132	185	2
	Sb	123	0.006	ug/L	0 001	23	101	155	7
>	Tb	159		ug/L			1340679	1232511	1
	Tl	205	0.012	ug/L	0 003	25	155	545	17
	Pb	208	0.009	ug/L	0 000	1	348	723	1
	Bi	209		ug/L			3042681	2905697	0
	Th	232	0.057	ug/L	0 010	17	1500	3927	12
	U	238	0.000	ug/L	0 000	21	16	29	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 Y REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 15:54:32
Number of Replicates. 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C.\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			94482	107613	4
	Cl	37		ug/L			4549027	5595616	2
>	Ge	72		ug/L			611974	533940	1
	Ni	60	**0.446**	ug/L	0 021	4	28	1396	5
	Ni	62	**67.466**	ug/L	3 926	5	54	29104	4
	Cu	63	**7.499**	ug/L	0 429	5	107	49198	4
	Cu	65	**0.829**	ug/L	0 031	3	45	2498	2
	Zn	66	**1.241**	ug/L	0 040	3	158	2320	1
	Zn	67	**1.621**	ug/L	0 065	4	25	499	2
	Zn	68	**2.009**	ug/L	0 063	3	171	2649	3
	As	75	**0.565**	ug/L	0 059	10	635	1456	5
	As-1	75	**0.450**	ug/L	0.124	27	8597	8214	0
	Se	82	**0.253**	ug/L	0 112	44	-23	21	84
	Se	78	**-0.190**	ug/L	0 375	197	8659	7473	0
	Y	89		ug/L			406121	350986	1
	Kr	83		ug/L			991	864	2
>	In	115		ug/L			1051967	936439	1
	Ag	107	**0.001**	ug/L	0 001	89	32	35	15
	Cd	111	**-0.002**	ug/L	0 001	45	73	58	6
	Cd	114	**0.004**	ug/L	0 001	24	39	76	11
	Sb	121	**0.104**	ug/L	0 000	0	132	1379	1
	Sb	123	**0.107**	ug/L	0 004	3	101	1065	3
>	Tb	159		ug/L			1340679	1235710	0
	Tl	205	**0.004**	ug/L	0 001	28	155	285	13
	Pb	208	**0.076**	ug/L	0 002	2	348	3807	2
	Bi	209		ug/L			3042681	2639371	0
	Th	232	**0.120**	ug/L	0 025	20	1500	6717	16
	U	238	**0.123**	ug/L	0 002	2	16	5557	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 Z REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 15:58:04
Number of Replicates. 3
Method File: C:\NexION Data\Method\200.8GFA+ mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	101816	0
	Cl	37		ug/L			4549027	4943422	2
>	Ge	72		ug/L			611974	545856	1
	Ni	60	0.529	ug/L	0 023	4	28	1688	5
	Ni	62	55.753	ug/L	1 916	3	54	24609	3
	Cu	63	4.407	ug/L	0 192	4	107	29606	4
	Cu	65	0.356	ug/L	0 006	1	45	1118	1
	Zn	66	2.515	ug/L	0 089	3	158	4662	2
	Zn	67	3.116	ug/L	0 231	7	25	961	6
	Zn	68	3.521	ug/L	0 071	2	171	4629	0
	As	75	1.819	ug/L	0 054	2	635	3539	1
	As-1	75	1.639	ug/L	0.101	6	8597	10329	0
	Se	82	0.133	ug/L	0 131	98	-23	2	1070
	Se	78	-0.644	ug/L	0 201	31	8659	7445	0
	Y	89		ug/L			406121	354412	3
	Kr	83		ug/L			991	850	7
>	In	115		ug/L			1051967	980039	1
	Ag	107	0.000	ug/L	0.001	2007	32	30	15
	Cd	111	0.022	ug/L	0 002	10	73	160	4
	Cd	114	0.017	ug/L	0 003	18	39	215	13
	Sb	121	0.099	ug/L	0 003	3	132	1381	1
	Sb	123	0.108	ug/L	0 002	1	101	1120	1
>	Tb	159		ug/L			1340679	1272466	1
	Tl	205	-0.001	ug/L	0 000	53	155	128	8
	Pb	208	0.029	ug/L	0.001	3	348	1695	2
	Bi	209		ug/L			3042681	2841551	2
	Th	232	-0.002	ug/L	0 001	41	1500	1327	3
	U	238	0.031	ug/L	0 000	1	16	1461	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 AB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 17, 2013 16:05:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	108180	5
	Cl	37		ug/L			4549027	5045248	0
>	Ge	72		ug/L			611974	507973	1
	Ni	60	0.546	ug/L	0 021	3	28	1619	4
	Ni	62	91.412	ug/L	4 663	5	54	37512	4
	Cu	63	9.344	ug/L	0 457	4	107	58308	3
	Cu	65	1.012	ug/L	0 010	1	45	2892	0
	Zn	66	2.181	ug/L	0 073	3	158	3780	3
	Zn	67	3.376	ug/L	0.021	0	25	968	0
	Zn	68	3.728	ug/L	0.160	4	171	4554	4
	As	75	14.954	ug/L	0 175	1	635	23271	1
	As-1	75	15.160	ug/L	0 159	1	8597	30049	0
	Se	82	0.372	ug/L	0 094	25	-23	39	37
	Se	78	0.825	ug/L	0 200	24	8659	7519	1
	Y	89		ug/L			406121	346777	2
	Kr	83		ug/L			991	839	5
>	In	115		ug/L			1051967	929229	0
	Ag	107	0.005	ug/L	0 001	32	32	62	17
	Cd	111	0.022	ug/L	0 002	9	73	152	5
	Cd	114	0.020	ug/L	0.002	12	39	241	10
	Sb	121	0.094	ug/L	0 002	1	132	1251	1
	Sb	123	0.095	ug/L	0 002	1	101	948	1
>	Tb	159		ug/L			1340679	1262799	1
	Tl	205	-0.001	ug/L	0 001	92	155	126	15
	Pb	208	0.741	ug/L	0 013	1	348	35000	0
	Bi	209		ug/L			3042681	2607676	1
	Th	232	0.053	ug/L	0 001	2	1500	3813	2
	U	238	0.289	ug/L	0.003	0	16	13349	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 16:08:43
Number of Replicates. 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File C:\NexION Data\MassCal\Default tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File. C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens	Meas Intens	Intens RSD
	C	13		ug/L			94482	90060	2
	Cl	37		ug/L			4549027	4937721	0
>	Ge	72		ug/L			611974	552377	1
	Ni	60	48.293	ug/L	1.302	2	28	153594	1
	Ni	62	104.617	ug/L	1 087	1	54	46688	1
	Cu	63	52.398	ug/L	1 308	2	107	355157	1
	Cu	65	49.075	ug/L	0 704	1	45	150599	0
	Zn	66	48.946	ug/L	1 751	3	158	89192	2
	Zn	67	48.955	ug/L	2.349	4	25	14961	5
	Zn	68	50.185	ug/L	0 960	1	171	64741	2
	As	75	48.635	ug/L	1.110	2	635	81000	1
	As-1	75	48.671	ug/L	0 973	1	8597	87749	0
	Se	82	49.077	ug/L	1 141	2	-23	8377	1
	Se	78	47.891	ug/L	0 810	1	8659	28743	1
	Y	89		ug/L			406121	349935	3
	Kr	83		ug/L			991	936	5
>	In	115		ug/L			1051967	982133	1
	Ag	107	50.629	ug/L	2 406	4	32	397330	3
	Cd	111	51.903	ug/L	1 366	2	73	216216	1
	Cd	114	50.746	ug/L	0 902	1	39	550542	0
	Sb	121	50.817	ug/L	1 067	2	132	645237	1
	Sb	123	51.024	ug/L	1 687	3	101	487004	1
>	Tb	159		ug/L			1340679	1260904	0
	Tl	205	51.193	ug/L	0 856	1	155	1824284	1
	Pb	208	51.806	ug/L	0 582	1	348	2421615	0
	Bi	209		ug/L			3042681	2874529	0
	Th	232	49.918	ug/L	0 992	1	1500	2269808	2
	U	238	50.314	ug/L	0 512	1	16	2316201	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 17, 2013 16:15:00
Number of Replicates 3
Method File: C.\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File. C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas Intens	Intens RSD
	C	13		ug/L			94482	90389	4
	Cl	37		ug/L			4549027	4861279	1
>	Ge	72		ug/L			611974	542345	1
	Ni	60	0.018	ug/L	0 002	13	28	82	9
	Ni	62	43.073	ug/L	4 061	9	54	18909	9
	Cu	63	2.901	ug/L	0 182	6	107	19404	6
	Cu	65	0.107	ug/L	0 001	0	45	363	1
	Zn	66	-0.002	ug/L	0 005	289	158	137	5
	Zn	67	0.039	ug/L	0 027	68	25	34	24
	Zn	68	-0.007	ug/L	0 014	208	171	142	11
	As	75	0.017	ug/L	0 020	115	635	591	4
	As-1	75	-0.065	ug/L	0 073	111	8597	7512	0
	Se	82	0.061	ug/L	0 043	69	-23	-10	71
	Se	78	-0.286	ug/L	0 270	94	8659	7550	0
	Y	89		ug/L			406121	353211	0
	Kr	83		ug/L			991	858	2
>	In	115		ug/L			1051967	987100	0
	Ag	107	-0.000	ug/L	0 001	214	32	27	29
	Cd	111	0.003	ug/L	0.003	81	73	82	13
	Cd	114	0.001	ug/L	0 003	296	39	48	70
	Sb	121	0.024	ug/L	0 002	10	132	434	8
	Sb	123	0.025	ug/L	0 004	16	101	331	11
>	Tb	159		ug/L			1340679	1249440	0
	Tl	205	0.006	ug/L	0 002	28	155	365	18
	Pb	208	-0.000	ug/L	0 002	9323	348	323	36
	Bi	209		ug/L			3042681	2942095	1
	Th	232	0.123	ug/L	0.005	3	1500	6936	2
	U	238	0.002	ug/L	0.002	81	16	103	70

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-18-13 **Analyst:** BA/AA **Page:** 1 **of** 2

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2995-15
		1			2998-7
		2			3005-6
		3			↓ -7
		4			3007-2
		↓ 5			3006-2
		Rinse sample			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			^{62}Ni low Th high
		Low Check			^{62}Ni low
		ICSA			~~^{62}Ni~~ AA 1-21-13
		ICSAB			^{62}Ni high
		LR200			
		LR300			
		B1			
		CCV2			
		CCB2			Th high
	✓	VZ23 C	REN	20	DR 1/50 (salt)
	✓	Q		↓	Did not inject
		G		10	
		H			
		↓ U	↓	↓	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-18-13 **Analyst:** BA/~~MA~~ **Page:** 2 **of** 2

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VZ23 V	REN	10	
		↓ Q	↓	20	
		CCV3			^{62}Ni high
		CCB3			^{62}Ni Th high
		Rinse / DI			
		BA 1/18/13			

VZ23 : 00203

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 1-18-13

M2	Analyst HVBA 1-18	Peer [illegible] 1-21-13	Comment
Logbook			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification			
ICV/CCV	✓	✓	See Log
ICB/CCB	✓	✓	↓
Samples			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC			
CRI/CRA	✓	✓	See Log
ICSA/ICSAB	✓	✓	↓
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC			
SRM/LCS	—	—	
Matrix Spikes	—	—	
Matrix Duplicates	—	—	
Method Blanks	—	—	
Data Distribution			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and SAF's	—	—	

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Friday, January 18, 2013 12:08:27
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1725
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time (ns): 60
Current Dead Time (ns): 60

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
Be	9.0	5636.3	5636.305	9.191	0.2	Standard
Mg	24.0	38706.5	38706.492	439.862	1.1	Standard
In	114.9	76321.3	-975645.899	953.773	0.1	Standard
Pb	208.0	37016.0	36668.028	202.812	0.6	Standard
U	238.1	62634.4	62618.115	491.595	0.8	Standard
CeO	155.9	937.8	0.011	0.000	2.7	Standard
Ce	139.9	81999.7	81999.694	821.108	1.0	Standard
Ce++	70.0	740.8	0.009	0.000	2.8	Standard
Bkgd	220.0	0.0	0.000	0.000		Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1712.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

U223 00295

0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

VZ23 00206

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/18/2013 12:07:50 PM
nd Time: 1/18/2013 12:11:02 PM

aily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5636.31
Obtained Intensity (Mg 23.985): 38706.49
Obtained Intensity (In 114.904): 76321.28
Obtained Intensity (Pb 207.977): 37016.03
Obtained Intensity (U 238.05): 62634.45
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.011 (=937.79 / 81999.69)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.009 (=740.77 / 81999.69)

VZ23 00207

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/18/2013 12:11:36 PM
nd Time: 1/18/2013 12:12:56 PM

orch Alignment - [Passed]

Vertical	Horizontal	Intensity
-0.96 mm	1.43 mm	84822.51

U723 00208

SmartTune Wizard - Summary

)ptimization Summary

;martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

;tart Time: 1/18/2013 12:13:17 PM
:nd Time: 1/18/2013 12:19:52 PM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.706)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.705)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.695)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.705)

VZ23 00209

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/18/2013 12:25:09 PM
nd Time: 1/18/2013 12:29:21 PM

utoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.994; Intercept = -11.32

VZ23 00210

SmartTune Wizard - Details

```
ptimization Details

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

ptimization Status

tart Time: 1/18/2013 12:29:32 PM

aily Performance Check
        Optimization Settings:
                Method: C:\NexIONData\Method\Daily Performancenew.mth.
                Intensity Criterion: Be 9.0122 > 3000
                Intensity Criterion: Mg 23.985 > 20000
                Intensity Criterion: In 114.904 > 50000
                Intensity Criterion: Pb 207.977 > 20000
                Intensity Criterion: U 238.05 > 40000
                Intensity Criterion: Bkgd 220 <= 5
                Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
                Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

        Optimization Results:
        Initial Try
                Obtained Intensity (Be 9.0122): 6557.38
                Obtained Intensity (Mg 23.985): 44342.74
                Obtained Intensity (In 114.904): 83977.70
                Obtained Intensity (Pb 207.977): 38990.54
                Obtained Intensity (U 238.05): 69720.05
                Obtained Intensity (Bkgd 220): 0.07
                Obtained Formula (CeO 155.9 / Ce 139.905): 0.014 (=1201.69 / 88944.70)
                Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.011 (=996.59 / 88944.70)
Passed]  Optimum value(s): N/A

nd Time: 1/18/2013 12:32:07 PM
```


VZ23 00211

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 13:04:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L				125752	3
	Cl	37		ug/L				5263608	3
>	Ge	72		ug/L				605627	1
	Ni	60		ug/L				173	5
	Ni	62		ug/L				953	4
	Cu	63		ug/L				1232	3
	Cu	65		ug/L				133	6
	Zn	66		ug/L				625	1
	Zn	67		ug/L				109	7
	Zn	68		ug/L				522	2
	As	75		ug/L				689	2
	As-1	75		ug/L				8149	1
	Se	82		ug/L				6	135
	Se	78		ug/L				8238	1
	Y	89		ug/L				423263	1
	Kr	83		ug/L				996	3
>	In	115		ug/L				995712	1
	Ag	107		ug/L				18	5
	Cd	111		ug/L				90	8
	Cd	114		ug/L				23	31
	Sb	121		ug/L				39	13
	Sb	123		ug/L				31	31
>	Tb	159		ug/L				1259811	0
	Tl	205		ug/L				47	11
	Pb	208		ug/L				338	2
	Bi	209		ug/L				2857103	1
	Th	232		ug/L				56	29
	U	238		ug/L				2	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 13:08:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			125752	124543	1
	Cl	37		ug/L			5263608	5267089	2
>	Ge	72		ug/L			605627	610260	1
	Ni	60	0.500	ug/L	0.022	4	173	2136	2
	Ni	62	0.500	ug/L	0.049	9	953	1201	1
	Cu	63	0.500	ug/L	0.005	1	1232	5580	1
	Cu	65	0.500	ug/L	0.004	0	133	2060	1
	Zn	66	4.000	ug/L	0.194	4	625	9524	2
	Zn	67	4.000	ug/L	0.179	4	109	1475	3
	Zn	68	4.000	ug/L	0.193	4	522	6479	2
	As	75	0.200	ug/L	0.034	17	689	1114	5
	As-1	75	0.200	ug/L	0.104	51	8149	8595	0
	Se	82	0.500	ug/L	0.122	24	6	117	21
	Se	78	0.500	ug/L	0.391	78	8238	8550	0
	Y	89		ug/L			423263	427100	1
	Kr	83		ug/L			996	1007	2
>	In	115		ug/L			995712	1005921	1
	Ag	107	0.200	ug/L	0.004	1	18	1979	1
	Cd	111	0.100	ug/L	0.002	1	90	597	1
	Cd	114	0.100	ug/L	0.005	4	23	1298	3
	Sb	121	0.200	ug/L	0.002	0	39	2885	1
	Sb	123	0.200	ug/L	0.003	1	31	2216	2
>	Tb	159		ug/L			1259811	1267803	0
	Tl	205	0.200	ug/L	0.001	0	47	8441	0
	Pb	208	0.100	ug/L	0.001	0	338	5819	1
	Bi	209		ug/L			2857103	2868704	0
	Th	232	0.200	ug/L	0.005	2	56	8142	2
	U	238	0.200	ug/L	0.003	1	2	10562	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 13:11:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125752	123366	1
	Cl	37		ug/L			5263608	5347244	0
>	Ge	72		ug/L			605627	601293	1
	Ni	60	10.001	ug/L	0.257	2	173	40551	0
	Ni	62	10.004	ug/L	0.443	4	953	6550	1
	Cu	63	10.000	ug/L	0.017	0	1232	85737	2
	Cu	65	10.000	ug/L	0.231	2	133	37868	0
	Zn	66	10.011	ug/L	0.215	2	625	22719	1
	Zn	67	10.139	ug/L	0.269	2	109	3842	1
	Zn	68	10.084	ug/L	0.174	1	522	16134	2
	As	75	10.000	ug/L	0.270	2	689	21602	0
	As-1	75	10.000	ug/L	0.415	4	8149	28555	1
	Se	82	10.002	ug/L	0.122	1	6	2381	1
	Se	78	10.003	ug/L	0.676	6	8238	13771	0
	Y	89		ug/L			423263	427867	1
	Kr	83		ug/L			996	1004	2
>	In	115		ug/L			995712	996790	2
	Ag	107	10.000	ug/L	0.376	3	18	95534	2
	Cd	111	10.000	ug/L	0.204	2	90	48628	2
	Cd	114	10.000	ug/L	0.186	1	23	124810	0
	Sb	121	10.000	ug/L	0.283	2	39	148618	0
	Sb	123	10.000	ug/L	0.317	3	31	112071	1
>	Tb	159		ug/L			1259811	1266435	1
	Tl	205	10.000	ug/L	0.094	0	47	404669	0
	Pb	208	10.000	ug/L	0 140	1	338	533245	0
	Bi	209		ug/L			2857103	2846318	0
	Th	232	10.001	ug/L	0.171	1	56	470513	0
	U	238	10.000	ug/L	0.174	1	2	522677	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 13:15:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125752	125158	3
	Cl	37		ug/L			5263608	5517854	1
>	Ge	72		ug/L			605627	611704	0
	Ni	60	19.834	ug/L	0.123	0	173	79045	0
	Ni	62	19.882	ug/L	0 222	1	953	12037	1
	Cu	63	19.957	ug/L	0.326	1	1232	171349	1
	Cu	65	19.909	ug/L	0.486	2	133	75221	1
	Zn	66	20.001	ug/L	0.469	2	625	45558	1
	Zn	67	20.051	ug/L	0.250	1	109	7692	1
	Zn	68	20.138	ug/L	0.426	2	522	33023	1
	As	75	19.920	ug/L	0.476	2	689	42431	1
	As-1	75	19.925	ug/L	0.511	2	8149	49109	1
	Se	82	19.954	ug/L	0.474	2	6	4782	1
	Se	78	19.955	ug/L	0.579	2	8238	19577	0
	Y	89		ug/L			423263	439226	1
	Kr	83		ug/L			996	980	0
>	In	115		ug/L			995712	1006220	1
	Ag	107	20.018	ug/L	0.511	2	18	193855	3
	Cd	111	19.957	ug/L	0.217	1	90	97030	0
	Cd	114	19.975	ug/L	0 495	2	23	250375	1
	Sb	121	19.988	ug/L	0.041	0	39	299190	1
	Sb	123	20.001	ug/L	0.349	1	31	226335	1
>	Tb	159		ug/L			1259811	1270014	1
	Tl	205	20.010	ug/L	0.259	1	47	813617	0
	Pb	208	20.022	ug/L	0 175	0	338	1075248	0
	Bi	209		ug/L			2857103	2865009	0
	Th	232	20.158	ug/L	0.367	1	56	981937	0
	U	238	20.022	ug/L	0.388	1	2	1054135	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 13:19:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125752	117354	1
	Cl	37		ug/L			5263608	5575584	1
>	Ge	72		ug/L			605627	596090	2
	Ni	60	50.096	ug/L	1.125	2	173	196121	1
	Ni	62	49.986	ug/L	0.520	1	953	28029	1
	Cu	63	49.983	ug/L	1.744	3	1232	415495	2
	Cu	65	49.962	ug/L	2.499	5	133	182934	2
	Zn	66	49.995	ug/L	2.314	4	625	109913	1
	Zn	67	49.960	ug/L	0.654	1	109	18443	2
	Zn	68	49.901	ug/L	1.323	2	522	78207	0
	As	75	50.052	ug/L	1.587	3	689	103351	0
	As-1	75	50.091	ug/L	1.868	3	8149	109028	0
	Se	82	49.899	ug/L	0.823	1	6	11526	1
	Se	78	50.048	ug/L	1.863	3	8238	35737	0
	Y	89		ug/L			423263	424615	0
	Kr	83		ug/L			996	1019	2
>	In	115		ug/L			995712	980925	1
	Ag	107	49.813	ug/L	0.965	1	18	461424	0
	Cd	111	49.988	ug/L	0.536	1	90	236497	0
	Cd	114	49.980	ug/L	1.018	2	23	609437	0
	Sb	121	50.040	ug/L	1.161	2	39	732873	0
	Sb	123	50.001	ug/L	1.265	2	31	551501	0
>	Tb	159		ug/L			1259811	1260934	0
	Tl	205	50.053	ug/L	2.334	4	47	2031121	3
	Pb	208	49.860	ug/L	0.527	1	338	2621343	0
	Bi	209		ug/L			2857103	2758346	0
	Th	232	50.515	ug/L	1.102	2	56	2575679	1
	U	238	50.267	ug/L	0 991	1	2	2699899	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 13:25:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125752	126195	1
	Cl	37		ug/L			5263608	5613936	2
>	Ge	72		ug/L			605627	593502	1
	Ni	60	99.032	ug/L	1.114	1	173	373951	2
	Ni	62	99.384	ug/L	2.521	2	953	53484	1
	Cu	63	99.592	ug/L	2.003	2	1232	812348	1
	Cu	65	99.909	ug/L	1.847	1	133	363222	0
	Zn	66	99.394	ug/L	1.115	1	625	212865	0
	Zn	67	99.630	ug/L	2.746	2	109	36071	2
	Zn	68	99.452	ug/L	3.810	3	522	152037	4
	As	75	99.860	ug/L	1.120	1	689	203791	0
	As-1	75	99.921	ug/L	1.287	1	8149	208202	0
	Se	82	99.483	ug/L	0.761	0	6	22493	0
	Se	78	99.704	ug/L	1.597	1	8238	62375	1
	Y	89		ug/L			423263	425421	0
	Kr	83		ug/L			996	1079	2
>	In	115		ug/L			995712	968939	0
	Ag	107	99.667	ug/L	3.691	3	18	902008	3
	Cd	111	99.754	ug/L	1.890	1	90	462337	1
	Cd	114	99.898	ug/L	1.060	1	23	1199468	1
	Sb	121	99.957	ug/L	1.727	1	39	1444209	1
	Sb	123	99.890	ug/L	0.688	0	31	1084603	0
>	Tb	159		ug/L			1259811	1262292	0
	Tl	205	100.048	ug/L	0 516	0	47	4071601	0
	Pb	208	99.834	ug/L	0.656	0	338	5225194	0
	Bi	209		ug/L			2857103	2698645	0
	Th	232	100.001	ug/L	0 289	0	56	5105200	0
	U	238	99.531	ug/L	1.114	1	2	5269624	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 13:31:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130117a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125752	130475	2
	Cl	37		ug/L			5263608	5530894	1
>	Ge	72		ug/L			605627	604229	1
	Ni	60	-0.009	ug/L	0 002	27	173	139	6
	Ni	62	-0.275	ug/L	0.047	17	953	803	2
	Cu	63	-0.022	ug/L	0.002	7	1232	1044	2
	Cu	65	0.000	ug/L	0.004	888	133	134	10
	Zn	66	0.014	ug/L	0.006	40	625	654	3
	Zn	67	-0.011	ug/L	0.009	79	109	105	4
	Zn	68	0.006	ug/L	0.021	344	522	530	6
	As	75	-0.002	ug/L	0.019	964	689	684	7
	As-1	75	0.065	ug/L	0.090	139	8149	8259	0
	Se	82	0.001	ug/L	0.078	5258	6	7	257
	Se	78	0.240	ug/L	0.360	149	8238	8350	0
	Y	89		ug/L			423263	431331	1
	Kr	83		ug/L			996	989	2
>	In	115		ug/L			995712	1013812	1
	Ag	107	0.005	ug/L	0.005	104	18	62	74
	Cd	111	0.007	ug/L	0.003	36	90	126	10
	Cd	114	0.004	ug/L	0.004	97	23	69	65
	Sb	121	0.058	ug/L	0.002	3	39	917	3
	Sb	123	0.060	ug/L	0.005	7	31	716	8
>	Tb	159		ug/L			1259811	1276741	0
	Tl	205	0.015	ug/L	0 006	41	47	648	39
	Pb	208	0.002	ug/L	0.001	51	338	464	14
	Bi	209		ug/L			2857103	2847037	0
	Th	232	0.250	ug/L	0.045	18	56	12996	18
	U	238	0.003	ug/L	0.001	29	2	184	29

Sample Information

Sample Date/Time: Friday, January 18, 2013 13:25:02
Method File: C:\NexION Data\Method\200.8GFA+.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Ge	72							
Ni	60	**0.9998**	0.006	0.50	10	20	50	100
Ni	62	**0.9999**	0.001	0.50	10	20	50	100
Cu	63	**1.0000**	0.014	0.50	10	20	50	100
Cu	65	**1.0000**	0.006	0.50	10	20	50	100
Zn	66	**0.9999**	0.004	4.00	10	20	50	100
Zn	67	**1.0000**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9997**	0.000	0.50	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.009	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.012	0.10	10	20	50	100
Sb	121	**1.0000**	0.015	0.20	10	20	50	100
Sb	123	**1.0000**	0.011	0.20	10	20	50	100
Tb	159							
Tl	205	**1.0000**	0.032	0.20	10	20	50	100
Pb	208	**1.0000**	0.041	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	0.040	0.20	10	20	50	100
U	238	**0.9999**	0.042	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 13:41:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125752	127815	3
	Cl	37		ug/L			5263608	5620202	1
>	Ge	72		ug/L			605627	592393 ✓	0
	Ni	60	51.614	ug/L	1.079	2	173	194580	1
	Ni	62	52.170	ug/L	1.625	3	953	28466	2
	Cu	63	51.395	ug/L	0.183	0	1232	419073	1
	Cu	65	51.541	ug/L	1.393	2	133	187120	2
	Zn	66	50.558	ug/L	0.976	1	625	108386	2
	Zn	67	50.768	ug/L	1.333	2	109	18400	2
	Zn	68	50.174	ug/L	1.339	2	522	76791	2
	As	75	51.422	ug/L	0.490	0	689	105074	0
	As-1	75	50.660	ug/L	0.729	1	8149	109288	0
	Se	82	83.537	ug/L	0.952	1	6	18375	1
	Se	78	80.253	ug/L	0.847	1	8238	51671	0
	Y	89		ug/L			423263	430974	1
	Kr	83		ug/L			996	1014	2
>	In	115		ug/L			995712	995410 ✓	0
	Ag	107	51.116	ug/L	0.724	1	18	475294	0
	Cd	111	49.520	ug/L	0.886	1	90	235838	1
	Cd	114	49.332	ug/L	0.560	1	23	608524	1
	Sb	121	48.620	ug/L	0.972	1	39	721725	1
	Sb	123	48.958	ug/L	0.688	1	31	546112	1
>	Tb	159		ug/L			1259811	1287795 ✓	0
	Tl	205	50.380	ug/L	2.177	4	47	2091607	4
	Pb	208	49.479	ug/L	0.469	0	338	2642143	0
	Bi	209		ug/L			2857103	2783514	0
	Th	232	51.154	ug/L	0.470	0	56	2664208	0
	U	238	51.539	ug/L	0.465	0	2	2783787	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 13:45:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125752	127685	0
	Cl	37		ug/L			5263608	5589060	2
>	Ge	72		ug/L			605627	606377 ✓	3
	Ni	60	-0.009	ug/L	0.003	31	173	138	10
	Ni	62	-0.471	ug/L	0.043	9	953	700	5
	Cu	63	-0.038	ug/L	0.007	18	1232	917	4
	Cu	65	-0.000	ug/L	0.005	6071	133	132	11
	Zn	66	0.026	ug/L	0.030	116	625	681	6
	Zn	67	0.032	ug/L	0.021	66	109	121	7
	Zn	68	0.011	ug/L	0.003	27	522	540	4
	As	75	0.017	ug/L	0.002	12	689	726	4
	As-1	75	0.029	ug/L	0.115	391	8149	8213	1
	Se	82	0.009	ug/L	0.038	437	6	8	103
	Se	78	0.068	ug/L	0.441	644	8238	8280	1
	Y	89		ug/L			423263	433359	0
	Kr	83		ug/L			996	1007	0
>	In	115		ug/L			995712	1025424	1
	Ag	107	0.002	ug/L	0.001	32	18	37	17
	Cd	111	0.004	ug/L	0.002	39	90	114	6
	Cd	114	0.001	ug/L	0.001	35	23	42	16
	Sb	121	0.019	ug/L	0.002	7	39	337	8
	Sb	123	0.020	ug/L	0.002	10	31	256	9
>	Tb	159		ug/L			1259811	1274220 ✓	0
	Tl	205	0.005	ug/L	0.001	17	47	235	14
	Pb	208	0.001	ug/L	0.001	123	338	400	18
	Bi	209		ug/L			2857103	2873966	1
	Th	232	0.197	ug/L	0.003	1	56	10207	1
	U	238	0.003	ug/L	0.001	41	2	177	41

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 13:49:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			125752	120358	1
	Cl	37		ug/L			5263608	5801734	0
>	Ge	72		ug/L			605627	608202 ✓	1
	Ni	60	49.225	ug/L	1.239	2	173	190519	1
	Ni	62	49.835	ug/L	1.492	2	953	27959	1
	Cu	63	49.618	ug/L	0.504	1	1232	415391	1
	Cu	65	49.881	ug/L	1.048	2	133	185916	2
	Zn	66	50.452	ug/L	1.239	2	625	111019	1
	Zn	67	50.015	ug/L	1.448	2	109	18609	1
	Zn	68	50.145	ug/L	1.353	2	522	78785	1
	As	75	49.892	ug/L	0.892	1	689	104678	0
	As-1	75	49.607	ug/L	1.017	2	8149	110035	0
	Se	82	52.011	ug/L	0.845	1	6	11746	0
	Se	78	49.702	ug/L	1.256	2	8238	36000	0
	Y	89		ug/L			423263	430408	1
	Kr	83		ug/L			996	1049	2
>	In	115		ug/L			995712	1002510 ✓	1
	Ag	107	51.598	ug/L	0.360	0	18	483210	0
	Cd	111	49.482	ug/L	0.786	1	90	237332	1
	Cd	114	49.385	ug/L	0.821	1	23	613464	1
	Sb	121	49.389	ug/L	0 242	0	39	738360	0
	Sb	123	49.452	ug/L	0.698	1	31	555534	0
>	Tb	159		ug/L			1259811	1272039 ✓	1
	Tl	205	51.386	ug/L	0.881	1	47	2106930	0
	Pb	208	50.085	ug/L	1.196	2	338	2641017	0
	Bi	209		ug/L			2857103	2767000	0
	Th	232	50.173	ug/L	0.168	0	56	2581101	1
	U	238	50.990	ug/L	1.447	2	2	2719534	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 13:53:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		ug/L			125752	124354	2
Cl	37		ug/L			5263608	5582271	1
> Ge	72		ug/L			605627	612418 ✓	0
Ni	60	-0.011	ug/L	0.001	12	173	132	4
Ni	62	-0.532	ug/L	0.063	11	953	674	5
Cu	63	-0.047	ug/L	0.004	8	1232	851	4
Cu	65	-0.000	ug/L	0.003	4412	133	134	8
Zn	66	0.023	ug/L	0.002	10	625	682	0
Zn	67	-0.012	ug/L	0.034	277	109	106	10
Zn	68	0.004	ug/L	0.015	347	522	535	5
As	75	-0.003	ug/L	0.006	180	689	690	1
As-1	75	-0.001	ug/L	0.040	2830	8149	8237	0
Se	82	-0.048	ug/L	0.018	37	6	-4	94
Se	78	-0.017	ug/L	0.183	1051	8238	8320	0
Y	89		ug/L			423263	439813	0
Kr	83		ug/L			996	1025	1
> In	115		ug/L			995712	1015434 ✓	1
Ag	107	0.002	ug/L	0.001	35	18	40	20
Cd	111	0.006	ug/L	0.002	30	90	121	9
Cd	114	0.001	ug/L	0 000	12	23	41	6
Sb	121	0.043	ug/L	0.001	1	39	692	3
Sb	123	0.045	ug/L	0.002	4	31	540	6
> Tb	159		ug/L			1259811	1288628 ✓	0
Tl	205	0.007	ug/L	0.002	22	47	355	19
Pb	208	0.001	ug/L	0.001	47	338	403	6
Bi	209		ug/L			2857103	2917683	0
Th	232	0.239	ug/L	0.007	2	56	12538	3
U	238	0.002	ug/L	0.000	18	2	133	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 13:57:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125752	126505	2
	Cl	37		ug/L			5263608	5502261	1
>	Ge	72		ug/L			605627	621631 ✓	2
	Ni	60	0.558	ug/L	0.001	0	173	2383	2
	Ni	62	-0.098	ug/L	0.084	85	953	923	3
	Cu	63	0.451	ug/L	0.001	0	1232	5110	2
	Cu	65	0.516	ug/L	0.019	3	133	2101	1
	Zn	66	3.946	ug/L	0.055	1	625	9466	1
	Zn	67	3.564	ug/L	0.156	4	109	1459	3
	Zn	68	3.788	ug/L	0.216	5	522	6577	4
	As	75	0.187	ug/L	0.034	17	689	1104	4
	As-1	75	0.121	ug/L	0.118	97	8149	8615	0
	Se	82	0.404	ug/L	0.119	29	6	99	25
	Se	78	0.203	ug/L	0.403	198	8238	8567	0
	Y	89		ug/L			423263	435415	1
	Kr	83		ug/L			996	1050	6
>	In	115		ug/L			995712	1035113 ✓	0
	Ag	107	0.214	ug/L	0.009	4	18	2088	4
	Cd	111	0.106	ug/L	0.003	2	90	620	2
	Cd	114	0.103	ug/L	0.006	5	23	1339	5
	Sb	121	0.203	ug/L	0.004	1	39	3174	1
	Sb	123	0.202	ug/L	0.003	1	31	2372	1
>	Tb	159		ug/L			1259811	1280313 ✓	1
	Tl	205	0.206	ug/L	0.001	0	47	8531	1
	Pb	208	0.102	ug/L	0.002	2	338	5748	1
	Bi	209		ug/L			2857103	2927313	0
	Th	232	0.241	ug/L	0.012	4	56	12541	4
	U	238	0.198	ug/L	0.003	1	2	10624	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 14:00:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
	C	13		ug/L			125752	232485	1
	Cl	37		ug/L			5263608	14277968	4
>	Ge	72		ug/L			605627	603486 ✓	1
	Ni	60	0.325	ug/L	0.013	4	173	1419	2
	Ni	62	6.319	ug/L	1.204	19	953	4342	13
	Cu	63	1.057	ug/L	0.094	8	1232	9976	6
	Cu	65	0.380	ug/L	0.031	8	133	1537	5
	Zn	66	0.791	ug/L	0.033	4	625	2338	1
	Zn	67	4.141	ug/L	0.198	4	109	1628	2
	Zn	68	0.180	ug/L	0.016	8	522	799	1
	As	75	0.120	ug/L	0.028	23	689	934	5
	As-1	75	0.325	ug/L	0.120	36	8149	8779	1
	Se	82	-0.387	ug/L	0.010	2	6	-80	2
	Se	78	0.819	ug/L	0.442	54	8238	8660	1
	Y	89		ug/L			423263	429279	1
	Kr	83		ug/L			996	1321	1
>	In	115		ug/L			995712	976427 ✓	1
	Ag	107	0.027	ug/L	0.002	7	18	262	8
	Cd	111	0.217	ug/L	0.014	6	90	1100	5
	Cd	114	0.313	ug/L	0.008	2	23	3808	2
	Sb	121	0.070	ug/L	0.005	6	39	1052	4
	Sb	123	0.071	ug/L	0 002	3	31	808	2
>	Tb	159		ug/L			1259811	1282798 ✓	0
	Tl	205	0.040	ug/L	0.001	2	47	1688	1
	Pb	208	0.027	ug/L	0.001	2	338	1771	1
	Bi	209		ug/L			2857103	2643143	1
	Th	232	0.163	ug/L	0.059	35	56	8536	35
	U	238	0.001	ug/L	0.000	14	2	56	14

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 14:05:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125752	232745	1
	Cl	37		ug/L			5263608	14495603	3
>	Ge	72		ug/L			605627	601797 ✓	2
	Ni	60	20.225	ug/L	0.735	3	173	77525	1
	Ni	62	25.703	ug/L	0.961	3	953	14724	2
	Cu	63	20.767	ug/L	0.288	1	1232	172712	1
	Cu	65	20.021	ug/L	0.508	2	133	73901	2
	Zn	66	20.615	ug/L	0.686	3	625	45242	1
	Zn	67	21.945	ug/L	0.768	3	109	8138	2
	Zn	68	19.216	ug/L	0.186	0	522	30204	3
	As	75	18.940	ug/L	0.474	2	689	39733	0
	As-1	75	19.486	ug/L	0.633	3	8149	47669	0
	Se	82	-0.321	ug/L	0.072	22	6	-64	23
	Se	78	1.069	ug/L	0.600	56	8238	8771	1
	Y	89		ug/L			423263	439738	2
	Kr	83		ug/L			996	1299	2
>	In	115		ug/L			995712	997245 ✓	1
	Ag	107	19.459	ug/L	0.608	3	18	181243	2
	Cd	111	18.954	ug/L	0.243	1	90	90507	3
	Cd	114	19.395	ug/L	0.322	1	23	239664	1
	Sb	121	0.064	ug/L	0.002	2	39	995	2
	Sb	123	0.065	ug/L	0.004	5	31	759	3
>	Tb	159		ug/L			1259811	1307666 ✓	0
	Tl	205	0.032	ug/L	0.001	2	47	1413	3
	Pb	208	0.033	ug/L	0.001	2	338	2131	1
	Bi	209		ug/L			2857103	2680536	1
	Th	232	0.061	ug/L	0.003	5	56	3289	4
	U	238	0.001	ug/L	0.000	18	2	33	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 14:09:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			125752	124097	0
	Cl	37		ug/L			5263608	5721172	2
>	Ge	72		ug/L			605627	577809 ✓	1
	Ni	60	199.020	ug/L	4.846	2	173	731427	3
	Ni	62	205.927	ug/L	5.993	2	953	106924	3
	Cu	63	196.888	ug/L	5.090	2	1232	1562052	1
	Cu	65	196.245	ug/L	4.700	2	133	694355	0
	Zn	66	197.177	ug/L	9.087	4	625	410335	3
	Zn	67	190.977	ug/L	7.619	3	109	67193	2
	Zn	68	195.245	ug/L	3.086	1	522	289987	0
	As	75	199.469	ug/L	4.546	2	689	395596	1
	As-1	75	199.761	ug/L	5.172	2	8149	397396	1
	Se	82	202.855	ug/L	1.372	0	6	43509	1
	Se	78	198.880	ug/L	3.439	1	8238	113270	1
	Y	89		ug/L			423263	415381	1
	Kr	83		ug/L			996	1231	1
>	In	115		ug/L			995712	959863 ✓	0
	Ag	107	196.388	ug/L	2.242	1	18	1760855	0
	Cd	111	195.304	ug/L	2.353	1	90	896670	1
	Cd	114	205.752	ug/L	3.023	1	23	2447167	1
	Sb	121	206.009	ug/L	1.950	0	39	2948734	1
	Sb	123	210.365	ug/L	1.805	0	31	2262759	1
>	Tb	159		ug/L			1259811	1273085 ✓	0
	Tl	205	193.526	ug/L	0.653	0	47	7943129	0
	Pb	208	196.557	ug/L	1.007	0	338	10375253	0
	Bi	209		ug/L			2857103	2616059	0
	Th	232	195.632	ug/L	0.492	0	56	10072655	0
	U	238	195.989	ug/L	1.734	0	2	10465546	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 14:14:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			125752	127002	1
	Cl	37		ug/L			5263608	5624844	1
>	Ge	72		ug/L			605627	572543 ✓	1
	Ni	60	290.964	ug/L	3.331	1	173	1059420	0
	Ni	62	306.338	ug/L	5.201	1	953	157171	1
	Cu	63	303.728	ug/L	3.780	1	1232	2388065	2
	Cu	65	282.882	ug/L	3.948	1	133	991881	0
	Zn	66	280.865	ug/L	8.502	3	625	579130	2
	Zn	67	277.438	ug/L	6.979	2	109	96700	1
	Zn	68	277.604	ug/L	5.940	2	522	408385	1
	As	75	290.281	ug/L	4.615	1	689	570193	0
	As-1	75	290.846	ug/L	4.790	1	8149	569856	0
	Se	82	288.537	ug/L	3.252	1	6	61317	0
	Se	78	283.167	ug/L	3.449	1	8238	156506	0
	Y	89		ug/L			423263	403707	0
	Kr	83		ug/L			996	1405	1
>	In	115		ug/L			995712	943097 ✓	1
	Ag	107	308.106	ug/L	6 839	2	18	2714073	1
	Cd	111	285.109	ug/L	4.945	1	90	1285944	1
	Cd	114	296.788	ug/L	4.575	1	23	3468023	0
	Sb	121	306.112	ug/L	3.970	1	39	4304753	0
	Sb	123	307.307	ug/L	3.745	1	31	3247462	0
>	Tb	159		ug/L			1259811	1243489 ✓	1
	Tl	205	288.204	ug/L	3.471	1	47	11552976	0
	Pb	208	292.941	ug/L	3.777	1	338	15101721	0
	Bi	209		ug/L			2857103	2495457	0
	Th	232	293.212	ug/L	3.309	1	56	14744392	0
	U	238	295.554	ug/L	5.182	1	2	15413021	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 14:19:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125752	126911	3
	Cl	37		ug/L			5263608	5626294	2
>	Ge	72		ug/L			605627	607111	1
	Ni	60	1.085	ug/L	0.038	3	173	4362	2
	Ni	62	1.447	ug/L	0.383	26	953	1737	11
	Cu	63	0.408	ug/L	0.045	11	1232	4631	6
	Cu	65	0.386	ug/L	0.013	3	133	1566	2
	Zn	66	3.894	ug/L	0.175	4	625	9128	2
	Zn	67	3.463	ug/L	0.115	3	109	1388	1
	Zn	68	3.748	ug/L	0.128	3	522	6362	1
	As	75	0.012	ug/L	0.037	307	689	714	8
	As-1	75	0.038	ug/L	0.109	290	8149	8243	1
	Se	82	-0.074	ug/L	0.083	112	6	-10	182
	Se	78	0.080	ug/L	0.362	451	8238	8300	0
	Y	89		ug/L			423263	438899	2
	Kr	83		ug/L			996	1042	2
>	In	115		ug/L			995712	1012503	0
	Ag	107	0.006	ug/L	0 001	10	18	77	8
	Cd	111	0.012	ug/L	0 003	28	90	148	10
	Cd	114	0.007	ug/L	0.001	19	23	112	15
	Sb	121	0.136	ug/L	0.006	4	39	2092	3
	Sb	123	0.138	ug/L	0.006	4	31	1601	3
>	Tb	159		ug/L			1259811	1265053	0
	Tl	205	0.045	ug/L	0.011	24	47	1870	24
	Pb	208	0.071	ug/L	0.001	1	338	4083	1
	Bi	209		ug/L			2857103	2875698	1
	Th	232	0.364	ug/L	0.050	13	56	18681	13
	U	238	0.006	ug/L	0 001	11	2	310	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 14:22:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125752	121477	2
	Cl	37		ug/L			5263608	5871141	1
>	Ge	72		ug/L			605627	608320 ✓	1
	Ni	60	50.621	ug/L	0.754	1	173	195986	1
	Ni	62	50.575	ug/L	0.573	1	953	28371	1
	Cu	63	50.128	ug/L	0.767	1	1232	419814	3
	Cu	65	50.562	ug/L	0.405	0	133	188486	0
	Zn	66	50.469	ug/L	0.550	1	625	111091	1
	Zn	67	49.896	ug/L	0.959	1	109	18568	0
	Zn	68	50.450	ug/L	2.020	4	522	79258	2
	As	75	49.973	ug/L	0.858	1	689	104864	0
	As-1	75	49.830	ug/L	1.080	2	8149	110508	0
	Se	82	52.372	ug/L	0.400	0	6	11830	1
	Se	78	50.562	ug/L	1.203	2	8238	36485	0
	Y	89		ug/L			423263	432739	1
	Kr	83		ug/L			996	1028	0
>	In	115		ug/L			995712	1004554 ✓	1
	Ag	107	50.263	ug/L	2.325	4	18	471471	3
	Cd	111	50.113	ug/L	1.030	2	90	240809	0
	Cd	114	50.429	ug/L	0.581	1	23	627751	1
	Sb	121	49.602	ug/L	1.261	2	39	742924	1
	Sb	123	50.548	ug/L	0.750	1	31	569007	1
>	Tb	159		ug/L			1259811	1277860 ✓	1
	Tl	205	51.812	ug/L	1.206	2	47	2134010	0
	Pb	208	50.053	ug/L	1.037	2	338	2651572	0
	Bi	209		ug/L			2857103	2797897	1
	Th	232	50.974	ug/L	1.001	1	56	2633987	1
	U	238	51.677	ug/L	0.943	1	2	2769282	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 14:27:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125752	123599	0
	Cl	37		ug/L			5263608	5528602	1
>	Ge	72		ug/L			605627	607343 ✓	1
	Ni	60	-0.014	ug/L	0.002	15	173	118	6
	Ni	62	-0.436	ug/L	0.111	25	953	720	7
	Cu	63	-0.037	ug/L	0.007	19	1232	928	5
	Cu	65	-0.003	ug/L	0.001	49	133	124	4
	Zn	66	0.019	ug/L	0.018	91	625	669	4
	Zn	67	-0.008	ug/L	0.030	363	109	107	11
	Zn	68	0.001	ug/L	0.003	369	522	525	0
	As	75	-0.015	ug/L	0.013	88	689	659	4
	As-1	75	0.021	ug/L	0.068	324	8149	8213	0
	Se	82	-0.019	ug/L	0.019	98	6	2	186
	Se	78	0.068	ug/L	0.250	366	8238	8298	0
	Y	89		ug/L			423263	434587	0
	Kr	83		ug/L			996	967	0
>	In	115		ug/L			995712	1029520 ✓	1
	Ag	107	0.003	ug/L	0.001	40	18	50	26
	Cd	111	0.005	ug/L	0.001	18	90	119	3
	Cd	114	0.003	ug/L	0.001	23	23	62	15
	Sb	121	0.066	ug/L	0.001	1	39	1056	0
	Sb	123	0.069	ug/L	0.004	5	31	825	4
>	Tb	159		ug/L			1259811	1267437 ✓	2
	Tl	205	0.020	ug/L	0.006	29	47	875	29
	Pb	208	0.002	ug/L	0.000	16	338	434	4
	Bi	209		ug/L			2857103	2894862	1
	Th	232	0.270	ug/L	0.006	2	56	13906	1
	U	238	0.003	ug/L	0.000	5	2	158	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 C REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 18, 2013 14:35:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

Dil

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			125752	129709	4
	Cl	37		ug/L			5263608	24871140	3
>	Ge	72		ug/L			605627	538692 ✓	1
	Ni	60	0.904	ug/L	0.033	3	173	3252	4
	Ni	62	383.518	ug/L	29.016	7	953	185015	8
	Cu	63	46.019	ug/L	2.907	6	1232	341457	7
	Cu	65	1.683	ug/L	0.070	4	133	5671	4
	Zn	66	3.750	ug/L	0.063	1	625	7826	2
	Zn	67	4.924	ug/L	0.228	4	109	1711	4
	Zn	68	4.324	ug/L	0.046	1	522	6442	1
	As	75	0.809	ug/L	0.032	4	689	2105	2
	As-1	75	2.248	ug/L	0.125	5	8149	11337	1
	Se	82	-1.549	ug/L	0.027	1	6	-303	0
	Se	78	5.918	ug/L	0.572	9	8238	10252	2
	Y	89		ug/L			423263	410815	2
	Kr	83		ug/L			996	2306	2
>	In	115		ug/L			995712	900430 ✓	1
	Ag	107	0.005	ug/L	0.000	7	18	62	5
	Cd	111	0.319	ug/L	0.038	11	90	1455	12
	Cd	114	0.370	ug/L	0.004	1	23	4147	1
	Sb	121	0.063	ug/L	0.004	5	39	882	4
	Sb	123	0.062	ug/L	0.005	8	31	654	7
>	Tb	159		ug/L			1259811	1199410 ✓	0
	Tl	205	0.018	ug/L	0.001	5	47	738	5
	Pb	208	0.346	ug/L	0.005	1	338	17517	1
	Bi	209		ug/L			2857103	2294593	0
	Th	232	0.137	ug/L	0.003	2	56	6698	2
	U	238	0.080	ug/L	0.001	1	2	4038	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 Q REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 18, 2013 14:38:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

Did not inject

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			125752	88584	16
	Cl	37		ug/L			5263608	3264960	17
>	Ge	72		ug/L			605627	1116684	24
	Ni	60	-0.033	ug/L	0 002	6	173	87	19
	Ni	62	4.488	ug/L	2.883	64	953	5877	27
	Cu	63	0.267	ug/L	0.177	66	1232	6036	25
	Cu	65	-0.005	ug/L	0.008	174	133	208	18
	Zn	66	-0.244	ug/L	0.007	2	625	170	26
	Zn	67	-0.221	ug/L	0.007	3	109	53	34
	Zn	68	-0.270	ug/L	0.006	2	522	190	24
	As	75	-0.096	ug/L	0.101	105	689	904	45
	As-1	75	-2.110	ug/L	0.255	12	8149	6917	11
	Se	82	-0.098	ug/L	0.016	16	6	-27	13
	Se	78	-7.928	ug/L	0.935	11	8238	6916	11
	Y	89		ug/L			423263	824395	26
	Kr	83		ug/L			996	1257	42
>	In	115		ug/L			995712	2011112	25
	Ag	107	-0.000	ug/L	0.000	115	18	33	25
	Cd	111	-0.005	ug/L	0.001	10	90	132	28
	Cd	114	0.000	ug/L	0.000	152	23	50	10
	Sb	121	0.007	ug/L	0.004	54	39	290	53
	Sb	123	0.006	ug/L	0.004	64	31	206	50
>	Tb	159		ug/L			1259811	2822385	20
	Tl	205	0.000	ug/L	0.000	54	47	144	31
	Pb	208	-0.005	ug/L	0.000	1	338	200	25
	Bi	209		ug/L			2857103	6151636	19
	Th	232	0.114	ug/L	0.094	82	56	13512	93
	U	238	0.000	ug/L	0.000	45	2	44	53

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 G REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 18, 2013 14:42:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		ug/L			125752	131331	1
Cl	37		ug/L			5263608	14304991	1
> Ge	72		ug/L			605627	564596 ✓	2
Ni	60	0.303	ug/L	0.019	6	173	1247	2
Ni	62	190.617	ug/L	27.593	14	953	96630	12
Cu	63	20.635	ug/L	2.349	11	1232	160843	9
Cu	65	0.576	ug/L	0.047	8	133	2112	6
Zn	66	0.655	ug/L	0.011	1	625	1913	1
Zn	67	2.519	ug/L	0.095	3	109	966	1
Zn	68	1.951	ug/L	0.181	9	522	3309	5
As	75	0.495	ug/L	0.023	4	689	1600	2
As-1	75	1.047	ug/L	0.247	23	8149	9584	2
Se	82	-0.162	ug/L	0.066	40	6	-28	50
Se	78	2.615	ug/L	0.865	33	8238	9028	2
Y	89		ug/L			423263	417925	1
Kr	83		ug/L			996	1443	3
> In	115		ug/L			995712	938010 ✓	2
Ag	107	0.002	ug/L	0.000	20	18	32	11
Cd	111	-0.019	ug/L	0.002	8	90	0	1244
Cd	114	0.005	ug/L	0.001	23	23	84	19
Sb	121	0.022	ug/L	0.002	9	39	347	6
Sb	123	0.023	ug/L	0.003	12	31	269	9
> Tb	159		ug/L			1259811	1244881 ✓	0
Tl	205	0.003	ug/L	0 000	11	47	161	7
Pb	208	0.033	ug/L	0.001	1	338	2039	1
Bi	209		ug/L			2857103	2466058	0
Th	232	0.022	ug/L	0.002	8	56	1139	8
U	238	0.039	ug/L	0.001	1	2	2027	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 H REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 18, 2013 14:48:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			125752	128181	4
	Cl	37		ug/L			5263608	11042526	3
>	Ge	72		ug/L			605627	557884	0
	Ni	60	0.953	ug/L	0.044	4	173	3542	4
	Ni	62	80.290	ug/L	6.497	8	953	40789	7
	Cu	63	13.829	ug/L	0.158	1	1232	107017	1
	Cu	65	5.587	ug/L	0.175	3	133	19209	2
	Zn	66	3.945	ug/L	0.106	2	625	8496	2
	Zn	67	5.612	ug/L	0.212	3	109	2005	4
	Zn	68	5.432	ug/L	0.083	1	522	8259	1
	As	75	41.104	ug/L	0.466	1	689	79226	0
	As-1	75	41.959	ug/L	0.475	1	8149	86538	0
	Se	82	0.286	ug/L	0.124	43	6	65	39
	Se	78	1.430	ug/L	0.306	21	8238	8320	2
	Y	89		ug/L			423263	411432	1
	Kr	83		ug/L			996	1097	5
>	In	115		ug/L			995712	937156	0
	Ag	107	0.069	ug/L	0.002	3	18	619	2
	Cd	111	0.115	ug/L	0.005	4	90	600	3
	Cd	114	0.106	ug/L	0.002	2	23	1255	1
	Sb	121	0.243	ug/L	0 003	1	39	3429	1
	Sb	123	0.246	ug/L	0.005	2	31	2608	2
>	Tb	159		ug/L			1259811	1248526	0
	Tl	205	0.003	ug/L	0.000	7	47	187	5
	Pb	208	8.878	ug/L	0 083	0	338	459923	0
	Bi	209		ug/L			2857103	2504734	0
	Th	232	0.025	ug/L	0.003	13	56	1300	13
	U	238	0.268	ug/L	0.002	0	2	14048	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 U REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 18, 2013 14:52:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			125752	131956	0
	Cl	37		ug/L			5263608	15465315	6
>	Ge	72		ug/L			605627	547726 ✓	2
	Ni	60	0.248	ug/L	0.006	2	173	1018	1
	Ni	62	190.862	ug/L	18.022	9	953	93905	7
	Cu	63	20.394	ug/L	1.493	7	1232	154272	5
	Cu	65	0.518	ug/L	0.029	5	133	1855	2
	Zn	66	0.616	ug/L	0.027	4	625	1777	0
	Zn	67	2.363	ug/L	0.118	5	109	886	5
	Zn	68	1.873	ug/L	0.067	3	522	3105	2
	As	75	0.496	ug/L	0.071	14	689	1552	5
	As-1	75	1.092	ug/L	0.228	20	8149	9382	2
	Se	82	-0.191	ug/L	0.027	14	6	-33	19
	Se	78	2.862	ug/L	0.634	22	8238	8883	1
	Y	89		ug/L			423263	399085	0
	Kr	83		ug/L			996	1473	1
>	In	115		ug/L			995712	930912 ✓	1
	Ag	107	0.002	ug/L	0.000	22	18	32	11
	Cd	111	-0.009	ug/L	0.006	67	90	43	64
	Cd	114	0.003	ug/L	0.001	29	23	54	17
	Sb	121	0.019	ug/L	0.002	8	39	296	8
	Sb	123	0.018	ug/L	0.002	9	31	221	8
>	Tb	159		ug/L			1259811	1228785 ✓	0
	Tl	205	0.002	ug/L	0.000	6	47	105	2
	Pb	208	0.011	ug/L	0.001	7	338	901	4
	Bi	209		ug/L			2857103	2427634	0
	Th	232	0.010	ug/L	0.001	6	56	576	5
	U	238	0.035	ug/L	0.001	2	2	1830	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 V REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 18, 2013 14:55:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125752	127712	0
	Cl	37		ug/L			5263608	11342869	3
>	Ge	72		ug/L			605627	548294 ✓	1
	Ni	60	**0.837**	ug/L	0.021	2	173	3076	2
	Ni	62	**78.294**	ug/L	1.263	1	953	39111	1
	Cu	63	**11.813**	ug/L	0.082	0	1232	90004	1
	Cu	65	**3.806**	ug/L	0.094	2	133	12896	0
	Zn	66	**2.601**	ug/L	0.048	1	625	5697	0
	Zn	67	**4.429**	ug/L	0.186	4	109	1575	2
	Zn	68	**4.174**	ug/L	0.114	2	522	6346	2
	As	75	**38.503**	ug/L	0.741	1	689	72964	0
	As-1	75	**39.372**	ug/L	0.807	2	8149	80249	0
	Se	82	**0.312**	ug/L	0.037	11	6	69	10
	Se	78	**1.645**	ug/L	0.211	12	8238	8285	0
	Y	89		ug/L			423263	397508	2
	Kr	83		ug/L			996	1072	3
>	In	115		ug/L			995712	932520 ✓	1
	Ag	107	**0.042**	ug/L	0.005	12	18	384	10
	Cd	111	**0.069**	ug/L	0.007	10	90	392	9
	Cd	114	**0.073**	ug/L	0.002	2	23	859	3
	Sb	121	**0.180**	ug/L	0.006	3	39	2536	1
	Sb	123	**0.185**	ug/L	0.002	0	31	1958	2
>	Tb	159		ug/L			1259811	1230210 ✓	1
	Tl	205	**0.003**	ug/L	0.000	2	47	162	3
	Pb	208	**6.636**	ug/L	0.079	1	338	338786	0
	Bi	209		ug/L			2857103	2489411	0
	Th	232	**0.015**	ug/L	0.001	6	56	813	5
	U	238	**0.257**	ug/L	0.002	0	2	13273	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 Q REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 18, 2013 14:59:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			125752	128555	1
	Cl	37		ug/L			5263608	19221143	1
>	Ge	72		ug/L			605627	525006	2
	Ni	60	0.218	ug/L	0.011	5	173	877	2
	Ni	62	71.660	ug/L	5.404	7	953	34364	8
	Cu	63	11.448	ug/L	0.350	3	1232	83574	4
	Cu	65	0.329	ug/L	0.006	1	133	1174	0
	Zn	66	0.716	ug/L	0.005	0	625	1894	2
	Zn	67	1.530	ug/L	0.028	1	109	583	2
	Zn	68	1.081	ug/L	0.011	1	522	1909	3
	As	75	0.590	ug/L	0.106	17	689	1661	13
	As-1	75	0.982	ug/L	0.106	10	8149	8802	2
	Se	82	0.267	ug/L	0.072	26	6	57	26
	Se	78	2.168	ug/L	0.478	22	8238	8182	0
	Y	89		ug/L			423263	391207	2
	Kr	83		ug/L			996	1160	0
>	In	115		ug/L			995712	905157	1
	Ag	107	0.002	ug/L	0.000	9	18	34	5
	Cd	111	-0.025	ug/L	0.009	37	90	-25	155
	Cd	114	0.007	ug/L	0.000	5	23	105	4
	Sb	121	0.030	ug/L	0.003	9	39	442	7
	Sb	123	0.033	ug/L	0.002	4	31	358	5
>	Tb	159		ug/L			1259811	1203706	0
	Tl	205	0.002	ug/L	0.000	13	47	114	8
	Pb	208	0.015	ug/L	0.001	5	338	1059	4
	Bi	209		ug/L			2857103	2373613	0
	Th	232	0.005	ug/L	0.001	11	56	317	9
	U	238	0.021	ug/L	0.000	1	2	1077	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 15:02:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		ug/L			125752	117171	1
Cl	37		ug/L			5263608	5657770	2
> Ge	72		ug/L			605627	581315 ✓	3
Ni	60	49.701	ug/L	1.706	3	173	183761	0
Ni	62	64.964	ug/L	2.613	4	953	34561	4
Cu	63	51.267	ug/L	2.186	4	1232	409835	1
Cu	65	49.492	ug/L	1.885	3	133	176182	0
Zn	66	50.739	ug/L	3.360	6	625	106583	3
Zn	67	50.551	ug/L	1.158	2	109	17972	1
Zn	68	50.354	ug/L	0.974	1	522	75605	2
As	75	49.750	ug/L	2.222	4	689	99688	1
As-1	75	49.746	ug/L	2.337	4	8149	105362	1
Se	82	51.659	ug/L	1.520	2	6	11145	0
Se	78	50.371	ug/L	1.847	3	8238	34749	0
Y	89		ug/L			423263	408396	0
Kr	83		ug/L			996	995	1
> In	115		ug/L			995712	980010 ✓	1
Ag	107	49.542	ug/L	1.123	2	18	453479	1
Cd	111	51.812	ug/L	0.620	1	90	242925	1
Cd	114	51.365	ug/L	0.498	0	23	623779	1
Sb	121	50.454	ug/L	1.372	2	39	737209	1
Sb	123	51.039	ug/L	0.696	1	31	560557	2
> Tb	159		ug/L			1259811	1256448 ✓	1
Tl	205	50.377	ug/L	1.800	3	47	2040731	4
Pb	208	50.546	ug/L	0.807	1	338	2632995	0
Bi	209		ug/L			2857103	2777473	0
Th	232	50.849	ug/L	0.883	1	56	2583482	1
U	238	51.550	ug/L	0.866	1	2	2716163	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 15:06:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			125752	119854	1
	Cl	37		ug/L			5263608	5418566	2
>	Ge	72		ug/L			605627	571347	1
	Ni	60	-0.032	ug/L	0.001	3	173	48	9
	Ni	62	6.330	ug/L	0.752	11	953	4118	7
	Cu	63	0.415	ug/L	0.053	12	1232	4416	8
	Cu	65	0.016	ug/L	0.009	57	133	182	17
	Zn	66	0.024	ug/L	0.027	110	625	640	10
	Zn	67	0.033	ug/L	0.020	59	109	115	4
	Zn	68	0.021	ug/L	0.016	78	522	523	4
	As	75	0.009	ug/L	0.015	160	689	668	5
	As-1	75	0.165	ug/L	0.067	40	8149	8004	0
	Se	82	0.003	ug/L	0.062	1833	6	7	188
	Se	78	0.609	ug/L	0.256	42	8238	8089	0
	Y	89		ug/L			423263	403634	1
	Kr	83		ug/L			996	962	2
>	In	115		ug/L			995712	997147	2
	Ag	107	0.002	ug/L	0.001	28	18	40	13
	Cd	111	0.004	ug/L	0.001	32	90	111	7
	Cd	114	0.002	ug/L	0.001	59	23	44	26
	Sb	121	0.046	ug/L	0.002	4	39	720	5
	Sb	123	0.045	ug/L	0.001	1	31	534	2
>	Tb	159		ug/L			1259811	1247217	0
	Tl	205	0.007	ug/L	0.001	14	47	310	12
	Pb	208	0.002	ug/L	0.001	38	338	428	8
	Bi	209		ug/L			2857103	2844044	1
	Th	232	0.214	ug/L	0.002	0	56	10863	1
	U	238	0.003	ug/L	0.000	4	2	135	4

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-21-13 **Analyst:** M **Page:** 1 **of** 3

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2995-15
		1			2998-7
		2			3005-6
		3			-7
		4			3007-2
		5			3006-2
		Rinse Sample			
		KV			2926-7
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			
		LR200			
		B1			
		B2			
		CCV2			
		CCB2			
		WA06 MB1	REN	2	
		MB2			
		VZ23 C		50	
		WA06 ADup		2	
		A			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-21-13 **Analyst:** AT **Page:** 2 of 3

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WA06 Aspk	REN	2 ✓	
		GDup		✓	
		G			
		Gspk		✓	
Label		MPolspk		✓	
		CCV3			
		CCB3			Th ↑
		WA06 B	REN	2	RR As 1/100
		C			
		D			RR As 1/200
		E			
		F			RR As 1/200
		H			RR As 1/100
		I			
		J			RR As 1/200
		K			
		MB2spk		✓	
		CCV4			
		CCB4			
		WA06 B	REN	100	As
		D		200	
		F			
		H		100	
		J		200	

AT 1-22-13

VZ23 00242

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Monday, January 21, 2013 09:45:44
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1732
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
Be	9.0	5558.0	5557.987	85.240	1.5	Standard
Mg	24.0	37218.1	37218.076	600.106	1.6	Standard
In	114.9	73695.8	73695.799	866.346	1.2	Standard
Pb	208.0	34281.1	34281.104	278.318	0.8	Standard
U	238.1	61886.1	61886.100	708.268	1.1	Standard
CeO	155.9	926.3	0.012	0.000	3.4	Standard
Ce	139.9	79208.4	79208.413	679.938	0.9	Standard
Ce++	70.0	685.2	0.009	0.000	2.2	Standard
Bkgd	220.0	0.1	0.100	0.091	91.3	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1712.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

VZ23 : 00243

SmartTune Wizard - Summary

ɔtimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/21/2013 9:45:42 AM
nd Time: 1/21/2013 9:48:19 AM

aily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5557.99
Obtained Intensity (Mg 23.985): 37218.08
Obtained Intensity (In 114.904): 73695.80
Obtained Intensity (Pb 207.977): 34281.10
Obtained Intensity (U 238.05): 61886.10
Obtained Intensity (Bkgd 220): 0.10
Obtained Formula (CeO 155.9 / Ce 139.905): 0.012 (=926.25 / 79208.41)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.009 (=685.23 / 79208.41)

VZ23 · 00244

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 1/21/2013 9:48:58 AM
End Time: 1/21/2013 9:50:07 AM

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
-1.05 mm	1.68 mm	89336.31

V223 00245

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/21/2013 9:50:13 AM
nd Time: 1/21/2013 9:52:26 AM

ass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.692)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.716)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.703)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.696)

V223 00246

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 1/21/2013 9:53:30 AM
End Time: 1/21/2013 9:57:41 AM

AutoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 1.000; Intercept = -11.94

VZ23 00247

SmartTune Wizard - Details

ptimization Details

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

ptimization Status

tart Time: 1/21/2013 9:58:13 AM

aily Performance Check

```
Optimization Settings:
        Method: C:\NexIONData\Method\Daily Performancenew.mth.
        Intensity Criterion: Be 9.0122 > 3000
        Intensity Criterion: Mg 23.985 > 20000
        Intensity Criterion: In 114.904 > 50000
        Intensity Criterion: Pb 207.977 > 20000
        Intensity Criterion: U 238.05 > 40000
        Intensity Criterion: Bkgd 220 <= 5
        Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
        Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

Optimization Results:
Initial Try
        Obtained Intensity (Be 9.0122): 6717.71
        Obtained Intensity (Mg 23.985): 44833.36
        Obtained Intensity (In 114.904): 92347.22
        Obtained Intensity (Pb 207.977): 40759.64
        Obtained Intensity (U 238.05): 71956.68
        Obtained Intensity (Bkgd 220): 0.03
        Obtained Formula (CeO 155.9 / Ce 139.905): 0.014 (=1340.17 / 92568.31)
        Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.011 (=1057.27 / 92568.31)
```

Passed] Optimum value(s): N/A

nd Time: 1/21/2013 10:00:48 AM

V223 00248

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:29:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L				128429	3
	Cl	37		ug/L				5089561	1
>	Ge	72		ug/L				689090	3
	Ni	60		ug/L				24	30
	Ni	62		ug/L				106	15
	Cu	63		ug/L				139	13
	Cu	65		ug/L				41	15
	Zn	66		ug/L				173	5
	Zn	67		ug/L				37	16
	Zn	68		ug/L				177	9
	As	75		ug/L				474	4
	As-1	75		ug/L				8932	0
	Se	82		ug/L				9	65
	Se	78		ug/L				9051	0
	Y	89		ug/L				458440	1
	Kr	83		ug/L				755	1
>	In	115		ug/L				1130079	1
	Ag	107		ug/L				21	9
	Cd	111		ug/L				80	16
	Cd	114		ug/L				30	13
	Sb	121		ug/L				41	37
	Sb	123		ug/L				28	25
>	Tb	159		ug/L				1365966	1
	Tl	205		ug/L				61	11
	Pb	208		ug/L				188	5
	Bi	209		ug/L				3069073	1
	Th	232		ug/L				47	40
	U	238		ug/L				2	43

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:33:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			128429	130277	2
	Cl	37		ug/L			5089561	5072938	3
>	Ge	72		ug/L			689090	682454	1
	Ni	60	0.500	ug/L	0.018	3	24	2358	2
	Ni	62	0.500	ug/L	0.020	3	106	420	1
	Cu	63	0.500	ug/L	0.007	1	139	5204	2
	Cu	65	0.500	ug/L	0.007	1	41	2218	1
	Zn	66	4.000	ug/L	0.175	4	173	10907	3
	Zn	67	4.000	ug/L	0.311	7	37	1608	6
	Zn	68	4.000	ug/L	0.083	2	177	7426	3
	As	75	0.200	ug/L	0.016	8	474	938	2
	As-1	75	0.200	ug/L	0.077	38	8932	9384	1
	Se	82	0.500	ug/L	0.032	6	9	139	4
	Se	78	0.500	ug/L	0.267	53	9051	9377	1
	Y	89		ug/L			458440	466650	0
	Kr	83		ug/L			755	766	4
>	In	115		ug/L			1130079	1131524	1
	Ag	107	0.200	ug/L	0.007	3	21	2246	2
	Cd	111	0.100	ug/L	0.005	4	80	667	3
	Cd	114	0.100	ug/L	0.005	5	30	1431	3
	Sb	121	0.200	ug/L	0.004	1	41	3128	0
	Sb	123	0.200	ug/L	0.004	1	28	2412	0
>	Tb	159		ug/L			1365966	1404556	1
	Tl	205	0.200	ug/L	0.002	0	61	8821	0
	Pb	208	0.100	ug/L	0.002	2	188	6170	1
	Bi	209		ug/L			3069073	3085954	1
	Th	232	0.200	ug/L	0.007	3	47	8716	3
	U	238	0.200	ug/L	0.004	1	2	10874	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:36:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	129658	2
	Cl	37		ug/L			5089561	5149061	1
>	Ge	72		ug/L			689090	688023	1
	Ni	60	9.999	ug/L	0.499	4	24	45495	3
	Ni	62	10.000	ug/L	0.510	5	106	6509	5
	Cu	63	9.999	ug/L	0.216	2	139	97246	1
	Cu	65	10.000	ug/L	0.114	1	41	43587	2
	Zn	66	9.946	ug/L	0.432	4	173	26197	2
	Zn	67	10.109	ug/L	0 174	1	37	4334	1
	Zn	68	10.011	ug/L	0.415	4	177	18586	2
	As	75	10.000	ug/L	0 239	2	474	23743	1
	As-1	75	9.999	ug/L	0.289	2	8932	32135	1
	Se	82	10.000	ug/L	0.281	2	9	2604	1
	Se	78	9.993	ug/L	0.493	4	9051	15583	0
	Y	89		ug/L			458440	462388	3
	Kr	83		ug/L			755	767	2
>	In	115		ug/L			1130079	1112461	0
	Ag	107	10.000	ug/L	0.100	0	21	107828	1
	Cd	111	10.000	ug/L	0 140	1	80	54916	1
	Cd	114	10.000	ug/L	0 108	1	30	137864	0
	Sb	121	10.000	ug/L	0.119	1	41	162662	0
	Sb	123	10.000	ug/L	0.160	1	28	122925	1
>	Tb	159		ug/L			1365966	1389107	1
	Tl	205	10.000	ug/L	0.174	1	61	425429	0
	Pb	208	10.000	ug/L	0.130	1	188	564374	0
	Bi	209		ug/L			3069073	3113721	4
	Th	232	10.001	ug/L	0.030	0	47	499977	1
	U	238	10.000	ug/L	0.137	1	2	543647	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:40:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	128774	1
	Cl	37		ug/L			5089561	5409704	1
>	Ge	72		ug/L			689090	721122	3
	Ni	60	19.800	ug/L	0.451	2	24	90778	1
	Ni	62	19.822	ug/L	0.127	0	106	12952	3
	Cu	63	19.849	ug/L	0.957	4	139	196118	1
	Cu	65	19.770	ug/L	0.919	4	41	86212	0
	Zn	66	19.726	ug/L	1.338	6	173	51779	3
	Zn	67	19.885	ug/L	0.812	4	37	8720	0
	Zn	68	19.829	ug/L	0.648	3	177	37296	0
	As	75	19.853	ug/L	1.235	6	474	47476	2
	As-1	75	19.819	ug/L	1.217	6	8932	55838	1
	Se	82	19.789	ug/L	1.093	5	9	5168	2
	Se	78	19.646	ug/L	1 029	5	9051	22061	0
	Y	89		ug/L			458440	473181	1
	Kr	83		ug/L			755	760	5
>	In	115		ug/L			1130079	1117336	0
	Ag	107	20.060	ug/L	0.660	3	21	219830	2
	Cd	111	19.997	ug/L	0.604	3	80	110149	3
	Cd	114	20.080	ug/L	0.342	1	30	282588	2
	Sb	121	19.969	ug/L	0.625	3	41	324180	2
	Sb	123	19.996	ug/L	0.305	1	28	246668	1
>	Tb	159		ug/L			1365966	1391237	1
	Tl	205	20.014	ug/L	0.134	0	61	855243	1
	Pb	208	19.997	ug/L	0.277	1	188	1129368	0
	Bi	209		ug/L			3069073	3040449	1
	Th	232	20.205	ug/L	0.231	1	47	1054773	1
	U	238	20.004	ug/L	0.397	1	2	1089971	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:44:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			128429	122219	2
	Cl	37		ug/L			5089561	5487872	3
>	Ge	72		ug/L			689090	678153	2
	Ni	60	50.129	ug/L	1.120	2	24	218974	0
	Ni	62	50.072	ug/L	0.405	0	106	30839	2
	Cu	63	50.087	ug/L	0.320	0	139	469758	1
	Cu	65	50.101	ug/L	1.563	3	41	207650	1
	Zn	66	50.233	ug/L	1 716	3	173	126744	1
	Zn	67	50.156	ug/L	1.340	2	37	20958	1
	Zn	68	50.271	ug/L	0.229	0	177	91110	2
	As	75	50.248	ug/L	2.125	4	474	115239	2
	As-1	75	50.296	ug/L	2.102	4	8932	123221	1
	Se	82	50.256	ug/L	1.609	3	9	12663	1
	Se	78	50.448	ug/L	1 635	3	9051	40760	0
	Y	89		ug/L			458440	457414	1
	Kr	83		ug/L			755	812	3
>	In	115		ug/L			1130079	1100823	1
	Ag	107	49.896	ug/L	0 930	1	21	533163	1
	Cd	111	49.822	ug/L	1.431	2	80	265441	1
	Cd	114	49.804	ug/L	0 962	1	30	677027	0
	Sb	121	49.952	ug/L	1.225	2	41	794965	0
	Sb	123	49.912	ug/L	1.631	3	28	601074	1
>	Tb	159		ug/L			1365966	1372084	1
	Tl	205	50.315	ug/L	0.830	1	61	2189179	1
	Pb	208	50.018	ug/L	0.625	1	188	2790865	0
	Bi	209		ug/L			3069073	2942490	0
	Th	232	50.503	ug/L	1.402	2	47	2737392	1
	U	238	50.323	ug/L	0.920	1	2	2794620	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:50:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	123911	0
	Cl	37		ug/L			5089561	5685490	2
>	Ge	72		ug/L			689090	675366	0
	Ni	60	99.521	ug/L	0.961	0	24	426232	0
	Ni	62	99.358	ug/L	3.406	3	106	59566	3
	Cu	63	99.104	ug/L	0.732	0	139	898746	0
	Cu	65	99.210	ug/L	2.834	2	41	399091	2
	Zn	66	98.426	ug/L	2.503	2	173	234992	2
	Zn	67	99.085	ug/L	4.279	4	37	39996	3
	Zn	68	98.642	ug/L	1.517	1	177	170223	1
	As	75	98.979	ug/L	2.152	2	474	218319	1
	As-1	75	98.954	ug/L	1.607	1	8932	225535	1
	Se	82	98.892	ug/L	1.544	1	9	23934	1
	Se	78	98.819	ug/L	0.521	0	9051	68682	0
	Y	89		ug/L			458440	446401	1
	Kr	83		ug/L			755	890	4
>	In	115		ug/L			1130079	1065262	0
	Ag	107	99.876	ug/L	1.862	1	21	1028546	1
	Cd	111	100.161	ug/L	2.049	2	80	519243	1
	Cd	114	99.896	ug/L	0.434	0	30	1309842	0
	Sb	121	100.248	ug/L	1.624	1	41	1557015	0
	Sb	123	100.312	ug/L	1.475	1	28	1181629	0
>	Tb	159		ug/L			1365966	1358868	0
	Tl	205	99.139	ug/L	1.163	1	61	4152910	0
	Pb	208	99.454	ug/L	1.283	1	188	5397489	0
	Bi	209		ug/L			3069073	2826329	1
	Th	232	99.886	ug/L	1.086	1	47	5342492	0
	U	238	99.611	ug/L	0.990	0	2	5408822	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:56:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	126510	3
	Cl	37		ug/L			5089561	5339238	1
>	Ge	72		ug/L			689090	691085	2
	Ni	60	0.007	ug/L	0.010	130	24	56	72
	Ni	62	0.068	ug/L	0.014	20	106	148	3
	Cu	63	0.014	ug/L	0.008	53	139	273	24
	Cu	65	0.010	ug/L	0.007	63	41	84	31
	Zn	66	-0.001	ug/L	0.005	996	173	172	5
	Zn	67	-0.008	ug/L	0 013	149	37	33	17
	Zn	68	0.023	ug/L	0.008	34	177	218	3
	As	75	0.006	ug/L	0.003	47	474	488	1
	As-1	75	0.005	ug/L	0.131	2514	8932	8964	1
	Se	82	-0.038	ug/L	0 058	152	9	0	1900
	Se	78	0.002	ug/L	0.473	26188	9051	9073	1
	Y	89		ug/L			458440	458575	1
	Kr	83		ug/L			755	789	2
>	In	115		ug/L			1130079	1114667	1
	Ag	107	0.007	ug/L	0.006	92	21	95	71
	Cd	111	0.013	ug/L	0.007	51	80	151	23
	Cd	114	0.006	ug/L	0.006	107	30	109	77
	Sb	121	0.067	ug/L	0.010	14	41	1135	14
	Sb	123	0.072	ug/L	0.018	24	28	921	24
>	Tb	159		ug/L			1365966	1371526	1
	Tl	205	0.023	ug/L	0.019	81	61	1032	77
	Pb	208	0.015	ug/L	0.018	119	188	1003	97
	Bi	209		ug/L			3069073	3090332	0
	Th	232	0.258	ug/L	0.022	8	47	13955	7
	U	238	0.012	ug/L	0.011	92	2	651	93

Sample Information

Sample Date/Time: Monday, January 21, 2013 10:50:16
Method File: C:\NexION Data\Method\200.8GFA+.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Ge	72							
Ni	60	**0.9999**	0.006	0.50	10	20	50	100
Ni	62	**0.9999**	0.001	0.50	10	20	50	100
Cu	63	**0.9999**	0.013	0.50	10	20	50	100
Cu	65	**0.9999**	0.006	0.50	10	20	50	100
Zn	66	**0.9996**	0.004	4.00	10	20	50	100
Zn	67	**0.9998**	0.001	4.00	10	20	50	100
Zn	68	**0.9997**	0.003	4.00	10	20	50	100
As	75	**0.9998**	0.003	0.20	10	20	50	100
As-1	75	**0.9998**	0.003	0.20	10	20	50	100
Se	82	**0.9995**	0.000	0.50	10	20	50	100
Se	78	**0.9997**	0.001	0.50	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.010	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.012	0.10	10	20	50	100
Sb	121	**1.0000**	0.015	0.20	10	20	50	100
Sb	123	**1.0000**	0.011	0.20	10	20	50	100
Tb	159							
Tl	205	**0.9999**	0.031	0.20	10	20	50	100
Pb	208	**1.0000**	0.040	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	0.039	0.20	10	20	50	100
U	238	**0.9999**	0.040	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:02:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	128647	0
	Cl	37		ug/L			5089561	5527500	1
>	Ge	72		ug/L			689090	665323	1
	Ni	60	52.974	ug/L	1.376	2	24	223519	2
	Ni	62	53.348	ug/L	1 353	2	106	31550	2
	Cu	63	52.740	ug/L	1 047	1	139	471312	3
	Cu	65	53.063	ug/L	0.639	1	41	210300	0
	Zn	66	53.038	ug/L	1.297	2	173	124839	3
	Zn	67	51.339	ug/L	0.545	1	37	20434	1
	Zn	68	51.851	ug/L	0.489	0	177	88228	1
	As	75	53.087	ug/L	0.468	0	474	115570	1
	As-1	75	52.850	ug/L	0.669	1	8932	122675	0
	Se	82	83.981	ug/L	0.628	0	9	19632	1
	Se	78	81.972	ug/L	1.651	2	9051	57595	0
	Y	89		ug/L			458440	455102	3
	Kr	83		ug/L			755	826	6
>	In	115		ug/L			1130079	1081092	0
	Ag	107	51.208	ug/L	1.106	2	21	535233	2
	Cd	111	49.374	ug/L	0.440	0	80	259824	0
	Cd	114	51.192	ug/L	0.607	1	30	681245	1
	Sb	121	49.602	ug/L	0.672	1	41	781936	1
	Sb	123	49.475	ug/L	0.620	1	28	591507	1
>	Tb	159		ug/L			1365966	1346737	0
	Tl	205	53.334	ug/L	0.724	1	61	2214398	1
	Pb	208	52.228	ug/L	0.516	0	188	2809398	0
	Bi	209		ug/L			3069073	2899450	1
	Th	232	52.900	ug/L	0.579	1	47	2804326	1
	U	238	53.835	ug/L	0.559	1	2	2897292	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:09:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	124818	2
	Cl	37		ug/L			5089561	5296767	3
>	Ge	72		ug/L			689090	680357	1
	Ni	60	0.000	ug/L	0.001	321	24	25	16
	Ni	62	0.024	ug/L	0.028	119	106	119	12
	Cu	63	0.005	ug/L	0.001	16	139	184	2
	Cu	65	0.002	ug/L	0.001	29	41	50	6
	Zn	66	-0.003	ug/L	0.002	59	173	164	1
	Zn	67	-0.002	ug/L	0.015	740	37	35	17
	Zn	68	0.015	ug/L	0.008	54	177	201	7
	As	75	0.008	ug/L	0.003	30	474	487	0
	As-1	75	0.037	ug/L	0.060	164	8932	8898	0
	Se	82	-0.078	ug/L	0.099	126	9	-8	267
	Se	78	0.115	ug/L	0.208	180	9051	9005	0
	Y	89		ug/L			458440	456220	1
	Kr	83		ug/L			755	815	8
>	In	115		ug/L			1130079	1083333	0
	Ag	107	0.001	ug/L	0.000	44	21	30	14
	Cd	111	0.005	ug/L	0.002	42	80	105	12
	Cd	114	0.001	ug/L	0.001	89	30	38	21
	Sb	121	0.017	ug/L	0.003	18	41	301	15
	Sb	123	0.017	ug/L	0.004	23	28	227	20
>	Tb	159		ug/L			1365966	1349252	1
	Tl	205	0.003	ug/L	0.001	36	61	174	23
	Pb	208	0.001	ug/L	0.000	31	188	239	6
	Bi	209		ug/L			3069073	2995457	0
	Th	232	0.143	ug/L	0.026	18	47	7650	17
	U	238	0.002	ug/L	0.000	25	2	100	23

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:12:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			128429	121712	1
	Cl	37		ug/L			5089561	5582373	2
>	Ge	72		ug/L			689090	673003	1
	Ni	60	50.985	ug/L	0.806	1	24	217593	0
	Ni	62	50.921	ug/L	0.472	0	106	30470	1
	Cu	63	50.904	ug/L	0.779	1	139	460090	1
	Cu	65	51.852	ug/L	0.697	1	41	207871	0
	Zn	66	51.699	ug/L	2.628	5	173	123047	4
	Zn	67	51.355	ug/L	0.261	0	37	20676	0
	Zn	68	51.001	ug/L	1.299	2	177	87796	3
	As	75	50.947	ug/L	1.247	2	474	112193	1
	As-1	75	50.677	ug/L	1.330	2	8932	119339	1
	Se	82	52.825	ug/L	0.924	1	9	12493	0
	Se	78	50.842	ug/L	1.240	2	9051	39492	0
	Y	89		ug/L			458440	457723	1
	Kr	83		ug/L			755	809	4
>	In	115		ug/L			1130079	1064576	0
	Ag	107	50.762	ug/L	0.822	1	21	522468	1
	Cd	111	50.767	ug/L	1 342	2	80	263071	2
	Cd	114	51.130	ug/L	1.752	3	30	670030	3
	Sb	121	50.781	ug/L	0.306	0	41	788291	0
	Sb	123	50.441	ug/L	0.189	0	28	593841	0
>	Tb	159		ug/L			1365966	1341103	1
	Tl	205	51.993	ug/L	0.758	1	61	2149278	0
	Pb	208	51.162	ug/L	0.978	1	188	2739993	0
	Bi	209		ug/L			3069073	2882299	1
	Th	232	51.089	ug/L	1 024	2	47	2696389	0
	U	238	51.259	ug/L	1.098	2	2	2746563	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:18:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	122798	0
	Cl	37		ug/L			5089561	5322194	4
>	Ge	72		ug/L			689090	682952	2
	Ni	60	0.001	ug/L	0.002	340	24	27	31
	Ni	62	0.015	ug/L	0.005	36	106	114	2
	Cu	63	0.005	ug/L	0.004	72	139	184	17
	Cu	65	0.004	ug/L	0.003	65	41	58	18
	Zn	66	-0.004	ug/L	0.010	233	173	162	16
	Zn	67	-0.003	ug/L	0.014	460	37	35	14
	Zn	68	0.006	ug/L	0.008	147	177	185	5
	As	75	-0.001	ug/L	0.025	2161	474	467	10
	As-1	75	0.052	ug/L	0.113	215	8932	8965	0
	Se	82	-0.055	ug/L	0.102	186	9	-3	680
	Se	78	0.204	ug/L	0.410	200	9051	9091	0
	Y	89		ug/L			458440	460784	3
	Kr	83		ug/L			755	799	5
>	In	115		ug/L			1130079	1099819	1
	Ag	107	0.002	ug/L	0.000	25	21	41	13
	Cd	111	0.006	ug/L	0.002	37	80	108	10
	Cd	114	0.001	ug/L	0.001	44	30	49	18
	Sb	121	0.033	ug/L	0.002	7	41	576	7
	Sb	123	0.031	ug/L	0.003	10	28	405	10
>	Tb	159		ug/L			1365966	1363534	0
	Tl	205	0.004	ug/L	0.001	32	61	235	24
	Pb	208	0.002	ug/L	0.001	69	188	274	22
	Bi	209		ug/L			3069073	3023444	0
	Th	232	0.193	ug/L	0.021	11	47	10393	11
	U	238	0.002	ug/L	0.001	28	2	128	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:22:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			128429	125814	0
	Cl	37		ug/L			5089561	5081699	2
>	Ge	72		ug/L			689090	695873	0
	Ni	60	0.543	ug/L	0.016	3	24	2420	3
	Ni	62	0.574	ug/L	0.041	7	106	461	5
	Cu	63	0.539	ug/L	0.020	3	139	5178	3
	Cu	65	0.550	ug/L	0.014	2	41	2320	2
	Zn	66	4.262	ug/L	0.042	0	173	10653	0
	Zn	67	4.001	ug/L	0.161	4	37	1700	3
	Zn	68	4.150	ug/L	0.050	1	177	7549	1
	As	75	0.199	ug/L	0.033	16	474	930	7
	As-1	75	0.143	ug/L	0.036	25	8932	9342	0
	Se	82	0.444	ug/L	0.093	20	9	118	19
	Se	78	0.304	ug/L	0.095	31	9051	9329	0
	Y	89		ug/L			458440	464884	1
	Kr	83		ug/L			755	815	5
>	In	115		ug/L			1130079	1104580	1
	Ag	107	0.207	ug/L	0.006	2	21	2226	1
	Cd	111	0.111	ug/L	0.006	5	80	676	2
	Cd	114	0.102	ug/L	0.003	3	30	1422	1
	Sb	121	0.205	ug/L	0.007	3	41	3349	2
	Sb	123	0.211	ug/L	0.003	1	28	2609	1
>	Tb	159		ug/L			1365966	1343427	0
	Tl	205	0.211	ug/L	0.003	1	61	8809	0
	Pb	208	0.111	ug/L	0.001	1	188	6132	0
	Bi	209		ug/L			3069073	3033821	0
	Th	232	0.232	ug/L	0.005	1	47	12299	1
	U	238	0.200	ug/L	0.004	1	2	10762	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:25:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	235344	4
	Cl	37		ug/L			5089561	14648763	0
>	Ge	72		ug/L			689090	672020	1
	Ni	60	0.354	ug/L	0.006	1	24	1530	2
	Ni	62	2.443	ug/L	0.293	11	106	1559	12
	Cu	63	0.778	ug/L	0.031	3	139	7157	5
	Cu	65	0.384	ug/L	0.007	1	41	1578	0
	Zn	66	1.137	ug/L	0.045	3	173	2868	4
	Zn	67	4.899	ug/L	0.151	3	37	2001	1
	Zn	68	0.572	ug/L	0.039	6	177	1152	4
	As	75	0.095	ug/L	0.034	36	474	670	9
	As-1	75	0.241	ug/L	0.119	49	8932	9233	1
	Se	82	-0.238	ug/L	0.104	43	9	-46	52
	Se	78	0.709	ug/L	0.335	47	9051	9252	1
	Y	89		ug/L			458440	448263	0
	Kr	83		ug/L			755	1058	2
>	In	115		ug/L			1130079	1059663	2
	Ag	107	0.021	ug/L	0.001	2	21	237	3
	Cd	111	0.160	ug/L	0.016	10	80	900	7
	Cd	114	0.257	ug/L	0.006	2	30	3379	0
	Sb	121	0.066	ug/L	0.002	3	41	1052	4
	Sb	123	0.070	ug/L	0.003	3	28	842	3
>	Tb	159		ug/L			1365966	1346705	0
	Tl	205	0.037	ug/L	0.001	2	61	1597	2
	Pb	208	0.033	ug/L	0.001	2	188	1957	1
	Bi	209		ug/L			3069073	2751370	0
	Th	232	0.150	ug/L	0.050	33	47	7990	33
	U	238	0.001	ug/L	0 000	28	2	67	27

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:31:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	245157	0
	Cl	37		ug/L			5089561	14619027	3
>	Ge	72		ug/L			689090	672502	2
	Ni	60	20.082	ug/L	0.821	4	24	85600	1
	Ni	62	22.475	ug/L	0.725	3	106	13487	0
	Cu	63	20.660	ug/L	0.498	2	139	186592	1
	Cu	65	20.205	ug/L	0.647	3	41	80921	0
	Zn	66	20.570	ug/L	1.149	5	173	48988	2
	Zn	67	22.195	ug/L	0.983	4	37	8942	1
	Zn	68	19.063	ug/L	0.986	5	177	32862	2
	As	75	19.479	ug/L	0.921	4	474	43119	1
	As-1	75	19.677	ug/L	1.058	5	8932	51598	1
	Se	82	-0.375	ug/L	0.059	15	9	-78	19
	Se	78	0.528	ug/L	0.544	103	9051	9145	0
	Y	89		ug/L			458440	444133	1
	Kr	83		ug/L			755	1132	2
>	In	115		ug/L			1130079	1082457	0
	Ag	107	19.813	ug/L	0.319	1	21	207378	2
	Cd	111	19.444	ug/L	0.251	1	80	102489	0
	Cd	114	19.737	ug/L	0.405	2	30	262973	1
	Sb	121	0.068	ug/L	0.003	4	41	1112	3
	Sb	123	0.066	ug/L	0.008	12	28	819	11
>	Tb	159		ug/L			1365966	1384865	1
	Tl	205	0.031	ug/L	0.000	1	61	1404	0
	Pb	208	0.035	ug/L	0.000	1	188	2114	1
	Bi	209		ug/L			3069073	2798961	0
	Th	232	0.056	ug/L	0.006	10	47	3118	9
	U	238	0.001	ug/L	0.000	39	2	36	37

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:37:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	130808	1
	Cl	37		ug/L			5089561	5658104	0
>	Ge	72		ug/L			689090	651297	2
	Ni	60	203.409	ug/L	8.886	4	24	839642	2
	Ni	62	205.286	ug/L	2.667	1	106	118554	1
	Cu	63	203.897	ug/L	4.190	2	139	1782535	0
	Cu	65	201.226	ug/L	4.387	2	41	780415	0
	Zn	66	198.562	ug/L	8.547	4	173	456753	2
	Zn	67	196.666	ug/L	3.264	1	37	76512	0
	Zn	68	199.182	ug/L	10.236	5	177	331070	3
	As	75	203.907	ug/L	5.762	2	474	433110	0
	As-1	75	204.107	ug/L	6.775	3	8932	439463	1
	Se	82	205.745	ug/L	2.434	1	9	47061	1
	Se	78	202.623	ug/L	6.181	3	9051	126741	0
	Y	89		ug/L			458440	430968	1
	Kr	83		ug/L			755	1120	2
>	In	115		ug/L			1130079	1051879	1
	Ag	107	218.156	ug/L	2.033	0	21	2218306	1
	Cd	111	201.640	ug/L	3.174	1	80	1032012	0
	Cd	114	210.697	ug/L	5.221	2	30	2727151	0
	Sb	121	212.112	ug/L	3.405	1	41	3252854	1
	Sb	123	213.684	ug/L	5.644	2	28	2484801	0
>	Tb	159		ug/L			1365966	1356786	1
	Tl	205	202.468	ug/L	1.811	0	61	8468475	0
	Pb	208	203.685	ug/L	1.958	0	188	11037201	0
	Bi	209		ug/L			3069073	2754514	0
	Th	232	201.989	ug/L	3.550	1	47	10786630	1
	U	238	204.629	ug/L	1.293	0	2	11094320	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:44:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	132195	0
	Cl	37		ug/L			5089561	5540511	2
>	Ge	72		ug/L			689090	688422	0
	Ni	60	1.184	ug/L	0.053	4	24	5194	4
	Ni	62	1.447	ug/L	0.111	7	106	989	7
	Cu	63	0.477	ug/L	0.053	11	139	4548	10
	Cu	65	0.454	ug/L	0.050	11	41	1905	11
	Zn	66	4.474	ug/L	0.130	2	173	11055	3
	Zn	67	3.949	ug/L	0.077	1	37	1660	1
	Zn	68	4.282	ug/L	0.091	2	177	7701	2
	As	75	0.032	ug/L	0.017	51	474	547	7
	As-1	75	0.045	ug/L	0.018	41	8932	9023	0
	Se	82	-0.013	ug/L	0.042	329	9	6	150
	Se	78	0.073	ug/L	0 014	18	9051	9087	0
	Y	89		ug/L			458440	473344	0
	Kr	83		ug/L			755	787	1
>	In	115		ug/L			1130079	1140477	0
	Ag	107	0.007	ug/L	0.007	100	21	103	80
	Cd	111	0.013	ug/L	0.005	33	80	155	17
	Cd	114	0.008	ug/L	0.006	68	30	149	55
	Sb	121	0.070	ug/L	0.005	6	41	1209	6
	Sb	123	0.071	ug/L	0.002	3	28	929	2
>	Tb	159		ug/L			1365966	1391812	0
	Tl	205	0.015	ug/L	0.000	3	61	699	2
	Pb	208	0.097	ug/L	0.002	2	188	5598	2
	Bi	209		ug/L			3069073	3096125	0
	Th	232	0.260	ug/L	0.034	12	47	14308	12
	U	238	0.026	ug/L	0.039	149	2	1465	149

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:48:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	120104	1
	Cl	37		ug/L			5089561	5351436	1
>	Ge	72		ug/L			689090	689007	2
	Ni	60	0.053	ug/L	0.002	3	24	256	2
	Ni	62	0.135	ug/L	0.014	10	106	189	4
	Cu	63	0.042	ug/L	0.001	2	139	530	3
	Cu	65	0.035	ug/L	0.001	2	41	184	0
	Zn	66	0.698	ug/L	0.010	1	173	1873	3
	Zn	67	0.614	ug/L	0.016	2	37	289	1
	Zn	68	0.713	ug/L	0.010	1	177	1431	3
	As	75	0.024	ug/L	0.027	113	474	527	11
	As-1	75	0.025	ug/L	0.059	239	8932	8985	1
	Se	82	-0.022	ug/L	0.104	477	9	4	538
	Se	78	0.049	ug/L	0 209	428	9051	9078	1
	Y	89		ug/L			458440	460159	0
	Kr	83		ug/L			755	807	2
>	In	115		ug/L			1130079	1122835	1
	Ag	107	0.001	ug/L	0.001	39	21	35	16
	Cd	111	0.007	ug/L	0.002	21	80	120	8
	Cd	114	0.002	ug/L	0.001	38	30	58	17
	Sb	121	0.022	ug/L	0 002	9	41	393	7
	Sb	123	0.023	ug/L	0.003	12	28	308	10
>	Tb	159		ug/L			1365966	1379688	0
	Tl	205	0.006	ug/L	0.001	23	61	297	19
	Pb	208	0.019	ug/L	0.001	5	188	1245	4
	Bi	209		ug/L			3069073	3084621	1
	Th	232	0.060	ug/L	0 010	16	47	3285	17
	U	238	0.001	ug/L	0.000	5	2	61	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:53:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	123649	1
	Cl	37		ug/L			5089561	5594963	1
>	Ge	72		ug/L			689090	688871	2
	Ni	60	50.206	ug/L	1.248	2	24	219266	0
	Ni	62	50.468	ug/L	0.648	1	106	30905	1
	Cu	63	51.393	ug/L	0.600	1	139	475391	1
	Cu	65	51.560	ug/L	0.993	1	41	211574	2
	Zn	66	50.798	ug/L	1.302	2	173	123767	1
	Zn	67	51.229	ug/L	1.730	3	37	21103	1
	Zn	68	51.140	ug/L	1.188	2	177	90072	1
	As	75	50.364	ug/L	0.770	1	474	113526	0
	As-1	75	50.572	ug/L	0.808	1	8932	121914	0
	Se	82	51.684	ug/L	0.792	1	9	12511	0
	Se	78	51.452	ug/L	1.057	2	9051	40796	0
	Y	89		ug/L			458440	459226	0
	Kr	83		ug/L			755	837	2
>	In	115		ug/L			1130079	1101850	1
	Ag	107	51.963	ug/L	0.718	1	21	553543	1
	Cd	111	50.480	ug/L	2.092	4	80	270651	3
	Cd	114	50.639	ug/L	0.800	1	30	686718	0
	Sb	121	50.085	ug/L	0.583	1	41	804666	1
	Sb	123	50.410	ug/L	0.899	1	28	614156	0
>	Tb	159		ug/L			1365966	1373406	1
	Tl	205	51.963	ug/L	0.839	1	61	2199918	0
	Pb	208	50.764	ug/L	0.453	0	188	2784525	0
	Bi	209		ug/L			3069073	2952266	0
	Th	232	50.628	ug/L	0.677	1	47	2736741	0
	U	238	51.215	ug/L	0.756	1	2	2810460	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:59:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	125267	1
	Cl	37		ug/L			5089561	5433681	3
>	Ge	72		ug/L			689090	695272	2
	Ni	60	0.002	ug/L	0 000	11	24	35	4
	Ni	62	0.050	ug/L	0.039	79	106	138	17
	Cu	63	0.007	ug/L	0.001	9	139	202	1
	Cu	65	0.005	ug/L	0.003	56	41	62	17
	Zn	66	-0.009	ug/L	0.003	32	173	154	3
	Zn	67	-0.031	ug/L	0.009	27	37	24	16
	Zn	68	0.008	ug/L	0 007	93	177	192	7
	As	75	0.019	ug/L	0.017	88	474	522	8
	As-1	75	-0.020	ug/L	0.099	483	8932	8964	1
	Se	82	-0.001	ug/L	0.072	4960	9	9	181
	Se	78	-0.090	ug/L	0.335	370	9051	9073	1
	Y	89		ug/L			458440	460300	1
	Kr	83		ug/L			755	804	4
>	In	115		ug/L			1130079	1115466	1
	Ag	107	0.001	ug/L	0.001	124	21	34	48
	Cd	111	0.006	ug/L	0.001	23	80	109	7
	Cd	114	0.001	ug/L	0.000	42	30	43	13
	Sb	121	0.035	ug/L	0 004	11	41	603	8
	Sb	123	0.035	ug/L	0.004	12	28	454	10
>	Tb	159		ug/L			1365966	1377913	0
	Tl	205	0.004	ug/L	0.001	22	61	238	17
	Pb	208	0.001	ug/L	0.000	23	188	270	6
	Bi	209		ug/L			3069073	3085514	0
	Th	232	0.179	ug/L	0.030	16	47	9739	17
	U	238	0.002	ug/L	0.000	19	2	109	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:05:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	133182	4
	Cl	37		ug/L			5089561	5309517	2
>	Ge	72		ug/L			689090	698708	2
	Ni	60	0.002	ug/L	0.002	84	24	34	21
	Ni	62	0.021	ug/L	0.010	45	106	121	4
	Cu	63	0.242	ug/L	0.010	4	139	2409	3
	Cu	65	0.242	ug/L	0 002	0	41	1048	1
	Zn	66	0.582	ug/L	0 016	2	173	1613	1
	Zn	67	0.496	ug/L	0.070	14	37	244	10
	Zn	68	0.557	ug/L	0.014	2	177	1172	0
	As	75	0.043	ug/L	0 013	28	474	580	6
	As-1	75	0.066	ug/L	0.089	134	8932	9204	1
	Se	82	0.012	ug/L	0.083	718	9	13	158
	Se	78	0.132	ug/L	0.335	253	9051	9257	1
	Y	89		ug/L			458440	473883	1
	Kr	83		ug/L			755	797	4
>	In	115		ug/L			1130079	1137115	1
	Ag	107	0.000	ug/L	0.000	35	21	24	2
	Cd	111	0.007	ug/L	0.002	28	80	118	8
	Cd	114	0.001	ug/L	0.000	69	30	39	17
	Sb	121	0.044	ug/L	0.051	115	41	767	107
	Sb	123	0.015	ug/L	0.001	3	28	219	3
>	Tb	159		ug/L			1365966	1377585	0
	Tl	205	0.010	ug/L	0.001	9	61	466	8
	Pb	208	0.008	ug/L	0.001	7	188	649	5
	Bi	209		ug/L			3069073	3012856	0
	Th	232	0.098	ug/L	0.004	3	47	5350	4
	U	238	0.001	ug/L	0.000	11	2	38	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:08:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			128429	132527	2
	Cl	37		ug/L			5089561	5349942	2
>	Ge	72		ug/L			689090	705041	0
	Ni	60	0.003	ug/L	0.002	63	24	39	23
	Ni	62	0.001	ug/L	0.026	1954	106	110	15
	Cu	63	0.196	ug/L	0.001	0	139	2000	0
	Cu	65	0.195	ug/L	0.010	5	41	862	4
	Zn	66	0.738	ug/L	0.025	3	173	2015	2
	Zn	67	0.649	ug/L	0 042	6	37	311	4
	Zn	68	0.752	ug/L	0.031	4	177	1533	2
	As	75	0.052	ug/L	0.022	41	474	605	8
	As-1	75	0.021	ug/L	0.043	208	8932	9186	0
	Se	82	0.018	ug/L	0.050	281	9	14	84
	Se	78	-0.048	ug/L	0.151	315	9051	9230	0
	Y	89		ug/L			458440	475959	3
	Kr	83		ug/L			755	812	2
>	In	115		ug/L			1130079	1136019	1
	Ag	107	0.001	ug/L	0.000	46	21	31	13
	Cd	111	0.007	ug/L	0.003	44	80	117	14
	Cd	114	0.001	ug/L	0.001	95	30	42	25
	Sb	121	0.008	ug/L	0.001	7	41	179	4
	Sb	123	0.009	ug/L	0.001	16	28	140	11
>	Tb	159		ug/L			1365966	1378163	0
	Tl	205	0.004	ug/L	0 000	11	61	250	7
	Pb	208	0.011	ug/L	0.000	4	188	788	3
	Bi	209		ug/L			3069073	3064036	0
	Th	232	0.042	ug/L	0.002	3	47	2309	4
	U	238	0.001	ug/L	0.000	28	2	42	27

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 C REN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Monday, January 21, 2013 12:12:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			128429	121008	3
	Cl	37		ug/L			5089561	14230739	3
>	Ge	72		ug/L			689090	647111	1
	Ni	60	0.358	ug/L	0.016	4	24	1489	3
	Ni	62	51.489	ug/L	17.469	33	106	29636	33
	Cu	63	8.013	ug/L	1.740	21	139	69763	21
	Cu	65	0.546	ug/L	0.025	4	41	2142	5
	Zn	66	0.951	ug/L	0.051	5	173	2336	4
	Zn	67	1.489	ug/L	0.104	6	37	610	6
	Zn	68	1.232	ug/L	0.021	1	177	2201	1
	As	75	0.316	ug/L	0.036	11	474	1112	5
	As-1	75	0.636	ug/L	0.105	16	8932	9722	1
	Se	82	-0.148	ug/L	0.096	64	9	-24	89
	Se	78	1.460	ug/L	0.270	18	9051	9345	1
	Y	89		ug/L			458440	440928	2
	Kr	83		ug/L			755	1045	4
>	In	115		ug/L			1130079	1048072	0
	Ag	107	0.001	ug/L	0.000	39	21	30	13
	Cd	111	0.131	ug/L	0.001	1	80	743	1
	Cd	114	0.150	ug/L	0.005	3	30	1961	3
	Sb	121	0.018	ug/L	0.001	4	41	320	4
	Sb	123	0.019	ug/L	0.001	7	28	241	6
>	Tb	159		ug/L			1365966	1331133	0
	Tl	205	0.005	ug/L	0.001	10	61	279	7
	Pb	208	0.129	ug/L	0.003	2	188	7021	1
	Bi	209		ug/L			3069073	2667037	0
	Th	232	0.028	ug/L	0.000	1	47	1513	1
	U	238	0.031	ug/L	0.001	2	2	1675	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:15:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	133544	4
	Cl	37		ug/L			5089561	5470698	2
>	Ge	72		ug/L			689090	674471	0
	Ni	60	4.771	ug/L	0.019	0	24	20430	0
	Ni	62	8.753	ug/L	0.986	11	106	5335	11
	Cu	63	11.925	ug/L	0.403	3	139	108123	3
	Cu	65	10.914	ug/L	0.242	2	41	43886	2
	Zn	66	108.250	ug/L	2.698	2	173	258109	2
	Zn	67	95.203	ug/L	1.569	1	37	38384	1
	Zn	68	105.463	ug/L	1.174	1	177	181734	1
	As	75	31.444	ug/L	0.232	0	474	69586	0
	As-1	75	31.718	ug/L	0.223	0	8932	78140	0
	Se	82	0.247	ug/L	0.022	8	9	68	7
	Se	78	0.829	ug/L	0.028	3	9051	9360	0
	Y	89		ug/L			458440	466719	2
	Kr	83		ug/L			755	837	1
>	In	115		ug/L			1130079	1092630	2
	Ag	107	0.053	ug/L	0.005	9	21	576	6
	Cd	111	0.637	ug/L	0.016	2	80	3461	0
	Cd	114	0.634	ug/L	0.023	3	30	8549	1
	Sb	121	3.968	ug/L	0.066	1	41	63235	0
	Sb	123	3.947	ug/L	0.098	2	28	47703	0
>	Tb	159		ug/L			1365966	1369081	1
	Tl	205	U 0.010	ug/L	0.001	5	61	487	6
	Pb	208	37.189	ug/L	0.483	1	188	2033423	0
	Bi	209		ug/L			3069073	2797356	1
	Th	232	0.086	ug/L	0.010	11	47	4710	13
	U	238	0.447	ug/L	0.009	1	2	24454	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:19:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		ug/L			128429	134855	1
Cl	37		ug/L			5089561	5445807	1
> Ge	72		ug/L			689090	665020	1
Ni	60	4.737	ug/L	0.222	4	24	19990	3
Ni	62	6.826	ug/L	0.368	5	106	4122	3
Cu	63	11.283	ug/L	0.084	0	139	100872	1
Cu	65	10.401	ug/L	0.182	1	41	41231	0
Zn	66	104.048	ug/L	1.549	1	173	244581	0
Zn	67	94.177	ug/L	2.822	2	37	37428	1
Zn	68	102.774	ug/L	1.388	1	177	174604	1
As	75	30.477	ug/L	0.448	1	474	66504	0
As-1	75	30.738	ug/L	0.489	1	8932	74918	0
Se	82	0.180	ug/L	0.052	29	9	51	23
Se	78	0.750	ug/L	0.289	38	9051	9180	0
Y	89		ug/L			458440	453535	3
Kr	83		ug/L			755	839	2
> In	115		ug/L			1130079	1094581	1
Ag	107	0.044	ug/L	0.004	9	21	490	8
Cd	111	0.631	ug/L	0.005	0	80	3441	1
Cd	114	0.622	ug/L	0.003	0	30	8405	0
Sb	121	3.814	ug/L	0.067	1	41	60905	0
Sb	123	3.853	ug/L	0.010	0	28	46661	1
> Tb	159		ug/L			1365966	1386714	0
Tl	205	0.009	ug/L	0.000	5	61	431	3
Pb	208	35.505	ug/L	0 348	0	188	1966557	0
Bi	209		ug/L			3069073	2796192	1
Th	232	0.060	ug/L	0.002	3	47	3303	3
U	238	0.429	ug/L	0.011	2	2	23761	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:22:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	134225	1
	Cl	37		ug/L			5089561	5661223	1
>	Ge	72		ug/L			689090	673121	1
	Ni	60	30.163	ug/L	1.121	3	24	128748	3
	Ni	62	31.938	ug/L	0.755	2	106	19150	2
	Cu	63	35.939	ug/L	0.796	2	139	324867	1
	Cu	65	36.090	ug/L	0 981	2	41	144705	1
	Zn	66	178.181	ug/L	5.763	3	173	423763	1
	Zn	67	161.126	ug/L	1.984	1	37	64803	0
	Zn	68	174.841	ug/L	1.830	1	177	300555	1
	As	75	55.101	ug/L	1.272	2	474	121327	1
	As-1	75	55.279	ug/L	0.926	1	8932	129415	1
	Se	82	79.721	ug/L	1.615	2	9	18852	0
	Se	78	79.197	ug/L	0.832	1	9051	56601	0
	Y	89		ug/L			458440	460509	2
	Kr	83		ug/L			755	836	2
>	In	115		ug/L			1130079	1099744	2
	Ag	107	26.027	ug/L	0.583	2	21	276648	0
	Cd	111	24.873	ug/L	0.509	2	80	133149	1
	Cd	114	25.102	ug/L	0.721	2	30	339657	0
	Sb	121	27.383	ug/L	0.554	2	41	439022	1
	Sb	123	27.195	ug/L	0.876	3	28	330592	1
>	Tb	159		ug/L			1365966	1380683	2
	Tl	205	25.342	ug/L	0.172	0	61	1078720	2
	Pb	208	60.128	ug/L	1.606	2	188	3314756	1
	Bi	209		ug/L			3069073	2821842	0
	Th	232	25.573	ug/L	0.354	1	47	1389597	0
	U	238	25.812	ug/L	0.409	1	2	1423893	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VW06 GDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:26:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	141840	1
	Cl	37		ug/L			5089561	5697094	1
>	Ge	72		ug/L			689090	656504	1
	Ni	60	3.384	ug/L	0.166	4	24	14106	3
	Ni	62	3.827	ug/L	0.173	4	106	2327	4
	Cu	63	5.770	ug/L	0.116	2	139	50986	1
	Cu	65	5.232	ug/L	0 135	2	41	20495	2
	Zn	66	60.568	ug/L	1.508	2	173	140656	3
	Zn	67	55.995	ug/L	1.270	2	37	21985	1
	Zn	68	59.008	ug/L	1 097	1	177	99035	1
	As	75	24.955	ug/L	0.387	1	474	53840	0
	As-1	75	25.135	ug/L	0.450	1	8932	62028	0
	Se	82	0.199	ug/L	0.029	14	9	55	10
	Se	78	0.552	ug/L	0.251	45	9051	8946	0
	Y	89		ug/L			458440	445412	2
	Kr	83		ug/L			755	816	1
>	In	115		ug/L			1130079	1089017	1
	Ag	107	0.011	ug/L	0.002	17	21	139	15
	Cd	111	0.170	ug/L	0.003	1	80	976	2
	Cd	114	0.161	ug/L	0.002	1	30	2192	1
	Sb	121	3.385	ug/L	0.043	1	41	53793	0
	Sb	123	3.373	ug/L	0.086	2	28	40637	1
>	Tb	159		ug/L			1365966	1377502	0
	Tl	205	0.008	ug/L	0.001	6	61	421	5
	Pb	208	2.332	ug/L	0.024	1	188	128474	0
	Bi	209		ug/L			3069073	2823684	0
	Th	232	0.159	ug/L	0.060	37	47	8696	38
	U	238	0.417	ug/L	0 005	1	2	22963	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:29:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	139794	1
	Cl	37		ug/L			5089561	5653346	1
>	Ge	72		ug/L			689090	653914	1
	Ni	60	**3.240**	ug/L	0.059	1	24	13459	2
	Ni	62	**3.489**	ug/L	0.081	2	106	2122	1
	Cu	63	**5.679**	ug/L	0.019	0	139	49988	0
	Cu	65	**4.890**	ug/L	0.101	2	41	19082	0
	Zn	66	**59.049**	ug/L	2.089	3	173	136552	2
	Zn	67	**54.586**	ug/L	1.612	2	37	21347	1
	Zn	68	**58.343**	ug/L	0.441	0	177	97545	1
	As	75	**24.321**	ug/L	0.457	1	474	52275	0
	As-1	75	**24.502**	ug/L	0.519	2	8932	60441	0
	Se	82	**0.204**	ug/L	0.068	33	9	56	28
	Se	78	**0.570**	ug/L	0.265	46	9051	8921	0
	Y	89		ug/L			458440	445634	1
	Kr	83		ug/L			755	811	8
>	In	115		ug/L			1130079	1083823	1
	Ag	107	**0.008**	ug/L	0.000	2	21	108	2
	Cd	111	**0.171**	ug/L	0.011	6	80	979	5
	Cd	114	**0.162**	ug/L	0.005	3	30	2188	1
	Sb	121	**3.333**	ug/L	0.079	2	41	52694	0
	Sb	123	**3.319**	ug/L	0.088	2	28	39799	1
>	Tb	159		ug/L			1365966	1384551	0
	Tl	205	**0.008**	ug/L	0.000	1	61	391	1
	Pb	208	**2.234**	ug/L	0.032	1	188	123721	0
	Bi	209		ug/L			3069073	2819422	0
	Th	232	**0.040**	ug/L	0.002	6	47	2211	6
	U	238	**0.405**	ug/L	0.003	0	2	22388	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 GSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:33:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			128429	134825	0
	Cl	37		ug/L			5089561	5649792	3
>	Ge	72		ug/L			689090	653578	1
	Ni	60	29.831	ug/L	0.930	3	24	123621	1
	Ni	62	29.085	ug/L	0.361	1	106	16945	2
	Cu	63	32.559	ug/L	0.292	0	139	285812	0
	Cu	65	32.031	ug/L	0.432	1	41	124725	1
	Zn	66	141.918	ug/L	2.874	2	173	327798	1
	Zn	67	127.702	ug/L	3.744	2	37	49865	1
	Zn	68	137.160	ug/L	3.231	2	177	228943	1
	As	75	51.291	ug/L	1.666	3	474	109679	2
	As-1	75	51.424	ug/L	1.919	3	8932	117461	2
	Se	82	82.374	ug/L	1.169	1	9	18915	1
	Se	78	81.725	ug/L	2.035	2	9051	56430	0
	Y	89		ug/L			458440	452693	0
	Kr	83		ug/L			755	802	1
>	In	115		ug/L			1130079	1077399	1
	Ag	107	26.804	ug/L	1.355	5	21	279103	3
	Cd	111	24.967	ug/L	0.363	1	80	130956	0
	Cd	114	24.928	ug/L	0 092	0	30	330601	1
	Sb	121	27.882	ug/L	0.519	1	41	437975	0
	Sb	123	27.921	ug/L	0.563	2	28	332616	0
>	Tb	159		ug/L			1365966	1353491	0
	Tl	205	25.857	ug/L	0.188	0	61	1078949	0
	Pb	208	28.325	ug/L	0.223	0	188	1531335	0
	Bi	209		ug/L			3069073	2772862	1
	Th	232	25.851	ug/L	0.476	1	47	1377234	1
	U	238	26.516	ug/L	0.244	0	2	1434181	1

M 1-2-13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:36:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	132532	1
	Cl	37		ug/L			5089561	5666793	1
>	Ge	72		ug/L			689090	688630	2
	Ni	60	26.454	ug/L	0.477	1	24	115524	2
	Ni	62	25.581	ug/L	0.419	1	106	15711	1
	Cu	63	26.782	ug/L	0.486	1	139	247675	0
	Cu	65	26.870	ug/L	1.726	6	41	110130	3
	Zn	66	83.220	ug/L	2.917	3	173	202510	0
	Zn	67	76.520	ug/L	2.428	3	37	31491	1
	Zn	68	80.210	ug/L	0 869	1	177	141137	1
	As	75	25.477	ug/L	0.922	3	474	57618	1
	As-1	75	24.963	ug/L	1.067	4	8932	64648	1
	Se	82	80.929	ug/L	1.747	2	9	19575	0
	Se	78	78.351	ug/L	2.232	2	9051	57364	0
	Y	89		ug/L			458440	451933	1
	Kr	83		ug/L			755	813	4
>	In	115		ug/L			1130079	1115199	1
	Ag	107	26.414	ug/L	0.726	2	21	284755	2
	Cd	111	24.924	ug/L	0.687	2	80	135298	1
	Cd	114	25.048	ug/L	0.288	1	30	343827	0
	Sb	121	23.986	ug/L	0.212	0	41	390035	0
	Sb	123	24.258	ug/L	1.032	4	28	299061	2
>	Tb	159		ug/L			1365966	1365516	1
	Tl	205	26.365	ug/L	0.205	0	61	1109875	0
	Pb	208	26.740	ug/L	0.257	0	188	1458452	0
	Bi	209		ug/L			3069073	3082324	0
	Th	232	25.114	ug/L	0.508	2	47	1349708	0
	U	238	25.223	ug/L	0.216	0	2	1376276	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 12:41:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			128429	116735	1
	Cl	37		ug/L			5089561	5840550	0
>	Ge	72		ug/L			689090	674013	1
	Ni	60	49.856	ug/L	0.365	0	24	213101	0
	Ni	62	50.585	ug/L	1.689	3	106	30310	3
	Cu	63	49.477	ug/L	1.416	2	139	447776	1
	Cu	65	50.646	ug/L	1.741	3	41	203302	2
	Zn	66	51.106	ug/L	0.835	1	173	121847	0
	Zn	67	52.006	ug/L	1.364	2	37	20967	2
	Zn	68	50.932	ug/L	0.346	0	177	87799	1
	As	75	50.340	ug/L	1.399	2	474	111022	1
	As-1	75	50.273	ug/L	1.511	3	8932	118625	1
	Se	82	51.845	ug/L	0.842	1	9	12281	1
	Se	78	50.665	ug/L	0.949	1	9051	39445	0
	Y	89		ug/L			458440	441879	3
	Kr	83		ug/L			755	856	4
>	In	115		ug/L			1130079	1081407	1
	Ag	107	51.096	ug/L	1.481	2	21	534047	1
	Cd	111	51.473	ug/L	1.356	2	80	270865	1
	Cd	114	51.309	ug/L	1.459	2	30	682888	2
	Sb	121	50.473	ug/L	1.556	3	41	795627	1
	Sb	123	50.559	ug/L	1.127	2	28	604485	0
>	Tb	159		ug/L			1365966	1355829	0
	Tl	205	53.211	ug/L	0.031	0	61	2224183	0
	Pb	208	50.997	ug/L	0.458	0	188	2761675	0
	Bi	209		ug/L			3069073	2940542	0
	Th	232	51.358	ug/L	0.149	0	47	2740993	0
	U	238	52.052	ug/L	0.278	0	2	2820142	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 12:47:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	121609	1
	Cl	37		ug/L			5089561	5732225	1
>	Ge	72		ug/L			689090	684571	1
	Ni	60	0.002	ug/L	0.003	122	24	33	34
	Ni	62	0.037	ug/L	0.023	62	106	128	9
	Cu	63	0.007	ug/L	0.003	43	139	206	15
	Cu	65	0.005	ug/L	0.002	46	41	61	16
	Zn	66	-0.000	ug/L	0.002	1923	173	172	3
	Zn	67	-0.000	ug/L	0.014	4176	37	36	17
	Zn	68	0.002	ug/L	0.012	519	177	179	10
	As	75	0.020	ug/L	0.020	96	474	516	7
	As-1	75	0.001	ug/L	0.061	4357	8932	8875	0
	Se	82	-0.018	ug/L	0.114	618	9	5	505
	Se	78	-0.010	ug/L	0.205	2026	9051	8984	0
	Y	89		ug/L			458440	459160	2
	Kr	83		ug/L			755	809	3
>	In	115		ug/L			1130079	1117394	1
	Ag	107	0.003	ug/L	0.005	143	21	59	92
	Cd	111	0.018	ug/L	0.011	63	80	176	35
	Cd	114	0.007	ug/L	0.011	158	30	128	122
	Sb	121	0.039	ug/L	0 006	15	41	670	15
	Sb	123	0.036	ug/L	0.006	16	28	479	16
>	Tb	159		ug/L			1365966	1372883	0
	Tl	205	0.006	ug/L	0.006	88	61	325	72
	Pb	208	0.005	ug/L	0.005	107	188	451	62
	Bi	209		ug/L			3069073	3076210	0
	Th	232	0.203	ug/L	0.033	16	47	11026	16
	U	238	0.004	ug/L	0.004	83	2	235	82

Mercury Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: VZ23, VZ24

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: DM

Date: 01-14-13

Final Volume _____

Final Volume (Hg): 20

Sample ID V224 BSPK, MB1SPK PSPK, MB2SPK

	Prepcode:			
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:			
	Vol Added (mL):			
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	TLM	CVA	1.0	0.02	2008-3
Hg MBSPK	↓	CVA	1.0	0.04	↓
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

V223.00282

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: THM
Matrix: water
Analyst: DM
Date: 1-14-13
Bath Temp: 95°C
Start Time: 1017
End Time: 1217

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
V224 A	1	✓	20.0	20.0	1/20 1	Y	
" B	1	✓			1		
" BDUP	1	✓			1		
" BSPK	1	✓			1		
" C	1	✓			1		
" D	1	✓			1		
" E	1	✓			1		
" F	1	✓			1		
" G	1	✓			1		
" H	1	✓			1		
" I	1	✓			1		
" J	1	✓			1		
" K	1	✓			1		
" L	1	✓			1		
" M	1	✓			1		
" N	1	✓			1		
" MB1	—	✓			1		
" MBSPK	—	✓	20.0	20.0	1	Y	

01-14-13 DM

Chemical/Reagent ID:

HNO_3: I1970
H_2SO_4: I1677
HCl: —
5% $K_2S_2O_8$: MP2400
5% $KMnO_4$: MP2401
Digest Tube Lot: 1208057

V223 00283

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Matrix: Water
Analyst: DM
Date: 01-14-13
Bath Temp: 95°C
Start Time: 1017
End Time: 1217

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VZ24 O	1	√	20.0	20.0	1	Y	
" P	1	√			1		
" PDUP	1	√			1		
" PSPK	1	√			1		
" Q	1	√			1		
" R	1	√			1		
" S	1	√			1		
" T	1	√			1		
" U	1	√			1		
" V	1	√			1		
" W	1	√			1		
" X	1	√			1		
" Y	1	√			1		
" Z	1	√			1		
" AA	1	√			1		
" AB	1	√			1		
" MB2	—	√			1		
" MBSPK	—	√	20.0	20.0	1	Y	

01-14-13 DM

Chemical/Reagent ID:

HNO_3: I7970
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2400
5% $KMnO_4$: MP2401
Digest Tube Lot: 1205057

VZ23 : 00284

Mercury Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: VZ23, VZ24

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 01-17-13

Page: 1 of 4

ARI Sample ID	Prep Code	Dilution	QC Data (ppb) ppt	Comments
STD 0.0	TLM	1X		
" 20.0				
" 50.0				
" 100.0				
" 200.0				
" 400.0				
" 1000.0				
ICV			457.94	Begin CLP %R=92 ✓
ICB			1.16	✓
CCV1			462.36	%R=92 ✓
CCB1			1.62	✓
CRA			23.96	✓
V224 MB1			-7.30	✓
" MB1SPK			183.98	%R=92 ✓
" A				
" B			5.95	
" BDUP			0.16	NO RPD Detected ✓
" BSPK			92.41	%R=92 ✓
" C				
" D				
" E				
CCV2			468.81	%R=94 ✓
CCB2			5.04	✓
V224 F				
" G				
" H				
" I				
" J				
" K				
" L				

Chemical/Reagent ID:
10% $SnCl_2$: MP2424

14% $NH_2OH/NaCl$: MP2378

Standard ID:
Standard: 3006-8

ICV/CCV: 3006-7

Mercury Analysis Log

1-17-13 OM

Analyst: OM

Date: ~~01~~ 01-17-13

Instrument: CETAC

Page: 2 of 4

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)ppt	Comments	
V224	M	TLM	1X			
"	N					
"	MB2			-5.10		✓
CCV3				470.48	%R=94	✓
CCB3				5.64		✓
V224	MB2SPK			188.54	%R=94	✓
"	O					
"	P			-2.79		
"	PDUP			-2.07	NO RPD: Undetected	✓
"	PSPK			93.35	%R=93	✓
"	Q					
"	R					
"	S					
"	T					
"	U					
CCV4				472.65	%R=95	✓
CCB4				5.55		✓
V224	V					
"	W					
"	X					
"	Y					
"	Z					
"	AA					
"	AB					
CCV5				474.19	%R=95	✓
CCB5				3.57		✓
V276	MB1			9.41		✓
"	MB1SPK			199.16	%R=100	✓
"	A					
"	B	↓	↓	4.04		

Chemical/Reagent ID:
10% $SnCl_2$: MP2424

1/18/13

14% $NH_2OH/NaCl$: MP2398

Standard ID:
Standard: 30068

ICV/CCV: 3001-9

ANALYTICAL RESOURCES INCORPORATED

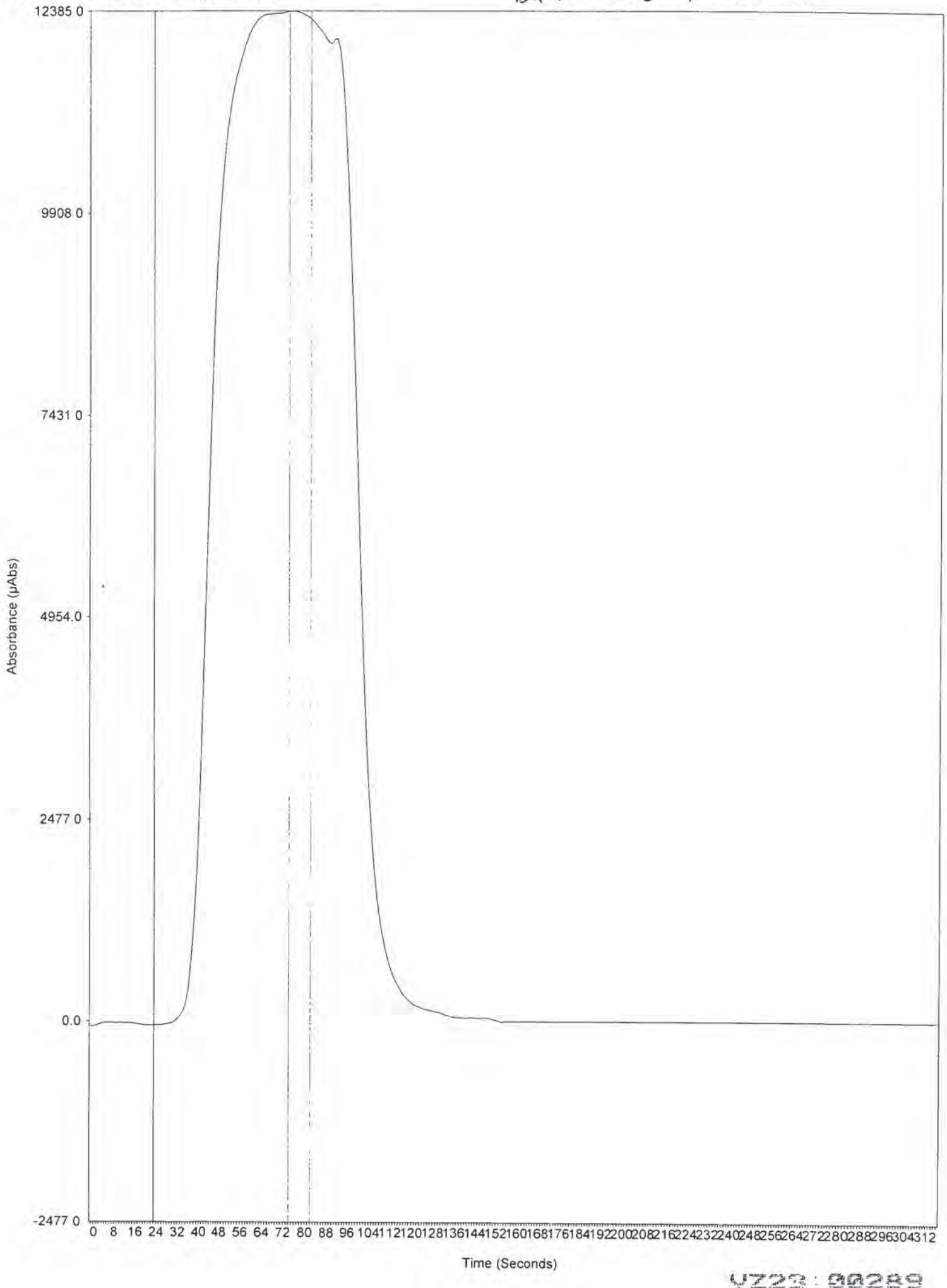
Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA

Analysis Date: 01-17-13

Low Level	Analyst 1.17 DM	Peer AH 1-12	Comment
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
RSD's & SD's	✓	✓	
Internal Standards	—	—	
Carry-over	—	✓	
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	✓	
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	—	—	

Std Tube 6 01/17/2013, 8:11 AM



CETAC Hg Analysis Report - 13011700.DB - Thursday, January 17, 2013, 1:24:53 PM

1-18-13

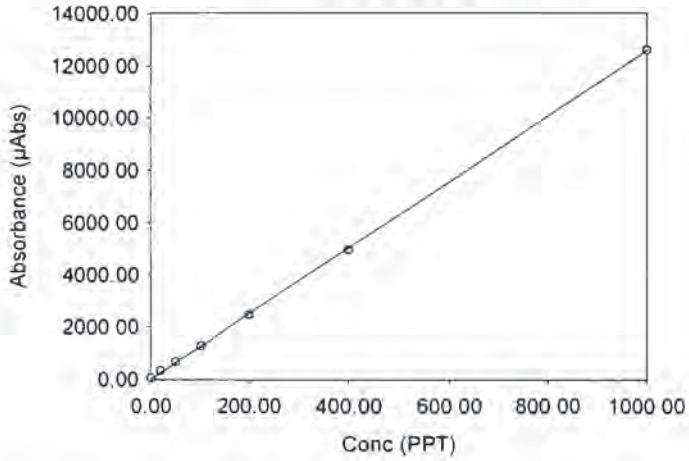
Analyst
Date Started Thursday, January 17, 2013, 08:10:41
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Std Tube 6	17-Jan-2013, 08.10	1000.00	0.24	12400 00	12437	12431	12409	12372	

Information about this calibration could not be retrieved from the Master File

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Calibration Zero	17-Jan-2013, 08.14	0.00	23.70	63 60	82	68	58	46	
Standard #1	17-Jan-2013, 08:17	20.00	2.61	348 00	356	354	348	336	
Standard #2	17-Jan-2013, 08:20	50.00	0.97	687.00	691	693	685	678	
Standard #3	17-Jan-2013, 08.22	100.00	0.59	1290 00	1286	1289	1297	1303	
Standard #4	17-Jan-2013, 08:25	200.00	0 27	2490.00	2478	2484	2487	2494	
Standard #5	17-Jan-2013, 08.28	400.00	0.56	4970.00	4934	4968	4988	4998	
Standard #6	17-Jan-2013, 08:30	1000 00	0.21	12600.00	12586	12617	12641	12642	

Calibration Data



Int.	0 000
Slope	12.596
Correlation	0.99990

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
ICV	17-Jan-2013, 08:35	458.00	0.31	5770.00	5792	5773	5753	5756	Begin CLP
ICB	17-Jan-2013, 08:38	1.16	29 00	14 60	9	16	18	16	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	17-Jan-2013, 08:41	462.00	0.23	5820.00	5807	5821	5831	5837	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	17-Jan-2013, 08:43	1.62	22.50	20.40	27	17	18	21	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
CRA	17-Jan-2013, 08:46	24.00	0 76	302 00	304	300	300	304	
VZ24 MB1 TLM	17-Jan-2013, 08.49	-7.30	7 42	-92.00	-90	-100	-95	-84	
VZ24 MB1SPK TLM	17-Jan-2013, 08.51	184.00	0 36	2320 00	2311	2311	2320	2328	
VZ24 A TLM	17-Jan-2013, 08.54	-3.14	46.90	-39.60	-57	-50	-37	-15	
VZ24 B TLM	17-Jan-2013, 08:57	5.95	10.50	75 00	84	78	71	66	
VZ24 BDUP TLM	17-Jan-2013, 08.59	0.15	257.00	1.92	7	-1	-3	5	
VZ24 BSPK TLM	17-Jan-2013, 09:02	92 40	0.43	1160.00	1160	1169	1168	1160	
VZ24 C TLM	17-Jan-2013, 09:05	35.10	4.29	442 00	465	449	434	421	
VZ24 D TLM	17-Jan-2013, 09:08	2.16	45.40	27.20	43	31	19	16	
VZ24 E TLM	17-Jan-2013, 09:10	-0.61	119.00	-7.70	-14	-15	-7	5	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	17-Jan-2013, 09:13	469.00	0.20	5910.00	5888	5910	5915	5909	

CETAC Hg Analysis Report - 13011700.DB - Thursday, January 17, 2013, 1:24:54 PM

Analyst
Date Started Thursday, January 17, 2013, 09:16:14
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	17-Jan-2013, 09:16	5.04	9.28	63 50	69	67	60	57	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
VZ24 F TLM	17-Jan-2013, 09.18	3.10	1 69	39 00	40	39	38	39	
VZ24 G TLM	17-Jan-2013, 09.21	-1.43	43.50	-18.10	-22	-25	-18	-7	
VZ24 H TLM	17-Jan-2013, 09:24	11.90	5.93	150.00	141	145	154	160	
VZ24 I TLM	17-Jan-2013, 09:26	9 27	4 84	117.00	123	119	115	110	
VZ24 J TLM	17-Jan-2013, 09:29	-1.02	39.90	-12.80	-7	-10	-16	-18	
VZ24 K TLM	17-Jan-2013, 09:32	-0.04	1830 00	-0.56	13	1	-9	-8	
VZ24 L TLM	17-Jan-2013, 09.35	0.69	118.00	8.73	-0	2	10	23	
VZ24 M TLM	17-Jan-2013, 09:37	8.48	6.37	107.00	102	102	107	116	
VZ24 N TLM	17-Jan-2013, 09.40	3.91	15.80	49.30	38	54	53	53	
VZ24 MB2 TLM	17-Jan-2013, 09:43	-5.10	7.84	-64 20	-57	-64	-68	-67	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	17-Jan-2013, 09.45	470.00	0.30	5930.00	5936	5941	5928	5901	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	17-Jan-2013, 09 48	5.64	12.70	71.10	60	68	76	80	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
VZ24 MB2SPK TLM	17-Jan-2013, 09:51	189.00	0.25	2370.00	2369	2372	2377	2382	
VZ24 O TLM	17-Jan-2013, 09:54	-1.45	4.63	-18.30	-19	-19	-18	-17	
VZ24 P TLM	17-Jan-2013, 09.56	-2 79	5 02	-35.10	-36	-37	-35	-33	
VZ24 PDUP TLM	17-Jan-2013, 09 59	-2.07	32.20	-26.10	-36	-29	-23	-17	
VZ24 PSPK TLM	17-Jan-2013, 10:02	93.40	0.24	1180 00	1173	1175	1180	1176	
VZ24 Q TLM	17-Jan-2013, 10.04	2.75	12.60	34 70	30	32	38	39	
VZ24 R TLM	17-Jan-2013, 10.07	3.40	7.94	42.80	39	40	46	45	
VZ24 S TLM	17-Jan-2013, 10.10	-3 50	44.30	-44.10	-18	-41	-56	-61	
VZ24 T TLM	17-Jan-2013, 10 12	-2.51	52.60	-31 70	-16	-21	-36	-53	
VZ24 U TLM	17-Jan-2013, 10.15	-4.52	4.98	-56.90	-61	-56	-57	-54	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	17-Jan-2013, 10.18	473 00	0.29	5950.00	5930	5953	5967	5965	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	17-Jan-2013, 10:21	5 55	4 81	69 90	65	71	73	70	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
VZ24 V TLM	17-Jan-2013, 10:23	9 64	3.56	121.00	116	120	122	127	
VZ24 W TLM	17-Jan-2013, 10:26	-2 13	18.50	-26.90	-21	-26	-27	-33	
VZ24 X TLM	17-Jan-2013, 10:29	-5.03	7.58	-63.40	-59	-68	-67	-59	
VZ24 Y TLM	17-Jan-2013, 10 32	-4.60	7.66	-58.00	-59	-63	-58	-52	
VZ24 Z TLM	17-Jan-2013, 10:34	-1.08	15.90	-13.60	-12	-17	-13	-13	
VZ24 AA TLM	17-Jan-2013, 10.37	-0.37	65.80	-4.67	-5	-8	-6	-0	
VZ24 AB TLM	17-Jan-2013, 10.40	-2.85	7.79	-36.00	-33	-34	-37	-39	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	17-Jan-2013, 10.42	474 00	0.27	5970.00	5951	5971	5985	5985	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	17-Jan-2013, 10.45	3.37	14.70	42.50	35	40	50	45	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
VZ76 MB1 TLM	17-Jan-2013, 10.48	9 41	2.48	118.00	121	119	120	114	
VZ76 MB1SPK TLM	17-Jan-2013, 10:51	199.00	0.23	2510.00	2501	2508	2512	2514	
VZ76 A TLM	17-Jan-2013, 10:53	-1.36	40.30	-17.20	-24	-21	-14	-9	
VZ76 B TLM	17-Jan-2013, 10.56	4.04	23.30	50.90	41	44	52	67	
VZ76 BDUP TLM	17-Jan-2013, 10:59	4.43	10.30	55 80	59	62	54	49	

M 1/18/13

Analyst	
Date Created:	Wednesday, November 27, 2002
Worksheet	LOW LEVEL CALIB 20 TO 1000 PPT
Comment	
Sip Duration (Sec.):	55
Rinse Duration (Sec.):	100
Read Delay:	75
Integration Time/Replicate:	2.00
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	20
Baseline Point 1 End Time:	24
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	148
Baseline Point 2 End Time:	152
Gas Flow (ml/min):	30
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	2
Calibration Standard #1 Conc.:	20.00 PPT
Calibration Standard #2 Conc.:	50.00 PPT
Calibration Standard #3 Conc.:	100 00 PPT
Calibration Standard #4 Conc.:	200 00 PPT
Calibration Standard #5 Conc.:	400.00 PPT
Calibration Standard #6 Conc.:	1000.00 PPT
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs. > 200, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 90% . 110%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -20 . 20,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Digested 20.0mL.

Prep Code: TLM
Analyst: NB
Bath Temp: 90°C
Start Time: 1152
Instrument: CETAC
Date: 01-15-13
End Time: 1352

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	3006-7	0.01	↓	0.1	1
STD2	↓	0.05	↓	0.5	1
STD3	↓	0.10	↓	1.0	1
STD4	↓	0.20	↓	2.0	1
STD5	↓	0.50	↓	5.0	1
STD6	↓	1.00	↓	10.0	1
CRA	↓	0.01	↓	0.1	1
ICB/CCB	—	0.00	↓	0.0	1
ICV/LCS	56-18	0.16	↓	8.0	1
CCV	↓	0.08 ~~0.80~~	100.0	4.0	1

NB 01-15-13

Chemical/Reagent ID:

HNO_3: I7970
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2400
5% $KMnO_4$: MP2401

Prep Code: TLM
Analyst: DM
Bath Temp: 95°C
Digested 20.0mL
Start Time: 1400
Instrument: CETAC
Date: 01-15-13
End Time: 1600

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	3006-8	0.02	↓	0.02	1
STD2	↓	0.05	↓	0.05	1
STD3	↓	0.10	↓	0.1	1
STD4	↓	0.20	↓	0.2	1
STD5	↓	~~0.50~~ 0.4	↓	0.4	1
STD6	↓	1.00	↓	1.00	1
CRA	↓	0.02	↓	0.02	1
ICB/CCB	—	0.00	↓	0.0	1
ICV/LCS	3006-9	1.0	↓	0.5	1
CCV	↓	1.0	100.0	0.5	1

Chemical/Reagent ID:

HNO_3: I7970
H_2SO_4: I7670
HCl: —
5% $K_2S_2O_8$: MP2400
5% $KMnO_4$: MP2401

0223 : 00293

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Analyst: DM
Bath Temp: 95°C
Start Time: 1017
Matrix: Water
Date: 1-14-13
End Time: 1217

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
v224 A	1	✓	20.0	20.0	1/20 1	Y	
" B	1	✓			1		
" BDUP	1	✓			1		
" BSPK	1	✓			1		
" C	1	✓			1		
" D	1	✓			1		
" E	1	✓			1		
" F	1	✓			1		
" G	1	✓			1		
" H	1	✓			1		
" I	1	✓			1		
" J	1	✓			1		
" K	1	✓			1		
" L	1	✓			1		
" M	1	✓			1		
" N	1	✓			1		
" MB1	—	✓			1		
" MBSPK	—	✓	20.0	20.0	1	Y	

01-14-13 DM

Chemical/Reagent ID:

HNO_3: I7970
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2420
5% $KMnO_4$: MP2401
Digest Tube Lot: 1208057

4723 0029U

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Matrix: Water
Analyst: DM
Date: 01-14-13
Bath Temp: 95°-
Start Time: 1017
End Time: 1217

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
V224 O	1	√	20.0	20.0	1	Y	
" P	1	√			1		
" PDUP	1	√			1		
" PSPK	1	√			1		
" Q	1	√			1		
" R	1	√			1		
" S	1	√			1		
" T	1	√			1		
" U	1	√			1		
" V	1	√			1		
" W	1	√			1		
" X	1	√			1		
" Y	1	√			1		
" Z	1	√			1		
" AA	1	√			1		
" AB	1	√			1		
" MB2	—	√			1		
" MBSPK	—	√	20.0	20.0	1	Y	

01-14-13 DM

Chemical/Reagent ID:

HNO_3: I7970
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2400
5% $KMnO_4$: MP2401
Digest Tube Lot: 1205057

V223 : 00295

Table of Contents: ARI Job VZ75, VZ76

Client: GeoEngineers

Project: 0504-068-00 ECY-Everett Lowlands

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AV
Signature

January-31-2013
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

January 31, 2013

Garrett Leque
GeoEngineers, Inc.
1101 Fawcett, Suite 200
Tacoma, WA 98402

RE: ECY-Everett Lowlands, 0504-068-00
ARI Job Nos.: VZ75 & VZ76

Dear Garrett:

Please find enclosed the Chain-of-Custody records (COCs), sample receipt documentation, and the data package for samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile VZ75_VZ76

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: VZ75, VZ76

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: VZ15	Turn-around Requested: Normal
ARI Client Company: GEI	Phone: 253 3834940
Client Contact: Garrett Leque	
Client Project Name: ECY - Everett Lowlands	
Client Project #: 0504-068-00	Samplers: PDR, JBA

Page: 1	of 2
Date: 1/11/13	Ice Present? Y
No. of Coolers: 2	Cooler Temps: 1.2, 1.9

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No Containers	metals total *	metals dissolved *							Notes/Comments
LLMW06S-130109-W	1/9	1610	W	2	X	X							
LLMW07D-130109-W	1/9	1440			X	X							
LLMW11S-130109-W	1/9	1446			X	X							
LLMW11D-130109-W	1/9	1234			X	X							
LLMW14S-130111-W	1/11	1208			X	X							
LLMW14D-130111-W	1/11	1242			X	X							
LLMW15S-130111-W	1/11	1028			X	X							
LLMW15D-130111-W	1/11	936			X	X							
LLMW17S-130109-W	1/9	1132			X	X							
LLMW17D-130109-W	1/9	1036			X	X							

Comments/Special Instructions
* metals include: Arsenic, Lead, Cd, Hg, Tl, Sb

Relinquished by: (Signature) Paul Robinette	Received by (Signature)	Relinquished by (Signature)	Received by (Signature)
Printed Name: PAUL ROBINETTE	Printed Name: Jennifer Milligan	Printed Name:	Printed Name:
Company: GeoEngineers	Company: ARI	Company:	Company:
Date & Time: 1/14/13 10:00	Date & Time: 1/14/13 1600	Date & Time	Date & Time

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: V775	Turn-around Requested: Normal	Page: 2 of 2	
ARI Client Company: GEI	Phone: 253 383 4940	Date: 1/11/13	Ice Present? Y
Client Contact: Garrett Leque		No. of Coolers: 2	Cooler Temps: 1.2, 1.9
Client Project Name: ECY - EVERETT Lowlands			
Client Project #: 0504-068	Samplers: PDR		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	metals total *	metals DISSOLVED *							Notes/Comments
LLMW04S-130110-W	1/10	1530	W	2	X	X							
LLMW04D-130110-W	1/10	1445			X	X							
LLMW05S-130109-W	1/9	1255			X	X							
LLMW05D-130109-W	1/9	1122			X	X							
LLMW07S-130109-W	1/9	1545			X	X							
LLMW16S-130111-W	1/11	1240			X	X							
LLMW16D-130111-W	1/11	1320			X	X							
LLMWDUP1-130110-W	1/10	0800			X	X							
LLMW19D-130110-W	1/10	1207			X	X							
LLMW20D-130110-W	1/10	1040			X	X							

Comments/Special Instructions
* metals include: As, Pb, Cd, Hg, Th, Sb

Relinquished by (Signature) [signature]	Received by (Signature) [signature]	Relinquished by (Signature)	Received by (Signature)
Printed Name: Paul ROBINETTE	Printed Name: Jennifer Milsap	Printed Name	Printed Name
Company: GEOENGINEERS	Company: ARI	Company:	Company:
Date & Time: 1/14/13 1000	Date & Time: 1/14/13 1000	Date & Time	Date & Time

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Geoengineers
Project Name: ECY-Everett Lowlands
COC No(s): (NA)
Delivered by: Fed-Ex UPS (Courier) Hand Delivered Other:
Assigned ARI Job No: VZ75
Tracking No: (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry): 1.2 1.9
If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID# 1224/2224
Cooler Accepted by: JM Date: 1/14/13 Time: 1000

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES) JM	(NO)
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	(YES)	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Was Sample Split by ARI: (NA) YES Date/Time: Equipment: Split by:
Samples Logged by: JM Date: 1/15/13 Time: 734

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:
all sample IDs on containers are missing (-130169-W) per client email.
By: JM Date: 1/15/13

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm	
			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client Geoengineers

Project Name ECY-Everett Lowland

COC No(s) _____ (NA)

Delivered by Fed-Ex UPS Courier Hand Delivered Other _____

Assigned ARI Job No V776

Tracking No _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc)	(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6 0 °C for chemistry)	1.2 1.9	

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID# 12241/2224

Cooler Accepted by JM Date 1/14/13 Time 1000

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other _____			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		~~YES~~ JM	(NO)
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	(YES)	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)	_____	

Was Sample Split by ARI: (NA) YES Date/Time _____ Equipment _____ Split by _____

Samples Logged by JM Date 1/15/13 Time 810

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

All containers have (-130109-w) missing from IDs per client email.

By JM Date 1/15/13

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm	
			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

PRESERVATION VERIFICATION 01/15/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **VZ75**

Inquiry Number: NONE
Analysis Requested: 01/14/13
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: JM
Sample Set Used: Yes-481
Validatable Package: LV4
Deliverables:

PC: Cheronne
VTSR: 01/14/13

Project #: 0504-068-00
Project: ECY-Everett Lowlands
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-921 **VZ75A**	LLMW06S-130109-W						TOT P															
13-922 **VZ75B**	LLMW07D-130109-W						TOT															
13-923 **VZ75C**	LLMW11S-130109-W						TOT															
13-924 **VZ75D**	LLMW11D-130109-W						TOT															
13-925 **VZ75E**	LLMW14S-130111-W						TOT															
13-926 **VZ75F**	LLMW14D-130111-W						TOT															
13-927 **VZ75G**	LLMW15S-130111-W						TOT															
13-928 **VZ75H**	LLMW15D-130111-W						TOT															
13-929 **VZ75I**	LLMW17S-130109-W						TOT															
13-930 **VZ75J**	LLMW17D-130109-W						TOT															
13-931 **VZ75K**	LLMW04S-130110-W						TOT															
13-932 **VZ75L**	LLMW04D-130110-W						TOT															
13-933 **VZ75M**	LLMW05S-130109-W						TOT															
13-934 **VZ75N**	LLMW05D-130109-W						TOT															

P=Pres

Checked By JM Date 1/15/13

PRESERVATION VERIFICATION 01/15/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **VZ75**

Client: GeoEngineers

Project #: 0504-068-00
Project: ECY-Everett Lowlands

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-935 **VZ75O**	LLMW07S-130109-W						TOT															
13-936 **VZ75P**	LLMW16S-130111-W						TOT															
13-937 **VZ75Q**	LLMW16D-130111-W						TOT															
13-938 **VZ75R**	LLMWDUP1-130110-W						TOT															
13-939 **VZ75S**	LLMW19D-130110-W						TOT															
13-940 **VZ75T**	LLMW20D-130110-W						TOT															
13-941 **VZ75U**	LLMW06S-130109-W						DIS									Y						
13-942 **VZ75V**	LLMW07D-130109-W						DIS									Y						
13-943 **VZ75W**	LLMW11S-130109-W						DIS									Y						
13-944 **VZ75X**	LLMW11D-130109-W						DIS									Y						
13-945 **VZ75Y**	LLMW14S-130111-W						DIS									Y						
13-946 **VZ75Z**	LLMW14D-130111-W						DIS									Y						
13-947 **VZ75AA**	LLMW15S-130111-W						DIS									Y						
13-948 **VZ75AB**	LLMW15D-130111-W						DIS									Y						
13-949 **VZ75AC**	LLMW17S-130109-W						DIS									Y						
13-950 **VZ75AD**	LLMW17D-130109-W						DIS									Y						
13-951 **VZ75AE**	LLMW04S-130110-W						DIS									Y						

Checked By JM Date 1/15/13

PRESERVATION VERIFICATION 01/15/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **VZ75**

Client: GeoEngineers

Project #: 0504-068-00
Project: ECY-Everett Lowlands

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-952 **VZ75AF**	LLMW04D-130110-W						DIS									Y						
13-953 **VZ75AG**	LLMW05S-130109-W						DIS									Y						
13-954 **VZ75AH**	LLMW05D-130109-W						DIS									Y						
13-955 **VZ75AI**	LLMW07S-130109-W						DIS									Y						
13-956 **VZ75AJ**	LLMW16S-130111-W						DIS									Y						
13-957 **VZ75AK**	LLMW16D-130111-W						DIS									Y						
13-958 **VZ75AL**	LLMWDUP1-130110-W						DIS									Y						
13-959 **VZ75AM**	LLMW19D-130110-W						DIS									Y						
13-960 **VZ75AN**	LLMW20D-130110-W						DIS									Y						

VZ75 : 000003

Checked By JM Date 1/15/13

PRESERVATION VERIFICATION 01/15/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **VZ76**

PC: Cheronne
VTSR: 01/14/13

Inquiry Number: NONE
Analysis Requested: 01/14/13
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: JM
Sample Set Used: Yes-481
Validatable Package: LV4
Deliverables:

Project #: 0504-068-00
Project: ECY-Everett Lowlands
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-961 **VZ76A**	LLMW06S-130109-W						TOT P															
13-962 **VZ76B**	LLMW07D-130109-W						TOT															
13-963 **VZ76C**	LLMW11S-130109-W						TOT															
13-964 **VZ76D**	LLMW11D-130109-W						TOT															
13-965 **VZ76E**	LLMW14S-130111-W						TOT															
13-966 **VZ76F**	LLMW14D-130111-W						TOT															
13-967 **VZ76G**	LLMW15S-130111-W						TOT															
13-968 **VZ76H**	LLMW15D-130111-W						TOT															
13-969 **VZ76I**	LLMW17S-130109-W						TOT															
13-970 **VZ76J**	LLMW17D-130109-W						TOT															
13-971 **VZ76K**	LLMW04S-130110-W						TOT															
13-972 **VZ76L**	LLMW04D-130110-W						TOT															
13-973 **VZ76M**	LLMW05S-130109-W						TOT															
13-974 **VZ76N**	LLMW05D-130109-W						TOT															

P = P(ud)

Checked By JM Date 1/15/13

PRESERVATION VERIFICATION 01/15/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **VZ76**

Client: GeoEngineers

Project #: 0504-068-00
Project: ECY-Everett Lowlands

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-975 **VZ76O**	LLMW07S-130109-W						TOT															
13-976 **VZ76P**	LLMW16S-130111-W						TOT															
13-977 **VZ76Q**	LLMW16D-130111-W						TOT															
13-978 **VZ76R**	LLMWDUP1-130110-W						TOT															
13-979 **VZ76S**	LLMW19D-130110-W						TOT															
13-980 **VZ76T**	LLMW20D-130110-W						TOT															
13-981 **VZ76U**	LLMW06S-130109-W						DIS									Y						
13-982 **VZ76V**	LLMW07D-130109-W						DIS									Y						
13-983 **VZ76W**	LLMW11S-130109-W						DIS									Y						
13-984 **VZ76X**	LLMW11D-130109-W						DIS									Y						
13-985 **VZ76Y**	LLMW14S-130111-W						DIS									Y						
13-986 **VZ76Z**	LLMW14D-130111-W						DIS									Y						
13-987 **VZ76AA**	LLMW15S-130111-W						DIS									Y						
13-988 **VZ76AB**	LLMW15D-130111-W						DIS									Y						
13-989 **VZ76AC**	LLMW17S-130109-W						DIS									Y						
13-990 **VZ76AD**	LLMW17D-130109-W						DIS									Y						
13-991 **VZ76AE**	LLMW04S-130110-W						~~DIS~~									Y						

Checked By JHN Date 1/15/13

PRESERVATION VERIFICATION 01/15/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **VZ76**

Client: GeoEngineers

Project #: 0504-068-00
Project: ECY-Everett Lowlands

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-992 **VZ76AF**	LLMW04D-130110-W						DIS									Y						
13-993 **VZ76AG**	LLMW05S-130109-W						DIS									Y						
13-994 **VZ76AH**	LLMW05D-130109-W						DIS									Y						
13-995 **VZ76AI**	LLMW07S-130109-W						DIS									Y						
13-996 **VZ76AJ**	LLMW16S-130111-W						DIS									Y						
13-997 **VZ76AK**	LLMW16D-130111-W						DIS									Y						
13-998 **VZ76AL**	LLMWDUP1-130110-W						DIS									Y						
13-999 **VZ76AM**	LLMW19D-130110-W						DIS									Y						
13-1000 **VZ76AN**	LLMW20D-130110-W						DIS									Y						

Checked By JM Date 1/15/13

Subject: Re: Bottle Order / labeling
From: Sue Dunnihoo <sue@arilabs.com>
Date: 1/4/2013 4:19 PM
To: "Garrett R. Leque" <gleque@geoengineers.com>
CC: Brian Anderson <banderson@geoengineers.com>, "Paul D. Robinette" <probinette@geoengineers.com>, Cheronne Oreiro <cheronneo@arilabs.com>

Login has you set up for delivery Monday and everyone says we should be fine on the naming.

Cheers - Sue

On 1/4/2013 4:11 PM, Garrett R. Leque wrote:

> Hi Sue,
>
> As we discussed please have delivered about 20 nitric-preserved bottles and labels to the Everett Lowlands project if possible Monday.
>
> Also, just want to confirm that it is okay to do the following labeling scheme:
>
> For a sample called LLMW06S-130107-W, that name will be recorded on the COC, however the sample label name will just be LLMW06S (see attached).
>
> We'd like everything to be recorded and reported and carried forward with the full name, of course...
>
> Have a good weekend, thanks!
>
> **Garrett Leque, LG**
> **Geologist | GeoEngineers**
> **t:** 253.383.4940
> **f:** 253.383.4923
> **c:** 253.312.7958
>
> Confidentiality. This message is confidential and intended solely for use of the individual or entity to whom it is addressed. If you are not the person for whom this message is intended, please delete it and notify me immediately, and please do not copy or send this message to anyone else.

--

Susan D. Dunnihoo
Director, Client Services
ANALYTICAL RESOURCES, INC.
206-695-6207
sue@arilabs.com
www.arilabs.com

This correspondence contains confidential information from Analytical Resources, Inc. The information contained herein is intended solely for the use of the individual(s) named above. If you are not the intended recipient, any copying, distribution, disclosure, or use of the text and/or attached document(s) is strictly prohibited.

If you have received this correspondence in error, please

VZ75 0001

notify sender immediately. Thank you.

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: VZ75, VZ76

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative

Client: GeoEngineers
Project: ECY-Everett Lowlands, 0504-068-00
ARI Job Nos.: VZ75 & VZ76

Sample Receipt

Twenty water samples were received on January 14, 2013 under ARI jobs VZ75 and VZ76. The cooler temperatures measured by IR thermometer following ARI SOP were 1.2 and 1.9°C. For details regarding sample receipt, refer to the Cooler Receipt Forms.

Total and Dissolved Metals by 200.8

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial calibrations were within limits.

The fifth and sixth continuing calibrations (CCALs) on 1/24/13 were outside the control limits high for lead. No sample results were associated with these CCALs. No corrective action was taken.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

Total and Dissolved Mercury by SW7470A

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial and continuing calibrations were within limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Duplicate RPD is not within established control limits

B — Reported value is less than the CRDL but ≥ the Reporting Limit

N — Matrix Spike recovery not within established control limits

NA — Not Applicable, analyte not spiked

H — The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible

L — Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Flagged value is not within established control limits

B — Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

J — Estimated concentration when the value is less than ARI's established reporting limits

D — The spiked compound was not detected due to sample extract dilution

E — Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q — Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

VZ75 00017

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid, a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

Geotechnical Data

A The total of all fines fractions This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VZ75
Client: GeoEngineers
Project Event: 0504-068-00
Project Name: ECY-Everett Lowlands

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	LLMW06S-130109-W	VZ75A	13-921	Water	01/09/13 16:10	01/14/13 10:00
2.	LLMW07D-130109-W	VZ75B	13-922	Water	01/09/13 14:40	01/14/13 10:00
3.	LLMW11S-130109-W	VZ75C	13-923	Water	01/09/13 14:46	01/14/13 10:00
4.	LLMW11D-130109-W	VZ75D	13-924	Water	01/09/13 12:34	01/14/13 10:00
5.	LLMW14S-130111-W	VZ75E	13-925	Water	01/11/13 12:08	01/14/13 10:00
6.	LLMW14D-130111-W	VZ75F	13-926	Water	01/11/13 12:42	01/14/13 10:00
7.	LLMW15S-130111-W	VZ75G	13-927	Water	01/11/13 10:28	01/14/13 10:00
8.	LLMW15D-130111-W	VZ75H	13-928	Water	01/11/13 09:36	01/14/13 10:00
9.	LLMW17S-130109-W	VZ75I	13-929	Water	01/09/13 11:32	01/14/13 10:00
10.	LLMW17D-130109-W	VZ75J	13-930	Water	01/09/13 10:36	01/14/13 10:00
11.	LLMW04S-130110-W	VZ75K	13-931	Water	01/10/13 15:30	01/14/13 10:00
12.	LLMW04D-130110-W	VZ75L	13-932	Water	01/10/13 14:45	01/14/13 10:00
13.	LLMW05S-130109-W	VZ75M	13-933	Water	01/09/13 12:55	01/14/13 10:00
14.	LLMW05D-130109-W	VZ75N	13-934	Water	01/09/13 11:22	01/14/13 10:00
15.	LLMW07S-130109-W	VZ75O	13-935	Water	01/09/13 15:45	01/14/13 10:00
16.	LLMW16S-130111-W	VZ75P	13-936	Water	01/11/13 12:40	01/14/13 10:00
17.	LLMW16D-130111-W	VZ75Q	13-937	Water	01/11/13 13:20	01/14/13 10:00
18.	LLMWDUP1-130110-W	VZ75R	13-938	Water	01/10/13 08:00	01/14/13 10:00
19.	LLMW19D-130110-W	VZ75S	13-939	Water	01/10/13 12:07	01/14/13 10:00
20.	LLMW20D-130110-W	VZ75T	13-940	Water	01/10/13 10:40	01/14/13 10:00
21.	LLMW06S-130109-W	VZ75U	13-941	Water	01/09/13 16:10	01/14/13 10:00
22.	LLMW07D-130109-W	VZ75V	13-942	Water	01/09/13 14:40	01/14/13 10:00
23.	LLMW11S-130109-W	VZ75W	13-943	Water	01/09/13 14:46	01/14/13 10:00
24.	LLMW11D-130109-W	VZ75X	13-944	Water	01/09/13 12:34	01/14/13 10:00
25.	LLMW14S-130111-W	VZ75Y	13-945	Water	01/11/13 12:08	01/14/13 10:00
26.	LLMW14D-130111-W	VZ75Z	13-946	Water	01/11/13 12:42	01/14/13 10:00
27.	LLMW15S-130111-W	VZ75AA	13-947	Water	01/11/13 10:28	01/14/13 10:00
28.	LLMW15D-130111-W	VZ75AB	13-948	Water	01/11/13 09:36	01/14/13 10:00
29.	LLMW17S-130109-W	VZ75AC	13-949	Water	01/09/13 11:32	01/14/13 10:00
30.	LLMW17D-130109-W	VZ75AD	13-950	Water	01/09/13 10:36	01/14/13 10:00
31.	LLMW04S-130110-W	VZ75AE	13-951	Water	01/10/13 15:30	01/14/13 10:00
32.	LLMW04D-130110-W	VZ75AF	13-952	Water	01/10/13 14:45	01/14/13 10:00
33.	LLMW05S-130109-W	VZ75AG	13-953	Water	01/09/13 12:55	01/14/13 10:00
34.	LLMW05D-130109-W	VZ75AH	13-954	Water	01/09/13 11:22	01/14/13 10:00
35.	LLMW07S-130109-W	VZ75AI	13-955	Water	01/09/13 15:45	01/14/13 10:00
36.	LLMW16S-130111-W	VZ75AJ	13-956	Water	01/11/13 12:40	01/14/13 10:00
37.	LLMW16D-130111-W	VZ75AK	13-957	Water	01/11/13 13:20	01/14/13 10:00
38.	LLMWDUP1-130110-W	VZ75AL	13-958	Water	01/10/13 08:00	01/14/13 10:00
39.	LLMW19D-130110-W	VZ75AM	13-959	Water	01/10/13 12:07	01/14/13 10:00
40.	LLMW20D-130110-W	VZ75AN	13-960	Water	01/10/13 10:40	01/14/13 10:00

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VZ76
Client: GeoEngineers
Project Event: 0504-068-00
Project Name: ECY-Everett Lowlands

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	LLMW06S-130109-W	VZ76A	13-961	Water	01/09/13 16:10	01/14/13 10:00
2.	LLMW07D-130109-W	VZ76B	13-962	Water	01/09/13 14:40	01/14/13 10:00
3.	LLMW11S-130109-W	VZ76C	13-963	Water	01/09/13 14:46	01/14/13 10:00
4.	LLMW11D-130109-W	VZ76D	13-964	Water	01/09/13 12:34	01/14/13 10:00
5.	LLMW14S-130111-W	VZ76E	13-965	Water	01/11/13 12:08	01/14/13 10:00
6.	LLMW14D-130111-W	VZ76F	13-966	Water	01/11/13 12:42	01/14/13 10:00
7.	LLMW15S-130111-W	VZ76G	13-967	Water	01/11/13 10:28	01/14/13 10:00
8.	LLMW15D-130111-W	VZ76H	13-968	Water	01/11/13 09:36	01/14/13 10:00
9.	LLMW17S-130109-W	VZ76I	13-969	Water	01/09/13 11:32	01/14/13 10:00
10.	LLMW17D-130109-W	VZ76J	13-970	Water	01/09/13 10:36	01/14/13 10:00
11.	LLMW04S-130110-W	VZ76K	13-971	Water	01/10/13 15:30	01/14/13 10:00
12.	LLMW04D-130110-W	VZ76L	13-972	Water	01/10/13 14:45	01/14/13 10:00
13.	LLMW05S-130109-W	VZ76M	13-973	Water	01/09/13 12:55	01/14/13 10:00
14.	LLMW05D-130109-W	VZ76N	13-974	Water	01/09/13 11:22	01/14/13 10:00
15.	LLMW07S-130109-W	VZ76O	13-975	Water	01/09/13 15:45	01/14/13 10:00
16.	LLMW16S-130111-W	VZ76P	13-976	Water	01/11/13 12:40	01/14/13 10:00
17.	LLMW16D-130111-W	VZ76Q	13-977	Water	01/11/13 13:20	01/14/13 10:00
18.	LLMWDUP1-130110-W	VZ76R	13-978	Water	01/10/13 08:00	01/14/13 10:00
19.	LLMW19D-130110-W	VZ76S	13-979	Water	01/10/13 12:07	01/14/13 10:00
20.	LLMW20D-130110-W	VZ76T	13-980	Water	01/10/13 10:40	01/14/13 10:00
21.	LLMW06S-130109-W	VZ76U	13-981	Water	01/09/13 16:10	01/14/13 10:00
22.	LLMW07D-130109-W	VZ76V	13-982	Water	01/09/13 14:40	01/14/13 10:00
23.	LLMW11S-130109-W	VZ76W	13-983	Water	01/09/13 14:46	01/14/13 10:00
24.	LLMW11D-130109-W	VZ76X	13-984	Water	01/09/13 12:34	01/14/13 10:00
25.	LLMW14S-130111-W	VZ76Y	13-985	Water	01/11/13 12:08	01/14/13 10:00
26.	LLMW14D-130111-W	VZ76Z	13-986	Water	01/11/13 12:42	01/14/13 10:00
27.	LLMW15S-130111-W	VZ76AA	13-987	Water	01/11/13 10:28	01/14/13 10:00
28.	LLMW15D-130111-W	VZ76AB	13-988	Water	01/11/13 09:36	01/14/13 10:00
29.	LLMW17S-130109-W	VZ76AC	13-989	Water	01/09/13 11:32	01/14/13 10:00
30.	LLMW17D-130109-W	VZ76AD	13-990	Water	01/09/13 10:36	01/14/13 10:00
31.	LLMW04S-130110-W	VZ76AE	13-991	Water	01/10/13 15:30	01/14/13 10:00
32.	LLMW04D-130110-W	VZ76AF	13-992	Water	01/10/13 14:45	01/14/13 10:00
33.	LLMW05S-130109-W	VZ76AG	13-993	Water	01/09/13 12:55	01/14/13 10:00
34.	LLMW05D-130109-W	VZ76AH	13-994	Water	01/09/13 11:22	01/14/13 10:00
35.	LLMW07S-130109-W	VZ76AI	13-995	Water	01/09/13 15:45	01/14/13 10:00
36.	LLMW16S-130111-W	VZ76AJ	13-996	Water	01/11/13 12:40	01/14/13 10:00
37.	LLMW16D-130111-W	VZ76AK	13-997	Water	01/11/13 13:20	01/14/13 10:00
38.	LLMWDUP1-130110-W	VZ76AL	13-998	Water	01/10/13 08:00	01/14/13 10:00
39.	LLMW19D-130110-W	VZ76AM	13-999	Water	01/10/13 12:07	01/14/13 10:00
40.	LLMW20D-130110-W	VZ76AN	13-1000	Water	01/10/13 10:40	01/14/13 10:00

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Quality Control Parameters for Metals Analysis ICP-MS EPA Methods 200.8 or 6020A

Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[3]	Solids[2]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium[4]	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium[4]	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume Solids LOQ based on 100% solids using 1.0 g sample 100 mL final volume.

(3) Relative Percent Difference in replicate analyzes. $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$ where C_O=Original, C_D=Duplicate

(4) ARI has no accreditation for these elements.

VZ75 : 00022

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Quality Control Parameters for Mercury Analysis using CVAA
EPA Methods 7470A or 245.1 for Aqueous Samples
EPA Methods 7471B or 245.5 for Solid Samples

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[2]	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.025[3]	75 – 125	80 – 120	≤ 20
	Tissue Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.005[4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

VZ75 00023

Metals Analysis
Report and Summary QC Forms

ARI Job ID: VZ75, VZ76

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLMW06S-130109-W	VZ75A	13-921	
LLMW06S-130109-WD	VZ75ADUP	13-921	
LLMW06S-130109-WS	VZ75ASPK	13-921	
LLMW07D-130109-W	VZ75B	13-922	
PBW	VZ75MB1	13-922	
LCSW	VZ75MB1SPK	13-922	
LLMW11S-130109-W	VZ75C	13-923	
LLMW11D-130109-W	VZ75D	13-924	
LLMW14S-130111-W	VZ75E	13-925	
LLMW14D-130111-W	VZ75F	13-926	
LLMW15S-130111-W	VZ75G	13-927	
LLMW15D-130111-W	VZ75H	13-928	
LLMW17S-130109-W	VZ75I	13-929	
LLMW17D-130109-W	VZ75J	13-930	
LLMW04S-130110-W	VZ75K	13-931	
LLMW04D-130110-W	VZ75L	13-932	
LLMW05S-130109-W	VZ75M	13-933	
LLMW05D-130109-W	VZ75N	13-934	
LLMW07S-130109-W	VZ75O	13-935	
LLMW16S-130111-W	VZ75P	13-936	
LLMW16D-130111-W	VZ75Q	13-937	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: Jay Kuhn Name: Jay Kuhn

Date: 1/31/13 Title: Inorganics Director

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INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLMWDUP1-130110-W	VZ75R	13-938	
LLMW19D-130110-W	VZ75S	13-939	
LLMW20D-130110-W	VZ75T	13-940	
LLMW06S-130109-W	VZ75U	13-941	
LLMW06S-130109-WD	VZ75UDUP	13-941	
LLMW06S-130109-WS	VZ75USPK	13-941	
PBW	VZ75MB2	13-942	
LCSW	VZ75MB2SPK	13-942	
LLMW07D-130109-W	VZ75V	13-942	
LLMW11S-130109-W	VZ75W	13-943	
LLMW11D-130109-W	VZ75X	13-944	
LLMW14S-130111-W	VZ75Y	13-945	
LLMW14D-130111-W	VZ75Z	13-946	
LLMW15S-130111-W	VZ75AA	13-947	
LLMW15D-130111-W	VZ75AB	13-948	
LLMW17S-130109-W	VZ75AC	13-949	
LLMW17D-130109-W	VZ75AD	13-950	
LLMW04S-130110-W	VZ75AE	13-951	
LLMW04D-130110-W	VZ75AF	13-952	
LLMW05S-130109-W	VZ75AG	13-953	
LLMW05D-130109-W	VZ75AH	13-954	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

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Date: 1/31/13 Title: Inorganics Director

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INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLMW07S-130109-W	VZ75AI	13-955	
LLMW16S-130111-W	VZ75AJ	13-956	
LLMW16D-130111-W	VZ75AK	13-957	
LLMWDUP1-130110-W	VZ75AL	13-958	
LLMW19D-130110-W	VZ75AM	13-959	
LLMW20D-130110-W	VZ75AN	13-960	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

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Signature: Jay Kuhn Name: Jay Kuhn

Date: 1/31/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW06S-130109-W
SAMPLE

Lab Sample ID: VZ75A
LIMS ID: 13-921
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/18/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/16/13	200.8	01/18/13	**7440-38-2**	**Arsenic**	0.2	**13.7**	
200.8	01/16/13	200.8	01/18/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/16/13	200.8	01/21/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	01/16/13	200.8	01/18/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW07D-130109-W
SAMPLE

Lab Sample ID: VZ75B
LIMS ID: 13-922
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/18/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/16/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	0.2	**6.9**	
200.8	01/16/13	200.8	01/18/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	**7439-92-1**	**Lead**	0.1	**1.5**	
200.8	01/16/13	200.8	01/18/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW11S-130109-W
SAMPLE

Lab Sample ID: VZ75C
LIMS ID: 13-923
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/18/13	**7440-36-0**	**Antimony**	0.2	**0.2**	
200.8	01/16/13	200.8	01/18/13	**7440-38-2**	**Arsenic**	0.2	**1.1**	
200.8	01/16/13	200.8	01/18/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/16/13	200.8	01/22/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	01/16/13	200.8	01/18/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW11D-130109-W
SAMPLE

Lab Sample ID: VZ75D
LIMS ID: 13-924
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/18/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/16/13	200.8	01/18/13	**7440-38-2**	**Arsenic**	0.2	**1.7**	
200.8	01/16/13	200.8	01/18/13	**7440-43-9**	**Cadmium**	0.1	**0.5**	
200.8	01/16/13	200.8	01/22/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	01/16/13	200.8	01/18/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW14S-130111-W
SAMPLE

Lab Sample ID: VZ75E
LIMS ID: 13-925
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/11/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/18/13	**7440-36-0**	**Antimony**	0.2	**1.2**	
200.8	01/16/13	200.8	01/18/13	**7440-38-2**	**Arsenic**	0.2	**2.8**	
200.8	01/16/13	200.8	01/18/13	**7440-43-9**	**Cadmium**	0.1	**0.3**	
200.8	01/16/13	200.8	01/21/13	**7439-92-1**	**Lead**	0.1	**2.3**	
200.8	01/16/13	200.8	01/18/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW14D-130111-W
SAMPLE

Lab Sample ID: VZ75F
LIMS ID: 13-926
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/11/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/22/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/16/13	200.8	01/22/13	**7440-38-2**	**Arsenic**	0.2	**274**	
200.8	01/16/13	200.8	01/22/13	**7440-43-9**	**Cadmium**	0.1	**0.4**	
200.8	01/16/13	200.8	01/18/13	**7439-92-1**	**Lead**	0.1	**0.6**	
200.8	01/16/13	200.8	01/18/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW15S-130111-W
SAMPLE

Lab Sample ID: VZ75G
LIMS ID: 13-927
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/11/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/23/13	7440-36-0	Antimony	0.5	0.5	U
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**4.5**	
200.8	01/16/13	200.8	01/23/13	7440-43-9	Cadmium	0.2	0.2	U
200.8	01/16/13	200.8	01/18/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	01/16/13	200.8	01/18/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW15D-130111-W
SAMPLE

Lab Sample ID: VZ75H
LIMS ID: 13-928
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/11/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/23/13	7440-36-0	Antimony	0.5	0.5	U
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**0.9**	
200.8	01/16/13	200.8	01/23/13	7440-43-9	Cadmium	0.2	0.2	U
200.8	01/16/13	200.8	01/18/13	**7439-92-1**	**Lead**	0.1	**0.2**	
200.8	01/16/13	200.8	01/18/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW17S-130109-W
SAMPLE

Lab Sample ID: VZ75I
LIMS ID: 13-929
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.5	**1.8**	
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**2.8**	
200.8	01/16/13	200.8	01/23/13	7440-43-9	Cadmium	0.2	0.2	U
200.8	01/16/13	200.8	01/18/13	**7439-92-1**	**Lead**	0.1	**0.2**	
200.8	01/16/13	200.8	01/18/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW17D-130109-W
SAMPLE

Lab Sample ID: VZ75J
LIMS ID: 13-930
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/23/13	7440-36-0	Antimony	0.5	0.5	U
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**15.8**	
200.8	01/16/13	200.8	01/23/13	7440-43-9	Cadmium	0.2	0.2	U
200.8	01/16/13	200.8	01/18/13	**7439-92-1**	**Lead**	0.1	**0.5**	
200.8	01/16/13	200.8	01/18/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW04S-130110-W
SAMPLE

Lab Sample ID: VZ75K
LIMS ID: 13-931
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/10/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/23/13	7440-36-0	Antimony	0.5	0.5	U
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**9.1**	
200.8	01/16/13	200.8	01/23/13	7440-43-9	Cadmium	0.2	0.2	U
200.8	01/16/13	200.8	01/18/13	**7439-92-1**	**Lead**	0.1	**1.3**	
200.8	01/16/13	200.8	01/18/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW04D-130110-W
SAMPLE

Lab Sample ID: VZ75L
LIMS ID: 13-932
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/10/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/22/13	**7440-36-0**	**Antimony**	0.2	**0.3**	
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	1	**35**	
200.8	01/16/13	200.8	01/22/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/18/13	**7439-92-1**	**Lead**	0.1	**1.2**	
200.8	01/16/13	200.8	01/18/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW05S-130109-W
SAMPLE

Lab Sample ID: VZ75M
LIMS ID: 13-933
Matrix: Water
Data Release Authorized
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/22/13	**7440-36-0**	**Antimony**	0.2	**0.2**	
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**8.0**	
200.8	01/16/13	200.8	01/22/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/18/13	**7439-92-1**	**Lead**	0.1	**0.2**	
200.8	01/16/13	200.8	01/18/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW05D-130109-W
SAMPLE

Lab Sample ID: VZ75N
LIMS ID: 13-934
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**1.4**	
200.8	01/16/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	01/16/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW07S-130109-W
SAMPLE

Lab Sample ID: VZ75O
LIMS ID: 13-935
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**1.5**	
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**17.2**	
200.8	01/16/13	200.8	01/23/13	**7440-43-9**	**Cadmium**	0.1	**0.6**	
200.8	01/16/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	01/16/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW16S-130111-W
SAMPLE

Lab Sample ID: VZ75P
LIMS ID: 13-936
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/11/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/22/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	2	**1,700**	
200.8	01/16/13	200.8	01/22/13	**7440-43-9**	**Cadmium**	0.1	**0.1**	
200.8	01/16/13	200.8	01/22/13	**7439-92-1**	**Lead**	0.1	**0.8**	
200.8	01/16/13	200.8	01/22/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW16D-130111-W
SAMPLE

Lab Sample ID: VZ75Q
LIMS ID: 13-937
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/11/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**0.2**	
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**1.8**	
200.8	01/16/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**1.2**	
200.8	01/16/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMWDUP1-130110-W
SAMPLE

Lab Sample ID: VZ75R
LIMS ID: 13-938
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/10/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**1.0**	
200.8	01/16/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	1	**11**	
200.8	01/16/13	200.8	01/25/13	7440-43-9	Cadmium	0.5	0.5	U
200.8	01/16/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW19D-130110-W
SAMPLE

Lab Sample ID: VZ75S
LIMS ID: 13-939
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/10/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/24/13	7440-36-0	Antimony	0.5	0.5	U
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**8.7**	
200.8	01/16/13	200.8	01/24/13	**7440-43-9**	**Cadmium**	0.2	**1.8**	
200.8	01/16/13	200.8	01/24/13	**7439-92-1**	**Lead**	0.2	**0.9**	
200.8	01/16/13	200.8	01/24/13	7440-28-0	Thallium	0.5	0.5	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW20D-130110-W
SAMPLE

Lab Sample ID: VZ75T
LIMS ID: 13-940
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/10/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**1.0**	
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**9.2**	
200.8	01/16/13	200.8	01/30/13	7440-43-9	Cadmium	0.2	0.2	U
200.8	01/16/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW06S-130109-W
MATRIX SPIKE

Lab Sample ID: VZ75A
LIMS ID: 13-921
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.4	25.5	25.0	100%	
Arsenic	200.8	13.7	40.8	25.0	108%	
Cadmium	200.8	0.2	25.0	25.0	99.2%	
Lead	200.8	0.3	27.0	25.0	107%	
Thallium	200.8	0.2 U	25.4	25.0	102%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked
NR-Not Recovered

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW06S-130109-W
DUPLICATE

Lab Sample ID: VZ75A
LIMS ID: 13-921
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.4	0.4	0.0%	+/- 0.2	L
Arsenic	200.8	13.7	13.4	2.2%	+/- 20%	
Cadmium	200.8	0.2	0.1	66.7%	+/- 0.1	L
Lead	200.8	0.3	0.2	40.0%	+/- 0.1	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW06S-130109-W
SAMPLE

Lab Sample ID: VZ75U
LIMS ID: 13-941
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**0.3**	
200.8	01/16/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	0.2	**12.4**	
200.8	01/16/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW07D-130109-W
SAMPLE

Lab Sample ID: VZ75V
LIMS ID: 13-942
Matrix: Water
Data Release Authorized
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/24/13	7440-36-0	Antimony	0.5	0.5	U
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**5.9**	
200.8	01/16/13	200.8	01/24/13	7440-43-9	Cadmium	0.2	0.2	U
200.8	01/16/13	200.8	01/24/13	7439-92-1	Lead	0.2	0.2	U
200.8	01/16/13	200.8	01/24/13	7440-28-0	Thallium	0.5	0.5	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW11S-130109-W
SAMPLE

Lab Sample ID: VZ75W
LIMS ID: 13-943
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**0.2**	
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**1.1**	
200.8	01/16/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW11D-130109-W
SAMPLE

Lab Sample ID: VZ75X
LIMS ID: 13-944
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**1.7**	
200.8	01/16/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW14S-130111-W
SAMPLE

Lab Sample ID: VZ75Y
LIMS ID: 13-945
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/11/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**1.3**	
200.8	01/16/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	0.2	**2.7**	
200.8	01/16/13	200.8	01/21/13	**7440-43-9**	**Cadmium**	0.1	**0.1**	
200.8	01/16/13	200.8	01/21/13	**7439-92-1**	**Lead**	0.1	**2.3**	
200.8	01/16/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW14D-130111-W
SAMPLE

Lab Sample ID: VZ75Z
LIMS ID: 13-946
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/11/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/22/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/16/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	2	**313**	
200.8	01/16/13	200.8	01/22/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/22/13	**7439-92-1**	**Lead**	0.1	**0.2**	
200.8	01/16/13	200.8	01/22/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW15S-130111-W
SAMPLE

Lab Sample ID: VZ75AA
LIMS ID: 13-947
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/11/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/21/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/16/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	0.2	**4.6**	
200.8	01/16/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW15D-130111-W
SAMPLE

Lab Sample ID: VZ75AB
LIMS ID: 13-948
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/11/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/21/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/16/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	0.2	**0.5**	
200.8	01/16/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW17S-130109-W
SAMPLE

Lab Sample ID: VZ75AC
LIMS ID: 13-949
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**1.9**	
200.8	01/16/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	0.2	**2.6**	
200.8	01/16/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW17D-130109-W
SAMPLE

Lab Sample ID: VZ75AD
LIMS ID: 13-950
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/21/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/16/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	0.2	**14.9**	
200.8	01/16/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LIMW04S-130110-W
SAMPLE

Lab Sample ID: VZ75AE
LIMS ID: 13-951
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/10/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**0.2**	
200.8	01/16/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	0.2	**8.3**	
200.8	01/16/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW04D-130110-W
SAMPLE

Lab Sample ID: VZ75AF
LIMS ID: 13-952
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/10/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**0.3**	
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**31.1**	
200.8	01/16/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	**7439-92-1**	**Lead**	0.1	**0.6**	
200.8	01/16/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW05S-130109-W
SAMPLE

Lab Sample ID: VZ75AG
LIMS ID: 13-953
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**0.2**	
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**8.4**	
200.8	01/16/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW05D-130109-W
SAMPLE

Lab Sample ID: VZ75AH
LIMS ID: 13-954
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/21/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**1.7**	
200.8	01/16/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW07S-130109-W
SAMPLE

Lab Sample ID: VZ75AI
LIMS ID: 13-955
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**1.3**	
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**15.6**	
200.8	01/16/13	200.8	01/21/13	**7440-43-9**	**Cadmium**	0.1	**0.1**	
200.8	01/16/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW16S-130111-W
SAMPLE

Lab Sample ID: VZ75AJ
LIMS ID: 13-956
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/11/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/22/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/16/13	200.8	01/22/13	**7440-38-2**	**Arsenic**	2	**1,700**	
200.8	01/16/13	200.8	01/22/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/22/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/22/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW16D-130111-W
SAMPLE

Lab Sample ID: VZ75AK
LIMS ID: 13-957
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/11/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/21/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/16/13	200.8	01/23/13	7440-38-2	Arsenic	0.5	0.5	U
200.8	01/16/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	**7439-92-1**	**Lead**	0.1	**0.2**	
200.8	01/16/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMWDUP1-130110-W
SAMPLE

Lab Sample ID: VZ75AL
LIMS ID: 13-958
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/10/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**0.9**	
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**8.6**	
200.8	01/16/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW19D-130110-W
SAMPLE

Lab Sample ID: VZ75AM
LIMS ID: 13-959
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/10/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/21/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/16/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	0.2	**4.9**	
200.8	01/16/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	**7439-92-1**	**Lead**	0.1	**0.1**	
200.8	01/16/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW20D-130110-W
SAMPLE

Lab Sample ID: VZ75AN
LIMS ID: 13-960
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/10/13
Date Received: 01/14/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**0.9**	
200.8	01/16/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.5	**8.7**	
200.8	01/16/13	200.8	01/21/13	**7440-43-9**	**Cadmium**	0.1	**0.3**	
200.8	01/16/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW06S-130109-W
MATRIX SPIKE

Lab Sample ID: VZ75U
LIMS ID: 13-941
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.3	25.8	25.0	102%	
Arsenic	200.8	12.4	42.1	25.0	119%	
Cadmium	200.8	0.1 U	25.8	25.0	103%	
Lead	200.8	0.1 U	27.9	25.0	112%	
Thallium	200.8	0.2 U	27.1	25.0	108%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW06S-130109-W
DUPLICATE

Lab Sample ID: VZ75U
LIMS ID: 13-941
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.3	0.3	0.0%	+/- 0.2	L
Arsenic	200.8	12.4	11.9	4.1%	+/- 20%	
Cadmium	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Lead	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: VZ75LCS
LIMS ID: 13-922
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	25.8	25.0	103%	
Arsenic	200.8	27.8	25.0	111%	
Cadmium	200.8	25.4	25.0	102%	
Lead	200.8	27.9	25.0	112%	
Thallium	200.8	26.3	25.0	105%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: METHOD BLANK

Lab Sample ID: VZ75MB
LIMS ID: 13-922
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/18/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/16/13	200.8	01/18/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	01/16/13	200.8	01/18/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/18/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: VZ75LCS
LIMS ID: 13-942
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	23.9	25.0	95.6%	
Arsenic	200.8	27.9	25.0	112%	
Cadmium	200.8	25.6	25.0	102%	
Lead	200.8	28.1	25.0	112%	
Thallium	200.8	27.9	25.0	112%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: METHOD BLANK

Lab Sample ID: VZ75MB
LIMS ID: 13-942
Matrix: Water
Data Release Authorized:
Reported: 01/31/13

QC Report No: VZ75-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/16/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/16/13	200.8	01/23/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	01/16/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/16/13	200.8	01/18/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/16/13	200.8	01/18/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS011882	50.0	50.82	**101.6**	50.0	50.07	**100.1**	52.01	**104.0**	50.91	**101.8**	51.24	**102.5**	52.06	**104.1**
Arsenic	AS	PMS	MS011882	50.0	52.00	**104.0**	50.0	50.77	**101.5**	51.03	**102.1**	50.81	**101.6**	51.33	**102.7**	50.94	**101.9**
Cadmium	CD	PMS	MS011882	50.0	50.74	**101.5**	50.0	50.61	**101.2**	49.96	**99.9**	49.66	**99.3**	50.16	**100.3**	49.72	**99.4**
Lead	PB	PMS	MS011882	50.0	51.97	**103.9**	50.0	51.11	**102.2**	50.62	**101.2**	50.47	**100.9**	51.04	**102.1**	50.62	**101.2**
Thallium	TL	PMS	MS011882	50.0	52.38	**104.8**	50.0	50.72	**101.4**	50.31	**100.6**	50.31	**100.6**	50.23	**100.5**	50.20	**100.4**

Control Limits: Mercury 80-120; Other Metals 90-110

VZ75.000576

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS: ug/L

SDG: VZ75

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	PMS	MS011882	50.0	51.90	**103.8**	49.59	**99.2**								
Arsenic	AS	PMS	MS011882	50.0	51.28	**102.6**	50.93	**101.9**								
Cadmium	CD	PMS	MS011882	50.0	49.59	**99.2**	50.61	**101.2**								
Lead	PB	PMS	MS011882	50.0	49.69	**99.4**	54.63	**109.3**								
Thallium	TL	PMS	MS011882	50.0	48.97	**97.9**	54.46	**108.9**								

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

VZ75 00077

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS012181	50.0	50.44	**100.9**	50.0	49.93	**99.9**	51.35	**102.7**	50.69	**101.4**	51.14	**102.3**	50.73	**101.5**
Arsenic	AS	PMS	MS012181	50.0	52.40	**104.8**	50.0	50.77	**101.5**	50.69	**101.4**	51.00	**102.0**	50.32	**100.6**	51.51	**103.0**
Cadmium	CD	PMS	MS012181	50.0	50.99	**102.0**	50.0	50.78	**101.6**	50.24	**100.5**	50.45	**100.9**	50.58	**101.2**	52.18	**104.4**
Lead	PB	PMS	MS012181	50.0	51.50	**103.0**	50.0	50.86	**101.7**	50.91	**101.8**	51.70	**103.4**	51.53	**103.1**	52.37	**104.7**
Thallium	TL	PMS	MS012181	50.0	50.00	**100.0**	50.0	49.58	**99.2**	49.39	**98.8**	49.76	**99.5**	49.79	**99.6**	50.55	**101.1**

Control Limits: Mercury 80-120; Other Metals 90-110

VZ75 : 000078

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	PMS	MS012181	50.0	51.49	**103.0**	50.24	**100.5**	51.31	**102.6**	52.01	**104.0**	50.05	**100.1**		
Arsenic	AS	PMS	MS012181	50.0	51.16	**102.3**	51.59	**103.2**	51.36	**102.7**	50.83	**101.7**	52.03	**104.1**		
Cadmium	CD	PMS	MS012181	50.0	52.12	**104.2**	52.38	**104.8**	52.06	**104.1**	51.05	**102.1**	52.07	**104.1**		
Lead	PB	PMS	MS012181	50.0	52.94	**105.9**	54.17	**108.3**	53.87	**107.7**	53.72	**107.4**	54.65	**109.3**		
Thallium	TL	PMS	MS012181	50.0	51.39	**102.8**	52.45	**104.9**	52.57	**105.1**	51.63	**103.3**	53.70	**107.4**		

Control Limits: Mercury 80-120; Other Metals 90-110

VZ75 : 00075

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS:ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS012281	50.0	50.09	**100.2**	50.0	50.43	**100.9**	51.42	**102.8**	49.10	**98.2**	49.10	**98.2**	47.24	**94.5**
Arsenic	AS	PMS	MS012281	50.0	52.41	**104.8**	50.0	50.55	**101.1**	50.57	**101.1**	50.77	**101.5**	50.50	**101.0**	50.92	**101.8**
Cadmium	CD	PMS	MS012281	50.0	50.70	**101.4**	50.0	51.44	**102.9**	50.79	**101.6**	51.07	**102.1**	50.93	**101.9**	50.56	**101.1**
Lead	PB	PMS	MS012281	50.0	51.48	**103.0**	50.0	50.79	**101.6**	50.24	**100.5**	52.45	**104.9**	51.33	**102.7**	52.16	**104.3**
Thallium	TL	PMS	MS012281	50.0	49.64	**99.3**	50.0	49.25	**98.5**	48.92	**97.8**	51.46	**102.9**	50.71	**101.4**	53.88	**107.8**

Control Limits: Mercury 80-120; Other Metals 90-110

VZ75 : 00000

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS:ug/L

SDG: VZ75

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	PMS	MS012281	50.0	48.01	**96.0**	49.45	**98.9**								
Arsenic	AS	PMS	MS012281	50.0	50.80	**101.6**	50.84	**101.7**								
Cadmium	CD	PMS	MS012281	50.0	51.46	**102.9**	51.16	**102.3**								
Lead	PB	PMS	MS012281	50.0	52.62	**105.2**	51.71	**103.4**								
Thallium	TL	PMS	MS012281	50.0	54.03	**108.1**	50.31	**100.6**								

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

VZ75 : 00001

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS012381	50.0	49.60	99.2	50.0	50.63	101.3	51.42	102.8	50.55	101.1	49.98	100.0	51.15	102.3
Arsenic	AS	PMS	MS012381	50.0	52.49	105.0	50.0	50.92	101.8	50.83	101.7	50.84	101.7	51.49	103.0	50.86	101.7
Cadmium	CD	PMS	MS012381	50.0	50.26	100.5	50.0	50.70	101.4	51.05	102.1	51.33	102.7	51.94	103.9	51.94	103.9
Lead	PB	PMS	MS012381	50.0	51.01	102.0	50.0	51.95	103.9	52.01	104.0	53.62	107.2	53.36	106.7	52.65	105.3
Thallium	TL	PMS	MS012381	50.0	50.97	101.9	50.0	51.03	102.1	51.62	103.2	53.07	106.1	53.24	106.5	52.83	105.7

Control Limits: Mercury 80-120; Other Metals 90-110

VZ75 000022

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	PMS	MS012381	50.0	51.36	**102.7**	51.03	**102.1**	50.87	**101.7**						
Arsenic	AS	PMS	MS012381	50.0	50.95	**101.9**	51.27	**102.5**	52.09	**104.2**						
Cadmium	CD	PMS	MS012381	50.0	51.37	**102.7**	51.82	**103.6**	52.61	**105.2**						
Lead	PB	PMS	MS012381	50.0	53.76	**107.5**	53.55	**107.1**	52.94	**105.9**						
Thallium	TL	PMS	MS012381	50.0	53.38	**106.8**	53.35	**106.7**	52.53	**105.1**						

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

VZ75 00083

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS012481	50.0	48.96	**97.9**	50.0	50.88	**101.8**	51.79	**103.6**	49.93	**99.9**	50.23	**100.5**	49.86	**99.7**
Cadmium	CD	PMS	MS012481	50.0	49.28	**98.6**	50.0	50.83	**101.7**	51.37	**102.7**	52.02	**104.0**	51.35	**102.7**	51.15	**102.3**
Lead	PB	PMS	MS012481	50.0	50.16	**100.3**	50.0	52.21	**104.4**	51.94	**103.9**	53.43	**106.9**	53.13	**106.3**	55.50	**111.0**
Thallium	TL	PMS	MS012481	50.0	49.34	**98.7**	50.0	50.01	**100.0**	50.00	**100.0**	52.16	**104.3**	51.82	**103.6**	53.86	**107.7**

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

VZ75 : 000084

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	PMS	MS012481	50.0	49.30	**98.6**	50.84	**101.7**	50.58	**101.2**						
Cadmium	CD	PMS	MS012481	50.0	51.49	**103.0**	51.41	**102.8**	50.96	**101.9**						
Lead	PB	PMS	MS012481	50.0	56.26	**112.5**	54.06	**108.1**	52.99	**106.0**						
Thallium	TL	PMS	MS012481	50.0	55.05	**110.1**	52.85	**105.7**	51.19	**102.4**						

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

VZ75 99985

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	PMS	MS012581	50.0	52.36	**104.7**	50.0	51.43	**102.9**	51.61	**103.2**	51.95	**103.9**	51.58	**103.2**	51.72	**103.4**
Cadmium	CD	PMS	MS012581	50.0	50.42	**100.8**	50.0	51.53	**103.1**	51.39	**102.8**	52.00	**104.0**	52.14	**104.3**	51.25	**102.5**

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

VZ75:00086

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Arsenic	AS	PMS	MS012581	50.0	52.38	**104.8**	52.77	**105.5**								
Cadmium	CD	PMS	MS012581	50.0	51.73	**103.5**	52.13	**104.3**								

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

VZ75.000027

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Cadmium	CD	PMS	MS013081	50.0	49.53	99.1	50.0	49.85	99.7	50.34	100.7	50.29	100.6				

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

VZ75 . 000022

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Antimony	SB	PMS	MS011882	0.2	0.22	**110.0**										
Arsenic	AS	PMS	MS011882	0.2	0.25	**125.0**										
Cadmium	CD	PMS	MS011882	0.1	0.10	**100.0**										
Lead	PB	PMS	MS011882	0.1	0.13	**130.0**										
Thallium	TL	PMS	MS011882	0.2	0.23	**115.0**										
Antimony	SB	PMS	MS012181	0.2	0.22	**110.0**										
Arsenic	AS	PMS	MS012181	0.2	0.26	**130.0**										
Cadmium	CD	PMS	MS012181	0.1	0.11	**110.0**										
Lead	PB	PMS	MS012181	0.1	0.12	**120.0**										
Thallium	TL	PMS	MS012181	0.2	0.21	**105.0**										
Antimony	SB	PMS	MS012281	0.2	0.22	**110.0**										
Arsenic	AS	PMS	MS012281	0.2	0.28	**140.0**										
Cadmium	CD	PMS	MS012281	0.1	0.11	**110.0**										
Lead	PB	PMS	MS012281	0.1	0.12	**120.0**										
Thallium	TL	PMS	MS012281	0.2	0.21	**105.0**										
Antimony	SB	PMS	MS012381	0.2	0.22	**110.0**										
Arsenic	AS	PMS	MS012381	0.2	0.23	**115.0**										
Cadmium	CD	PMS	MS012381	0.1	0.12	**120.0**										
Lead	PB	PMS	MS012381	0.1	0.11	**110.0**										
Thallium	TL	PMS	MS012381	0.2	0.22	**110.0**										
Antimony	SB	PMS	MS012481	0.2	0.22	**110.0**										
Cadmium	CD	PMS	MS012481	0.1	0.10	**100.0**										
Lead	PB	PMS	MS012481	0.1	0.11	**110.0**										
Thallium	TL	PMS	MS012481	0.2	0.21	**105.0**										
Arsenic	AS	PMS	MS012581	0.2	0.26	**130.0**										
Cadmium	CD	PMS	MS012581	0.1	0.12	**120.0**										
Cadmium	CD	PMS	MS013081	0.1	0.10	**100.0**										

Control Limits: no control limits have been established by the EPA at this time.

VZ75 : 000089

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS011882	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS011882	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS011882	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Lead	PB	PMS	MS011882	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	B	0.1	B
Thallium	TL	PMS	MS011882	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

VZ75 : 000000

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	PMS	MS011882	60.0	0.2	0.2	U	0.2	U								
Arsenic	AS	PMS	MS011882	10.0	0.2	0.2	U	0.2	U								
Cadmium	CD	PMS	MS011882	5.0	0.1	0.1	U	0.1	U								
Lead	PB	PMS	MS011882	3.0	0.1	0.1	U	0.1	U								
Thallium	TL	PMS	MS011882	10.0	0.2	0.2	U	0.2	U								

VZ75 00051

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS012181	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS012181	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS012181	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Lead	PB	PMS	MS012181	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Thallium	TL	PMS	MS012181	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

VZ75 . 000092

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	PMS	MS012181	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Arsenic	AS	PMS	MS012181	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Cadmium	CD	PMS	MS012181	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		
Lead	PB	PMS	MS012181	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		
Thallium	TL	PMS	MS012181	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		

VZ75 : 000092

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS012281	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS012281	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS012281	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Lead	PB	PMS	MS012281	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Thallium	TL	PMS	MS012281	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

VZ75:00004

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	PMS	MS012281	60.0	0.2	0.2	U	0.2	U								
Arsenic	AS	PMS	MS012281	10.0	0.2	0.2	U	0.2	U								
Cadmium	CD	PMS	MS012281	5.0	0.1	0.1	U	0.1	U								
Lead	PB	PMS	MS012281	3.0	0.1	0.1	U	0.1	U								
Thallium	TL	PMS	MS012281	10.0	0.2	0.2	U	0.2	U								

VZ75 . 00095

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS012381	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS012381	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS012381	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Lead	PB	PMS	MS012381	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Thallium	TL	PMS	MS012381	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	PMS	MS012381	60.0	0.2	0.2	U	0.2	U	0.2	U						
Arsenic	AS	PMS	MS012381	10.0	0.2	0.2	U	0.2	U	0.2	U						
Cadmium	CD	PMS	MS012381	5.0	0.1	0.1	U	0.1	U	0.1	U						
Lead	PB	PMS	MS012381	3.0	0.1	0.1	U	0.1	U	0.1	U						
Thallium	TL	PMS	MS012381	10.0	0.2	0.2	U	0.2	U	0.2	U						

VZ75 . 000097

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS012481	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS012481	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Lead	PB	PMS	MS012481	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Thallium	TL	PMS	MS012481	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

VZ75 : 00098

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	PMS	MS012481	60.0	0.2	0.2	U	0.2	U	0.2	U						
Cadmium	CD	PMS	MS012481	5.0	0.1	0.1	U	0.1	U	0.1	U						
Lead	PB	PMS	MS012481	3.0	0.1	0.1	U	0.1	U	0.1	U						
Thallium	TL	PMS	MS012481	10.0	0.2	0.2	U	0.2	U	0.2	U						

VZ75 : 000095

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Arsenic	AS	PMS	MS012581	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS012581	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U

VZ75 : 00100

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Arsenic	AS	PMS	MS012581	10.0	0.2	0.2	U	0.2	U								
Cadmium	CD	PMS	MS012581	5.0	0.1	0.1	U	0.1	U								

VZ75 . 00161

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Cadmium	CD	PMS	MS013081	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U				

VZ75 : 001452

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

ICS SOURCE: I.V.

RUNID: MS011882

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	20.5	**102.5**						
Cadmium		20	0.1	20.5	**102.5**						
Chromium		20	0.5	21.0	**105.0**						
Cobalt		20	0.0	20.9	**104.5**						
Copper		20	0.5	20.1	**100.5**						
Manganese		20	0.0	20.4	**102.0**						
Molybdenum	400	400	406.9	427.2	**106.8**						
Nickel		20	0.5	20.3	**101.5**						
Selenium			0.0	0.1							
Silver		20	0.0	20.0	**100.0**						
Thorium			0.2	0.1							
Uranium			0.2	0.1							
Vanadium			0.0	-0.3							
Zinc		20	1.8	20.9	**104.5**						

VZ75 . 051403

ICP Interference
Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

ICS SOURCE: I.V.

RUNID: MS012181

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.5	**97.5**						
Cadmium		20	0.1	20.3	**101.5**						
Chromium		20	0.5	20.4	**102.0**						
Cobalt		20	0.0	19.6	**98.0**						
Copper		20	0.5	20.4	**102.0**						
Manganese		20	0.0	19.8	**99.0**						
Molybdenum	400	400	398.4	402.8	**100.7**						
Nickel		20	0.5	20.4	**102.0**						
Selenium			0.0	0.1							
Silver		20	0.0	20.0	**100.0**						
Vanadium			0.0	-0.3							
Zinc		20	1.1	20.8	**104.0**						

VZ75 : 00104

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

ICS SOURCE: I.V.

RUNID: MS012281

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.2	19.8	**99.0**						
Cadmium		20	0.1	20.2	**101.0**						
Chromium		20	0.5	20.9	**104.5**						
Cobalt		20	0.0	20.2	**101.0**						
Copper		20	0.4	20.0	**100.0**						
Manganese		20	0.1	20.5	**102.5**						
Molybdenum	400	400	413.9	412.0	**103.0**						
Nickel		20	0.5	20.1	**100.5**						
Silver		20	0.0	20.0	**100.0**						
Vanadium			0.1	-0.3							
Zinc		20	1.6	20.3	**101.5**						

VZ75 001095

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

ICS SOURCE: I.V.

RUNID: MS012381

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.5	**97.5**						
Cadmium		20	0.1	19.9	**99.5**						
Chromium		20	0.5	20.6	**103.0**						
Cobalt		20	0.0	20.2	**101.0**						
Copper		20	0.4	20.0	**100.0**						
Manganese		20	0.0	20.4	**102.0**						
Molybdenum	400	400	411.7	407.4	**101.9**						
Nickel		20	0.5	20.3	**101.5**						
Selenium			-0.1	-0.2							
Silver		20	0.0	20.2	**101.0**						
Vanadium			0.1	-0.4							
Zinc		20	1.9	20.3	**101.5**						

VZ75 : 050105

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

ICS SOURCE: I.V.

RUNID: MS012481

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.5	**97.5**						
Cadmium		20	0.0	19.8	**99.0**						
Chromium		20	0.5	20.5	**102.5**						
Cobalt		20	0.0	20.3	**101.5**						
Copper		20	0.4	20.4	**102.0**						
Manganese		20	0.0	20.3	**101.5**						
Molybdenum	400	400	396.6	399.5	**99.9**						
Nickel		20	0.5	20.3	**101.5**						
Selenium			-0.1	-0.1							
Silver		20	0.0	19.8	**99.0**						
Vanadium			0.0	-0.3							
Zinc		20	1.8	20.7	**103.5**						

VZ75 : 00127

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

ICS SOURCE: I.V.

RUNID: MS012581

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.4	**97.0**						
Cadmium		20	0.1	19.9	**99.5**						
Copper		20	0.4	20.2	**101.0**						
Nickel		20	0.5	20.5	**102.5**						
Selenium			-0.1	-0.1							
Silver		20	0.0	19.9	**99.5**						
Zinc		20	1.6	20.4	**102.0**						

VZ75:00108

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

ICS SOURCE: I.V.

RUNID: MS013081

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.5	**97.5**						
Cadmium		20	0.1	19.9	**99.5**						
Chromium		20	0.4	20.3	**101.5**						
Cobalt		20	0.0	19.5	**97.5**						
Copper		20	0.5	19.6	**98.0**						
Manganese		20	0.0	19.9	**99.5**						
Molybdenum	400	400	397.0	395.4	**98.9**						
Nickel		20	0.5	19.8	**99.0**						
Selenium			-0.1	-0.1							
Silver		20	0.0	19.4	**97.0**						
Vanadium			0.0	-0.4							
Zinc		20	1.3	20.3	**101.5**						

VZ75 . 00109

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Antimony	SB	PMS	PE ELAN 6000 MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		
Cadmium	CD	PMS	PE ELAN 6000 MS	0.00		5	0.1	4/1/2012		
Lead	PB	PMS	PE ELAN 6000 MS	0.00		3	0.1	4/1/2012		
Thallium	TL	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

ANALYSIS METHOD: PMS

ARI PREP CODE: REN

PREPDATE: 1/16/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
LLMW06S-130109-W	VZ75A	0.000	50.0	25.0
LLMW15S-130111-W	VZ75AA	0.000	50.0	25.0
LLMW15D-130111-W	VZ75AB	0.000	50.0	25.0
LLMW17S-130109-W	VZ75AC	0.000	50.0	25.0
LLMW17D-130109-W	VZ75AD	0.000	50.0	25.0
LLMW06S-130109-WD	VZ75ADUP	0.000	50.0	25.0
LLMW04S-130110-W	VZ75AE	0.000	50.0	25.0
LLMW04D-130110-W	VZ75AF	0.000	50.0	25.0
LLMW05S-130109-W	VZ75AG	0.000	50.0	25.0
LLMW05D-130109-W	VZ75AH	0.000	50.0	25.0
LLMW07S-130109-W	VZ75AI	0.000	50.0	25.0
LLMW16S-130111-W	VZ75AJ	0.000	50.0	25.0
LLMW16D-130111-W	VZ75AK	0.000	50.0	25.0
LLMWDUP1-130110-W	VZ75AL	0.000	50.0	25.0
LLMW19D-130110-W	VZ75AM	0.000	50.0	25.0
LLMW20D-130110-W	VZ75AN	0.000	50.0	25.0
LLMW06S-130109-WS	VZ75ASPK	0.000	50.0	25.0
LLMW07D-130109-W	VZ75B	0.000	50.0	25.0
LLMW11S-130109-W	VZ75C	0.000	50.0	25.0
LLMW11D-130109-W	VZ75D	0.000	50.0	25.0
LLMW14S-130111-W	VZ75E	0.000	50.0	25.0
LLMW14D-130111-W	VZ75F	0.000	50.0	25.0
LLMW15S-130111-W	VZ75G	0.000	50.0	25.0
LLMW15D-130111-W	VZ75H	0.000	50.0	25.0
LLMW17S-130109-W	VZ75I	0.000	50.0	25.0
LLMW17D-130109-W	VZ75J	0.000	50.0	25.0
LLMW04S-130110-W	VZ75K	0.000	50.0	25.0
LLMW04D-130110-W	VZ75L	0.000	50.0	25.0
LLMW05S-130109-W	VZ75M	0.000	50.0	25.0
PBW	VZ75MB1	0.000	50.0	25.0
LCSW	VZ75MB1SPK	0.000	50.0	25.0
PBW	VZ75MB2	0.000	50.0	25.0
LCSW	VZ75MB2SPK	0.000	50.0	25.0
LLMW05D-130109-W	VZ75N	0.000	50.0	25.0
LLMW07S-130109-W	VZ75O	0.000	50.0	25.0
LLMW16S-130111-W	VZ75P	0.000	50.0	25.0
LLMW16D-130111-W	VZ75Q	0.000	50.0	25.0
LLMWDUP1-130110-W	VZ75R	0.000	50.0	25.0
LLMW19D-130110-W	VZ75S	0.000	50.0	25.0
LLMW20D-130110-W	VZ75T	0.000	50.0	25.0
LLMW06S-130109-W	VZ75U	0.000	50.0	25.0
LLMW06S-130109-WD	VZ75UDUP	0.000	50.0	25.0
LLMW06S-130109-WS	VZ75USPK	0.000	50.0	25.0
LLMW07D-130109-W	VZ75V	0.000	50.0	25.0
LLMW11S-130109-W	VZ75W	0.000	50.0	25.0

FORM XIII

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ75

ANALYSIS METHOD: PMS

ARI PREP CODE: REN

PREPDATE: 1/16/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
LLMW11D-130109-W	VZ75X	0.000	50.0	25.0
LLMW14S-130111-W	VZ75Y	0.000	50.0	25.0
LLMW14D-130111-W	VZ75Z	0.000	50.0	25.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: PE ELAN 6000 MS START DATE: 1/18/2013

SDG: VZ75 RUNID: MS011882 METHOD: PMS END DATE: 1/18/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10350				X					X												X	X					X			
S1	S1	1.00	10410				X					X												X	X					X			
S2	S2	1.00	10470				X					X												X	X					X			
S3	S3	1.00	10530				X					X												X	X					X			
S4	S4	1.00	10590				X					X												X	X					X			
ZZZZZZ	Rinse Sampl	1.00	11060																														
ICV	MICV	1.00	11130				X					X												X	X					X			
ICB	ICB	1.00	11200				X					X												X	X					X			
CCV	MCCV1	1.00	11260				X					X												X	X					X			
CCB	CCB1	1.00	11320				X					X												X	X					X			
CRI	MCRI	1.00	11380				X					X												X	X					X			
ICSA	ICSAI	1.00	11440				X					X												X	X					X			
ICSAB	ICSABI	1.00	11500				X					X												X	X					X			
ZZZZZZ	LR200	1.00	11570																														
ZZZZZZ	LR300	1.00	12030																														
CCV	MCCV2	1.00	12100				X					X												X	X					X			
CCB	CCB2	1.00	12160				X					X												X	X					X			
ZZZZZZ	ZZZZZZ	1.00	12250																														
ZZZZZZ	VZ35MB1	2.00	12310																														
ZZZZZZ	VZ68ADUP	200.00	12370																														
ZZZZZZ	VZ68A	200.00	12430																														
ZZZZZZ	VZ68ASPK	200.00	12490																														
ZZZZZZ	VZ68APOST	200.00	12560																														
ZZZZZZ	VZ68B	50.00	13020																														
ZZZZZZ	VZ35B	2.00	13080																														
ZZZZZZ	VZ35C	2.00	13150																														
ZZZZZZ	VZ35MB1SPK	2.00	13210																														
CCV	MCCV3	1.00	13270				X					X												X	X					X			
CCB	CCB3	1.00	13340				X					X												X	X					X			
ZZZZZZ	VZ35MB2	2.00	13440																														
ZZZZZZ	VZ35A-L	10.00	13500																														
ZZZZZZ	VZ35A	2.00	13560																														
ZZZZZZ	VZ35ADUP	2.00	14030																														
ZZZZZZ	VZ35ASPK	2.00	14090																														
ZZZZZZ	ZZZZZZ	2.00	14150																														

FORM XIV

VZ75 · 00113

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 1/18/2013

SDG: VZ75 | RUNID: MS011882 METHOD: PMS | END DATE: 1/18/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	VZ35D	2.00	14210																														
ZZZZZZ	VZ35E	2.00	14280																														
ZZZZZZ	VZ35F	2.00	14340																														
ZZZZZZ	VZ35MB2SPK	2.00	14400																														
CCV	MCCV4	1.00	14460				X					X												X	X					X			
CCB	CCB4	1.00	14530				X					X												X	X					X			
ZZZZZZ	VZ35G-L	10.00	15010																														
ZZZZZZ	VZ35G	2.00	15080																														
ZZZZZZ	VZ35GDUP	2.00	15140																														
ZZZZZZ	VZ35GSPK	2.00	15200																														
ZZZZZZ	ZZZZZZ	2.00	15270																														
ZZZZZZ	VZ35H	2.00	15320																														
ZZZZZZ	VZ35I	2.00	15380																														
ZZZZZZ	VZ35J	2.00	15440																														
ZZZZZZ	VZ35K	2.00	15490																														
ZZZZZZ	VZ35L	2.00	15550																														
CCV	MCCV5	1.00	16010				X					X												X	X					X			
CCB	CCB5	1.00	16080				X					X												X	X					X			
PBW	VZ75MB1	2.00	16140				X					X													X					X			
LLMW06S-130109-WD	VZ75ADUP	2.00	16200				X					X													X					X			
LLMW06S-130109-W	VZ75A	2.00	16270				X					X													X					X			
LLMW06S-130109-WS	VZ75ASPK	2.00	16330				X					X													X					X			
ZZZZZZ	ZZZZZZ	2.00	16390																														
LLMW07D-130109-W	VZ75B	2.00	16450									X													X					X			
LLMW11S-130109-W	VZ75C	2.00	16520				X					X													X					X			
LLMW11D-130109-W	VZ75D	2.00	16580				X					X													X					X			
LLMW14S-130111-W	VZ75E	2.00	17040				X					X													X					X			
LCSW	VZ75MB1SPK	2.00	17110				X					X													X					X			
CCV	MCCV6	1.00	17170				X					X												X	X					X			
CCB	CCB6	1.00	17230				X					X												X	X					X			
PBW	VZ75MB2	2.00	17290																					X						X			
LLMW14D-130111-W	VZ75F	2.00	17360																					X						X			
LLMW15S-130111-W	VZ75G	2.00	17420																					X						X			
LLMW15D-130111-W	VZ75H	2.00	17480																					X						X			
LLMW17S-130109-W	VZ75I	2.00	17550																					X						X			

FORM XIV

VZ75 . 5511 14

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: PE ELAN 6000 MS START DATE: 1/18/2013

SDG: VZ75 RUNID: MS011882 METHOD: PMS END DATE: 1/18/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
LLMW17D-130109-W	VZ75J	2.00	18010																					X						X			
LLMW04S-130110-W	VZ75K	2.00	18070																					X						X			
LLMW04D-130110-W	VZ75L	2.00	18130																					X						X			
LLMW05S-130109-W	VZ75M	2.00	18200																					X						X			
LCSW	VZ75MB2SPK	2.00	18260																					X						X			
CCV	MCCV7	1.00	18320				X					X												X	X					X			
CCB	CCB7	1.00	18390				X					X												X	X					X			

VZ75 . 00145

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: PE ELAN 6000 MS START DATE: 1/21/2013

SDG: VZ75 RUNID: MS012181 METHOD: PMS END DATE: 1/21/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09430				X					X												X	X					X			
S1	S1	1.00	09490				X					X												X	X					X			
S2	S2	1.00	09550				X					X												X	X					X			
S3	S3	1.00	10010				X					X												X	X					X			
S4	S4	1.00	10070				X					X												X	X					X			
ZZZZZZ	Rinse Sampl	1.00	10140																														
ICV	MICV	1.00	10310				X					X												X	X					X			
ICB	ICB	1.00	10380				X					X												X	X					X			
CCV	MCCV1	1.00	10440				X					X												X	X					X			
CCB	CCB1	1.00	10530				X					X												X	X					X			
CRI	MCRI	1.00	10590				X					X												X	X					X			
ICSA	ICSAI	1.00	11050				X					X												X	X					X			
ICSAB	ICSABI	1.00	11110				X					X												X	X					X			
ZZZZZZ	LR200	1.00	11170																														
ZZZZZZ	LR300	1.00	11240																														
CCV	MCCV2	1.00	11310				X					X												X	X					X			
CCB	CCB2	1.00	11370				X					X												X	X					X			
ZZZZZZ	VZ35MB2	2.00	11430																														
ZZZZZZ	VZ35A-L	10.00	11500																														
ZZZZZZ	VZ35A	2.00	11560																														
ZZZZZZ	VZ35ADUP	2.00	12020																														
ZZZZZZ	VZ35ASPK	2.00	12090																														
ZZZZZZ	ZZZZZZ	2.00	12150																														
ZZZZZZ	VZ35D	2.00	12210																														
ZZZZZZ	VZ35E	2.00	12280																														
ZZZZZZ	VZ35F	2.00	12340																														
ZZZZZZ	VZ35MB2SPK	2.00	12400																														
CCV	MCCV3	1.00	12460				X					X												X	X					X			
CCB	CCB3	1.00	12530				X					X												X	X					X			
ZZZZZZ	VZ35G-L	10.00	12590																														
ZZZZZZ	VZ35G	2.00	13050																														
ZZZZZZ	VZ35GDUP	2.00	13110																														
ZZZZZZ	VZ35GSPK	2.00	13180																														
ZZZZZZ	ZZZZZZ	2.00	13240																														
ZZZZZZ	VZ35H	2.00	13300																														

FORM XIV

VZ75:00115

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: PE ELAN 6000 MS START DATE: 1/21/2013

SDG: VZ75 RUNID: MS012181 METHOD: PMS END DATE: 1/21/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	VZ35I	2.00	13370																														
ZZZZZZ	VZ35J	2.00	13430																														
ZZZZZZ	VZ35K	2.00	13490																														
ZZZZZZ	VZ35L	2.00	13550																														
CCV	MCCV4	1.00	14010				X					X												X	X					X			
CCB	CCB4	1.00	14080				X					X												X	X					X			
PBW	VZ75MB1	2.00	14140																					X									
LLMW06S-130109-WD	VZ75ADUP	2.00	14200																					X									
LLMW06S-130109-W	VZ75A	2.00	14260																					X									
LLMW06S-130109-WS	VZ75ASPK	2.00	14330																					X									
ZZZZZZ	ZZZZZZ	2.00	14390																														
LLMW07D-130109-W	VZ75B	2.00	14450				X																	X									
LLMW11S-130109-W	VZ75C	2.00	14500																														
LLMW11D-130109-W	VZ75D	2.00	14560																														
LLMW14S-130111-W	VZ75E	2.00	15020																					X									
LCSW	VZ75MB1SPK	2.00	15070																					X									
CCV	MCCV5	1.00	15140				X					X												X	X					X			
CCB	CCB5	1.00	15200				X					X												X	X					X			
S0	S0	1.00	15270				X					X												X	X					X			
CCV	MCCV6	1.00	15340				X					X												X	X					X			
CCB	CCB6	1.00	15410				X					X												X	X					X			
PBW	VZ75MB2	2.00	15470																														
LLMW14D-130111-W	VZ75F	5.00	15530																														
LLMW15S-130111-W	VZ75G	2.00	15590																														
LLMW15D-130111-W	VZ75H	2.00	16060																														
LLMW17S-130109-W	VZ75I	2.00	16120																														
LLMW17D-130109-W	VZ75J	2.00	16180																														
LLMW04S-130110-W	VZ75K	2.00	16240																														
LLMW04D-130110-W	VZ75L	2.00	16310																														
LLMW05S-130109-W	VZ75M	2.00	16370																														
LCSW	VZ75MB2SPK	2.00	16430																														
CCV	MCCV7	1.00	16500				X					X												X	X					X			
CCB	CCB7	1.00	16560				X					X												X	X					X			
LLMW05D-130109-W	VZ75N	2.00	17020																														
LLMW07S-130109-W	VZ75O	2.00	17080																														

FORM XIV

VZ75:00117

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 1/21/2013

SDG: VZ75 | RUNID: MS012181 METHOD: PMS | END DATE: 1/21/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
LLMW16S-130111-W	VZ75P	20.00	17150																														
LLMW16D-130111-W	VZ75Q	2.00	17210																														
LLMWDUP1-130110-W	VZ75R	2.00	17270																														
LLMW19D-130110-W	VZ75S	2.00	17340																														
LLMW20D-130110-W	VZ75T	2.00	17400																														
LLMW07D-130109-W	VZ75V	2.00	17460																														
LLMW11S-130109-W	VZ75W	2.00	17520																														
LLMW11D-130109-W	VZ75X	2.00	17590																														
CCV	MCCV8	1.00	18050				X					X												X	X					X			
CCB	CCB8	1.00	18120				X					X												X	X					X			
LLMW06S-130109-WD	VZ75UDUP	2.00	18170				X					X												X	X					X			
LLMW06S-130109-W	VZ75U	2.00	18240				X					X												X	X					X			
LLMW06S-130109-WS	VZ75USPK	2.00	18300				X					X												X	X					X			
ZZZZZZ	ZZZZZZ	2.00	18360																														
LLMW14S-130111-W	VZ75Y	2.00	18430				X					X												X	X					X			
LLMW14D-130111-W	VZ75Z	20.00	18490				X																										
LLMW15S-130111-W	VZ75AA	2.00	18550				X					X												X	X					X			
LLMW15D-130111-W	VZ75AB	2.00	19020				X					X												X	X					X			
LLMW17S-130109-W	VZ75AC	2.00	19080				X					X												X	X					X			
LLMW17D-130109-W	VZ75AD	2.00	19140				X					X												X	X					X			
CCV	MCCV9	1.00	19210				X					X												X	X					X			
CCB	CCB9	1.00	19270				X					X												X	X					X			
LLMW04S-130110-W	VZ75AE	2.00	19330				X					X												X	X					X			
LLMW04D-130110-W	VZ75AF	2.00	19390									X												X	X					X			
LLMW05S-130109-W	VZ75AG	2.00	19450									X												X	X					X			
LLMW05D-130109-W	VZ75AH	2.00	19520									X												X	X					X			
LLMW07S-130109-W	VZ75AI	2.00	19580									X												X	X					X			
LLMW16S-130111-W	VZ75AJ	20.00	20040																														
LLMW16D-130111-W	VZ75AK	2.00	20110									X												X	X					X			
LLMWDUP1-130110-W	VZ75AL	2.00	20170									X												X	X					X			
LLMW19D-130110-W	VZ75AM	2.00	20230				X					X												X	X					X			
LLMW20D-130110-W	VZ75AN	2.00	20290									X												X	X					X			
CCV	MCCV10	1.00	20360				X					X												X	X					X			
CCB	CCB10	1.00	20420				X					X												X	X					X			

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: PE ELAN 6000 MS START DATE: 1/22/2013

SDG: VZ75 RUNID: MS012281 METHOD: PMS END DATE: 1/22/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10200				X					X												X	X					X			
S1	S1	1.00	10260				X					X												X	X					X			
S2	S2	1.00	10320				X					X												X	X					X			
S3	S3	1.00	10380				X					X												X	X					X			
S4	S4	1.00	10440				X					X												X	X					X			
ZZZZZZ	Rinse Samp1	1.00	10510																														
ICV	MICV	1.00	11000				X					X												X	X					X			
ICB	ICB	1.00	11070				X					X												X	X					X			
CCV	MCCV1	1.00	11130				X					X												X	X					X			
CCB	CCB1	1.00	11190				X					X												X	X					X			
CRI	MCRI	1.00	11250				X					X												X	X					X			
ICSA	ICSAI	1.00	11310				X					X												X	X					X			
ICSAB	ICSABI	1.00	11370				X					X												X	X					X			
ZZZZZZ	LR200	1.00	11440																														
ZZZZZZ	LR300	1.00	11500																														
CCV	MCCV2	1.00	11570				X					X												X	X					X			
CCB	CCB2	1.00	12030				X					X												X	X					X			
PBW	VZ75MB2	2.00	12090																														
LLMW14D-130111-W	VZ75F	5.00	12150																														
LLMW15S-130111-W	VZ75G	2.00	12220																														
LLMW15D-130111-W	VZ75H	2.00	12280																														
LLMW17S-130109-W	VZ75I	2.00	12340																														
LLMW17D-130109-W	VZ75J	2.00	12410																														
LLMW04S-130110-W	VZ75K	2.00	12470																														
LLMW04D-130110-W	VZ75L	2.00	12530																														
LLMW05S-130109-W	VZ75M	2.00	13000																														
LCSW	VZ75MB2SPK	2.00	13060																														
CCV	MCCV3	1.00	13120				X					X												X	X					X			
CCB	CCB3	1.00	13190				X					X												X	X					X			
S0	S0	1.00	13280				X					X												X	X					X			
CCV	MCCV4	1.00	14060				X					X												X	X					X			
CCB	CCB4	1.00	14130				X					X												X	X					X			
LLMW05D-130109-W	VZ75N	2.00	14180																														
LLMW07S-130109-W	VZ75O	2.00	14250																														
LLMW16S-130111-W	VZ75P	20.00	14310																														

FORM XIV

VZ75:00119

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: PE ELAN 6000 MS START DATE: 1/22/2013

SDG: VZ75 RUNID: MS012281 METHOD: PMS END DATE: 1/22/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
LLMW16D-130111-W	VZ75Q	2.00	14370																														
LLMWDUP1-130110-W	VZ75R	2.00	14440																														
LLMW19D-130110-W	VZ75S	2.00	14500																														
LLMW20D-130110-W	VZ75T	2.00	14560																														
LLMW07D-130109-W	VZ75V	2.00	15030																														
LLMW11S-130109-W	VZ75W	2.00	15090																														
LLMW11D-130109-W	VZ75X	2.00	15150																														
CCV	MCCV5	1.00	15210				X					X												X	X					X			
CCB	CCB5	1.00	15280				X					X												X	X					X			
S0	S0	1.00	15340				X					X												X	X					X			
CCV	MCCV6	1.00	15400				X					X												X	X					X			
CCB	CCB6	1.00	15470				X					X												X	X					X			
LLMW11S-130109-W	VZ75C	2.00	15530																					X									
LLMW11D-130109-W	VZ75D	2.00	15590																					X									
LLMW14D-130111-W	VZ75Z	2.00	16050									X												X	X					X			
LLMW16S-130111-W	VZ75AJ	20.00	16120				X																										
LLMW16S-130111-W	VZ75AJ	2.00	16180									X												X	X					X			
LLMW14D-130111-W	VZ75F	2.00	16240				X					X													X								
LLMW16S-130111-W	VZ75P	2.00	16290									X												X	X					X			
LLMW04D-130110-W	VZ75L	2.00	16350									X													X								
LLMW05S-130109-W	VZ75M	2.00	16410									X													X								
LCSW	VZ75MB2SPK	2.00	16470				X					X													X								
CCV	MCCV7	1.00	16530				X					X												X	X					X			
CCB	CCB7	1.00	17000				X					X												X	X					X			

VZ75 . 000128

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: PE ELAN 6000 MS START DATE: 1/23/2013

SDG: VZ75 RUNID: MS012381 METHOD: PMS END DATE: 1/23/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09440				X					X												X	X					X			
S1	S1	1.00	09500				X					X												X	X					X			
S2	S2	1.00	09560				X					X												X	X					X			
S3	S3	1.00	10020				X					X												X	X					X			
S4	S4	1.00	10080				X					X												X	X					X			
ZZZZZZ	Rinse Sampl	1.00	10150																														
ICV	MICV	1.00	10220				X					X												X	X					X			
ICB	ICB	1.00	10290				X					X												X	X					X			
CCV	MCCV1	1.00	10340				X					X												X	X					X			
CCB	CCB1	1.00	10410				X					X												X	X					X			
CRI	MCRI	1.00	10470				X					X												X	X					X			
ICSA	ICSAI	1.00	10530				X					X												X	X					X			
ICSAB	ICSABI	1.00	10590				X					X												X	X					X			
ZZZZZZ	LR200	1.00	11050																														
ZZZZZZ	LR300	1.00	11120																														
CCV	MCCV2	1.00	11190				X					X												X	X					X			
CCB	CCB2	1.00	11250				X					X												X	X					X			
LLMW05D-130109-W	VZ75N	2.00	11350				X					X												X	X					X			
LLMW07S-130109-W	VZ75O	2.00	11420				X					X												X	X					X			
LLMW16S-130111-W	VZ75P	20.00	11480																														
LLMW16D-130111-W	VZ75Q	2.00	11540																														
LLMWDUP1-130110-W	VZ75R	2.00	12000																					X	X					X			
LLMW19D-130110-W	VZ75S	2.00	12070																														
LLMW20D-130110-W	VZ75T	2.00	12130				X																	X	X					X			
LLMW07D-130109-W	VZ75V	2.00	12190																														
LLMW11S-130109-W	VZ75W	2.00	12260																														
LLMW11D-130109-W	VZ75X	2.00	12320				X					X												X	X					X			
CCV	MCCV3	1.00	12380				X					X												X	X					X			
CCB	CCB3	1.00	12450				X					X												X	X					X			
PBW	VZ75MB2	2.00	12510																														
LLMW15S-130111-W	VZ75G	2.00	12570																														
LLMW15D-130111-W	VZ75H	2.00	13030																														
LLMW17S-130109-W	VZ75I	2.00	13100																														
LLMW17D-130109-W	VZ75J	2.00	13160																														
LLMW04S-130110-W	VZ75K	2.00	13220																														

FORM XIV

VZ75 . 00124

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 1/23/2013

SDG: VZ75 | RUNID: MS012381 METHOD: PMS | END DATE: 1/23/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
LLMW04D-130110-W	VZ75L	10.00	13280																														
LLMW05S-130109-W	VZ75M	5.00	13350																														
LLMW04D-130110-W	VZ75AF	5.00	13410																														
LLMW05S-130109-W	VZ75AG	5.00	13470																														
CCV	MCCV4	1.00	13530				X					X												X	X					X			
CCB	CCB4	1.00	14000				X					X												X	X					X			
S0	S0	1.00	14060				X					X												X	X					X			
CCV	MCCV5	1.00	14120				X					X												X	X					X			
CCB	CCB5	1.00	14190				X					X												X	X					X			
LLMW05D-130109-W	VZ75AH	5.00	14250				X																										
LLMW07S-130109-W	VZ75AI	5.00	14310				X																										
LLMW16D-130111-W	VZ75AK	2.00	14370				X																										
LLMWDUP1-130110-W	VZ75AL	2.00	14440				X																										
LLMW20D-130110-W	VZ75AN	2.00	14500				X																										
LLMW16S-130111-W	VZ75P	20.00	14560				X																										
LLMW16D-130111-W	VZ75Q	2.00	15010				X					X												X	X					X			
LLMW19D-130110-W	VZ75S	2.00	15070																														
LLMW07D-130109-W	VZ75V	2.00	15130																														
LLMW11S-130109-W	VZ75W	2.00	15190				X					X												X	X					X			
CCV	MCCV6	1.00	15250				X					X												X	X					X			
CCB	CCB6	1.00	15320				X					X												X	X					X			
PBW	VZ75MB2	2.00	15430				X					X													X								
LLMW04D-130110-W	VZ75AF	5.00	15490				X																										
LLMW05S-130109-W	VZ75AG	5.00	15560				X																										
LLMW04D-130110-W	VZ75L	10.00	16030				X																										
LLMW05S-130109-W	VZ75M	5.00	16090				X																										
LLMW15S-130111-W	VZ75G	5.00	16150				X					X													X								
LLMW15D-130111-W	VZ75H	5.00	16210				X					X													X								
LLMW17S-130109-W	VZ75I	5.00	16280				X					X													X								
LLMW17D-130109-W	VZ75J	5.00	16340				X					X													X								
LLMW04S-130110-W	VZ75K	5.00	16400				X					X													X								
CCV	MCCV7	1.00	16470				X					X												X	X					X			
CCB	CCB7	1.00	16530				X					X												X	X					X			
ZZZZZZ	VZ39MB	2.00	16590																														
LLMW19D-130110-W	VZ75S	5.00	17050				X																										

FORM XIV

VZ75 - 09122

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 1/23/2013

SDG: VZ75 | RUNID: MS012381 METHOD: PMS | END DATE: 1/23/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
LLMW07D-130109-W	VZ75V	5.00	17120				X																										
ZZZZZZ	VZ39ADUP	5.00	17180																														
ZZZZZZ	VZ39A	5.00	17240																														
ZZZZZZ	VZ39ASPK	5.00	17310																														
ZZZZZZ	VZ39MBSPK	2.00	17370																														
ZZZZZZ	VZ39ADUP	2.00	17430																														
ZZZZZZ	VZ39A	2.00	17490																														
ZZZZZZ	VZ39ASPK	2.00	17560																														
CCV	MCCV8	1.00	18020				X					X												X	X					X			
CCB	CCB8	1.00	18090				X					X												X	X					X			

VZ75 . 00123

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 1/24/2013

SDG: VZ75 | RUNID: MS012481 METHOD: PMS | END DATE: 1/24/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09570									X												X	X					X			
S1	S1	1.00	10030									X												X	X					X			
S2	S2	1.00	10100									X												X	X					X			
S3	S3	1.00	10160									X												X	X					X			
S4	S4	1.00	10220									X												X	X					X			
ZZZZZZ	Rinse Sampl	1.00	10290																														
ICV	MICV	1.00	10370									X												X	X					X			
ICB	ICB	1.00	10430									X												X	X					X			
CCV	MCCV1	1.00	10490									X												X	X					X			
CCB	CCB1	1.00	10560									X												X	X					X			
CRI	MCRI	1.00	11020									X												X	X					X			
ICSA	ICSAI	1.00	11070									X												X	X					X			
ICSAB	ICSABI	1.00	11140									X												X	X					X			
ZZZZZZ	LR200	1.00	11200																														
ZZZZZZ	LR300	1.00	11260																														
CCV	MCCV2	1.00	11330									X												X	X					X			
CCB	CCB2	1.00	11400									X												X	X					X			
ZZZZZZ	WA39MB	2.00	12090																														
LLMWDUP1-130110-W	VZ75R	5.00	12160																														
LLMW19D-130110-W	VZ75S	5.00	12220																														
LLMW20D-130110-W	VZ75T	5.00	12280																														
LLMW07D-130109-W	VZ75V	5.00	12350																														
ZZZZZZ	WA39ADUP	2.00	12410																														
ZZZZZZ	WA39A	2.00	12470																														
ZZZZZZ	WA39ASPK	2.00	12540																														
ZZZZZZ	WA39MBSPK	2.00	13000																														
CCV	MCCV3	1.00	13060									X												X	X					X			
CCB	CCB3	1.00	13130									X												X	X					X			
S0	S0	1.00	13190									X												X	X					X			
CCV	MCCV4	1.00	13260									X												X	X					X			
CCB	CCB4	1.00	13320									X												X	X					X			
ZZZZZZ	WA43ADUP	2.00	13380																														
ZZZZZZ	WA43A	10.00	13440																														
ZZZZZZ	WA43ASPK	10.00	13510																														
ZZZZZZ	WA43B	10.00	13570																														

FORM XIV

VZ75 00124

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 1/24/2013

SDG: VZ75 | RUNID: MS012481 METHOD: PMS | END DATE: 1/24/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	WA43C	10.00	14030																														
ZZZZZZ	WA43D	10.00	14110																														
ZZZZZZ	WA43E	10.00	14180																														
ZZZZZZ	WA43F	10.00	14240																														
ZZZZZZ	WA43G	10.00	14300																														
CCV	MCCV5	1.00	14370									X												X	X					X			
CCB	CCB5	1.00	14430									X												X	X					X			
S0	S0	1.00	14500									X												X	X					X			
CCV	MCCV6	1.00	14560									X												X	X					X			
CCB	CCB6	1.00	15030									X												X	X					X			
ZZZZZZ	WA39MB	2.00	15090																														
LLMWDUP1-130110-W	VZ75R	5.00	15150																														
LLMW19D-130110-W	VZ75S	5.00	15210									X																					
LLMW20D-130110-W	VZ75T	5.00	15270																														
LLMW07D-130109-W	VZ75V	5.00	15340									X													X					X			
ZZZZZZ	WA39ADUP	2.00	15390																														
ZZZZZZ	WA39A	2.00	15450																														
ZZZZZZ	WA39ASPK	2.00	15510																														
ZZZZZZ	WA39MBSPK	2.00	15570																														
CCV	MCCV7	1.00	16030									X												X	X					X			
CCB	CCB7	1.00	16090									X												X	X					X			
ZZZZZZ	WA43MB	2.00	16150																														
ZZZZZZ	WA43H	10.00	16220																														
ZZZZZZ	WA43I	10.00	16280																														
ZZZZZZ	WA43MBSPK	2.00	16340																														
LLMW19D-130110-W	VZ75S	5.00	16410																					X	X					X			
LLMW07D-130109-W	VZ75V	5.00	16470																					X									
CCV	MCCV8	1.00	16530									X												X	X					X			
CCB	CCB8	1.00	17000									X												X	X					X			

VZ75 . 00125

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: PE ELAN 6000 MS START DATE: 1/25/2013

SDG: VZ75 RUNID: MS012581 METHOD: PMS END DATE: 1/25/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	08470				X					X																					
S1	S1	1.00	08520				X					X																					
S2	S2	1.00	08580				X					X																					
S3	S3	1.00	09040				X					X																					
S4	S4	1.00	09100				X					X																					
ZZZZZZ	Rinse Sampl	1.00	09160																														
ICV	MICV	1.00	09230				X					X																					
ICB	ICB	1.00	09290				X					X																					
CCV	MCCV1	1.00	09340				X					X																					
CCB	CCB1	1.00	09410				X					X																					
CRI	MCRI	1.00	09460				X					X																					
ICSA	ICSAI	1.00	09510				X					X																					
ICSAB	ICSABI	1.00	09570				X					X																					
ZZZZZZ	LR200	1.00	10030																														
ZZZZZZ	LR300	1.00	10090																														
CCV	MCCV2	1.00	10150				X					X																					
CCB	CCB2	1.00	10210				X					X																					
ZZZZZZ	WA39MB	2.00	10280																														
ZZZZZZ	WA39ADUP	10.00	10340																														
ZZZZZZ	WA39A	10.00	10400																														
ZZZZZZ	WA39ASPK	10.00	10460																														
ZZZZZZ	WA39MBSPK	2.00	10510																														
CCV	MCCV3	1.00	10570				X					X																					
CCB	CCB3	1.00	11030				X					X																					
ZZZZZZ	WA43ADUP	10.00	11090																														
ZZZZZZ	WA43A	10.00	11140																														
ZZZZZZ	WA43ASPK	10.00	11200																														
ZZZZZZ	WA43B	10.00	11260																														
ZZZZZZ	WA43C	10.00	11320																														
ZZZZZZ	WA43D	10.00	11380																														
ZZZZZZ	WA43E	10.00	11430																														
ZZZZZZ	WA43F	10.00	11490																														
ZZZZZZ	WA43G	10.00	11550																														
CCV	MCCV4	1.00	12010				X					X																					
CCB	CCB4	1.00	12070				X					X																					

FORM XIV

VZ75 00126

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 1/25/2013

SDG: VZ75 | RUNID: MS012581 METHOD: PMS | END DATE: 1/25/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	12120				X					X																					
CCV	MCCV5	1.00	12180				X					X																					
CCB	CCB5	1.00	12240				X					X																					
ZZZZZZ	WA48MB1	20.00	12300																														
ZZZZZZ	WA49A	20.00	12350																														
ZZZZZZ	WA49B	20.00	12410																														
ZZZZZZ	WA49C	20.00	12470																														
ZZZZZZ	WA48ADUP	20.00	12530																														
ZZZZZZ	WA48A	20.00	12580																														
ZZZZZZ	WA48ASPK	20.00	13030																														
ZZZZZZ	WA48REF1	50.00	13080																														
ZZZZZZ	WA48MB1SPK	20.00	13130																														
CCV	MCCV6	1.00	13190				X					X																					
CCB	CCB6	1.00	13250				X					X																					
ZZZZZZ	WA70MB	20.00	13310																														
LLMWDUP1-130110-W	VZ75R	10.00	13370				X					X																					
ZZZZZZ	WA70B	20.00	13430																														
ZZZZZZ	WA70C	20.00	13490																														
ZZZZZZ	WA70D	20.00	13540																														
ZZZZZZ	WA70ADUP	20.00	14000																														
ZZZZZZ	WA70A	20.00	14060																														
ZZZZZZ	WA70ASPK	20.00	14120																														
ZZZZZZ	WA70MBSPK	20.00	14180																														
CCV	MCCV7	1.00	14240				X					X																					
CCB	CCB7	1.00	14300				X					X																					

VZ75 . 00127

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 1/30/2013

SDG: VZ75 | RUNID: MS013081 METHOD: PMS | END DATE: 1/30/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	13380									X																					
S1	S1	1.00	13440									X																					
S2	S2	1.00	13500									X																					
S3	S3	1.00	13560									X																					
S4	S4	1.00	14020									X																					
ZZZZZZ	Rinse Sampl	1.00	14090																														
ICV	MICV	1.00	14160									X																					
ICB	ICB	1.00	14230									X																					
CCV	MCCV1	1.00	14290									X																					
CCB	CCB1	1.00	14350									X																					
CRI	MCRI	1.00	14410									X																					
ICSA	ICSAI	1.00	14470									X																					
ICSAB	ICSABI	1.00	14530									X																					
ZZZZZZ	LR200	1.00	14590																														
ZZZZZZ	LR300	1.00	15060																														
CCV	MCCV2	1.00	15130									X																					
CCB	CCB2	1.00	15190									X																					
LLMW20D-130110-W	VZ75T	5.00	15250									X																					
ZZZZZZ	WA78ADUP	50.00	15320																														
ZZZZZZ	WA78A	50.00	15380																														
ZZZZZZ	WA78ASPK	50.00	15440																														
ZZZZZZ	WA80B	5.00	15510																														
ZZZZZZ	WA81B	5.00	15570																														
ZZZZZZ	WA81ADUP	5.00	16030																														
ZZZZZZ	WA81A	5.00	16090																														
ZZZZZZ	WA81ASPK	5.00	16160																														
CCV	MCCV3	1.00	16220									X																					
CCB	CCB3	1.00	16290									X																					

VZ75 . 000128

Mercury Analysis
Report and Summary QC Forms

ARI Job ID: VZ75, VZ76

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ76

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLMW20D-130110-W	VZ76AN	13-1000	
LLMW06S-130109-W	VZ76A	13-961	
PBW	VZ76MB1	13-961	
LCSW	VZ76MB1SPK	13-961	
LLMW07D-130109-W	VZ76B	13-962	
LLMW07D-130109-WD	VZ76BDUP	13-962	
LLMW07D-130109-WS	VZ76BSPK	13-962	
LLMW11S-130109-W	VZ76C	13-963	
LLMW11D-130109-W	VZ76D	13-964	
LLMW14S-130111-W	VZ76E	13-965	
LLMW14D-130111-W	VZ76F	13-966	
LLMW15S-130111-W	VZ76G	13-967	
LLMW15D-130111-W	VZ76H	13-968	
LLMW17S-130109-W	VZ76I	13-969	
LLMW17D-130109-W	VZ76J	13-970	
LLMW04S-130110-W	VZ76K	13-971	
LLMW04D-130110-W	VZ76L	13-972	
LLMW05S-130109-W	VZ76M	13-973	
LLMW05D-130109-W	VZ76N	13-974	
LLMW07S-130109-W	VZ76O	13-975	
LLMW16S-130111-W	VZ76P	13-976	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 1/18/13 Title: Inorganics Director

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ76

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLMW16D-130111-W	VZ76Q	13-977	
LLMWDUP1-130110-W	VZ76R	13-978	
LLMW19D-130110-W	VZ76S	13-979	
LLMW20D-130110-W	VZ76T	13-980	
PBW	VZ76MB2	13-981	
LCSW	VZ76MB2SPK	13-981	
LLMW06S-130109-W	VZ76U	13-981	
LLMW07D-130109-W	VZ76V	13-982	
LLMW07D-130109-WD	VZ76VDUP	13-982	
LLMW07D-130109-WS	VZ76VSPK	13-982	
LLMW11S-130109-W	VZ76W	13-983	
LLMW11D-130109-W	VZ76X	13-984	
LLMW14S-130111-W	VZ76Y	13-985	
LLMW14D-130111-W	VZ76Z	13-986	
LLMW15S-130111-W	VZ76AA	13-987	
LLMW15D-130111-W	VZ76AB	13-988	
LLMW17S-130109-W	VZ76AC	13-989	
LLMW17D-130109-W	VZ76AD	13-990	
LLMW04S-130110-W	VZ76AE	13-991	
LLMW04D-130110-W	VZ76AF	13-992	
LLMW05S-130109-W	VZ76AG	13-993	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: Jay Kuhn Name: Jay Kuhn

Date: 1/18/13 Title: Inorganics Director

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ76

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLMW05D-130109-W	VZ76AH	13-994	
LLMW07S-130109-W	VZ76AI	13-995	
LLMW16S-130111-W	VZ76AJ	13-996	
LLMW16D-130111-W	VZ76AK	13-997	
LLMWDUP1-130110-W	VZ76AL	13-998	
LLMW19D-130110-W	VZ76AM	13-999	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 1/18/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Total Mercury by Method SW7470A

Data Release Authorized:
Reported: 01/18/13
Date Received: 01/14/13

QC Report No: VZ76-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
LLMW06S-130109-W VZ76A 13-961	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW07D-130109-W VZ76B 13-962	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW11S-130109-W VZ76C 13-963	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW11D-130109-W VZ76D 13-964	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW14S-130111-W VZ76E 13-965	01/11/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW14D-130111-W VZ76F 13-966	01/11/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW15S-130111-W VZ76G 13-967	01/11/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW15D-130111-W VZ76H 13-968	01/11/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW17S-130109-W VZ76I 13-969	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW17D-130109-W VZ76J 13-970	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW04S-130110-W VZ76K 13-971	01/10/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW04D-130110-W VZ76L 13-972	01/10/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW05S-130109-W VZ76M 13-973	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW05D-130109-W VZ76N 13-974	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW07S-130109-W VZ76O 13-975	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW16S-130111-W VZ76P 13-976	01/11/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW16D-130111-W VZ76Q 13-977	01/11/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMWDUP1-130110-W VZ76R 13-978	01/10/13	Water	01/16/13 01/17/13	20.0	20.0 U

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Total Mercury by Method SW7470A

Data Release Authorized:
Reported: 01/18/13
Date Received: 01/14/13

QC Report No: VZ76-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
LLMW19D-130110-W VZ76S 13-979	01/10/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW20D-130110-W VZ76T 13-980	01/10/13	Water	01/16/13 01/17/13	20.0	20.0 U
MB-011613 Method Blank	NA	Water	01/16/13 01/17/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW07D-130109-W
MATRIX SPIKE

Lab Sample ID: VZ76B
LIMS ID: 13-962
Matrix: Water
Data Release Authorized:
Reported: 01/18/13

QC Report No: VZ76-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	95.7	100	95.7%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW07D-130109-W
DUPLICATE

Lab Sample ID: VZ76B
LIMS ID: 13-962
Matrix: Water
Data Release Authorized:
Reported: 01/18/13

QC Report No: VZ76-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: VZ76LCS
LIMS ID: 13-961
Matrix: Water
Data Release Authorized:
Reported: 01/18/13

QC Report No: VZ76-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	199	200	99.5%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

INORGANICS ANALYSIS DATA SHEET
Dissolved Mercury by Method SW7470A

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized:
Reported: 01/31/13
Date Received: 01/14/13

QC Report No238: VZ76-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
LLMW06S-130109-W VZ76U 13-981	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW07D-130109-W VZ76V 13-982	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW11S-130109-W VZ76W 13-983	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW11D-130109-W VZ76X 13-984	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW14S-130111-W VZ76Y 13-985	01/11/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW14D-130111-W VZ76Z 13-986	01/11/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW15S-130111-W VZ76AA 13-987	01/11/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW15D-130111-W VZ76AB 13-988	01/11/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW17S-130109-W VZ76AC 13-989	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW17D-130109-W VZ76AD 13-990	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW04S-130110-W VZ76AE 13-991	01/10/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW04D-130110-W VZ76AF 13-992	01/10/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW05S-130109-W VZ76AG 13-993	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW05D-130109-W VZ76AH 13-994	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW07S-130109-W VZ76AI 13-995	01/09/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW16S-130111-W VZ76AJ 13-996	01/11/13	Water	01/16/13 01/17/13	20.0	20.0 U

INORGANICS ANALYSIS DATA SHEET
Dissolved Mercury by Method SW7470A

ANALYTICAL RESOURCES INCORPORATED

Data Release Authorized:
Reported: 01/31/13
Date Received: 01/14/13

QC Report No238: VZ76-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
LLMW16D-130111-W VZ76AK 13-997	01/11/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMWDUP1-130110-W VZ76AL 13-998	01/10/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW19D-130110-W VZ76AM 13-999	01/10/13	Water	01/16/13 01/17/13	20.0	20.0 U
LLMW20D-130110-W VZ76AN 13-1000	01/10/13	Water	01/16/13 01/17/13	20.0	20.0 U
MB-011613 Method Blank	NA	Water	01/16/13 01/17/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW07D-130109-W
MATRIX SPIKE

Lab Sample ID: VZ76V
LIMS ID: 13-982
Matrix: Water
Data Release Authorized:
Reported: 01/18/13

QC Report No: VZ76-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	89.3	100	89.3%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW07D-130109-W
DUPLICATE

Lab Sample ID: VZ76V
LIMS ID: 13-982
Matrix: Water
Data Release Authorized:
Reported: 01/18/13

QC Report No: VZ76-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/09/13
Date Received: 01/14/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: VZ76LCS
LIMS ID: 13-981
Matrix: Water
Data Release Authorized:
Reported: 01/18/13

QC Report No: VZ76-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	199	200	99.5%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS:ng/L

SDG: VZ76

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Mercury	HG	CVL	HG011701	500.0	458.00	**91.6**	500.0	462.00	**92.4**	469.00	**93.8**	470.00	**94.0**	473.00	**94.6**	474.00	**94.8**

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

VZ75:00143

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS:ng/L

SDG: VZ76

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Mercury	HG	CVL	HG011701	500.0	479.00	**95.8**	478.00	**95.6**	479.00	**95.8**	484.00	**96.8**	482.00	**96.4**		

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

VZ75 .001 UU

CRDL Standard

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ76

ANALYTICAL RESOURCES INCORPORATED

UNITS:ng/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Mercury	HG	CVL	HG011701	20.0	24.00	**120.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

VZ75 : 00145

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS:ng/L

SDG: VZ76

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Mercury	HG	CVL	HG011701	25.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U

VZ75 00145

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS: ng/L

SDG: VZ76

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Mercury	HG	CVL	HG011701	25.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U		

VZ76 : 000147

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ76 UNITS: ng/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ng/L)	ICP LR DATE
Mercury	HG	CVL	CETAC MERCURY	253.70		25	20.0	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ76

ANALYSIS METHOD: CVL

ARI PREP CODE: TLM

PREPDATE: 1/16/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
LLMW06S-130109-W	VZ76A	0.000	20.0	20.0
LLMW15S-130111-W	VZ76AA	0.000	20.0	20.0
LLMW15D-130111-W	VZ76AB	0.000	20.0	20.0
LLMW17S-130109-W	VZ76AC	0.000	20.0	20.0
LLMW17D-130109-W	VZ76AD	0.000	20.0	20.0
LLMW04S-130110-W	VZ76AE	0.000	20.0	20.0
LLMW04D-130110-W	VZ76AF	0.000	20.0	20.0
LLMW05S-130109-W	VZ76AG	0.000	20.0	20.0
LLMW05D-130109-W	VZ76AH	0.000	20.0	20.0
LLMW07S-130109-W	VZ76AI	0.000	20.0	20.0
LLMW16S-130111-W	VZ76AJ	0.000	20.0	20.0
LLMW16D-130111-W	VZ76AK	0.000	20.0	20.0
LLMWDUP1-130110-W	VZ76AL	0.000	20.0	20.0
LLMW19D-130110-W	VZ76AM	0.000	20.0	20.0
LLMW20D-130110-W	VZ76AN	0.000	20.0	20.0
LLMW07D-130109-W	VZ76B	0.000	20.0	20.0
LLMW07D-130109-WD	VZ76BDUP	0.000	20.0	20.0
LLMW07D-130109-WS	VZ76BSPK	0.000	20.0	20.0
LLMW11S-130109-W	VZ76C	0.000	20.0	20.0
LLMW11D-130109-W	VZ76D	0.000	20.0	20.0
LLMW14S-130111-W	VZ76E	0.000	20.0	20.0
LLMW14D-130111-W	VZ76F	0.000	20.0	20.0
LLMW15S-130111-W	VZ76G	0.000	20.0	20.0
LLMW15D-130111-W	VZ76H	0.000	20.0	20.0
LLMW17S-130109-W	VZ76I	0.000	20.0	20.0
LLMW17D-130109-W	VZ76J	0.000	20.0	20.0
LLMW04S-130110-W	VZ76K	0.000	20.0	20.0
LLMW04D-130110-W	VZ76L	0.000	20.0	20.0
LLMW05S-130109-W	VZ76M	0.000	20.0	20.0
PBW	VZ76MB1	0.000	20.0	20.0
LCSW	VZ76MB1SPK	0.000	20.0	20.0
PBW	VZ76MB2	0.000	20.0	20.0
LCSW	VZ76MB2SPK	0.000	20.0	20.0
LLMW05D-130109-W	VZ76N	0.000	20.0	20.0
LLMW07S-130109-W	VZ76O	0.000	20.0	20.0
LLMW16S-130111-W	VZ76P	0.000	20.0	20.0
LLMW16D-130111-W	VZ76Q	0.000	20.0	20.0
LLMWDUP1-130110-W	VZ76R	0.000	20.0	20.0
LLMW19D-130110-W	VZ76S	0.000	20.0	20.0
LLMW20D-130110-W	VZ76T	0.000	20.0	20.0
LLMW06S-130109-W	VZ76U	0.000	20.0	20.0
LLMW07D-130109-W	VZ76V	0.000	20.0	20.0
LLMW07D-130109-WD	VZ76VDUP	0.000	20.0	20.0
LLMW07D-130109-WS	VZ76VSPK	0.000	20.0	20.0
LLMW11S-130109-W	VZ76W	0.000	20.0	20.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: VZ76

ANALYSIS METHOD: CVL

ARI PREP CODE: TLM

PREPDATE: 1/16/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
LLMW11D-130109-W	VZ76X	0.000	20.0	20.0
LLMW14S-130111-W	VZ76Y	0.000	20.0	20.0
LLMW14D-130111-W	VZ76Z	0.000	20.0	20.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: CETAC MERCURY START DATE: 1/17/2013

SDG: VZ76 RUNID: HG011701 METHOD: CVL END DATE: 1/17/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	08144														X																
S20	S20	1.00	08172														X																
S50	S50	1.00	08200														X																
S100	S100	1.00	08224														X																
S200	S200	1.00	08253														X																
S400	S400	1.00	08281														X																
S1000	S1000	1.00	08305														X																
ICV	AICV	1.00	08353														X																
ICB	ICB	1.00	08381														X																
CCV	ACCV1	1.00	08410														X																
CCB	CCB1	1.00	08434														X																
CRA	CRA	1.00	08462														X																
ZZZZZZ	VZ24MB1	1.00	08490																														
ZZZZZZ	VZ24MB1SPK	1.00	08515																														
ZZZZZZ	VZ24A	1.00	08543																														
ZZZZZZ	VZ24B	1.00	08571																														
ZZZZZZ	VZ24BDUP	1.00	08595																														
ZZZZZZ	VZ24BSPK	1.00	09023																														
ZZZZZZ	VZ24C	1.00	09051																														
ZZZZZZ	VZ24D	1.00	09080																														
ZZZZZZ	VZ24E	1.00	09104																														
CCV	ACCV2	1.00	09132														X																
CCB	CCB2	1.00	09161														X																
ZZZZZZ	VZ24F	1.00	09185																														
ZZZZZZ	VZ24G	1.00	09213																														
ZZZZZZ	VZ24H	1.00	09241																														
ZZZZZZ	VZ24I	1.00	09265																														
ZZZZZZ	VZ24J	1.00	09293																														
ZZZZZZ	VZ24K	1.00	09322																														
ZZZZZZ	VZ24L	1.00	09350																														
ZZZZZZ	VZ24M	1.00	09374																														
ZZZZZZ	VZ24N	1.00	09402																														
ZZZZZZ	VZ24MB2	1.00	09431																														
CCV	ACCV3	1.00	09455														X																
CCB	CCB3	1.00	09484														X																

FORM XIV

VZ75 00151

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: CETAC MERCURY START DATE: 1/17/2013

SDG: VZ76 RUNID: HG011701 METHOD: CVL END DATE: 1/17/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	VZ24MB2SPK	1.00	09512																														
ZZZZZZ	VZ24O	1.00	09540																														
ZZZZZZ	VZ24P	1.00	09564																														
ZZZZZZ	VZ24PDUP	1.00	09593																														
ZZZZZZ	VZ24PSPK	1.00	10021																														
ZZZZZZ	VZ24Q	1.00	10045																														
ZZZZZZ	VZ24R	1.00	10073																														
ZZZZZZ	VZ24S	1.00	10101																														
ZZZZZZ	VZ24T	1.00	10125																														
ZZZZZZ	VZ24U	1.00	10153																														
CCV	ACCV4	1.00	10182														X																
CCB	CCB4	1.00	10210														X																
ZZZZZZ	VZ24V	1.00	10235																														
ZZZZZZ	VZ24W	1.00	10263																														
ZZZZZZ	VZ24X	1.00	10292																														
ZZZZZZ	VZ24Y	1.00	10320																														
ZZZZZZ	VZ24Z	1.00	10344																														
ZZZZZZ	VZ24AA	1.00	10372																														
ZZZZZZ	VZ24AB	1.00	10400																														
CCV	ACCV5	1.00	10425														X																
CCB	CCB5	1.00	10453														X																
PBW	VZ76MB1	1.00	10483														X																
LCSW	VZ76MB1SPK	1.00	10511														X																
LLMW06S-130109-W	VZ76A	1.00	10535														X																
LLMW07D-130109-W	VZ76B	1.00	10563														X																
LLMW07D-130109-WD	VZ76BDUP	1.00	10591														X																
LLMW07D-130109-WS	VZ76BSPK	1.00	11015														X																
LLMW11S-130109-W	VZ76C	1.00	11044														X																
LLMW11D-130109-W	VZ76D	1.00	11072														X																
LLMW14S-130111-W	VZ76E	1.00	11100														X																
LLMW14D-130111-W	VZ76F	1.00	11124														X																
CCV	ACCV6	1.00	11153														X																
CCB	CCB6	1.00	11181														X																
LLMW15S-130111-W	VZ76G	1.00	11210														X																
LLMW15D-130111-W	VZ76H	1.00	11234														X																

FORM XIV

VZ76 . 09152

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: CETAC MERCURY START DATE: 1/17/2013

SDG: VZ76 RUNID: HG011701 METHOD: CVL END DATE: 1/17/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
LLMW17S-130109-W	VZ76I	1.00	11262														X																
LLMW17D-130109-W	VZ76J	1.00	11290														X																
LLMW04S-130110-W	VZ76K	1.00	11314														X																
LLMW04D-130110-W	VZ76L	1.00	11342														X																
LLMW05S-130109-W	VZ76M	1.00	11370														X																
LLMW05D-130109-W	VZ76N	1.00	11394														X																
LLMW07S-130109-W	VZ76O	1.00	11423														X																
LLMW16S-130111-W	VZ76P	1.00	11451														X																
CCV	ACCV7	1.00	11475														X																
CCB	CCB7	1.00	11504														X																
LLMW16D-130111-W	VZ76Q	1.00	11532														X																
LLMWDUP1-130110-W	VZ76R	1.00	11560														X																
LLMW19D-130110-W	VZ76S	1.00	11585														X																
LLMW20D-130110-W	VZ76T	1.00	12013														X																
PBW	VZ76MB2	1.00	12041														X																
LCSW	VZ76MB2SPK	1.00	12065														X																
LLMW06S-130109-W	VZ76U	1.00	12093														X																
LLMW07D-130109-W	VZ76V	1.00	12122														X																
LLMW07D-130109-WD	VZ76VDUP	1.00	12150														X																
LLMW07D-130109-WS	VZ76VSPK	1.00	12174														X																
CCV	ACCV8	1.00	12202														X																
CCB	CCB8	1.00	12231														X																
LLMW11S-130109-W	VZ76W	1.00	12255														X																
LLMW11D-130109-W	VZ76X	1.00	12283														X																
LLMW14S-130111-W	VZ76Y	1.00	12312														X																
LLMW14D-130111-W	VZ76Z	1.00	12340														X																
LLMW15S-130111-W	VZ76AA	1.00	12364														X																
LLMW15D-130111-W	VZ76AB	1.00	12393														X																
LLMW17S-130109-W	VZ76AC	1.00	12421														X																
LLMW17D-130109-W	VZ76AD	1.00	12445														X																
LLMW04S-130110-W	VZ76AE	1.00	12473														X																
LLMW04D-130110-W	VZ76AF	1.00	12501														X																
CCV	ACCV9	1.00	12530														X																
CCB	CCB9	1.00	12554														X																
LLMW05S-130109-W	VZ76AG	1.00	12583														X																

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: CETAC MERCURY START DATE: 1/17/2013

SDG: VZ76 RUNID: HG011701 METHOD: CVL END DATE: 1/17/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
LLMW05D-130109-W	VZ76AH	1.00	13011														X																
LLMW07S-130109-W	VZ76AI	1.00	13035														X																
LLMW16S-130111-W	VZ76AJ	1.00	13063														X																
LLMW16D-130111-W	VZ76AK	1.00	13092														X																
LLMWDUP1-130110-W	VZ76AL	1.00	13120														X																
LLMW19D-130110-W	VZ76AM	1.00	13144														X																
LLMW20D-130110-W	VZ76AN	1.00	13173														X																
CCV	ACCV10	1.00	13201														X																
CCB	CCB10	1.00	13230														X																

VZ75:00154

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: VZ75, VZ76

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: DM

Date: 01-16-13

Final Volume 25

Final Volume (Hg):

Sample ID VZ75 ASPK, MB15PK USPK, MB25PK

	Prepcode:			
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:			
	Vol Added (mL):			
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	REN	REN	
	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
	2987-2	3001-1	
	0.05	0.05	
Ag	25		
Al			500
As	25 ✓		
Ba	25		
Be	25		
Ca			500
Cd	25 ✓		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25 ✓		
Sb		25 ✓	
Se	80		
Tl	25 ✓		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg		CVA	1.0		
Hg MBSPK		CVA	1.0		
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

VZ75 00156

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: DM Date: 01-16-13 Time: 0745

Matrix: Water Block ID: #12 Block Temp: 94°c Thermometer: MP54

ARI Sample ID	Btl #	pH<2	Prep Code: REN Initial ~~Wt (g)~~ Vol (mL)	Prep Code: REN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
VZ75 A	1	✓	50.0	25.0			
" AOUP	1	✓					
" ABPK	1	✓					
" B	1	✓					
" C	1	✓					
" D	1	✓					
" E	1	✓					
" F	1	✓					
" G	1	✓					
" H	1	✓					
" I	1	✓					
" J	1	✓					
" K	1	✓					
" L	1	✓					
" M	1	✓					
" N	1	✓					
" O	1	✓					
" P	1	✓					
" Q	1	✓					
" R	1	✓					
" S	1	✓					
" T	1	✓					
" MB1	—	✓	↓	↓			
" MB1SPK	—	✓	50.0	25.0			

Chemical/Reagent ID:

HNO_3: MP2416 HCl: — H_2O_2: I7845 Tube Lot #: 1208057

VZ75 00157

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: DM Date: 01-16-13 Time: 0745

Matrix: Water Block ID: #12 Block Temp: 94°C Thermometer: MP54

ARI Sample ID	Btl #	pH<2	Prep Code: REN Initial ~~Wt (g)~~ Vol (mL)	Prep Code: REN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
VZ75 U	1	✓	50.0	25.0			
" UDUP	1	✓					
" USPK	1	✓					
" V	1	✓					
" W	1	✓					
" X	1	✓					
" Y	1	✓					
" Z	1	✓					
" AA	1	✓					
" AB	1	✓					
" AC	1	✓					
" AD	1	✓					
" AE	1	✓					
" AF	1	✓					
" AG	1	✓					
" AH	1	✓					
" AI	1	✓					
" AJ	1	✓					
" AK	1	✓					
" AL	1	✓					
" AM	1	✓					
" AN	1	✓					
" AB2	—	✓	↓	↓			
" MB2PL	—	✓	50.0	25.0			

Chemical/Reagent ID:

HNO_3: MP2416 HCl: — H_2O_2: I7845 Tube Lot #: 1208057

VZ75 00158

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: VZ75, VZ76

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-18-13 **Analyst:** BA **Page:** 1 **of** 6

All corrections made by analyst unless otherwise noted. BA 1-18-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			3005-3
		1			3006-15
		2			↓ -16
		3			3007-3
		↓ 4			↓ -1
		Rinse sample			
zzz		zzzzzz ~~ICV~~			2955-7
zzz		zzzzzz ~~ICB~~			Tl, Pb, Th, U ↑
		STD 0			
zzz		zzzzzz ~~ICV~~			
zzz		zzzzzz ~~ICB~~			Tl, Pb, Th, U ↓
		STD 0			
		1			
		2			
		3			
		↓ 4			
		Rinse sample			
		ICV			
		ICB			
		CCV1			
		CCB1			
		Low Check			~~[illegible]~~ Th, U ↑ ~~[illegible]~~
		ICSA			
		ICSAB			^{62}Ni ↑

VZ75 : 00160

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-18-13 **Analyst:** BA **Page:** 2 of 6

All corrections made by analyst unless otherwise noted. BA 1-18-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		LR200			
		LR300			
		CCV2			
		CCB2			
zzz		~~zzzzzz Low Check~~			Not needed
		VZ35 MB1	REN	2	
		VZ68 ADUP	SWN	200	As
		A			
		ASPK			As STL
		APOST			0.010 mL ICPMS Spk #1 (2999-12)
		B		50	
		VZ35 B	REN	2	
		C			
		MB1SPK			End VZ68
		CCV3			
		CCB3			
		VZ35 MB2	REN	2	BB Pb
		A-L		10	
		A		2	
		ADUP			
		ASPK			
zzz		~~zzzzzz APOST~~			0.06 mL ICPMS Spk #1 2999-12 0.06 mL ICPMS Spk #2 8956-7
		D			
		E			

VZ75 00161

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-18-13 **Analyst:** BA **Page:** 3 **of** 6

All corrections made by analyst unless otherwise noted. BA 1-21-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VZ35 F	REN	2	RR Pb
		↓ MB2SPK	↓	↓	↓
		CCV4			
		CCB4			Pb, Th, U↑
		VZ35 G-L	REN	10	RR Pb
		G		2	
		GDUP			
		GSPK			
zzz		~~zzzzzz~~ ~~GPOST~~			0.06mL ICPMS Spk#1 2999-12 0.06mL ICPMS Spk#2 2956-7
		H			
		I			
		J			
		K			
		L			
		CCV5			
		CCB5			Pb, Th, U↑ RR Pb End VZ35
		VZ75 MB1	REN	2	
		ADUP			
		A			
		ASPK			
zzz		~~zzzzzz~~ ~~APOST~~			0.06mL ICPMS Spk#1 2999-12 0.06mL ICPMS Spk#2 2956-7
		B			RRAs
		C			
		D			

VZ75 : 00162

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-18-13 **Analyst:** BA **Page:** 4 **of** 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VZ75 E	REN	2	RR Pb
		↓ MB1SPK	↓	↓	↓
		CCV6			As2, ^{78}Se, Th, U ↑
		CCB6			
		VZ75 MB2	REN	2	RR AsCdSbTl
		F			(As Sn)
		G			
		H			
		I			
		J			
		K			
		L			
		M			
		MB2SPK			
		CCV7			Se, Ge, In ↑
		CCB7			↓ End PKG (VZ75)
	✓	VZ75 N	REN	2	
	✓	O			
	✓	P			As @ 20x
	✓	Q			
	✓	R			
	✓	S			
	✓	T			
	✓	V			

1/31/13

VZ75:00163

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 1-18-13

M1	Analyst BA 1-21-13	Peer HJ 1-21	Comment
Logbook			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Check			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	↓
Samples			
RSD's & SD's	✓	✓	See log
Internal Standards	✓	✓	↓
Carry-over	—	—	
Method QC			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	See log
Analytic Spikes	—	—	
Matrix QC			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	See log
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Transfer			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analytical Notes and Comments	—	—	

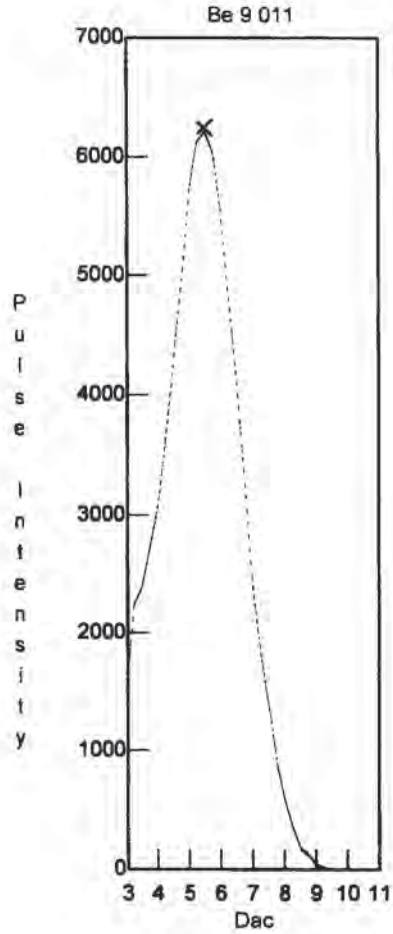
Instrument Tuning Report

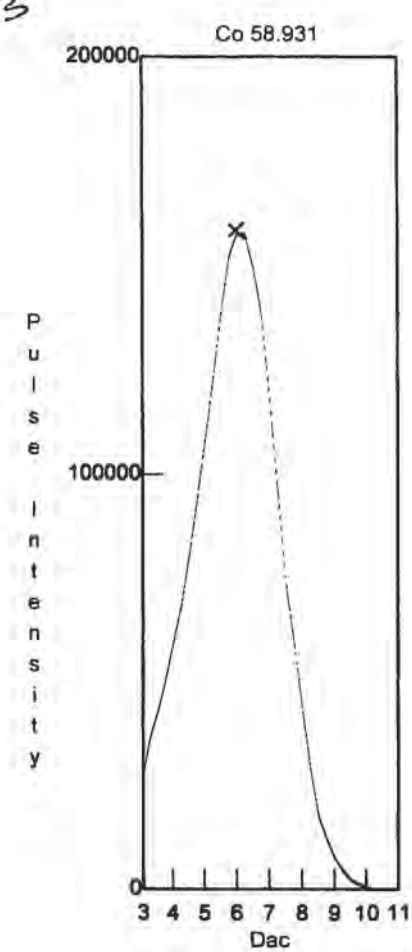
File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

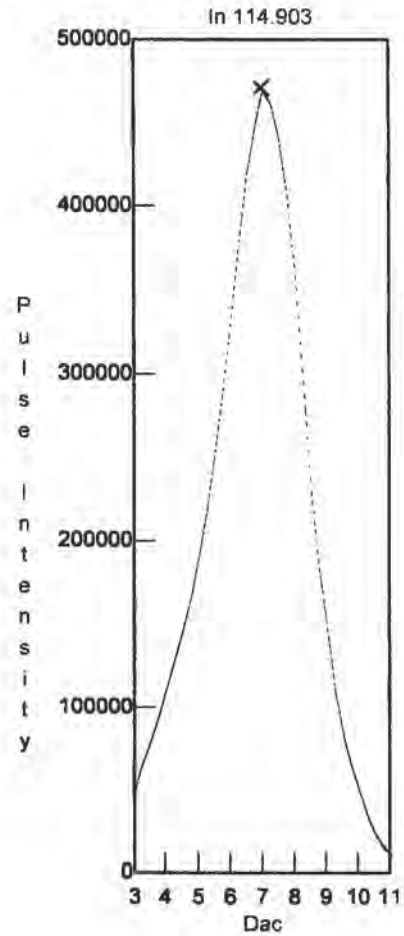
Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	9.075	2040	2160	0.692	
Mg	23.985	24.079	5670	2265	0.696	
Co	58.933	58.928	14152	2530	0.693	
In	114.904	114.878	27785	2977	0.678	
Pb	207.977	207.976	50446	3725	0.682	

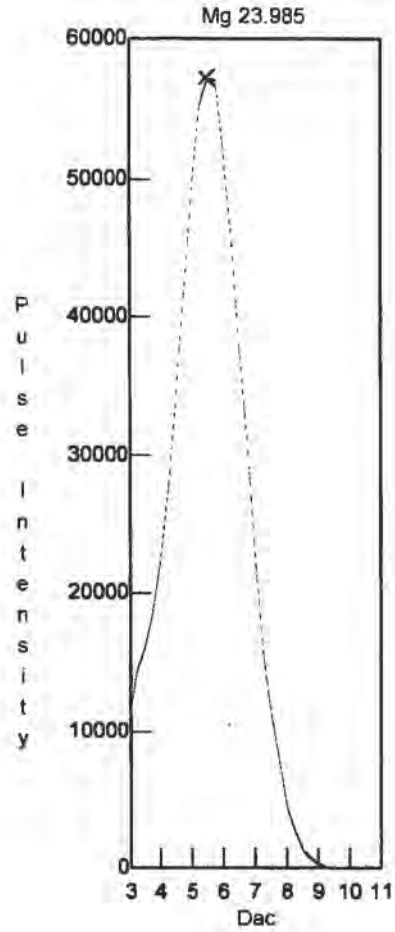
VZ75 00165

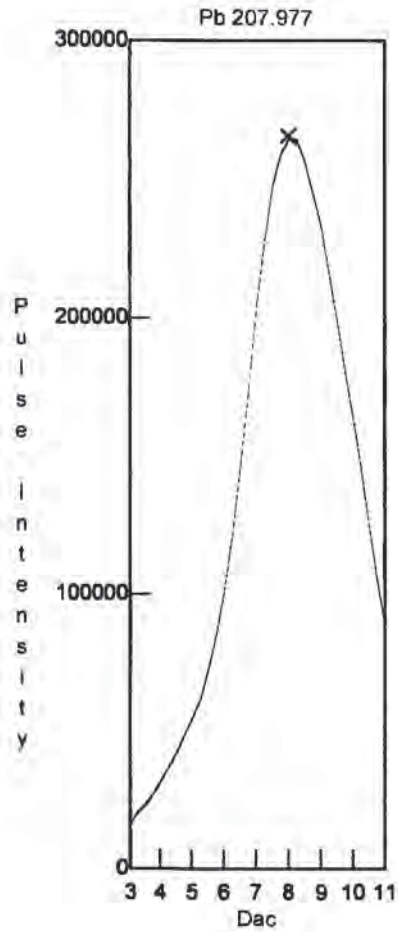
1-18-13

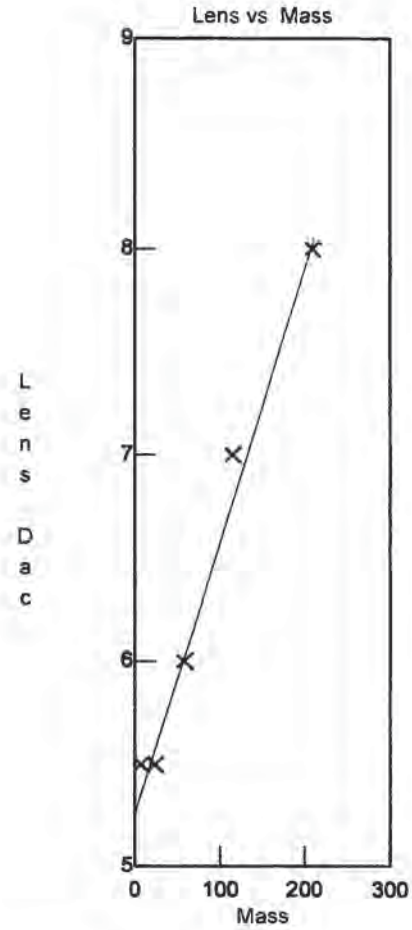












VZ75 00166

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, January 18, 2013 08:26:02
Sample Description:
Sample File: 1119.sam
Method File: C:\Elandata\Method\aridailyperf.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.1338
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\Default.dac
Number of Replicates: 5
Dual Detector Mode: Dual

Neb 0.88

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24	33354.658	205.773	0.617
	In	115	303519.084	3716.503	1.224
	Pb	208	189137.787	2671.028	1.412
>	Ba	138	206723.000	2296.333	1.111
	Ba++	69	0.011	0.000	2.455
>	Ce	140	238596.430	1764.731	0.740
	CeO	156	0.029	0.001	4.961
	Bkgd	220	14.001	6.213	44.374

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 09:00:53
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011713.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L				311158	1
⌊	Be	9		ug/L				5	50
	C	13		mg/L				5146	2
	Cl	37		mg/L				2219868	0
⌈>	Sc	45		ug/L				205335	0
|	V	51		ug/L				1290	1
|	V-1	51		ug/L				2847	4
|	Cr	52		ug/L				4022	2
|	Cr	53		ug/L				952	3
|	Mn	55		ug/L				920	9
⌊	Co	59		ug/L				63	3
⌈>	Ge	72		ug/L				261814	1
|	Ni	60		ug/L				55	22
|	Ni	62		ug/L				61	21
|	Cu	63		ug/L				328	9
|	Cu	65		ug/L				95	18
|	Zn	66		ug/L				304	36
|	Zn	67		ug/L				119	17
|	Zn	68		ug/L				6246	2
|	As	75		ug/L				401	2
|	As-1	75		ug/L				6060	0
|	Se	82		ug/L				-8	65
|	Se	78		ug/L				6130	0
⌊	Mo	98		ug/L				162	14
	Y	89		ug/L				233588	1
	Kr	83		ug/L				202	3
⌈>	In	115		ug/L				307846	0
|	Ag	107		ug/L				29	29
|	Cd	111		ug/L				174	8
|	Cd	114		ug/L				56	16
|	Sb	121		ug/L				28	11
|	Sb	123		ug/L				24	10
|	Ba	135		ug/L				57	39
⌊	Ba	137		ug/L				69	23
⌈>	Tb	159		ug/L				324060	0
|	Tl	205		ug/L				2820	92
|	Pb	208		ug/L				11336	88
|	Bi	209		ug/L				322622	1
|	Th	232		ug/L				58417	64
⌊	U	238		ug/L				105365	60

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 09:07:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011713.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			311158	319731	0
	Be	9	10.000	ug/L	0.388	3	5	3578	3
	C	13		mg/L			5146	4638	1
	Cl	37		mg/L			2219868	2230060	0
>	Sc	45		ug/L			205335	204270	1
	V	51	10.000	ug/L	0.185	1	1290	91103	1
	V-1	51	10.000	ug/L	0.087	0	2847	94817	0
	Cr	52	10.000	ug/L	0.305	3	4022	85033	1
	Cr	53	10.000	ug/L	0.299	2	952	10796	2
	Mn	55	10.000	ug/L	0.064	0	920	137846	0
	Co	59	10.000	ug/L	0.046	0	63	104441	0
>	Ge	72		ug/L			261814	261791	0
	Ni	60	10.000	ug/L	0.026	0	55	22372	0
	Ni	62	10.000	ug/L	0.286	2	61	3395	2
	Cu	63	10.000	ug/L	0.206	2	328	50522	2
	Cu	65	10.000	ug/L	0.148	1	95	24246	1
	Zn	66	10.000	ug/L	0.108	1	304	15826	0
	Zn	67	10.000	ug/L	0.157	1	119	2744	1
	Zn	68	10.000	ug/L	0.338	3	6246	17229	2
	As	75	10.000	ug/L	0.193	1	401	14541	1
	As-1	75	10.000	ug/L	0.254	2	6060	20078	1
	Se	82	10.000	ug/L	0.204	2	-8	1431	2
	Se	78	10.000	ug/L	0.369	3	6130	9732	0
	Mo	98	10.000	ug/L	0.065	0	162	55042	0
	Y	89		ug/L			233588	233561	0
	Kr	83		ug/L			202	229	2
>	In	115		ug/L			307846	309950	0
	Ag	107	10.000	ug/L	0.126	1	29	96105	0
	Cd	111	10.000	ug/L	0.122	1	174	25314	1
	Cd	114	10.000	ug/L	0.123	1	56	58984	0
	Sb	121	10.000	ug/L	0.063	0	28	89122	0
	Sb	123	10.000	ug/L	0.150	1	24	66594	1
	Ba	135	10.000	ug/L	0.201	2	57	18840	1
	Ba	137	10.000	ug/L	0.100	0	69	32129	1
>	Tb	159		ug/L			324060	327734	1
	Tl	205	10.000	ug/L	0.132	1	2820	267530	0
	Pb	208	10.000	ug/L	0.204	2	11336	368006	0
	Bi	209		ug/L			322622	317734	1
	Th	232	10.000	ug/L	0.393	3	58417	471040	1
	U	238	10.000	ug/L	0.428	4	105365	552930	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 09:13:10
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011713.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			311158	321806	1
⌊	Be	9	20.009	ug/L	0.611	3	5	7213	1
	C	13		mg/L			5146	4473	0
	Cl	37		mg/L			2219868	2213100	0
⌈>	Sc	45		ug/L			205335	208691	0
|	V	51	19.999	ug/L	0.353	1	1290	184802	1
|	V-1	51	19.975	ug/L	0.339	1	2847	189678	1
|	Cr	52	20.013	ug/L	0.078	0	4022	170223	0
|	Cr	53	19.939	ug/L	0.386	1	952	20794	2
|	Mn	55	19.961	ug/L	0.106	0	920	278058	0
⌊	Co	59	20.011	ug/L	0.343	1	63	213904	1
⌈>	Ge	72		ug/L			261814	266396	0
|	Ni	60	19.996	ug/L	0.168	0	55	45427	1
|	Ni	62	19.921	ug/L	0.259	1	61	6716	1
|	Cu	63	19.985	ug/L	0.102	0	328	102118	0
|	Cu	65	19.941	ug/L	0.278	1	95	48528	0
|	Zn	66	20.000	ug/L	0.247	1	304	31901	0
|	Zn	67	19.984	ug/L	0.210	1	119	5443	1
|	Zn	68	19.917	ug/L	0.264	1	6246	28251	1
|	As	75	20.018	ug/L	0.206	1	401	29320	0
|	As-1	75	20.001	ug/L	0.356	1	6060	34701	0
|	Se	82	20.056	ug/L	0.349	1	-8	2962	1
|	Se	78	19.926	ug/L	0.667	3	6130	13434	1
⌊	Mo	98	20.021	ug/L	0.268	1	162	112454	1
	Y	89		ug/L			233588	235119	1
	Kr	83		ug/L			202	216	0
⌈>	In	115		ug/L			307846	312346	0
|	Ag	107	19.941	ug/L	0.048	0	29	190868	0
|	Cd	111	20.044	ug/L	0.361	1	174	51406	1
|	Cd	114	20.070	ug/L	0.221	1	56	120949	0
|	Sb	121	20.019	ug/L	0.209	1	28	180440	0
|	Sb	123	20.026	ug/L	0.024	0	24	135069	0
|	Ba	135	20.045	ug/L	0.092	0	57	38347	0
⌊	Ba	137	20.029	ug/L	0.062	0	69	65148	0
⌈>	Tb	159		ug/L			324060	329281	1
|	Tl	205	20.035	ug/L	0.384	1	2820	539369	0
|	Pb	208	20.037	ug/L	0.358	1	11336	734663	0
|	Bi	209		ug/L			322622	319908	0
|	Th	232	20.138	ug/L	0.307	1	58417	916723	0
⌊	U	238	20.198	ug/L	0.479	2	105365	1050296	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 09:19:18
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011713.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			311158	315443	2
⌊	Be	9	50.096	ug/L	0.599	1	5	17869	1
	C	13		mg/L			5146	2876	2
	Cl	37		mg/L			2219868	2221696	0
⌈>	Sc	45		ug/L			205335	209482	0
|	V	51	49.974	ug/L	0.844	1	1290	460396	1
|	V-1	51	49.982	ug/L	0.747	1	2847	471218	1
|	Cr	52	49.873	ug/L	0.293	0	4022	414448	0
|	Cr	53	49.902	ug/L	0.172	0	952	50293	1
|	Mn	55	50.034	ug/L	0.115	0	920	700595	0
⌊	Co	59	49.976	ug/L	0.340	0	63	534866	0
⌈>	Ge	72		ug/L			261814	266467	1
|	Ni	60	49.809	ug/L	0.924	1	55	110971	0
|	Ni	62	49.956	ug/L	1.243	2	61	16676	1
|	Cu	63	49.928	ug/L	0.486	0	328	252834	0
|	Cu	65	49.838	ug/L	0.937	1	95	119234	0
|	Zn	66	49.895	ug/L	0.964	1	304	78316	0
|	Zn	67	49.972	ug/L	1.762	3	119	13390	2
|	Zn	68	49.836	ug/L	0.296	0	6246	60269	0
|	As	75	49.911	ug/L	0.342	0	401	71879	1
|	As-1	75	49.918	ug/L	0.357	0	6060	76826	0
|	Se	82	49.886	ug/L	0.224	0	-8	7299	0
|	Se	78	49.892	ug/L	0.606	1	6130	24073	0
⌊	Mo	98	50.027	ug/L	0.755	1	162	281535	0
	Y	89		ug/L			233588	236900	0
	Kr	83		ug/L			202	238	4
⌈>	In	115		ug/L			307846	311878	1
|	Ag	107	50.057	ug/L	0.801	1	29	481064	1
|	Cd	111	49.948	ug/L	0.510	1	174	126989	1
|	Cd	114	49.947	ug/L	0.801	1	56	298843	0
|	Sb	121	50.060	ug/L	0.882	1	28	453158	0
|	Sb	123	50.025	ug/L	0.292	0	24	337703	0
|	Ba	135	50.000	ug/L	0.295	0	57	95421	0
⌊	Ba	137	50.017	ug/L	0.711	1	69	162610	1
⌈>	Tb	159		ug/L			324060	327029	0
|	Tl	205	50.009	ug/L	0.531	1	2820	1334246	1
|	Pb	208	50.185	ug/L	0.271	0	11336	1844581	1
|	Bi	209		ug/L			322622	321813	0
|	Th	232	50.192	ug/L	1.058	2	58417	2222998	1
⌊	U	238	50.127	ug/L	0.930	1	105365	2461257	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 09:25:26
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011713.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			311158	307475	0
[	Be	9	99.782	ug/L	0.636	0	5	34444	1
	C	13		mg/L			5146	4532	2
	Cl	37		mg/L			2219868	2253590	1
[>	Sc	45		ug/L			205335	210499	1
	V	51	99.867	ug/L	1.152	1	1290	919100	1
	V-1	51	99.980	ug/L	1.249	1	2847	943591	0
	Cr	52	99.395	ug/L	1.566	1	4022	809628	1
	Cr	53	99.775	ug/L	1.901	1	952	99320	1
	Mn	55	99.656	ug/L	1.434	1	920	1385256	0
[	Co	59	99.451	ug/L	0.952	0	63	1050264	0
[>	Ge	72		ug/L			261814	272569	0
	Ni	60	99.141	ug/L	0.349	0	55	219632	1
	Ni	62	99.177	ug/L	1.104	1	61	32907	1
	Cu	63	98.985	ug/L	0.521	0	328	495696	1
	Cu	65	99.336	ug/L	0.157	0	95	237769	0
	Zn	66	99.337	ug/L	0.688	0	304	155772	1
	Zn	67	99.115	ug/L	1.533	1	119	26278	0
	Zn	68	99.484	ug/L	0.736	0	6246	114729	1
	As	75	99.669	ug/L	0.137	0	401	144816	0
	As-1	75	99.683	ug/L	0.198	0	6060	149132	0
	Se	82	99.388	ug/L	1.262	1	-8	14586	1
	Se	78	99.353	ug/L	1.142	1	6130	41942	0
[	Mo	98	99.406	ug/L	0.567	0	162	561030	0
	Y	89		ug/L			233588	235718	1
	Kr	83		ug/L			202	235	1
[>	In	115		ug/L			307846	316149	0
	Ag	107	99.422	ug/L	1.266	1	29	950305	1
	Cd	111	99.397	ug/L	0.532	0	174	250957	0
	Cd	114	99.327	ug/L	1.316	1	56	589237	1
	Sb	121	99.403	ug/L	0.423	0	28	894441	0
	Sb	123	99.974	ug/L	0.978	0	24	683562	1
	Ba	135	99.465	ug/L	0.451	0	57	188996	0
[	Ba	137	99.426	ug/L	1.359	1	69	321484	1
[>	Tb	159		ug/L			324060	326397	1
	Tl	205	99.182	ug/L	1.170	1	2820	2567948	0
	Pb	208	99.434	ug/L	0.387	0	11336	3569347	1
	Bi	209		ug/L			322622	317339	1
	Th	232	99.586	ug/L	1.650	1	58417	4285776	1
[	U	238	100.122	ug/L	0.807	0	105365	4819874	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 09:32:05
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011713.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			311158	308216	1
[	Be	9	0.000	ug/L	0.000	118	5	5	
	C	13		mg/L			5146	4830	1
	Cl	37		mg/L			2219868	2262102	0
[>	Sc	45		ug/L			205335	208300	0
	V	51	-0.011	ug/L	0.019	170	1290	1207	14
	V-1	51	-0.042	ug/L	0.009	22	2847	2498	3
	Cr	52	-0.012	ug/L	0.004	29	4022	3984	0
	Cr	53	-0.106	ug/L	0.025	23	952	863	2
	Mn	55	-0.012	ug/L	0.003	26	920	772	5
[	Co	59	0.008	ug/L	0.001	11	63	151	7
[>	Ge	72		ug/L			261814	264027	0
	Ni	60	0.002	ug/L	0.002	126	55	59	8
	Ni	62	-0.008	ug/L	0.033	399	61	59	17
	Cu	63	0.000	ug/L	0.003	3140	328	332	5
	Cu	65	0.003	ug/L	0.007	233	95	102	14
	Zn	66	-0.020	ug/L	0.017	85	304	276	8
	Zn	67	-0.020	ug/L	0.040	199	119	115	8
	Zn	68	-0.068	ug/L	0.159	233	6246	6227	1
	As	75	0.024	ug/L	0.013	55	401	438	4
	As-1	75	-0.015	ug/L	0.072	475	6060	6090	1
	Se	82	-0.150	ug/L	0.053	35	-8	-29	25
	Se	78	-0.136	ug/L	0.259	190	6130	6135	0
[	Mo	98	0.001	ug/L	0.007	1018	162	167	23
	Y	89		ug/L			233588	231841	0
	Kr	83		ug/L			202	228	1
[>	In	115		ug/L			307846	315786	1
	Ag	107	0.015	ug/L	0.006	38	29	172	31
	Cd	111	0.014	ug/L	0.004	26	174	213	4
	Cd	114	-0.001	ug/L	0.001	79	56	51	8
	Sb	121	0.101	ug/L	0.027	26	28	934	25
	Sb	123	0.100	ug/L	0.028	28	24	705	26
	Ba	135	0.005	ug/L	0.013	243	57	69	35
[	Ba	137	0.008	ug/L	0.007	85	69	97	22
[>	Tb	159		ug/L			324060	322833	1
	Tl	205	0.006	ug/L	0.052	861	2820	2962	44
	Pb	208	-0.027	ug/L	0.143	521	11336	10317	48
	Bi	209		ug/L			322622	326044	2
	Th	232	0.287	ug/L	0.690	240	58417	70199	40
[	U	238	0.324	ug/L	1.013	312	105365	120001	38

Quantitative Analysis - Calibration Report

Sample Date/Time: Friday, January 18, 2013 09:25:26
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	1.0000	0.0011	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	1.0000	0.0437	10	20	50	100	
V-1	51	1.0000	0.0447	10	20	50	100	
Cr	52	0.9999	0.0385	10	20	50	100	
Cr	53	1.0000	0.0047	10	20	50	100	
Mn	55	1.0000	0.0660	10	20	50	100	
Co	59	0.9999	0.0502	10	20	50	100	
Ge	72							
Ni	60	0.9999	0.0081	10	20	50	100	
Ni	62	0.9999	0.0012	10	20	50	100	
Cu	63	0.9998	0.0184	10	20	50	100	
Cu	65	0.9999	0.0088	10	20	50	100	
Zn	66	0.9999	0.0057	10	20	50	100	
Zn	67	0.9999	0.0010	10	20	50	100	
Zn	68	0.9999	0.0040	10	20	50	100	
As	75	1.0000	0.0053	10	20	50	100	
As-1	75	1.0000	0.0053	10	20	50	100	
Se	82	0.9999	0.0005	10	20	50	100	
Se	78	0.9999	0.0013	10	20	50	100	
Mo	98	0.9999	0.0207	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	0.9999	0.0302	10	20	50	100	
Cd	111	0.9999	0.0080	10	20	50	100	
Cd	114	0.9999	0.0188	10	20	50	100	
Sb	121	0.9999	0.0285	10	20	50	100	
Sb	123	1.0000	0.0216	10	20	50	100	
Ba	135	1.0000	0.0060	10	20	50	100	
Ba	137	0.9999	0.0102	10	20	50	100	
Tb	159							
Tl	205	0.9999	0.0792	10	20	50	100	
Pb	208	0.9999	0.1096	10	20	50	100	
Bi	209							
Th	232	1.0000	0.1301	10	20	50	100	
U	238	1.0000	0.1443	10	20	50	100	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~ICV~~ zzzzzz
Sample Dil Factor: 3A 1/18/13
Comments:
Sample Date/Time: Friday, January 18, 2013 09:39:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			311158	367596 ✓	1
[	Be	9	50.827	ug/L	1.790	3	5	20974	2
	C	13		mg/L			5146	9716	3
	Cl	37		mg/L			2219868	2269890	0
[>	Sc	45		ug/L			205335	236956 ✓	1
	V	51	51.770	ug/L	0.444	0	1290	537047	0
	V-1	51	51.511	ug/L	0.689	1	2847	548847	0
	Cr	52	51.493	ug/L	0.999	1	4022	474449	2
	Cr	53	50.724	ug/L	0.180	0	952	57386	1
	Mn	55	51.418	ug/L	0.326	0	920	805174	1
[	Co	59	51.119	ug/L	0.415	0	63	607732	0
[>	Ge	72		ug/L			261814	294942 ✓	1
	Ni	60	52.861	ug/L	0.366	0	55	126742	0
	Ni	62	53.429	ug/L	0.938	1	61	19213	0
	Cu	63	52.951	ug/L	0.194	0	328	287090	0
	Cu	65	52.225	ug/L	0.404	0	95	135315	1
	Zn	66	51.908	ug/L	0.421	0	304	88235	0
	Zn	67	52.358	ug/L	1.020	1	119	15083	0
	Zn	68	51.689	ug/L	0.499	0	6246	67880	0
	As	75	52.810	ug/L	0.551	1	401	83242	1
	As-1	75	51.951	ug/L	0.575	1	6060	87369	1
	Se	82	85.683	ug/L	0.691	0	-8	13607	1
	Se	78	83.559	ug/L	0.416	0	6130	39270	1
[	Mo	98	52.211	ug/L	0.137	0	162	318944	0
	Y	89		ug/L			233588	274646	1
	Kr	83		ug/L			202	236	5
[>	In	115		ug/L			307846	368216 ✓	0
	Ag	107	51.238	ug/L	0.310	0	29	570413	0
	Cd	111	51.049	ug/L	0.347	0	174	150221	1
	Cd	114	50.777	ug/L	0.474	0	56	350856	1
	Sb	121	49.941	ug/L	0.269	0	28	523400	1
	Sb	123	49.277	ug/L	0.209	0	24	392420	0
	Ba	135	49.586	ug/L	0.381	0	57	109766	0
[	Ba	137	50.231	ug/L	0.366	0	69	189205	1
[>	Tb	159		ug/L			324060	379005 ✓	0
	Tl	205	53.296	ug/L	0.601	1	2820	1604000	0
	Pb	208	53.824	ug/L	0.650	1	11336	2249604	1
	Bi	209		ug/L			322622	388418	1
	Th	232	51.593	ug/L	0.723	1	58417	2611329	0
[	U	238	51.256	ug/L	0.928	1	105365	2925426	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~ICB~~ 222222
Sample Dil Factor: BA 1/18/13
Comments:
Sample Date/Time: Friday, January 18, 2013 09:46:05
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			311158	355581 ✓	1
	Be	9	0.003	ug/L	0.013	517	5	6	75
	C	13		mg/L			5146	5093	3
	Cl	37		mg/L			2219868	2306906	0
>	Sc	45		ug/L			205335	230439 ✓	0
	V	51	-0.009	ug/L	0.009	105	1290	1362	6
	V-1	51	-0.080	ug/L	0.003	3	2847	2372	1
	Cr	52	-0.036	ug/L	0.010	26	4022	4191	1
	Cr	53	-0.252	ug/L	0.022	8	952	796	3
	Mn	55	-0.023	ug/L	0.003	11	920	683	6
	Co	59	0.005	ug/L	0.001	21	63	135	8
>	Ge	72		ug/L			261814	288386 ✓	1
	Ni	60	-0.000	ug/L	0.003	745	55	59	10
	Ni	62	0.024	ug/L	0.032	134	61	76	15
	Cu	63	-0.006	ug/L	0.006	96	328	330	7
	Cu	65	0.008	ug/L	0.004	47	95	123	8
	Zn	66	-0.021	ug/L	0.005	22	304	300	2
	Zn	67	-0.001	ug/L	0.067	6750	119	131	12
	Zn	68	-0.577	ug/L	0.085	14	6246	6216	2
	As	75	-0.018	ug/L	0.012	66	401	414	5
	As-1	75	-0.338	ug/L	0.102	30	6060	6161	0
	Se	82	-0.121	ug/L	0.017	14	-8	-27	8
	Se	78	-1.375	ug/L	0.423	30	6130	6230	0
	Mo	98	-0.009	ug/L	0.002	24	162	125	8
	Y	89		ug/L			233588	260741	0
	Kr	83		ug/L			202	226	1
>	In	115		ug/L			307846	351705 ✓	0
	Ag	107	0.012	ug/L	0.002	18	29	160	15
	Cd	111	0.007	ug/L	0.006	82	174	218	8
	Cd	114	-0.000	ug/L	0.002	864	56	63	17
	Sb	121	0.036	ug/L	0.006	16	28	397	14
	Sb	123	0.037	ug/L	0.006	17	24	311	14
	Ba	135	0.045	ug/L	0.022	48	57	160	29
	Ba	137	0.032	ug/L	0.009	29	69	193	18
>	Tb	159		ug/L			324060	364170 ✓	1
	Tl	205	0.965	ug/L	0.781	80	2820	31005	72
	Pb	208	2.666	ug/L	2.068	77	11336	119134	69
	Bi	209		ug/L			322622	415642	9
	Th	232	6.754	ug/L	3.816	56	58417	385314	46
	U	238	9.359	ug/L	5.009	53	105365	609632	43

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 09:58:03
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L				337045	0
⌊	Be	9		ug/L				6	28
	C	13		mg/L				4822	1
	Cl	37		mg/L				2315413	1
⌈>	Sc	45		ug/L				220387	0
|	V	51		ug/L				1217	7
|	V-1	51		ug/L				2309	1
|	Cr	52		ug/L				4064	2
|	Cr	53		ug/L				808	3
|	Mn	55		ug/L				670	2
⌊	Co	59		ug/L				128	11
⌈>	Ge	72		ug/L				280451	0
|	Ni	60		ug/L				50	6
|	Ni	62		ug/L				72	5
|	Cu	63		ug/L				326	8
|	Cu	65		ug/L				94	4
|	Zn	66		ug/L				243	2
|	Zn	67		ug/L				120	16
|	Zn	68		ug/L				6114	1
|	As	75		ug/L				420	4
|	As-1	75		ug/L				6115	0
|	Se	82		ug/L				-30	17
|	Se	78		ug/L				6175	0
⌊	Mo	98		ug/L				124	18
	Y	89		ug/L				254196	0
	Kr	83		ug/L				227	1
⌈>	In	115		ug/L				341215	0
|	Ag	107		ug/L				145	4
|	Cd	111		ug/L				226	3
|	Cd	114		ug/L				53	12
|	Sb	121		ug/L				594	25
|	Sb	123		ug/L				445	22
|	Ba	135		ug/L				114	9
⌊	Ba	137		ug/L				143	6
⌈>	Tb	159		ug/L				347496	1
|	Tl	205		ug/L				10446	12
|	Pb	208		ug/L				41054	16
|	Bi	209		ug/L				363716	1
|	Th	232		ug/L				200282	9
⌊	U	238		ug/L				321096	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~IGV~~ 222222
Sample Dil Factor: BA 1/18/13
Comments:
Sample Date/Time: Friday, January 18, 2013 10:04:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			337045	355611 ✓	0
	Be	9	51.357	ug/L	0.210	0	6	20507	0
	C	13		mg/L			4822	9240	2
	Cl	37		mg/L			2315413	2307633	0
>	Sc	45		ug/L			220387	235356 ✓	1
	V	51	51.483	ug/L	0.608	1	1217	530275	0
	V-1	51	51.183	ug/L	0.720	1	2309	540862	0
	Cr	52	51.337	ug/L	0.357	0	4064	469504	0
	Cr	53	50.431	ug/L	0.700	1	808	56439	0
	Mn	55	50.959	ug/L	0.780	1	670	792140	0
	Co	59	50.392	ug/L	0.367	0	128	595106	0
>	Ge	72		ug/L			280451	293439 ✓	0
	Ni	60	52.791	ug/L	0.223	0	50	125921	0
	Ni	62	52.930	ug/L	0.862	1	72	18945	1
	Cu	63	52.488	ug/L	0.666	1	326	283101	0
	Cu	65	52.332	ug/L	0.724	1	94	134890	0
	Zn	66	51.890	ug/L	0.687	1	243	87669	0
	Zn	67	51.996	ug/L	0.626	1	120	14897	0
	Zn	68	51.966	ug/L	1.078	2	6114	67255	1
	As	75	52.849	ug/L	0.495	0	420	82867	0
	As-1	75	52.193	ug/L	0.477	0	6115	86903	0
	Se	82	85.057	ug/L	0.446	0	-30	13415	0
	Se	78	83.711	ug/L	0.448	0	6175	38718	0
	Mo	98	51.490	ug/L	0.540	1	124	312882	0
	Y	89		ug/L			254196	263636	1
	Kr	83		ug/L			227	246	1
>	In	115		ug/L			341215	352873 ✓	0
	Ag	107	51.183	ug/L	0.442	0	145	546182	1
	Cd	111	51.593	ug/L	0.311	0	226	145526	0
	Cd	114	51.870	ug/L	0.511	0	53	343471	1
	Sb	121	50.051	ug/L	0.427	0	594	503274	0
	Sb	123	49.617	ug/L	0.134	0	445	379101	0
	Ba	135	50.895	ug/L	0.293	0	114	108026	0
	Ba	137	50.695	ug/L	0.436	0	143	183062	1
>	Tb	159		ug/L			347496	359647 ✓	0
	Tl	205	53.568	ug/L	0.467	0	10446	1537571	0
	Pb	208	52.167	ug/L	0.427	0	41054	2099279	0
	Bi	209		ug/L			363716	360124	0
	Th	232	49.841	ug/L	0.547	1	200282	2538630	1
	U	238	49.182	ug/L	0.879	1	321096	2883956	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~ICB~~ zzzzzz
Sample Dil Factor: 3A 1/18/13
Comments:
Sample Date/Time: Friday, January 18, 2013 10:11:23
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			337045	346750 ✓	1
[	Be	9	0.001	ug/L	0.002	353	6	7	10
	C	13		mg/L			4822	4943	0
	Cl	37		mg/L			2315413	2295664	0
[>	Sc	45		ug/L			220387	224042 ✓	0
[	V	51	0.020	ug/L	0.008	41	1217	1433	5
[	V-1	51	-0.014	ug/L	0.007	46	2309	2206	2
[	Cr	52	-0.010	ug/L	0.009	82	4064	4041	1
[	Cr	53	-0.112	ug/L	0.027	23	808	703	4
[	Mn	55	-0.004	ug/L	0.002	45	670	615	4
[	Co	59	-0.002	ug/L	0.001	63	128	104	15
[>	Ge	72		ug/L			280451	276657 ✓	0
[	Ni	60	0.000	ug/L	0.005	3720	50	50	21
[	Ni	62	0.007	ug/L	0.012	186	72	74	5
[	Cu	63	-0.004	ug/L	0.003	90	326	303	5
[	Cu	65	0.001	ug/L	0.007	1424	94	94	18
[	Zn	66	0.005	ug/L	0.003	60	243	247	2
[	Zn	67	-0.019	ug/L	0.064	337	120	113	15
[	Zn	68	0.004	ug/L	0.104	2633	6114	6035	1
[	As	75	0.017	ug/L	0.013	74	420	439	3
[	As-1	75	0.070	ug/L	0.045	64	6115	6134	0
[	Se	82	0.043	ug/L	0.037	87	-30	-23	23
[	Se	78	0.261	ug/L	0.160	61	6175	6186	0
[	Mo	98	-0.006	ug/L	0.004	56	124	85	25
	Y	89		ug/L			254196	254614	2
	Kr	83		ug/L			227	225	0
[>	In	115		ug/L			341215	341067 ✓	2
[	Ag	107	-0.000	ug/L	0.002	578	145	141	15
[	Cd	111	-0.006	ug/L	0.007	114	226	210	9
[	Cd	114	-0.004	ug/L	0.002	40	53	26	39
[	Sb	121	-0.030	ug/L	0.005	17	594	305	15
[	Sb	123	-0.028	ug/L	0.007	24	445	241	19
[	Ba	135	-0.036	ug/L	0.003	9	114	40	15
[	Ba	137	-0.023	ug/L	0.004	16	143	61	21
[>	Tb	159		ug/L			347496	355817 ✓	1
[	Tl	205	-0.351	ug/L	0.004	1	10446	792	16
[	Pb	208	-1.003	ug/L	0.012	1	41054	2933	16
[	Bi	209		ug/L			363716	354429	1
[	Th	232	-4.128	ug/L	0.110	2	200282	14080	37
[	U	238	-5.886	ug/L	0.192	3	321096	26755	37

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 10:35:20
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L				348361	0
⌊	Be	9		ug/L				7	72
	C	13		mg/L				5001	1
	Cl	37		mg/L				2245818	0
⌈>	Sc	45		ug/L				216931	1
|	V	51		ug/L				1182	7
|	V-1	51		ug/L				2218	6
|	Cr	52		ug/L				4090	2
|	Cr	53		ug/L				793	4
|	Mn	55		ug/L				463	4
⌊	Co	59		ug/L				75	2
⌈>	Ge	72		ug/L				267270	0
|	Ni	60		ug/L				30	19
|	Ni	62		ug/L				54	14
|	Cu	63		ug/L				267	6
|	Cu	65		ug/L				72	24
|	Zn	66		ug/L				142	13
|	Zn	67		ug/L				87	19
|	Zn	68		ug/L				5921	0
|	As	75		ug/L				423	2
|	As-1	75		ug/L				6113	0
|	Se	82		ug/L				-25	90
|	Se	78		ug/L				6174	0
⌊	Mo	98		ug/L				38	22
	Y	89		ug/L				252027	1
	Kr	83		ug/L				224	7
⌈>	In	115		ug/L				330111	0
|	Ag	107		ug/L				44	7
|	Cd	111		ug/L				192	12
|	Cd	114		ug/L				14	31
|	Sb	121		ug/L				67	7
|	Sb	123		ug/L				50	12
|	Ba	135		ug/L				27	11
⌊	Ba	137		ug/L				30	18
⌈>	Tb	159		ug/L				348058	0
|	Tl	205		ug/L				508	6
|	Pb	208		ug/L				1742	5
|	Bi	209		ug/L				346469	1
|	Th	232		ug/L				4009	15
⌊	U	238		ug/L				8375	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 10:41:28
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	359578	3
[	Be	9	10.000	ug/L	0.179	1	7	4015	3
	C	13		mg/L			5001	4267	1
	Cl	37		mg/L			2245818	2215214	0
[>	Sc	45		ug/L			216931	217441	2
	V	51	10.000	ug/L	0.108	1	1182	97328	1
	V-1	51	10.000	ug/L	0.096	0	2218	99820	1
	Cr	52	10.000	ug/L	0.214	2	4090	90442	0
	Cr	53	10.000	ug/L	0.111	1	793	11016	1
	Mn	55	10.000	ug/L	0.101	1	463	147155	1
[	Co	59	10.000	ug/L	0.180	1	75	110616	0
[>	Ge	72		ug/L			267270	269462	0
	Ni	60	10.000	ug/L	0.234	2	30	23323	1
	Ni	62	10.000	ug/L	0.426	4	54	3578	3
	Cu	63	10.000	ug/L	0.161	1	267	52825	0
	Cu	65	10.000	ug/L	0.193	1	72	24960	1
	Zn	66	10.000	ug/L	0.018	0	142	16641	0
	Zn	67	10.000	ug/L	0.190	1	87	2866	1
	Zn	68	10.000	ug/L	0.094	0	5921	17208	0
	As	75	10.000	ug/L	0.106	1	423	15182	0
	As-1	75	10.000	ug/L	0.085	0	6113	20527	0
	Se	82	10.000	ug/L	0.188	1	-25	1556	1
	Se	78	10.000	ug/L	0.228	2	6174	9848	0
[	Mo	98	10.000	ug/L	0.199	1	38	59110	1
	Y	89		ug/L			252027	247673	0
	Kr	83		ug/L			224	224	6
[>	In	115		ug/L			330111	328997	1
	Ag	107	10.000	ug/L	0.109	1	44	101471	2
	Cd	111	10.000	ug/L	0.079	0	192	27334	1
	Cd	114	10.000	ug/L	0.112	1	14	62576	1
	Sb	121	10.000	ug/L	0.163	1	67	93128	1
	Sb	123	10.000	ug/L	0.132	1	50	70542	1
	Ba	135	10.000	ug/L	0.102	1	27	20143	0
[	Ba	137	10.000	ug/L	0.068	0	30	34502	0
[>	Tb	159		ug/L			348058	351459	1
	Tl	205	10.000	ug/L	0.114	1	508	292065	0
	Pb	208	10.000	ug/L	0.029	0	1742	405033	1
	Bi	209		ug/L			346469	347825	0
	Th	232	10.000	ug/L	0.059	0	4009	485618	1
[	U	238	10.000	ug/L	0.184	1	8375	549811	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 10:47:37
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			348361	364905	1
⌊	Be	9	19.973	ug/L	0.241	1	7	8088	0
	C	13		mg/L			5001	4107	0
	Cl	37		mg/L			2245818	2216482	0
⌈>	Sc	45		ug/L			216931	221296	0
|	V	51	19.912	ug/L	0.135	0	1182	192675	1
|	V-1	51	19.928	ug/L	0.045	0	2218	197386	0
|	Cr	52	19.945	ug/L	0.165	0	4090	177572	1
|	Cr	53	19.991	ug/L	0.124	0	793	21572	0
|	Mn	55	19.913	ug/L	0.080	0	463	292710	0
⌊	Co	59	19.896	ug/L	0.213	1	75	219419	1
⌈>	Ge	72		ug/L			267270	271946	1
|	Ni	60	19.960	ug/L	0.274	1	30	46585	0
|	Ni	62	19.933	ug/L	0.274	1	54	7053	2
|	Cu	63	19.969	ug/L	0.251	1	267	105525	0
|	Cu	65	19.942	ug/L	0.355	1	72	49581	1
|	Zn	66	19.929	ug/L	0.350	1	142	32858	0
|	Zn	67	19.900	ug/L	0.355	1	87	5558	1
|	Zn	68	19.914	ug/L	0.261	1	5921	28229	1
|	As	75	19.968	ug/L	0.178	0	423	29978	1
|	As-1	75	19.988	ug/L	0.272	1	6113	35127	0
|	Se	82	20.003	ug/L	0.324	1	-25	3170	2
|	Se	78	20.079	ug/L	0.808	4	6174	13740	1
⌊	Mo	98	20.005	ug/L	0.244	1	38	119423	1
	Y	89		ug/L			252027	256840	0
	Kr	83		ug/L			224	220	2
⌈>	In	115		ug/L			330111	332565	1
|	Ag	107	19.997	ug/L	0.354	1	44	204875	0
|	Cd	111	20.014	ug/L	0.180	0	192	55254	0
|	Cd	114	20.044	ug/L	0.302	1	14	127884	1
|	Sb	121	20.048	ug/L	0.149	0	67	190497	0
|	Sb	123	20.007	ug/L	0.279	1	50	142816	0
|	Ba	135	20.027	ug/L	0.280	1	27	40969	0
⌊	Ba	137	20.025	ug/L	0.558	2	30	70157	1
⌈>	Tb	159		ug/L			348058	356165	0
|	Tl	205	20.018	ug/L	0.250	1	508	594177	0
|	Pb	208	19.986	ug/L	0.273	1	1742	816146	0
|	Bi	209		ug/L			346469	352255	0
|	Th	232	19.975	ug/L	0.193	0	4009	974088	0
⌊	U	238	19.969	ug/L	0.325	1	8375	1097438	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 10:53:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			348361	353871	0
⌊	Be	9	50.070	ug/L	0.604	1	7	19790	0
	C	13		mg/L			5001	2861	1
	Cl	37		mg/L			2245818	2242071	0
⌈>	Sc	45		ug/L			216931	221941	0
|	V	51	50.051	ug/L	0.452	0	1182	486319	0
|	V-1	51	50.071	ug/L	0.532	1	2218	497446	0
|	Cr	52	49.946	ug/L	0.539	1	4090	437319	0
|	Cr	53	50.014	ug/L	0.689	1	793	52975	0
|	Mn	55	49.985	ug/L	0.571	1	463	735005	0
⌊	Co	59	50.092	ug/L	0.984	1	75	559005	1
⌈>	Ge	72		ug/L			267270	273467	0
|	Ni	60	49.935	ug/L	0.451	0	30	116393	0
|	Ni	62	49.772	ug/L	0.456	0	54	17232	0
|	Cu	63	49.835	ug/L	0.335	0	267	260133	0
|	Cu	65	49.827	ug/L	0.757	1	72	122352	0
|	Zn	66	49.870	ug/L	0.385	0	142	81416	0
|	Zn	67	49.879	ug/L	0.631	1	87	13712	1
|	Zn	68	49.963	ug/L	0.573	1	5921	61870	0
|	As	75	49.993	ug/L	0.580	1	423	74776	0
|	As-1	75	50.041	ug/L	0.631	1	6113	79336	0
|	Se	82	49.866	ug/L	0.508	1	-25	7881	1
|	Se	78	50.068	ug/L	0.263	0	6174	25154	0
⌊	Mo	98	49.936	ug/L	0.524	1	38	297822	1
	Y	89		ug/L			252027	250389	1
	Kr	83		ug/L			224	234	2
⌈>	In	115		ug/L			330111	333191	0
|	Ag	107	49.946	ug/L	1.067	2	44	509954	2
|	Cd	111	50.007	ug/L	0.717	1	192	138132	1
|	Cd	114	49.886	ug/L	0.723	1	14	315269	1
|	Sb	121	50.001	ug/L	0.772	1	67	475948	1
|	Sb	123	50.016	ug/L	0.057	0	50	358216	0
|	Ba	135	49.845	ug/L	0.633	1	27	100572	1
⌊	Ba	137	49.807	ug/L	0.483	0	30	171491	0
⌈>	Tb	159		ug/L			348058	355557	0
|	Tl	205	49.837	ug/L	0.753	1	508	1452251	0
|	Pb	208	49.844	ug/L	0.329	0	1742	1998271	0
|	Bi	209		ug/L			346469	349487	1
|	Th	232	49.962	ug/L	0.696	1	4009	2416992	1
⌊	U	238	49.861	ug/L	0.333	0	8375	2685767	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 10:59:54
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			348361	359905	2
⌊	Be	9	99.602	ug/L	4.013	4	7	39491	2
	C	13		mg/L			5001	4368	0
	Cl	37		mg/L			2245818	2253649	1
⌈>	Sc	45		ug/L			216931	227665	0
|	V	51	100.162	ug/L	0.592	0	1182	1002541	0
|	V-1	51	100.154	ug/L	1.011	1	2218	1023669	1
|	Cr	52	99.769	ug/L	1.128	1	4090	885093	1
|	Cr	53	99.771	ug/L	2.381	2	793	106772	2
|	Mn	55	100.007	ug/L	1.497	1	463	1508436	1
⌊	Co	59	99.375	ug/L	1.631	1	75	1114415	1
⌈>	Ge	72		ug/L			267270	280675	0
|	Ni	60	99.537	ug/L	1.052	1	30	234493	1
|	Ni	62	99.722	ug/L	0.439	0	54	35056	0
|	Cu	63	99.582	ug/L	0.952	0	267	525926	0
|	Cu	65	99.813	ug/L	1.081	1	72	249952	1
|	Zn	66	99.345	ug/L	0.462	0	142	162769	0
|	Zn	67	99.780	ug/L	1.012	1	87	27859	1
|	Zn	68	99.820	ug/L	0.721	0	5921	119989	0
|	As	75	99.769	ug/L	0.629	0	423	151566	0
|	As-1	75	99.838	ug/L	0.475	0	6113	155274	0
|	Se	82	99.568	ug/L	1.351	1	-25	15947	1
|	Se	78	99.822	ug/L	0.335	0	6174	44803	0
⌊	Mo	98	99.897	ug/L	1.396	1	38	609354	1
	Y	89		ug/L			252027	259433	0
	Kr	83		ug/L			224	239	1
⌈>	In	115		ug/L			330111	344612	1
|	Ag	107	99.428	ug/L	2.368	2	44	1029957	0
|	Cd	111	99.438	ug/L	2.246	2	192	278623	1
|	Cd	114	99.863	ug/L	2.432	2	14	649594	0
|	Sb	121	99.504	ug/L	2.426	2	67	963420	0
|	Sb	123	99.615	ug/L	1.592	1	50	728371	0
|	Ba	135	99.576	ug/L	2.290	2	27	204825	0
⌊	Ba	137	99.326	ug/L	1.546	1	30	345855	0
⌈>	Tb	159		ug/L			348058	359305	1
|	Tl	205	99.881	ug/L	0.758	0	508	2929036	0
|	Pb	208	99.727	ug/L	0.887	0	1742	4001862	1
|	Bi	209		ug/L			346469	352982	1
|	Th	232	99.927	ug/L	1.065	1	4009	4869573	2
⌊	U	238	100.165	ug/L	1.215	1	8375	5473409	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 11:06:32
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			348361	339088	1
L	Be	9	-0.004	ug/L	0.002	47	7	5	12
	C	13		mg/L			5001	4956	1
	Cl	37		mg/L			2245818	2272445	0
⌈>	Sc	45		ug/L			216931	214168	0
|	V	51	0.018	ug/L	0.008	45	1182	1340	5
|	V-1	51	-0.017	ug/L	0.008	50	2218	2032	3
|	Cr	52	0.002	ug/L	0.003	160	4090	4053	0
|	Cr	53	-0.104	ug/L	0.041	39	793	679	5
|	Mn	55	0.003	ug/L	0.003	89	463	506	8
L	Co	59	0.008	ug/L	0.001	7	75	163	3
⌈>	Ge	72		ug/L			267270	263570	0
|	Ni	60	0.006	ug/L	0.003	42	30	44	13
|	Ni	62	-0.014	ug/L	0.032	228	54	49	20
|	Cu	63	0.003	ug/L	0.002	82	267	277	4
|	Cu	65	0.011	ug/L	0.005	44	72	97	11
|	Zn	66	0.011	ug/L	0.015	131	142	157	14
|	Zn	67	0.017	ug/L	0.017	95	87	90	5
|	Zn	68	-0.008	ug/L	0.078	1040	5921	5831	0
|	As	75	0.007	ug/L	0.016	216	423	427	4
|	As-1	75	0.054	ug/L	0.052	96	6113	6103	0
|	Se	82	-0.042	ug/L	0.099	236	-25	-31	48
|	Se	78	0.201	ug/L	0.169	84	6174	6160	0
L	Mo	98	0.020	ug/L	0.004	20	38	150	15
	Y	89		ug/L			252027	243421	0
	Kr	83		ug/L			224	230	6
⌈>	In	115		ug/L			330111	323529	1
|	Ag	107	0.013	ug/L	0.005	37	44	168	27
|	Cd	111	0.006	ug/L	0.004	76	192	203	4
|	Cd	114	0.000	ug/L	0.001	230	14	15	23
|	Sb	121	0.096	ug/L	0.028	29	67	940	26
|	Sb	123	0.098	ug/L	0.027	28	50	720	25
|	Ba	135	0.007	ug/L	0.006	86	27	39	27
L	Ba	137	0.009	ug/L	0.002	20	30	60	10
⌈>	Tb	159		ug/L			348058	336682	0
|	Tl	205	0.014	ug/L	0.003	22	508	882	10
|	Pb	208	0.007	ug/L	0.003	48	1742	1941	7
|	Bi	209		ug/L			346469	339727	0
|	Th	232	0.040	ug/L	0.014	35	4009	5709	11
L	U	238	-0.041	ug/L	0.010	24	8375	5999	9

Quantitative Analysis - Calibration Report

Sample Date/Time: Friday, January 18, 2013 10:59:54
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	1.0000	0.0011	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	1.0000	0.0439	10	20	50	100	
V-1	51	1.0000	0.0448	10	20	50	100	
Cr	52	1.0000	0.0388	10	20	50	100	
Cr	53	1.0000	0.0047	10	20	50	100	
Mn	55	1.0000	0.0662	10	20	50	100	
Co	59	0.9999	0.0493	10	20	50	100	
Ge	72							
Ni	60	1.0000	0.0084	10	20	50	100	
Ni	62	1.0000	0.0013	10	20	50	100	
Cu	63	1.0000	0.0188	10	20	50	100	
Cu	65	1.0000	0.0089	10	20	50	100	
Zn	66	0.9999	0.0058	10	20	50	100	
Zn	67	1.0000	0.0010	10	20	50	100	
Zn	68	1.0000	0.0041	10	20	50	100	
As	75	1.0000	0.0054	10	20	50	100	
As-1	75	1.0000	0.0053	10	20	50	100	
Se	82	1.0000	0.0006	10	20	50	100	
Se	78	1.0000	0.0014	10	20	50	100	
Mo	98	1.0000	0.0217	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	0.9999	0.0301	10	20	50	100	
Cd	111	0.9999	0.0081	10	20	50	100	
Cd	114	1.0000	0.0189	10	20	50	100	
Sb	121	1.0000	0.0281	10	20	50	100	
Sb	123	1.0000	0.0212	10	20	50	100	
Ba	135	1.0000	0.0060	10	20	50	100	
Ba	137	0.9999	0.0101	10	20	50	100	
Tb	159							
Tl	205	1.0000	0.0816	10	20	50	100	
Pb	208	1.0000	0.1116	10	20	50	100	
Bi	209							
Th	232	1.0000	0.1355	10	20	50	100	
U	238	1.0000	0.1518	10	20	50	100	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 11:13:50
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	354970 ✓	1
[	Be	9	51.184	ug/L	0.695	1	7	20029	2
	C	13		mg/L			5001	11367	4
	Cl	37		mg/L			2245818	2261547	0
[>	Sc	45		ug/L			216931	223943 ✓	0
	V	51	51.971	ug/L	0.595	1	1182	512261	0
	V-1	51	51.719	ug/L	0.405	0	2218	521080	0
	Cr	52	51.213	ug/L	0.666	1	4090	448951	1
	Cr	53	50.487	ug/L	0.677	1	793	53551	1
	Mn	55	50.926	ug/L	0.591	1	463	755791	0
[	Co	59	51.658	ug/L	0.492	0	75	569868	0
[>	Ge	72		ug/L			267270	277001 ✓	0
	Ni	60	51.098	ug/L	0.714	1	30	118812	1
	Ni	62	51.499	ug/L	1.213	2	54	17893	2
	Cu	63	51.643	ug/L	0.562	1	267	269314	1
	Cu	65	51.512	ug/L	0.302	0	72	127339	0
	Zn	66	51.336	ug/L	0.323	0	142	83081	0
	Zn	67	51.595	ug/L	0.741	1	87	14261	1
	Zn	68	50.095	ug/L	0.471	0	5921	62485	0
	As	75	52.004	ug/L	0.449	0	423	78180	1
	As-1	75	51.660	ug/L	0.481	0	6113	82352	1
	Se	82	81.247	ug/L	0.822	1	-25	12838	1
	Se	78	81.721	ug/L	0.413	0	6174	37360	0
[	Mo	98	50.623	ug/L	0.439	0	38	304764	0
	Y	89		ug/L			252027	259006	1
	Kr	83		ug/L			224	235	5
[>	In	115		ug/L			330111	336166 ✓	3
	Ag	107	52.406	ug/L	1.719	3	44	529329	0
	Cd	111	50.738	ug/L	1.667	3	192	138702	0
	Cd	114	51.459	ug/L	1.767	3	14	326368	0
	Sb	121	50.823	ug/L	1.608	3	67	479860	1
	Sb	123	50.627	ug/L	1.169	2	50	361007	1
	Ba	135	51.317	ug/L	1.402	2	27	102946	0
[	Ba	137	51.542	ug/L	1.444	2	30	175007	0
[>	Tb	159		ug/L			348058	353554 ✓	1
	Tl	205	52.382	ug/L	0.378	0	508	1511986	1
	Pb	208	51.974	ug/L	0.048	0	1742	2053243	1
	Bi	209		ug/L			346469	349198	1
	Th	232	52.670	ug/L	0.483	0	4009	2527500	1
[	U	238	52.631	ug/L	0.437	0	8375	2834271	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 11:20:28
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	366369 ✓	0
[	Be	9	-0.003	ug/L	0.005	155	7	6	28
	C	13		mg/L			5001	5089	1
	Cl	37		mg/L			2245818	2208996	0
[>	Sc	45		ug/L			216931	219336 ✓	0
	V	51	0.024	ug/L	0.012	48	1182	1425	8
	V-1	51	-0.042	ug/L	0.007	17	2218	1827	3
	Cr	52	0.001	ug/L	0.005	471	4090	4144	0
	Cr	53	-0.201	ug/L	0.022	11	793	596	3
	Mn	55	-0.001	ug/L	0.002	114	463	448	4
[	Co	59	0.004	ug/L	0.001	27	75	124	10
[>	Ge	72		ug/L			267270	260965 ✓	0
	Ni	60	0.005	ug/L	0.002	35	30	40	9
	Ni	62	0.015	ug/L	0.027	172	54	58	15
	Cu	63	-0.008	ug/L	0.001	11	267	224	2
	Cu	65	-0.001	ug/L	0.005	775	72	68	18
	Zn	66	0.003	ug/L	0.005	154	142	144	5
	Zn	67	-0.019	ug/L	0.009	47	87	80	2
	Zn	68	-0.067	ug/L	0.023	33	5921	5710	0
	As	75	0.020	ug/L	0.016	76	423	441	4
	As-1	75	0.105	ug/L	0.038	36	6113	6114	0
	Se	82	-0.074	ug/L	0.062	83	-25	-35	25
	Se	78	0.414	ug/L	0.135	32	6174	6176	0
[	Mo	98	0.011	ug/L	0.003	28	38	99	17
	Y	89		ug/L			252027	252302	0
	Kr	83		ug/L			224	242	4
[>	In	115		ug/L			330111	333507 ✓	0
	Ag	107	0.009	ug/L	0.005	52	44	132	34
	Cd	111	-0.000	ug/L	0.003	750	192	193	4
	Cd	114	0.001	ug/L	0.001	150	14	20	42
	Sb	121	0.030	ug/L	0.003	11	67	345	9
	Sb	123	0.031	ug/L	0.006	17	50	273	14
	Ba	135	0.003	ug/L	0.003	74	27	34	14
[	Ba	137	0.006	ug/L	0.001	23	30	50	9
[>	Tb	159		ug/L			348058	353806 ✓	0
	Tl	205	0.006	ug/L	0.003	42	508	701	11
	Pb	208	0.010	ug/L	0.003	32	1742	2146	5
	Bi	209		ug/L			346469	352986	0
	Th	232	0.055	ug/L	0.024	43	4009	6735	17
[	U	238	0.048	ug/L	0.032	67	8375	11098	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 11:26:17
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			348361	358316	1
Be	9	50.535	ug/L	0.872	1	7	19960	1
C	13		mg/L			5001	3042	1
Cl	37		mg/L			2245818	2208290	0
Sc	45		ug/L			216931	223543	0
V	51	49.472	ug/L	0.233	0	1182	486814	0
V-1	51	49.338	ug/L	0.352	0	2218	496296	0
Cr	52	49.685	ug/L	0.318	0	4090	434920	1
Cr	53	49.261	ug/L	0.464	0	793	52178	0
Mn	55	48.918	ug/L	0.607	1	463	724700	0
Co	59	50.188	ug/L	1.109	2	75	552625	1
Ge	72		ug/L			267270	267192	1
Ni	60	51.372	ug/L	0.705	1	30	115212	0
Ni	62	51.678	ug/L	0.711	1	54	17319	0
Cu	63	51.300	ug/L	0.471	0	267	258032	0
Cu	65	51.513	ug/L	0.506	0	72	122834	1
Zn	66	51.549	ug/L	0.852	1	142	80468	1
Zn	67	50.611	ug/L	1.525	3	87	13492	1
Zn	68	51.024	ug/L	0.417	0	5921	61276	0
As	75	50.773	ug/L	0.352	0	423	73631	0
As-1	75	50.814	ug/L	0.410	0	6113	78229	0
Se	82	51.734	ug/L	1.273	2	-25	7874	2
Se	78	52.025	ug/L	0.906	1	6174	25182	0
Mo	98	51.883	ug/L	0.512	0	38	301269	0
Y	89		ug/L			252027	253618	1
Kr	83		ug/L			224	236	6
In	115		ug/L			330111	336287	2
Ag	107	50.799	ug/L	1.859	3	44	513335	1
Cd	111	50.611	ug/L	0.976	1	192	138463	0
Cd	114	50.490	ug/L	0.654	1	14	320518	1
Sb	121	50.072	ug/L	0.871	1	67	473116	1
Sb	123	50.151	ug/L	1.283	2	50	357806	1
Ba	135	50.296	ug/L	1.004	1	27	100963	0
Ba	137	50.477	ug/L	0.727	1	30	171527	1
Tb	159		ug/L			348058	355437	2
Tl	205	50.719	ug/L	0.194	0	508	1471641	1
Pb	208	51.109	ug/L	0.514	1	1742	2029722	1
Bi	209		ug/L			346469	352747	0
Th	232	50.978	ug/L	0.449	0	4009	2459427	2
U	238	51.381	ug/L	1.134	2	8375	2781208	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 11:32:55
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	354119 ✓	0
	Be	9	-0.007	ug/L	0.003	47	7	5	25
	C	13		mg/L			5001	4863	0
	Cl	37		mg/L			2245818	2231740	0
>	Sc	45		ug/L			216931	217664 ✓	0
	V	51	0.023	ug/L	0.008	34	1182	1406	6
	V-1	51	-0.040	ug/L	0.003	7	2218	1840	1
	Cr	52	-0.000	ug/L	0.011	4325	4090	4101	1
	Cr	53	-0.191	ug/L	0.033	17	793	602	4
	Mn	55	-0.001	ug/L	0.002	177	463	446	6
	Co	59	0.004	ug/L	0.001	25	75	122	9
>	Ge	72		ug/L			267270	263438 ✓	0
	Ni	60	0.003	ug/L	0.003	79	30	37	14
	Ni	62	0.038	ug/L	0.021	56	54	66	11
	Cu	63	-0.008	ug/L	0.004	50	267	226	7
	Cu	65	0.002	ug/L	0.004	155	72	76	11
	Zn	66	0.018	ug/L	0.009	47	142	168	8
	Zn	67	0.022	ug/L	0.042	188	87	91	11
	Zn	68	-0.104	ug/L	0.113	109	5921	5725	1
	As	75	-0.001	ug/L	0.006	660	423	415	1
	As-1	75	0.035	ug/L	0.046	130	6113	6074	0
	Se	82	0.023	ug/L	0.075	325	-25	-21	52
	Se	78	0.174	ug/L	0.190	109	6174	6147	0
	Mo	98	0.013	ug/L	0.005	40	38	114	26
	Y	89		ug/L			252027	251455	1
	Kr	83		ug/L			224	222	3
>	In	115		ug/L			330111	328815 ✓	1
	Ag	107	0.009	ug/L	0.002	26	44	137	19
	Cd	111	-0.000	ug/L	0.006	4495	192	191	6
	Cd	114	0.000	ug/L	0.000	143	14	15	13
	Sb	121	0.050	ug/L	0.011	22	67	532	19
	Sb	123	0.049	ug/L	0.012	23	50	389	21
	Ba	135	0.004	ug/L	0.000	10	27	35	2
	Ba	137	0.006	ug/L	0.004	68	30	49	27
>	Tb	159		ug/L			348058	351004 ✓	2
	Tl	205	0.011	ug/L	0.004	31	508	828	10
	Pb	208	0.014	ug/L	0.002	10	1742	2307	1
	Bi	209		ug/L			346469	350656	1
	Th	232	0.083	ug/L	0.010	12	4009	7962	4
	U	238	0.098	ug/L	0.008	8	8375	13692	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 11:38:43
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	355413	0
[	Be	9	0.204	ug/L	0.031	15	7	87	13
	C	13		mg/L			5001	3961	1
	Cl	37		mg/L			2245818	2248461	1
[>	Sc	45		ug/L			216931	216064	2
[	V	51	0.199	ug/L	0.034	16	1182	3063	8
[	V-1	51	0.177	ug/L	0.012	6	2218	3921	1
[	Cr	52	0.493	ug/L	0.039	7	4090	8199	2
[	Cr	53	0.407	ug/L	0.029	7	793	1201	4
[	Mn	55	0.517	ug/L	0.017	3	463	7851	1
[	Co	59	0.210	ug/L	0.009	4	75	2313	5
[>	Ge	72		ug/L			267270	264594	0
[	Ni	60	0.528	ug/L	0.014	2	30	1202	2
[	Ni	62	0.563	ug/L	0.048	8	54	240	6
[	Cu	63	0.541	ug/L	0.020	3	267	2957	3
[	Cu	65	0.546	ug/L	0.010	1	72	1358	1
[	Zn	66	4.309	ug/L	0.097	2	142	6790	2
[	Zn	67	3.859	ug/L	0.070	1	87	1098	1
[	Zn	68	4.088	ug/L	0.096	2	5921	10255	1
[	As	75	0.248	ug/L	0.008	3	423	773	1
[	As-1	75	0.258	ug/L	0.019	7	6113	6415	0
[	Se	82	0.666 OK	ug/L	0.055	8	-25	75	11
[	Se	78	0.696	ug/L	0.067	9	6174	6364	0
[	Mo	98	0.208	ug/L	0.011	5	38	1234	5
	Y	89		ug/L			252027	250004	0
	Kr	83		ug/L			224	217	3
[>	In	115		ug/L			330111	328697	0
[	Ag	107	0.206	ug/L	0.003	1	44	2082	1
[	Cd	111	0.099	ug/L	0.014	14	192	455	8
[	Cd	114	0.104	ug/L	0.006	5	14	662	5
[	Sb	121	0.218	ug/L	0.003	1	67	2077	1
[	Sb	123	0.217	ug/L	0.003	1	50	1561	0
[	Ba	135	0.514	ug/L	0.033	6	27	1034	5
[	Ba	137	0.509	ug/L	0.014	2	30	1720	2
[>	Tb	159		ug/L			348058	348849	0
[	Tl	205	0.227	ug/L	0.008	3	508	6965	3
[	Pb	208	0.133	ug/L	0.001	0	1742	6917	0
[	Bi	209		ug/L			346469	351224	1
[	Th	232	0.370	ug/L	0.009	2	4009	21529	2
[	U	238	0.507	ug/L	0.037	7	8375	35242	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 11:44:31
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	364699 ✓	0
	Be	9	-0.010	ug/L	0.008	81	7	3	88
	C	13		mg/L			5001	15423	1
	Cl	37		mg/L			2245818	3466293	1
>	Sc	45		ug/L			216931	208105 ✓	2
	V	51	0.024	ug/L	0.019	79	1182	1355	11
	V-1	51	0.502	ug/L	0.038	7	2218	6806	3
	Cr	52	0.453	ug/L	0.028	6	4090	7577	1
	Cr	53	1.896	ug/L	0.102	5	793	2599	1
	Mn	55	0.036	ug/L	0.002	6	463	943	4
	Co	59	0.029	ug/L	0.002	5	75	371	6
>	Ge	72		ug/L			267270	261848 ✓	0
	Ni	60	0.527	ug/L	0.011	2	30	1188	2
	Ni	62	4.820	ug/L	0.058	1	54	1631	0
	Cu	63	0.464	ug/L	0.007	1	267	2546	1
	Cu	65	0.764	ug/L	0.028	3	72	1854	2
	Zn	66	1.814	ug/L	0.050	2	142	2909	1
	Zn	67	1.613	ug/L	0.049	3	87	504	2
	Zn	68	0.488	ug/L	0.051	10	5921	6320	0
	As	75	0.088	ug/L	0.022	25	423	538	5
	As-1	75	0.009	ug/L	0.089	960	6113	6001	1
	Se	82	0.038	ug/L	0.064	170	-25	-19	49
	Se	78	-0.169	ug/L	0.255	151	6174	5988	1
	Mo	98	406.940	ug/L	2.438	0	38	2315660	1
	Y	89		ug/L			252027	243940	0
	Kr	83		ug/L			224	234	3
>	In	115		ug/L			330111	319202 ✓	0
	Ag	107	0.027	ug/L	0.001	3	44	305	3
	Cd	111	0.093	ug/L	0.034	36	192	426	19
	Cd	114	0.769	ug/L	0.022	2	14	4650	2
	Sb	121	0.073	ug/L	0.006	7	67	717	6
	Sb	123	0.073	ug/L	0.009	12	50	542	10
	Ba	135	0.051	ug/L	0.011	22	27	123	17
	Ba	137	0.042	ug/L	0.002	4	30	164	4
>	Tb	159		ug/L			348058	349682 ✓	0
	Tl	205	0.038	ug/L	0.002	6	508	1587	3
	Pb	208	0.047	ug/L	0.001	1	1742	3594	0
	Bi	209		ug/L			346469	343597	1
	Th	232	0.181	ug/L	0.008	4	4009	12622	2
	U	238	0.201	ug/L	0.010	5	8375	19090	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 11:50:49
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	379193 ✓	1
[	Be	9	-0.003	ug/L	0.008	302	7	7	44
	C	13		mg/L			5001	15094	1
	Cl	37		mg/L			2245818	3226450	0
[>	Sc	45		ug/L			216931	193909 ✓	1
	V	51	-0.312	ug/L	0.053	17	1182	-1608	30
	V-1	51	0.590	ug/L	0.008	1	2218	7106	0
	Cr	52	20.971	ug/L	0.274	1	4090	161325	1
	Cr	53	22.454	ug/L	0.239	1	793	21016	1
	Mn	55	20.432	ug/L	0.118	0	463	262800	1
[	Co	59	20.893	ug/L	0.173	0	75	199608	1
[>	Ge	72		ug/L			267270	244974 ✓	0
	Ni	60	20.297	ug/L	0.411	2	30	41759	2
	Ni	62	24.792	ug/L	0.828	3	54	7643	3
	Cu	63	20.069	ug/L	0.109	0	267	92700	0
	Cu	65	20.486	ug/L	0.163	0	72	44827	1
	Zn	66	20.918	ug/L	0.078	0	142	30017	1
	Zn	67	18.443	ug/L	0.372	2	87	4559	1
	Zn	68	19.601	ug/L	0.240	1	5921	24924	0
	As	75	20.453	ug/L	0.202	0	423	27425	0
	As-1	75	20.741	ug/L	0.202	0	6113	32592	0
	Se	82	0.070	ug/L	0.127	181	-25	-13	132
	Se	78	-0.011	ug/L	0.073	696	6174	5655	1
[	Mo	98	427.153	ug/L	2.186	0	38	2273926	0
	Y	89		ug/L			252027	235975	0
	Kr	83		ug/L			224	213	3
[>	In	115		ug/L			330111	305976 ✓	0
	Ag	107	20.014	ug/L	0.188	0	44	184159	1
	Cd	111	20.515	ug/L	0.457	2	192	51191	2
	Cd	114	21.183	ug/L	0.251	1	14	122388	1
	Sb	121	0.071	ug/L	0.005	7	67	677	6
	Sb	123	0.069	ug/L	0.001	1	50	491	0
	Ba	135	0.047	ug/L	0.007	15	27	110	12
[	Ba	137	0.050	ug/L	0.006	11	30	183	9
[>	Tb	159		ug/L			348058	353453 ✓	1
	Tl	205	0.035	ug/L	0.002	6	508	1517	2
	Pb	208	0.043	ug/L	0.003	6	1742	3454	1
	Bi	209		ug/L			346469	334147	0
	Th	232	0.116	ug/L	0.015	13	4009	9639	9
[	U	238	0.138	ug/L	0.030	21	8375	15931	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 11:57:06
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	367266 ✓	2
[	Be	9	195.682	ug/L	6.274	3	7	79168	1
	C	13		mg/L			5001	4233	1
	Cl	37		mg/L			2245818	1906138	1
[>	Sc	45		ug/L			216931	198725 ✓	1
[	V	51	204.523	ug/L	2.759	1	1182	1785905	2
[	V-1	51	204.702	ug/L	2.615	1	2218	1824318	2
[	Cr	52	203.641	ug/L	4.254	2	4090	1572792	1
[	Cr	53	204.246	ug/L	4.513	2	793	190010	1
[	Mn	55	204.894	ug/L	1.111	0	463	2697128	0
[	Co	59	205.587	ug/L	3.415	1	75	2012644	2
[>	Ge	72		ug/L			267270	246894 ✓	1
[	Ni	60	199.960	ug/L	0.905	0	30	414328	0
[	Ni	62	200.516	ug/L	1.482	0	54	61955	1
[	Cu	63	196.564	ug/L	1.111	0	267	912908	0
[	Cu	65	197.433	ug/L	2.381	1	72	434793	0
[	Zn	66	198.724	ug/L	1.733	0	142	286265	0
[	Zn	67	199.271	ug/L	1.043	0	87	48861	1
[	Zn	68	198.753	ug/L	1.354	0	5921	204726	0
[	As	75	206.782	ug/L	1.157	0	423	275899	0
[	As-1	75	206.498	ug/L	1.170	0	6113	276466	0
[	Se	82	209.100	ug/L	1.376	0	-25	29484	0
[	Se	78	208.322	ug/L	1.734	0	6174	76050	1
[	Mo	98	211.744	ug/L	4.217	1	38	1135992	1
	Y	89		ug/L			252027	238714	1
	Kr	83		ug/L			224	237	2
[>	In	115		ug/L			330111	308978 ✓	1
[	Ag	107	198.309	ug/L	2.601	1	44	1841990	0
[	Cd	111	204.077	ug/L	2.624	1	192	512537	1
[	Cd	114	203.744	ug/L	6.382	3	14	1188130	1
[	Sb	121	209.983	ug/L	4.133	1	67	1822856	0
[	Sb	123	206.968	ug/L	4.648	2	50	1356652	0
[	Ba	135	210.170	ug/L	4.226	2	27	387584	0
[	Ba	137	212.400	ug/L	3.251	1	30	663062	0
[>	Tb	159		ug/L			348058	345035 ✓	1
[	Tl	205	200.539	ug/L	2.002	0	508	5646891	0
[	Pb	208	204.043	ug/L	3.058	1	1742	7860662	0
[	Bi	209		ug/L			346469	328903	0
[	Th	232	209.985	ug/L	2.354	1	4009	9820532	0
[	U	238	211.233	ug/L	3.955	1	8375	11074095	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 12:03:43
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	351374 ✓	0
	Be	9	299.461	ug/L	1.767	0	7	115961	0
	C	13		mg/L			5001	4758	1
	Cl	37		mg/L			2245818	1975968	0
>	Sc	45		ug/L			216931	203895 ✓	1
	V	51	312.915	ug/L	4.538	1	1182	2802837	2
	V-1	51	311.322	ug/L	3.143	1	2218	2845329	1
	Cr	52	311.412	ug/L	0.607	0	4090	2466011	1
	Cr	53	306.609	ug/L	7.901	2	793	292248	1
	Mn	55	307.918	ug/L	3.657	1	463	4158077	0
	Co	59	305.993	ug/L	4.164	1	75	3073197	2
>	Ge	72		ug/L			267270	255789 ✓	0
	Ni	60	296.828	ug/L	3.206	1	30	637218	1
	Ni	62	294.726	ug/L	5.701	1	54	94319	1
	Cu	63	289.706	ug/L	1.264	0	267	1393893	0
	Cu	65	289.564	ug/L	2.249	0	72	660698	1
	Zn	66	292.394	ug/L	2.961	1	142	436334	1
	Zn	67	286.605	ug/L	4.719	1	87	72770	1
	Zn	68	290.510	ug/L	2.968	1	5921	307421	1
	As	75	304.805	ug/L	0.753	0	423	421162	0
	As-1	75	305.129	ug/L	0.696	0	6113	420452	0
	Se	82	303.222	ug/L	2.121	0	-25	44310	1
	Se	78	304.649	ug/L	2.544	0	6174	112492	1
	Mo	98	315.417	ug/L	1.271	0	38	1753312	0
	Y	89		ug/L			252027	241474	0
	Kr	83		ug/L			224	261	3
>	In	115		ug/L			330111	313613 ✓	1
	Ag	107	303.371	ug/L	4.325	1	44	2860773	2
	Cd	111	300.145	ug/L	6.315	2	192	765098	2
	Cd	114	302.653	ug/L	1.396	0	14	1792156	1
	Sb	121	313.136	ug/L	4.463	1	67	2759466	0
	Sb	123	314.530	ug/L	1.232	0	50	2093208	1
	Ba	135	307.733	ug/L	3.983	1	27	576099	0
	Ba	137	310.765	ug/L	3.089	0	30	984809	0
>	Tb	159		ug/L			348058	337714 ✓	0
	Tl	205	307.460	ug/L	2.201	0	508	8474317	1
	Pb	208	308.752	ug/L	3.848	1	1742	11641903	0
	Bi	209		ug/L			346469	329284	2
	Th	232	317.097	ug/L	6.013	1	4009	14513118	1
	U	238	315.832	ug/L	5.680	1	8375	16203177	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 12:10:21
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			348361	384447 ✓	1
⌊	Be	9	48.814	ug/L	1.216	2	7	20685	1
	C	13		mg/L			5001	3123	2
	Cl	37		mg/L			2245818	2150274	0
⌈>	Sc	45		ug/L			216931	213621 ✓	0
|	V	51	49.966	ug/L	0.087	0	1182	469848	0
|	V-1	51	50.082	ug/L	0.275	0	2218	481391	0
|	Cr	52	49.594	ug/L	0.184	0	4090	414841	0
|	Cr	53	49.974	ug/L	0.861	1	793	50568	0
|	Mn	55	49.276	ug/L	0.680	1	463	697589	0
⌊	Co	59	49.827	ug/L	0.484	0	75	524321	0
⌈>	Ge	72		ug/L			267270	259387 ✓	0
|	Ni	60	50.870	ug/L	0.161	0	30	110762	0
|	Ni	62	50.374	ug/L	0.532	1	54	16391	1
|	Cu	63	50.641	ug/L	0.541	1	267	247297	1
|	Cu	65	50.377	ug/L	0.413	0	72	116616	0
|	Zn	66	50.881	ug/L	0.219	0	142	77109	0
|	Zn	67	50.477	ug/L	1.330	2	87	13066	2
|	Zn	68	50.053	ug/L	0.391	0	5921	58467	0
|	As	75	51.025	ug/L	0.181	0	423	71836	0
|	As-1	75	50.838	ug/L	0.327	0	6113	75982	0
|	Se	82	52.442	ug/L	0.271	0	-25	7750	0
|	Se	78	51.822	ug/L	0.349	0	6174	24376	0
⌊	Mo	98	51.752	ug/L	0.290	0	38	291749	0
	Y	89		ug/L			252027	250190	0
	Kr	83		ug/L			224	221	5
⌈>	In	115		ug/L			330111	321541 ✓	1
|	Ag	107	50.926	ug/L	0.299	0	44	492366	1
|	Cd	111	49.961	ug/L	0.662	1	192	130722	0
|	Cd	114	50.709	ug/L	0.567	1	14	307852	1
|	Sb	121	52.011	ug/L	0.576	1	67	469992	0
|	Sb	123	51.330	ug/L	0.532	1	50	350250	0
|	Ba	135	51.799	ug/L	1.354	2	27	99430	1
⌊	Ba	137	52.244	ug/L	1.063	2	30	169753	1
⌈>	Tb	159		ug/L			348058	357331 ✓	1
|	Tl	205	50.308	ug/L	0.762	1	508	1467433	0
|	Pb	208	50.619	ug/L	0.420	0	1742	2021024	0
|	Bi	209		ug/L			346469	348685	1
|	Th	232	51.808	ug/L	0.602	1	4009	2512460	0
⌊	U	238	51.220	ug/L	0.791	1	8375	2787495	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 12:16:59
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	387130 ✓	2
[	Be	9	-0.001	ug/L	0.006	603	7	7	36
	C	13		mg/L			5001	4583	0
	Cl	37		mg/L			2245818	1991845	0
[>	Sc	45		ug/L			216931	205218 ✓	1
[	V	51	0.002	ug/L	0.014	902	1182	1131	9
[	V-1	51	-0.008	ug/L	0.006	76	2218	2024	3
[	Cr	52	-0.006	ug/L	0.009	135	4090	3817	0
[	Cr	53	-0.036	ug/L	0.047	131	793	716	7
[	Mn	55	0.002	ug/L	0.003	116	463	469	7
[	Co	59	0.014	ug/L	0.003	20	75	210	13
[>	Ge	72		ug/L			267270	247521 ✓	0
[	Ni	60	0.010	ug/L	0.007	67	30	50	29
[	Ni	62	0.008	ug/L	0.016	207	54	52	9
[	Cu	63	-0.004	ug/L	0.006	166	267	230	12
[	Cu	65	0.008	ug/L	0.003	38	72	83	7
[	Zn	66	0.015	ug/L	0.003	19	142	154	2
[	Zn	67	0.026	ug/L	0.024	92	87	87	6
[	Zn	68	-0.280	ug/L	0.168	59	5921	5202	2
[	As	75	0.016	ug/L	0.021	130	423	413	7
[	As-1	75	0.042	ug/L	0.056	134	6113	5715	0
[	Se	82	0.044	ug/L	0.075	168	-25	-17	60
[	Se	78	0.141	ug/L	0.268	189	6174	5765	0
[	Mo	98	0.022	ug/L	0.006	26	38	153	20
	Y	89		ug/L			252027	240611	0
	Kr	83		ug/L			224	207	4
[>	In	115		ug/L			330111	317963 ✓	0
[	Ag	107	0.017	ug/L	0.004	21	44	203	16
[	Cd	111	-0.004	ug/L	0.006	152	192	176	8
[	Cd	114	0.002	ug/L	0.000	9	14	25	4
[	Sb	121	0.111	ug/L	0.016	14	67	1056	13
[	Sb	123	0.118	ug/L	0.019	16	50	847	15
[	Ba	135	0.007	ug/L	0.001	18	27	38	5
[	Ba	137	0.011	ug/L	0.003	25	30	65	13
[>	Tb	159		ug/L			348058	356661 ✓	0
[	Tl	205	0.015	ug/L	0.005	33	508	949	15
[	Pb	208	0.013	ug/L	0.003	21	1742	2297	5
[	Bi	209		ug/L			346469	349609	0
[	Th	232	0.092	ug/L	0.010	11	4009	8557	6
[	U	238	0.070	ug/L	0.010	13	8375	12378	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~LOW CHECK~~ ZZZZZZ
Sample Dil Factor: BA 1/18/13
Comments:
Sample Date/Time: Friday, January 18, 2013 12:25:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	385377	0
[	Be	9	0.152	ug/L	0.030	19	7	72	17
	C	13		mg/L			5001	3172	1
	Cl	37		mg/L			2245818	2059725	3
[>	Sc	45		ug/L			216931	204477	1
	V	51	0.203	ug/L	0.025	12	1182	2934	7
	V-1	51	0.191	ug/L	0.010	5	2218	3842	1
	Cr	52	0.476	ug/L	0.022	4	4090	7625	2
	Cr	53	0.424	ug/L	0.069	16	793	1151	5
	Mn	55	0.532	ug/L	0.007	1	463	7646	1
[	Co	59	0.227	ug/L	0.008	3	75	2357	1
[>	Ge	72		ug/L			267270	249617	0
	Ni	60	0.535	ug/L	0.010	1	30	1149	2
	Ni	62	0.548	ug/L	0.051	9	54	222	6
	Cu	63	0.551	ug/L	0.008	1	267	2835	0
	Cu	65	0.534	ug/L	0.026	4	72	1255	4
	Zn	66	4.321	ug/L	0.047	1	142	6423	0
	Zn	67	3.818	ug/L	0.026	0	87	1026	1
	Zn	68	3.764	ug/L	0.121	3	5921	9344	0
	As	75	0.240	ug/L	0.020	8	423	719	3
	As-1	75	0.200	ug/L	0.048	24	6113	5974	0
	Se	82	0.647	ug/L	0.052	8	-25	68	10
	Se	78	0.520	ug/L	0.174	33	6174	5943	0
[	Mo	98	0.219	ug/L	0.010	4	38	1224	3
	Y	89		ug/L			252027	250787	0
	Kr	83		ug/L			224	210	4
[>	In	115		ug/L			330111	319966	1
	Ag	107	0.199	ug/L	0.003	1	44	1959	1
	Cd	111	0.108	ug/L	0.009	8	192	468	6
	Cd	114	0.105	ug/L	0.003	2	14	648	1
	Sb	121	0.240	ug/L	0.009	3	67	2222	2
	Sb	123	0.236	ug/L	0.010	4	50	1647	2
	Ba	135	0.538	ug/L	0.030	5	27	1053	3
[	Ba	137	0.525	ug/L	0.018	3	30	1725	2
[>	Tb	159		ug/L			348058	360321	2
	Tl	205	0.214	ug/L	0.007	3	508	6820	2
	Pb	208	0.119	ug/L	0.002	1	1742	6592	0
	Bi	209		ug/L			346469	353408	0
	Th	232	0.282	ug/L	0.009	3	4009	17929	0
[	U	238	0.323	ug/L	0.006	1	8375	26359	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 12:31:00
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	410488	0
[	Be	9	-0.009	ug/L	0.007	85	7	5	66
	C	13		mg/L			5001	5476	1
	Cl	37		mg/L			2245818	1988333	0
[>	Sc	45		ug/L			216931	217474	1
[	V	51	0.001	ug/L	0.015	976	1182	1199	10
[	V-1	51	-0.033	ug/L	0.007	22	2218	1898	2
[	Cr	52	-0.004	ug/L	0.020	562	4090	4068	2
[	Cr	53	-0.110	ug/L	0.028	25	793	683	3
[	Mn	55	0.006	ug/L	0.003	50	463	557	7
[	Co	59	0.008	ug/L	0.000	5	75	157	4
[>	Ge	72		ug/L			267270	258201	1
[	Ni	60	0.010	ug/L	0.002	23	30	52	9
[	Ni	62	0.027	ug/L	0.026	97	54	61	12
[	Cu	63	0.060	ug/L	0.009	15	267	547	7
[	Cu	65	0.072	ug/L	0.011	15	72	234	9
[	Zn	66	0.594	ug/L	0.012	1	142	1032	2
[	Zn	67	0.519	ug/L	0.069	13	87	217	9
[	Zn	68	-0.085	ug/L	0.148	173	5921	5630	2
[	As	75	-0.003	ug/L	0.012	388	423	404	2
[	As-1	75	-0.112	ug/L	0.063	56	6113	5751	0
[	Se	82	0.096	ug/L	0.092	95	-25	-10	130
[	Se	78	-0.430	ug/L	0.260	60	6174	5811	0
[	Mo	98	0.024	ug/L	0.006	24	38	169	20
	Y	89		ug/L			252027	260075	0
	Kr	83		ug/L			224	201	3
[>	In	115		ug/L			330111	342283	2
[	Ag	107	0.006	ug/L	0.001	16	44	110	8
[	Cd	111	0.001	ug/L	0.006	465	192	203	9
[	Cd	114	0.001	ug/L	0.001	108	14	23	36
[	Sb	121	0.031	ug/L	0.003	10	67	370	9
[	Sb	123	0.031	ug/L	0.003	8	50	274	5
[	Ba	135	0.008	ug/L	0.003	41	27	43	12
[	Ba	137	0.009	ug/L	0.001	11	30	63	5
[>	Tb	159		ug/L			348058	382046	0
[	Tl	205	0.008	ug/L	0.002	19	508	811	6
[	Pb	208	0.010	ug/L	0.001	14	1742	2336	2
[	Bi	209		ug/L			346469	374463	1
[	Th	232	0.082	ug/L	0.014	16	4009	8647	8
[	U	238	0.119	ug/L	0.024	20	8375	16120	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ58 ADUP SWN
Sample Dil Factor: 200
Comments:
Sample Date/Time: Friday, January 18, 2013 12:37:18
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	395568	2
[	Be	9	0.018	ug/L	0.011	61	7	16	30
	C	13		mg/L			5001	4708	3
	Cl	37		mg/L			2245818	1960394	0
[>	Sc	45		ug/L			216931	210224	1
	V	51	3.440	ug/L	0.086	2	1182	32891	1
	V-1	51	3.387	ug/L	0.071	2	2218	34036	0
	Cr	52	2.781	ug/L	0.074	2	4090	26631	1
	Cr	53	2.659	ug/L	0.032	1	793	3375	0
	Mn	55	21.189	ug/L	0.471	2	463	295424	1
[	Co	59	0.672	ug/L	0.021	3	75	7025	1
[>	Ge	72		ug/L			267270	247690	0
	Ni	60	3.647	ug/L	0.014	0	30	7608	0
	Ni	62	4.317	ug/L	0.045	1	54	1387	1
	Cu	63	2.342	ug/L	0.015	0	267	11157	0
	Cu	65	2.372	ug/L	0.093	3	72	5307	3
	Zn	66	7.887	ug/L	0.014	0	142	11524	0
	Zn	67	7.351	ug/L	0.248	3	87	1886	3
	Zn	68	7.454	ug/L	0.184	2	5921	12985	1
	As	75	111.958	ug/L	0.066	0	423	150046	0
	As-1	75	113.747	ug/L	0.054	0	6113	155326	0
	Se	82	0.100	ug/L	0.036	35	-25	-9	54
	Se	78	0.139	ug/L	0.020	14	6174	5768	0
[	Mo	98	0.017	ug/L	0.002	9	38	129	7
	Y	89		ug/L			252027	260543	1
	Kr	83		ug/L			224	209	1
[>	In	115		ug/L			330111	329220	1
	Ag	107	0.013	ug/L	0.000	2	44	170	3
	Cd	111	0.100	ug/L	0.005	5	192	460	3
	Cd	114	0.067	ug/L	0.001	1	14	430	2
	Sb	121	0.016	ug/L	0.002	13	67	218	10
	Sb	123	0.019	ug/L	0.001	4	50	181	4
	Ba	135	6.915	ug/L	0.104	1	27	13615	1
[	Ba	137	7.025	ug/L	0.265	3	30	23398	3
[>	Tb	159		ug/L			348058	366668	1
	Tl	205	0.010	ug/L	0.002	16	508	836	4
	Pb	208	0.297	ug/L	0.006	1	1742	14010	0
	Bi	209		ug/L			346469	364361	1
	Th	232	0.195	ug/L	0.019	9	4009	13900	5
[	U	238	0.207	ug/L	0.025	12	8375	20319	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ68 A SWN
Sample Dil Factor: 200
Comments:
Sample Date/Time: Friday, January 18, 2013 12:43:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	391002	0
[	Be	9	0.017	ug/L	0.005	27	7	15	12
	C	13		mg/L			5001	4644	1
	Cl	37		mg/L			2245818	1935740	0
[>	Sc	45		ug/L			216931	208191	1
	V	51	3.367	ug/L	0.066	1	1182	31912	0
	V-1	51	3.337	ug/L	0.045	1	2218	33240	0
	Cr	52	3.255	ug/L	0.080	2	4090	30193	0
	Cr	53	3.167	ug/L	0.013	0	793	3836	1
	Mn	55	21.934	ug/L	0.308	1	463	302844	0
[	Co	59	0.693	ug/L	0.011	1	75	7181	0
[>	Ge	72		ug/L			267270	247684	0
	Ni	60	3.789	ug/L	0.032	0	30	7903	0
	Ni	62	4.357	ug/L	0.107	2	54	1399	2
	Cu	63	2.469	ug/L	0.011	0	267	11746	0
	Cu	65	2.400	ug/L	0.050	2	72	5369	2
	Zn	66	7.903	ug/L	0.110	1	142	11547	1
	Zn	67	7.206	ug/L	0.202	2	87	1850	2
	Zn	68	7.296	ug/L	0.137	1	5921	12826	0
	As	75	111.274	ug/L	0.217	0	423	149128	0
	As-1	75	113.015	ug/L	0.204	0	6113	154360	0
	Se	82	0.055	ug/L	0.092	167	-25	-15	81
	Se	78	-0.065	ug/L	0.267	408	6174	5699	1
[	Mo	98	0.017	ug/L	0.001	3	38	126	3
	Y	89		ug/L			252027	257160	1
	Kr	83		ug/L			224	207	2
[>	In	115		ug/L			330111	324332	0
	Ag	107	0.010	ug/L	0.002	22	44	144	16
	Cd	111	0.079	ug/L	0.025	31	192	397	16
	Cd	114	0.072	ug/L	0.010	14	14	454	14
	Sb	121	0.013	ug/L	0.001	5	67	184	3
	Sb	123	0.015	ug/L	0.002	11	50	151	7
	Ba	135	6.714	ug/L	0.142	2	27	13026	2
[	Ba	137	6.763	ug/L	0.039	0	30	22195	0
[>	Tb	159		ug/L			348058	365557	0
	Tl	205	0.009	ug/L	0.001	11	508	790	4
	Pb	208	0.290	ug/L	0.002	0	1742	13679	0
	Bi	209		ug/L			346469	360372	1
	Th	232	0.187	ug/L	0.020	10	4009	13453	7
[	U	238	0.165	ug/L	0.049	29	8375	17961	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ68 ASPK SWN
Sample Dil Factor: 200
Comments:
Sample Date/Time: Friday, January 18, 2013 12:49:52
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	398196	2
[	Be	9	2.585	ug/L	0.064	2	7	1142	0
	C	13		mg/L			5001	4559	0
	Cl	37		mg/L			2245818	1961658	0
[>	Sc	45		ug/L			216931	212565	0
	V	51	5.555	ug/L	0.117	2	1182	53004	1
	V-1	51	5.519	ug/L	0.106	1	2218	54718	1
	Cr	52	5.014	ug/L	0.074	1	4090	45334	0
	Cr	53	4.936	ug/L	0.127	2	793	5671	1
	Mn	55	22.512	ug/L	0.447	1	463	317362	1
[	Co	59	3.289	ug/L	0.050	1	75	34504	0
[>	Ge	72		ug/L			267270	252736	0
	Ni	60	6.022	ug/L	0.042	0	30	12802	0
	Ni	62	6.528	ug/L	0.149	2	54	2114	1
	Cu	63	4.902	ug/L	0.091	1	267	23550	1
	Cu	65	4.954	ug/L	0.105	2	72	11235	1
	Zn	66	16.450	ug/L	0.154	0	142	24380	0
	Zn	67	14.937	ug/L	0.384	2	87	3825	2
	Zn	68	15.524	ug/L	0.266	1	5921	21532	1
	As	75	108.880	ug/L	0.210	0	423	148904	0
	As-1	75	110.365	ug/L	0.211	0	6113	153950	0
	Se	82	9.316	ug/L	0.106	1	-25	1321	1
	Se	78	8.850	ug/L	0.056	0	6174	8897	0
[	Mo	98	0.017	ug/L	0.001	6	38	132	4
	Y	89		ug/L			252027	263429	1
	Kr	83		ug/L			224	202	3
[>	In	115		ug/L			330111	328180	3
	Ag	107	2.424	ug/L	0.070	2	44	23951	2
	Cd	111	2.770	ug/L	0.038	1	192	7576	1
	Cd	114	2.763	ug/L	0.061	2	14	17130	1
	Sb	121	0.011	ug/L	0.001	13	67	166	7
	Sb	123	0.011	ug/L	0.002	20	50	124	9
	Ba	135	9.088	ug/L	0.267	2	27	17821	0
[	Ba	137	9.217	ug/L	0.311	3	30	30575	1
[>	Tb	159		ug/L			348058	374338	1
	Tl	205	2.674	ug/L	0.026	0	508	82248	1
	Pb	208	2.997	ug/L	0.051	1	1742	127102	1
	Bi	209		ug/L			346469	365684	1
	Th	232	2.821	ug/L	0.021	0	4009	147412	0
[	U	238	2.832	ug/L	0.080	2	8375	169967	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ68 APOST SWN
Sample Dil Factor: 200
Comments:
Sample Date/Time: Friday, January 18, 2013 12:56:11
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	402937 ✓	0
[	Be	9	23.706	ug/L	0.432	1	7	10535	1
	C	13		mg/L			5001	4816	0
	Cl	37		mg/L			2245818	1985664	0
[>	Sc	45		ug/L			216931	211415 ✓	0
[	V	51	28.511	ug/L	0.291	1	1182	265830	1
[	V-1	51	28.412	ug/L	0.111	0	2218	271219	1
[	Cr	52	28.569	ug/L	0.326	1	4090	238200	1
[	Cr	53	28.260	ug/L	0.356	1	793	28639	1
[	Mn	55	46.654	ug/L	0.512	1	463	653767	2
[	Co	59	26.227	ug/L	0.446	1	75	273163	1
[>	Ge	72		ug/L			267270	254172 ✓	0
[	Ni	60	29.870	ug/L	0.253	0	30	63743	0
[	Ni	62	30.431	ug/L	0.343	1	54	9723	1
[	Cu	63	28.603	ug/L	0.480	1	267	136979	1
[	Cu	65	28.637	ug/L	0.269	0	72	64989	0
[	Zn	66	92.691	ug/L	1.065	1	142	137535	1
[	Zn	67	85.591	ug/L	1.264	1	87	21653	1
[	Zn	68	90.564	ug/L	0.565	0	5921	99104	0
[	As	75	136.902	ug/L	1.438	1	423	188188	1
[	As-1	75	137.094	ug/L	1.233	0	6113	190915	0
[	Se	82	90.569	ug/L	0.433	0	-25	13134	0
[	Se	78	88.455	ug/L	0.744	0	6174	36621	0
[	Mo	98	0.019	ug/L	0.002	7	38	142	5
	Y	89		ug/L			252027	262100	0
	Kr	83		ug/L			224	216	1
[>	In	115		ug/L			330111	325002 ✓	0
[	Ag	107	25.613	ug/L	0.015	0	44	250318	0
[	Cd	111	25.815	ug/L	0.086	0	192	68370	0
[	Cd	114	25.987	ug/L	0.472	1	14	159470	1
[	Sb	121	0.011	ug/L	0.002	14	67	166	8
[	Sb	123	0.012	ug/L	0.001	8	50	129	5
[	Ba	135	33.537	ug/L	0.389	1	27	65092	1
[	Ba	137	34.085	ug/L	0.293	0	30	111971	0
[>	Tb	159		ug/L			348058	375361 ✓	0
[	Tl	205	25.717	ug/L	0.401	1	508	788275	0
[	Pb	208	26.065	ug/L	0.537	2	1742	1094039	1
[	Bi	209		ug/L			346469	368894	0
[	Th	232	25.973	ug/L	0.469	1	4009	1325255	1
[	U	238	25.839	ug/L	0.445	1	8375	1481757	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ68 B SWN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, January 18, 2013 13:02:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	410403 ✓	0
[	Be	9	0.084	ug/L	0.007	8	7	46	6
	C	13		mg/L			5001	4810	1
	Cl	37		mg/L			2245818	1980303	0
[>	Sc	45		ug/L			216931	228278 ✓	0
	V	51	11.613	ug/L	0.106	0	1182	117651	1
	V-1	51	11.535	ug/L	0.069	0	2218	120279	0
	Cr	52	9.289	ug/L	0.128	1	4090	86533	1
	Cr	53	9.189	ug/L	0.143	1	793	10618	1
	Mn	55	100.098	ug/L	0.933	0	463	1513906	1
[	Co	59	2.563	ug/L	0.011	0	75	28899	0
[>	Ge	72		ug/L			267270	257822 ✓	1
	Ni	60	13.765	ug/L	0.069	0	30	29812	1
	Ni	62	16.073	ug/L	0.319	1	54	5233	1
	Cu	63	6.456	ug/L	0.064	0	267	31561	0
	Cu	65	6.491	ug/L	0.032	0	72	14995	1
	Zn	66	13.664	ug/L	0.206	1	142	20684	2
	Zn	67	13.620	ug/L	0.424	3	87	3566	3
	Zn	68	12.870	ug/L	0.138	1	5921	19187	1
	As	75	105.838	ug/L	1.435	1	423	147663	1
	As-1	75	107.248	ug/L	1.392	1	6113	152774	1
	Se	82	0.092	ug/L	0.100	109	-25	-11	133
	Se	78	-0.950	ug/L	0.295	31	6174	5620	1
[	Mo	98	0.039	ug/L	0.003	7	38	253	6
	Y	89		ug/L			252027	306893	1
	Kr	83		ug/L			224	219	2
[>	In	115		ug/L			330111	331358 ✓	1
	Ag	107	0.026	ug/L	0.003	12	44	307	12
	Cd	111	0.328	ug/L	0.007	2	192	1077	1
	Cd	114	0.217	ug/L	0.007	3	14	1369	2
	Sb	121	0.010	ug/L	0.001	6	67	162	4
	Sb	123	0.008	ug/L	0.001	7	50	109	5
	Ba	135	25.584	ug/L	0.362	1	27	50628	1
[	Ba	137	25.976	ug/L	0.437	1	30	86998	1
[>	Tb	159		ug/L			348058	376691 ✓	1
	Tl	205	0.031	ug/L	0.003	8	508	1490	4
	Pb	208	0.953	ug/L	0.011	1	1742	41953	0
	Bi	209		ug/L			346469	367648	0
	Th	232	0.685	ug/L	0.010	1	4009	39277	0
[	U	238	0.247	ug/L	0.028	11	8375	23169	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 13:08:48
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	398664	1
	Be	9	u 0.010	ug/L	0.004	43	7	12	14
	C	13		mg/L			5001	6669	1
	Cl	37		mg/L			2245818	2126840	1
>	Sc	45		ug/L			216931	235120	0
	V	51	1.059	ug/L	0.045	4	1182	12218	3
	V-1	51	1.007	ug/L	0.028	2	2218	13007	2
	Cr	52	0.513	ug/L	0.016	3	4090	9114	1
	Cr	53	0.385	ug/L	0.056	14	793	1282	5
	Mn	55	5.580	ug/L	0.018	0	463	87395	0
	Co	59	0.083	ug/L	0.003	3	75	1040	3
>	Ge	72		ug/L			267270	258878	2
	Ni	60	2.269	ug/L	0.031	1	30	4959	1
	Ni	62	2.035	ug/L	0.167	8	54	710	6
	Cu	63	0.866	ug/L	0.012	1	267	4477	3
	Cu	65	0.956	ug/L	0.021	2	72	2276	1
	Zn	66	u 1.537	ug/L	0.025	1	142	2458	1
	Zn	67	1.701	ug/L	0.035	2	87	520	2
	Zn	68	0.924	ug/L	0.125	13	5921	6706	2
	As	75	0.700	ug/L	0.028	3	423	1386	1
	As-1	75	u 0.117	ug/L	0.102	86	6113	6080	0
	Se	82	1.583	ug/L	0.127	8	-25	209	6
	Se	78	u -0.652	ug/L	0.454	69	6174	5746	0
	Mo	98	0.098	ug/L	0.009	8	38	591	8
	Y	89		ug/L			252027	279167	0
	Kr	83		ug/L			224	212	2
>	In	115		ug/L			330111	328766	0
	Ag	107	u 0.008	ug/L	0.002	20	44	120	12
	Cd	111	u 0.027	ug/L	0.007	27	192	264	7
	Cd	114	0.016	ug/L	0.001	8	14	116	7
	Sb	121	u 0.122	ug/L	0.006	4	67	1191	4
	Sb	123	0.127	ug/L	0.001	0	50	933	0
	Ba	135	11.005	ug/L	0.368	3	27	21623	2
	Ba	137	11.080	ug/L	0.153	1	30	36839	1
>	Tb	159		ug/L			348058	373229	1
	Tl	205	u 0.013	ug/L	0.002	13	508	940	4
	Pb	208	u 0.084	ug/L	0.003	3	1742	5386	1
	Bi	209		ug/L			346469	358184	0
	Th	232	0.184	ug/L	0.010	5	4009	13606	2
	U	238	0.289	ug/L	0.007	2	8375	25343	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 13:15:06
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	393571 ✓	2
	Be	9	-0.002	ug/L	0.006	277	7	7	33
	C	13		mg/L			5001	7724	1
	Cl	37		mg/L			2245818	2065794	3
>	Sc	45		ug/L			216931	226065 ✓	2
	V	51	0.703	ug/L	0.033	4	1182	8210	2
	V-1	51	0.629	ug/L	0.022	3	2218	8677	0
	Cr	52	0.331	ug/L	0.011	3	4090	7162	2
	Cr	53	0.125	ug/L	0.037	29	793	958	5
	Mn	55	3.545	ug/L	0.068	1	463	53542	1
	Co	59	0.188	ug/L	0.004	2	75	2175	4
>	Ge	72		ug/L			267270	257871 ✓	1
	Ni	60	2.255	ug/L	0.031	1	30	4910	3
	Ni	62	0.950	ug/L	0.044	4	54	358	2
	Cu	63	1.668	ug/L	0.029	1	267	8347	1
	Cu	65	1.772	ug/L	0.029	1	72	4145	1
	Zn	66	2.486	ug/L	0.100	4	142	3874	2
	Zn	67	2.726	ug/L	0.148	5	87	780	3
	Zn	68	2.195	ug/L	0.280	12	5921	8008	1
	As	75	0.428	ug/L	0.010	2	423	1004	2
	As-1	75	0.342	ug/L	0.025	7	6113	6366	1
	Se	82	0.331	ug/L	0.078	23	-25	24	47
	Se	78	-0.019	ug/L	0.171	878	6174	5949	0
	Mo	98	0.111	ug/L	0.004	4	38	659	5
	Y	89		ug/L			252027	292228	1
	Kr	83		ug/L			224	214	3
>	In	115		ug/L			330111	331061 ✓	1
	Ag	107	0.005	ug/L	0.001	11	44	99	6
	Cd	111	0.052	ug/L	0.010	19	192	333	7
	Cd	114	0.038	ug/L	0.003	9	14	252	9
	Sb	121	0.180	ug/L	0.002	1	67	1745	0
	Sb	123	0.182	ug/L	0.002	1	50	1331	2
	Ba	135	31.940	ug/L	0.790	2	27	63140	1
	Ba	137	32.211	ug/L	0.211	0	30	107782	0
>	Tb	159		ug/L			348058	369192 ✓	0
	Tl	205	0.007	ug/L	0.001	11	508	760	3
	Pb	208	0.043	ug/L	0.001	2	1742	3629	2
	Bi	209		ug/L			346469	357634	1
	Th	232	0.094	ug/L	0.010	11	4009	8946	6
	U	238	0.204	ug/L	0.016	7	8375	20312	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 13:21:23
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	373920 ✓	0
	Be	9	25.118	ug/L	0.408	1	7	10357	1
	C	13		mg/L			5001	5475	1
	Cl	37		mg/L			2245818	2127474	0
>	Sc	45		ug/L			216931	202522 ✓	0
	V	51	26.579	ug/L	0.300	1	1182	237462	1
	V-1	51	26.511	ug/L	0.153	0	2218	242565	0
	Cr	52	26.654	ug/L	0.156	0	4090	213137	0
	Cr	53	26.441	ug/L	0.372	1	793	25716	1
	Mn	55	26.982	ug/L	0.575	2	463	362396	2
	Co	59	27.235	ug/L	0.141	0	75	271749	1
>	Ge	72		ug/L			267270	243500 ✓	1
	Ni	60	28.181	ug/L	0.806	2	30	57604	2
	Ni	62	28.221	ug/L	0.135	0	54	8642	2
	Cu	63	28.702	ug/L	0.651	2	267	131669	2
	Cu	65	28.672	ug/L	0.317	1	72	62331	1
	Zn	66	88.182	ug/L	1.523	1	142	125357	2
	Zn	67	80.842	ug/L	1.387	1	87	19594	1
	Zn	68	87.240	ug/L	1.391	1	5921	91645	1
	As	75	28.812	ug/L	0.579	2	423	38249	3
	As-1	75	27.549	ug/L	0.524	1	6113	41202	2
	Se	82	90.507	ug/L	2.097	2	-25	12576	3
	Se	78	89.429	ug/L	1.524	1	6174	35410	2
	Mo	98	26.428	ug/L	0.285	1	38	139899	2
	Y	89		ug/L			252027	240155	2
	Kr	83		ug/L			224	207	2
>	In	115		ug/L			330111	306111 ✓	1
	Ag	107	27.579	ug/L	0.627	2	44	253826	2
	Cd	111	26.278	ug/L	0.637	2	192	65539	2
	Cd	114	26.823	ug/L	0.629	2	14	155039	2
	Sb	121	26.053	ug/L	0.441	1	67	224151	1
	Sb	123	26.346	ug/L	0.736	2	50	171215	4
	Ba	135	28.014	ug/L	0.690	2	27	51208	1
	Ba	137	28.504	ug/L	0.325	1	30	88196	1
>	Tb	159		ug/L			348058	343961 ✓	1
	Tl	205	27.812	ug/L	0.392	1	508	781196	1
	Pb	208	28.009	ug/L	0.406	1	1742	1077189	1
	Bi	209		ug/L			346469	344582	0
	Th	232	27.513	ug/L	0.270	0	4009	1286232	1
	U	238	27.460	ug/L	0.411	1	8375	1442357	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 13:27:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			348361	375511 ✓	1
⌊	Be	9	48.077	ug/L	1.131	2	7	19899	1
	C	13		mg/L			5001	3343	0
	Cl	37		mg/L			2245818	1989976	0
⌈>	Sc	45		ug/L			216931	203369 ✓	1
|	V	51	49.191	ug/L	0.463	0	1182	440337	0
|	V-1	51	49.206	ug/L	0.677	1	2218	450265	0
|	Cr	52	49.806	ug/L	0.530	1	4090	396645	2
|	Cr	53	49.817	ug/L	0.194	0	793	47995	1
|	Mn	55	48.915	ug/L	0.825	1	463	659190	0
⌊	Co	59	50.174	ug/L	0.665	1	75	502585	0
⌈>	Ge	72		ug/L			267270	248118 ✓	1
|	Ni	60	50.328	ug/L	1.238	2	30	104806	1
|	Ni	62	50.318	ug/L	0.738	1	54	15660	0
|	Cu	63	49.935	ug/L	1.152	2	267	233224	1
|	Cu	65	49.712	ug/L	1.323	2	72	110061	1
|	Zn	66	50.528	ug/L	0.809	1	142	73245	1
|	Zn	67	49.756	ug/L	0.155	0	87	12321	1
|	Zn	68	49.735	ug/L	0.521	1	5921	55605	0
|	As	75	50.808	ug/L	0.501	0	423	68422	0
|	As-1	75	50.560	ug/L	0.675	1	6113	72308	0
|	Se	82	52.857	ug/L	0.210	0	-25	7473	1
|	Se	78	52.082	ug/L	0.858	1	6174	23404	0
⌊	Mo	98	51.548	ug/L	0.227	0	38	277976	1
	Y	89		ug/L			252027	241641	1
	Kr	83		ug/L			224	218	0
⌈>	In	115		ug/L			330111	311410 ✓	1
|	Ag	107	50.063	ug/L	0.845	1	44	468694	0
|	Cd	111	49.663	ug/L	0.312	0	192	125856	0
|	Cd	114	50.618	ug/L	0.972	1	14	297591	1
|	Sb	121	50.905	ug/L	0.531	1	67	445488	0
|	Sb	123	50.711	ug/L	0.882	1	50	335089	0
|	Ba	135	51.397	ug/L	0.839	1	27	95557	0
⌊	Ba	137	51.817	ug/L	0.448	0	30	163075	0
⌈>	Tb	159		ug/L			348058	350276 ✓	0
|	Tl	205	50.312	ug/L	0.603	1	508	1438601	0
|	Pb	208	50.465	ug/L	0.856	1	1742	1975002	0
|	Bi	209		ug/L			346469	343985	0
|	Th	232	50.850	ug/L	1.030	2	4009	2417392	1
⌊	U	238	50.921	ug/L	0.737	1	8375	2716628	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 13:34:21
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	369210 ✓	2
[	Be	9	-0.008	ug/L	0.005	55	7	4	41
	C	13		mg/L			5001	4456	0
	Cl	37		mg/L			2245818	2140536	0
[>	Sc	45		ug/L			216931	202023 ✓	1
	V	51	0.015	ug/L	0.003	17	1182	1232	2
	V-1	51	-0.041	ug/L	0.008	19	2218	1690	3
	Cr	52	0.012	ug/L	0.011	91	4090	3906	2
	Cr	53	-0.160	ug/L	0.021	13	793	587	2
	Mn	55	-0.004	ug/L	0.002	51	463	371	7
[	Co	59	0.005	ug/L	0.001	14	75	116	5
[>	Ge	72		ug/L			267270	246135 ✓	0
	Ni	60	0.003	ug/L	0.004	133	30	34	23
	Ni	62	0.017	ug/L	0.025	151	54	55	14
	Cu	63	-0.006	ug/L	0.004	62	267	218	7
	Cu	65	0.002	ug/L	0.004	196	72	70	11
	Zn	66	0.009	ug/L	0.011	119	142	144	10
	Zn	67	-0.001	ug/L	0.038	6175	87	80	10
	Zn	68	-0.256	ug/L	0.102	39	5921	5197	1
	As	75	0.027	ug/L	0.011	41	423	426	3
	As-1	75	0.142	ug/L	0.034	23	6113	5815	0
	Se	82	0.072	ug/L	0.082	113	-25	-13	87
	Se	78	0.560	ug/L	0.128	22	6174	5874	0
[	Mo	98	0.009	ug/L	0.005	53	38	82	29
	Y	89		ug/L			252027	240357	2
	Kr	83		ug/L			224	212	2
[>	In	115		ug/L			330111	312305 ✓	1
	Ag	107	0.008	ug/L	0.001	14	44	115	8
	Cd	111	0.000	ug/L	0.002	902	192	183	1
	Cd	114	0.001	ug/L	0.001	101	14	17	22
	Sb	121	0.048	ug/L	0.012	25	67	488	21
	Sb	123	0.049	ug/L	0.011	23	50	372	19
	Ba	135	0.003	ug/L	0.004	125	27	32	25
[	Ba	137	0.007	ug/L	0.003	38	30	51	16
[>	Tb	159		ug/L			348058	347319 ✓	0
	Tl	205	0.010	ug/L	0.002	23	508	798	8
	Pb	208	0.017	ug/L	0.005	28	1742	2380	7
	Bi	209		ug/L			346469	346111	1
	Th	232	0.099	ug/L	0.017	17	4009	8661	9
[	U	238	0.133	ug/L	0.017	12	8375	15351	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 13:44:11
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			348361	380643 ✓	0
⌊	Be	9	U -0.007	ug/L	0.005	68	7	5	35
	C	13		mg/L			5001	5204	1
	Cl	37		mg/L			2245818	2149580	0
⌈>	Sc	45		ug/L			216931	205650 ✓	1
|	V	51	0.015	ug/L	0.003	20	1182	1258	2
|	V-1	51	-0.039	ug/L	0.008	20	2218	1739	3
|	Cr	52	U 0.040	ug/L	0.009	21	4090	4199	0
|	Cr	53	-0.129	ug/L	0.035	26	793	628	4
|	Mn	55	0.002	ug/L	0.002	63	463	472	4
⌊	Co	59	0.002	ug/L	0.001	74	75	90	15
⌈>	Ge	72		ug/L			267270	251482 ✓	0
|	Ni	60	U 0.007	ug/L	0.001	19	30	44	6
|	Ni	62	-0.003	ug/L	0.066	2212	54	50	41
|	Cu	63	U 0.040	ug/L	0.005	13	267	441	5
|	Cu	65	0.048	ug/L	0.003	6	72	176	4
|	Zn	66	U 0.517	ug/L	0.006	1	142	891	0
|	Zn	67	0.375	ug/L	0.096	25	87	175	14
|	Zn	68	0.192	ug/L	0.041	21	5921	5768	0
|	As	75	U 0.018	ug/L	0.018	101	423	421	5
|	As-1	75	0.136	ug/L	0.041	30	6113	5932	0
|	Se	82	U 0.063	ug/L	0.033	52	-25	-14	32
|	Se	78	0.547	ug/L	0.127	23	6174	5997	0
⌊	Mo	98	0.004	ug/L	0.001	34	38	60	12
	Y	89		ug/L			252027	246374	1
	Kr	83		ug/L			224	214	1
⌈>	In	115		ug/L			330111	322117 ✓	2
|	Ag	107	U 0.002	ug/L	0.001	42	44	66	14
|	Cd	111	U 0.004	ug/L	0.002	41	192	199	0
|	Cd	114	0.000	ug/L	0.001	116	14	16	18
|	Sb	121	U 0.011	ug/L	0.003	23	67	166	13
|	Sb	123	0.011	ug/L	0.003	23	50	124	14
|	Ba	135	U 0.000	ug/L	0.004	2649	27	26	26
⌊	Ba	137	0.005	ug/L	0.001	16	30	47	5
⌈>	Tb	159		ug/L			348058	351518 ✓	1
|	Tl	205	U 0.008	ug/L	0.002	30	508	747	9
|	Pb	208	0.011	ug/L	0.005	42	1742	2189	8
|	Bi	209		ug/L			346469	347818	1
|	Th	232	0.088	ug/L	0.036	41	4009	8253	20
⌊	U	238	0.158	ug/L	0.065	41	8375	16862	20

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 A-L REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 18, 2013 13:50:28
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	385077 ✓	1
[	Be	9	u -0.008	ug/L	0.005	64	7	5	43
	C	13		mg/L			5001	5015	1
	Cl	37		mg/L			2245818	2131944	0
[>	Sc	45		ug/L			216931	218045 ✓	0
[	V	51	0.503	ug/L	0.017	3	1182	6005	2
[	V-1	51	0.463	ug/L	0.008	1	2218	6752	0
[	Cr	52	u 0.213	ug/L	0.008	3	4090	5913	1
[	Cr	53	0.108	ug/L	0.025	23	793	907	3
[	Mn	55	5.019	ug/L	0.056	1	463	72950	1
[	Co	59	0.136	ug/L	0.005	3	75	1541	2
[>	Ge	72		ug/L			267270	257821 ✓	1
[	Ni	60	0.930	ug/L	0.030	3	30	2041	2
[	Ni	62	0.851	ug/L	0.084	9	54	327	8
[	Cu	63	u 0.188	ug/L	0.009	4	267	1169	2
[	Cu	65	0.206	ug/L	0.016	7	72	542	8
[	Zn	66	u 1.990	ug/L	0.044	2	142	3128	0
[	Zn	67	1.633	ug/L	0.118	7	87	501	7
[	Zn	68	1.370	ug/L	0.125	9	5921	7146	1
[	As	75	u 0.145	ug/L	0.013	8	423	609	1
[	As-1	75	0.072	ug/L	0.059	81	6113	5994	0
[	Se	82	u 0.166	ug/L	0.107	64	-25	0	11385
[	Se	78	-0.180	ug/L	0.226	125	6174	5891	0
[	Mo	98	0.045	ug/L	0.002	3	38	291	2
	Y	89		ug/L			252027	251574	0
	Kr	83		ug/L			224	207	6
[>	In	115		ug/L			330111	323360 ✓	0
[	Ag	107	u 0.002	ug/L	0.001	51	44	61	14
[	Cd	111	u 0.001	ug/L	0.004	472	192	191	5
[	Cd	114	0.002	ug/L	0.002	85	14	25	38
[	Sb	121	u 0.014	ug/L	0.001	4	67	194	2
[	Sb	123	0.014	ug/L	0.003	23	50	146	14
[	Ba	135	2.002	ug/L	0.039	1	27	3891	2
[	Ba	137	2.021	ug/L	0.024	1	30	6634	0
[>	Tb	159		ug/L			348058	362717 ✓	0
[	Tl	205	u 0.005	ug/L	0.001	12	508	679	2
[	Pb	208	0.041	ug/L	0.003	6	1742	3489	3
[	Bi	209		ug/L			346469	357703	0
[	Th	232	0.084	ug/L	0.013	15	4009	8312	7
[	U	238	0.215	ug/L	0.024	11	8375	20550	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 13:56:45 RR Pb
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	373485 ✓	0
	Be	9	u 0.016	ug/L	0.007	43	7	14	19
	C	13		mg/L			5001	7002	0
	Cl	37		mg/L			2245818	2103062	0
>	Sc	45		ug/L			216931	240362 ✓	0
	V	51	2.287	ug/L	0.012	0	1182	25447	0
	V-1	51	2.219	ug/L	0.011	0	2218	26348	0
	Cr	52	0.998	ug/L	0.025	2	4090	13832	2
	Cr	53	0.867	ug/L	0.038	4	793	1851	3
	Mn	55	22.093	ug/L	0.392	1	463	352265	2
	Co	59	0.571	ug/L	0.010	1	75	6841	2
>	Ge	72		ug/L			267270	245917 ✓	1
	Ni	60	4.635	ug/L	0.069	1	30	9591	0
	Ni	62	4.164	ug/L	0.167	4	54	1330	2
	Cu	63	0.959	ug/L	0.011	1	267	4681	1
	Cu	65	1.014	ug/L	0.033	3	72	2289	1
	Zn	66	u 1.521	ug/L	0.050	3	142	2311	1
	Zn	67	1.812	ug/L	0.083	4	87	522	4
	Zn	68	1.337	ug/L	0.095	7	5921	6783	1
	As	75	0.715	ug/L	0.035	4	423	1338	2
	As-1	75	0.747	ug/L	0.085	11	6113	6599	0
	Se	82	u 0.246	ug/L	0.119	48	-25	11	150
	Se	78	0.320	ug/L	0.336	104	6174	5787	0
	Mo	98	0.241	ug/L	0.015	6	38	1324	4
	Y	89		ug/L			252027	254527	2
	Kr	83		ug/L			224	203	3
>	In	115		ug/L			330111	311537 ✓	1
	Ag	107	u 0.006	ug/L	0.002	31	44	99	19
	Cd	111	u 0.014	ug/L	0.002	14	192	217	3
	Cd	114	0.010	ug/L	0.001	11	14	70	8
	Sb	121	u 0.054	ug/L	0.002	4	67	540	3
	Sb	123	0.052	ug/L	0.006	11	50	388	9
	Ba	135	9.960	ug/L	0.157	1	27	18547	1
	Ba	137	10.199	ug/L	0.167	1	30	32130	0
>	Tb	159		ug/L			348058	343924 ✓	0
	Tl	205	u 0.009	ug/L	0.001	7	508	753	2
	Pb	208	0.159	ug/L	0.003	1	1742	7839	1
	Bi	209		ug/L			346469	337678	0
	Th	232	0.194	ug/L	0.015	7	4009	12990	5
	U	238	0.586	ug/L	0.046	7	8375	38861	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 14:03:02 RR Pb
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	374556 ✓	1
[	Be	9	U 0.011	ug/L	0.013	125	7	12	45
	C	13		mg/L			5001	7155	2
	Cl	37		mg/L			2245818	1974967	0
[>	Sc	45		ug/L			216931	231604 ✓	1
[	V	51	2.230	ug/L	0.048	2	1182	23933	0
[	V-1	51	2.140	ug/L	0.035	1	2218	24569	0
[	Cr	52	1.000	ug/L	0.065	6	4090	13346	3
[	Cr	53	0.800	ug/L	0.043	5	793	1711	2
[	Mn	55	21.516	ug/L	0.817	3	463	330433	2
[	Co	59	0.549	ug/L	0.002	0	75	6346	0
[>	Ge	72		ug/L			267270	247687 ✓	0
[	Ni	60	4.229	ug/L	0.076	1	30	8818	1
[	Ni	62	4.004	ug/L	0.039	0	54	1290	1
[	Cu	63	0.880	ug/L	0.011	1	267	4345	1
[	Cu	65	0.939	ug/L	0.013	1	72	2140	1
[	Zn	66	U 1.559	ug/L	0.043	2	142	2383	3
[	Zn	67	1.661	ug/L	0.153	9	87	488	8
[	Zn	68	1.216	ug/L	0.144	11	5921	6710	1
[	As	75	0.661	ug/L	0.011	1	423	1275	0
[	As-1	75	0.549	ug/L	0.041	7	6113	6387	0
[	Se	82	U 0.158	ug/L	0.112	70	-25	-1	1282
[	Se	78	-0.264	ug/L	0.165	62	6174	5631	0
[	Mo	98	0.229	ug/L	0.003	1	38	1267	1
	Y	89		ug/L			252027	250246	1
	Kr	83		ug/L			224	213	5
[>	In	115		ug/L			330111	307307 ✓	1
[	Ag	107	U 0.004	ug/L	0.001	22	44	77	8
[	Cd	111	U 0.021	ug/L	0.006	30	192	231	8
[	Cd	114	0.010	ug/L	0.003	24	14	72	21
[	Sb	121	U 0.047	ug/L	0.003	6	67	467	4
[	Sb	123	0.045	ug/L	0.004	7	50	340	4
[	Ba	135	9.646	ug/L	0.203	2	27	17716	0
[	Ba	137	9.658	ug/L	0.292	3	30	30009	1
[>	Tb	159		ug/L			348058	349350 ✓	0
[	Tl	205	U 0.019	ug/L	0.003	13	508	1054	6
[	Pb	208	0.174	ug/L	0.006	3	1742	8539	2
[	Bi	209		ug/L			346469	340772	0
[	Th	232	0.493	ug/L	0.055	11	4009	27346	8
[	U	238	1.097	ug/L	0.092	8	8375	66585	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 14:09:19
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	366010 ✓	2
[	Be	9	24.543	ug/L	0.789	3	7	9902	1
	C	13		mg/L			5001	5822	1
	Cl	37		mg/L			2245818	1939396	0
[>	Sc	45		ug/L			216931	226769 ✓	0
	V	51	24.202	ug/L	0.121	0	1182	242220	0
	V-1	51	24.089	ug/L	0.074	0	2218	247003	0
	Cr	52	23.225	ug/L	0.219	0	4090	208506	1
	Cr	53	22.938	ug/L	0.330	1	793	25090	1
	Mn	55	43.735	ug/L	0.250	0	463	657347	0
[	Co	59	22.361	ug/L	0.152	0	75	249833	0
[>	Ge	72		ug/L			267270	235813 ✓	1
	Ni	60	30.350	ug/L	0.608	2	30	60079	1
	Ni	62	30.268	ug/L	0.138	0	54	8972	0
	Cu	63	26.782	ug/L	0.095	0	267	119011	1
	Cu	65	26.780	ug/L	0.282	1	72	56384	0
	Zn	66	83.262	ug/L	0.426	0	142	114634	1
	Zn	67	76.404	ug/L	0.425	0	87	17940	0
	Zn	68	82.068	ug/L	0.489	0	5921	83814	1
	As	75	29.010	ug/L	0.166	0	423	37291	1
	As-1	75	27.714	ug/L	0.231	0	6113	40107	0
	Se	82	87.742	ug/L	0.299	0	-25	11804	1
	Se	78	86.435	ug/L	0.530	0	6174	33323	0
[	Mo	98	27.207	ug/L	0.281	1	38	139451	1
	Y	89		ug/L			252027	241635	1
	Kr	83		ug/L			224	211	3
[>	In	115		ug/L			330111	299795 ✓	1
	Ag	107	25.130	ug/L	0.609	2	44	226512	1
	Cd	111	25.512	ug/L	0.462	1	192	62325	1
	Cd	114	25.864	ug/L	0.088	0	14	146405	0
	Sb	121	24.016	ug/L	0.264	1	67	202376	0
	Sb	123	24.353	ug/L	0.150	0	50	154969	1
	Ba	135	37.323	ug/L	0.525	1	27	66813	0
[	Ba	137	38.005	ug/L	0.459	1	30	115151	0
[>	Tb	159		ug/L			348058	342717 ✓	1
	Tl	205	26.315	ug/L	0.112	0	508	736507	1
	Pb	208	26.460	ug/L	0.241	0	1742	1014048	0
	Bi	209		ug/L			346469	332925	1
	Th	232	27.389	ug/L	0.330	1	4009	1275742	0
[	U	238	27.755	ug/L	0.096	0	8375	1452617	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~VZ35 APOST REN~~ zzzzzz
Sample Dil Factor: 2 ZA 1/21/13
Comments:
Sample Date/Time: Friday, January 18, 2013 14:15:36
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			348361	363056 ✓	2
⌊	Be	9	24.723	ug/L	0.368	1	7	9897	0
	C	13		mg/L			5001	7151	2
	Cl	37		mg/L			2245818	1935374	0
⌈>	Sc	45		ug/L			216931	222422 ✓	0
|	V	51	24.714	ug/L	0.443	1	1182	242561	1
|	V-1	51	24.640	ug/L	0.432	1	2218	247742	1
|	Cr	52	23.019	ug/L	0.076	0	4090	202738	1
|	Cr	53	22.896	ug/L	0.068	0	793	24566	1
|	Mn	55	44.319	ug/L	0.499	1	463	653343	0
⌊	Co	59	22.295	ug/L	0.410	1	75	244307	1
⌈>	Ge	72		ug/L			267270	232501 ✓	0
|	Ni	60	30.308	ug/L	0.307	1	30	59161	0
|	Ni	62	30.123	ug/L	0.316	1	54	8804	0
|	Cu	63	26.765	ug/L	0.174	0	267	117264	0
|	Cu	65	26.782	ug/L	0.102	0	72	55600	0
|	Zn	66	83.302	ug/L	0.768	0	142	113077	0
|	Zn	67	75.742	ug/L	0.856	1	87	17536	1
|	Zn	68	82.603	ug/L	0.655	0	5921	83137	0
|	As	75	29.238	ug/L	0.142	0	423	37052	0
|	As-1	75	27.965	ug/L	0.295	1	6113	39855	0
|	Se	82	87.590	ug/L	1.057	1	-25	11618	1
|	Se	78	86.338	ug/L	1.610	1	6174	32825	1
⌊	Mo	98	27.162	ug/L	0.119	0	38	137267	0
	Y	89		ug/L			252027	240974	0
	Kr	83		ug/L			224	207	0
⌈>	In	115		ug/L			330111	295221 ✓	3
|	Ag	107	25.404	ug/L	0.730	2	44	225384	0
|	Cd	111	25.098	ug/L	0.833	3	192	60342	0
|	Cd	114	25.231	ug/L	0.825	3	14	140550	0
|	Sb	121	26.182	ug/L	0.483	1	67	217185	1
|	Sb	123	26.306	ug/L	0.809	3	50	164730	0
|	Ba	135	37.548	ug/L	0.937	2	27	66161	0
⌊	Ba	137	37.536	ug/L	1.331	3	30	111927	1
⌈>	Tb	159		ug/L			348058	331834 ✓	0
|	Tl	205	26.658	ug/L	0.223	0	508	722432	1
|	Pb	208	26.961	ug/L	0.138	0	1742	1000488	1
|	Bi	209		ug/L			346469	323585	1
|	Th	232	28.140	ug/L	0.165	0	4009	1269090	0
⌊	U	238	28.484	ug/L	0.287	1	8375	1443184	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 14:21:53
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	352229 ✓	1
[	Be	9	U 0.019	ug/L	0.006	31	7	15	14
	C	13		mg/L			5001	6894	0
	Cl	37		mg/L			2245818	1943850	0
[>	Sc	45		ug/L			216931	202989 ✓	1
	V	51	1.147	ug/L	0.024	2	1182	11329	2
	V-1	51	1.064	ug/L	0.014	1	2218	11749	1
	Cr	52	U 0.233	ug/L	0.024	10	4090	5663	1
	Cr	53	0.034	ug/L	0.054	160	793	774	5
	Mn	55	5374.517	ug/L	117.569	2	463	72248184	1
[	Co	59	7.735	ug/L	0.053	0	75	77399	1
[>	Ge	72		ug/L			267270	227614 ✓	1
	Ni	60	2.924	ug/L	0.148	5	30	5613	6
	Ni	62	2.186	ug/L	0.186	8	54	668	7
	Cu	63	1.852	ug/L	0.025	1	267	8156	1
	Cu	65	2.106	ug/L	0.003	0	72	4337	1
	Zn	66	U 3.112	ug/L	0.007	0	142	4252	1
	Zn	67	3.478	ug/L	0.168	4	87	859	5
	Zn	68	3.229	ug/L	0.114	3	5921	8027	1
	As	75	3.742	ug/L	0.045	1	423	4956	1
	As-1	75	3.911	ug/L	0.104	2	6113	9934	1
	Se	82	0.729	ug/L	0.089	12	-25	73	15
	Se	78	1.296	ug/L	0.219	16	6174	5660	0
[	Mo	98	0.335	ug/L	0.011	3	38	1688	2
	Y	89		ug/L			252027	269167	0
	Kr	83		ug/L			224	203	5
[>	In	115		ug/L			330111	289272 ✓	1
	Ag	107	U 0.025	ug/L	0.005	20	44	259	15
	Cd	111	U 0.044	ug/L	0.006	13	192	272	3
	Cd	114	0.009	ug/L	0.001	11	14	62	7
	Sb	121	U 0.138	ug/L	0.014	10	67	1178	8
	Sb	123	0.131	ug/L	0.018	13	50	845	11
	Ba	135	36.884	ug/L	0.499	1	27	63707	0
[	Ba	137	37.749	ug/L	0.822	2	30	110344	0
[>	Tb	159		ug/L			348058	331931 ✓	2
	Tl	205	U 0.045	ug/L	0.001	2	508	1715	1
	Pb	208	0.081	ug/L	0.004	5	1742	4680	5
	Bi	209		ug/L			346469	321395	0
	Th	232	0.585	ug/L	0.031	5	4009	30171	6
[	U	238	0.949	ug/L	0.078	8	8375	55890	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 14:28:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	406521 ✓	3
	Be	9	U -0.002	ug/L	0.011	619	7	7	63
	C	13		mg/L			5001	6601	1
	Cl	37		mg/L			2245818	1973497	0
>	Sc	45		ug/L			216931	258255 ✓	2
	V	51	0.991	ug/L	0.010	0	1182	12642	1
	V-1	51	0.905	ug/L	0.024	2	2218	13112	2
	Cr	52	U 0.215	ug/L	0.008	3	4090	7018	0
	Cr	53	-0.001	ug/L	0.064	9107	793	943	7
	Mn	55	128.374	ug/L	3.020	2	463	2196087	2
	Co	59	0.155	ug/L	0.003	2	75	2059	0
>	Ge	72		ug/L			267270	256940 ✓	1
	Ni	60	5.381	ug/L	0.116	2	30	11633	3
	Ni	62	4.476	ug/L	0.283	6	54	1489	4
	Cu	63	1.094	ug/L	0.013	1	267	5542	1
	Cu	65	1.197	ug/L	0.031	2	72	2812	3
	Zn	66	U 2.175	ug/L	0.083	3	142	3395	2
	Zn	67	2.164	ug/L	0.118	5	87	634	3
	Zn	68	1.579	ug/L	0.015	0	5921	7339	1
	As	75	0.671	ug/L	0.031	4	423	1336	4
	As-1	75	0.381	ug/L	0.046	12	6113	6396	1
	Se	82	U 0.455	ug/L	0.093	20	-25	42	33
	Se	78	-0.771	ug/L	0.121	15	6174	5664	1
	Mo	98	0.123	ug/L	0.002	1	38	722	1
	Y	89		ug/L			252027	269949	1
	Kr	83		ug/L			224	203	2
>	In	115		ug/L			330111	329155 ✓	2
	Ag	107	U 0.003	ug/L	0.000	13	44	73	6
	Cd	111	U 0.030	ug/L	0.011	37	192	271	11
	Cd	114	0.020	ug/L	0.003	16	14	137	12
	Sb	121	U 0.184	ug/L	0.001	0	67	1769	2
	Sb	123	0.187	ug/L	0.004	2	50	1353	1
	Ba	135	13.214	ug/L	0.175	1	27	25989	2
	Ba	137	13.331	ug/L	0.287	2	30	44371	3
>	Tb	159		ug/L			348058	368578 ✓	1
	Tl	205	U 0.026	ug/L	0.001	5	508	1325	3
	Pb	208	0.081	ug/L	0.003	3	1742	5172	1
	Bi	209		ug/L			346469	361963	0
	Th	232	0.664	ug/L	0.031	4	4009	37375	3
	U	238	2.062	ug/L	0.040	1	8375	124241	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 14:34:31
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	403583 ✓	1
[	Be	9	U 0.002	ug/L	0.010	499	7	9	45
	C	13		mg/L			5001	6708	0
	Cl	37		mg/L			2245818	1925361	0
[>	Sc	45		ug/L			216931	256672 ✓	1
	V	51	1.364	ug/L	0.038	2	1182	16762	0
	V-1	51	1.263	ug/L	0.034	2	2218	17142	0
	Cr	52	U 0.207	ug/L	0.020	9	4090	6895	1
	Cr	53	-0.032	ug/L	0.007	21	793	900	0
	Mn	55	20.497	ug/L	0.476	2	463	348914	0
[	Co	59	1.680	ug/L	0.027	1	75	21330	1
[>	Ge	72		ug/L			267270	244182 ✓	0
	Ni	60	6.560	ug/L	0.136	2	30	13470	1
	Ni	62	7.535	ug/L	0.417	5	54	2350	5
	Cu	63	0.918	ug/L	0.023	2	267	4458	2
	Cu	65	0.934	ug/L	0.018	1	72	2100	2
	Zn	66	U 2.438	ug/L	0.106	4	142	3601	3
	Zn	67	2.387	ug/L	0.218	9	87	657	8
	Zn	68	1.787	ug/L	0.179	9	5921	7182	2
	As	75	0.817	ug/L	0.038	4	423	1462	3
	As-1	75	0.624	ug/L	0.015	2	6113	6393	0
	Se	82	U 0.162	ug/L	0.155	95	-25	0	3685
	Se	78	-0.671	ug/L	0.039	5	6174	5416	0
[	Mo	98	0.081	ug/L	0.009	11	38	465	10
	Y	89		ug/L			252027	252613	1
	Kr	83		ug/L			224	199	6
[>	In	115		ug/L			330111	316909 ✓	1
	Ag	107	U 0.005	ug/L	0.001	16	44	87	9
	Cd	111	U 0.013	ug/L	0.007	49	192	219	8
	Cd	114	0.022	ug/L	0.004	16	14	145	15
	Sb	121	U 0.089	ug/L	0.003	3	67	862	4
	Sb	123	0.090	ug/L	0.005	5	50	650	5
	Ba	135	6.395	ug/L	0.095	1	27	12123	1
[	Ba	137	6.516	ug/L	0.022	0	30	20896	1
[>	Tb	159		ug/L			348058	365755 ✓	1
	Tl	205	U 0.024	ug/L	0.001	4	508	1243	2
	Pb	208	0.081	ug/L	0.002	2	1742	5123	1
	Bi	209		ug/L			346469	355983	1
	Th	232	0.557	ug/L	0.043	7	4009	31797	6
[	U	238	0.972	ug/L	0.090	9	8375	62809	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 14:40:15
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	389549 ✓	1
	Be	9	22.891	ug/L	0.037	0	7	9835	0
	C	13		mg/L			5001	5331	2
	Cl	37		mg/L			2245818	1965181	0
>	Sc	45		ug/L			216931	196092 ✓	0
	V	51	24.314	ug/L	0.452	1	1182	210416	1
	V-1	51	24.336	ug/L	0.317	1	2218	215756	1
	Cr	52	24.502	ug/L	0.192	0	4090	190008	0
	Cr	53	24.559	ug/L	0.346	1	793	23178	1
	Mn	55	24.971	ug/L	0.197	0	463	324725	0
	Co	59	25.076	ug/L	0.230	0	75	242261	0
>	Ge	72		ug/L			267270	239580 ✓	0
	Ni	60	25.637	ug/L	0.057	0	30	51572	0
	Ni	62	25.339	ug/L	0.738	2	54	7639	2
	Cu	63	26.138	ug/L	0.156	0	267	118008	0
	Cu	65	25.690	ug/L	0.193	0	72	54961	1
	Zn	66	80.801	ug/L	1.578	1	142	113022	1
	Zn	67	73.150	ug/L	1.631	2	87	17454	2
	Zn	68	78.214	ug/L	0.546	0	5921	81399	0
	As	75	26.316	ug/L	0.402	1	423	34404	1
	As-1	75	24.992	ug/L	0.477	1	6113	37284	1
	Se	82	82.059	ug/L	0.667	0	-25	11214	0
	Se	78	80.457	ug/L	1.534	1	6174	31897	1
	Mo	98	24.860	ug/L	0.187	0	38	129462	0
	Y	89		ug/L			252027	236759	2
	Kr	83		ug/L			224	215	8
>	In	115		ug/L			330111	306930 ✓	0
	Ag	107	24.877	ug/L	0.084	0	44	229607	0
	Cd	111	24.622	ug/L	0.219	0	192	61591	0
	Cd	114	24.675	ug/L	0.351	1	14	142992	0
	Sb	121	24.430	ug/L	0.441	1	67	210757	1
	Sb	123	24.509	ug/L	0.527	2	50	159656	1
	Ba	135	26.284	ug/L	0.116	0	27	48183	0
	Ba	137	26.446	ug/L	0.222	0	30	82048	0
>	Tb	159		ug/L			348058	354015 ✓	0
	Tl	205	24.983	ug/L	0.085	0	508	722282	0
	Pb	208	25.533	ug/L	0.488	1	1742	1010816	1
	Bi	209		ug/L			346469	353332	1
	Th	232	25.867	ug/L	0.227	0	4009	1244854	0
	U	238	26.445	ug/L	0.683	2	8375	1429919	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 14:46:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	361797 ✓	0
[	Be	9	48.198	ug/L	0.676	1	7	19223	1
	C	13		mg/L			5001	3410	2
	Cl	37		mg/L			2245818	2054558	3
[>	Sc	45		ug/L			216931	191425 ✓	0
[	V	51	49.780	ug/L	0.261	0	1182	419472	1
[	V-1	51	49.718	ug/L	0.164	0	2218	428264	0
[	Cr	52	50.511	ug/L	0.644	1	4090	378559	1
[	Cr	53	50.275	ug/L	0.326	0	793	45588	1
[	Mn	55	49.807	ug/L	0.706	1	463	631915	1
[	Co	59	50.748	ug/L	0.234	0	75	478551	1
[>	Ge	72		ug/L			267270	236843 ✓	0
[	Ni	60	49.550	ug/L	0.461	0	30	98508	0
[	Ni	62	49.810	ug/L	1.055	2	54	14798	1
[	Cu	63	49.806	ug/L	0.396	0	267	222082	1
[	Cu	65	49.755	ug/L	0.755	1	72	105158	0
[	Zn	66	49.989	ug/L	0.935	1	142	69177	2
[	Zn	67	49.598	ug/L	0.463	0	87	11724	1
[	Zn	68	50.126	ug/L	0.113	0	5921	53457	1
[	As	75	51.331	ug/L	0.258	0	423	65982	0
[	As-1	75	51.126	ug/L	0.570	1	6113	69737	0
[	Se	82	53.229	ug/L	0.111	0	-25	7183	0
[	Se	78	52.716	ug/L	1.394	2	6174	22545	1
[	Mo	98	52.120	ug/L	0.486	0	38	268298	1
	Y	89		ug/L			252027	232388	0
	Kr	83		ug/L			224	221	4
[>	In	115		ug/L			330111	300893 ✓	1
[	Ag	107	50.042	ug/L	1.479	2	44	452617	1
[	Cd	111	50.163	ug/L	1.145	2	192	122809	0
[	Cd	114	50.805	ug/L	1.181	2	14	288579	1
[	Sb	121	51.240	ug/L	1.117	2	67	433225	0
[	Sb	123	51.143	ug/L	0.839	1	50	326536	0
[	Ba	135	51.761	ug/L	0.382	0	27	92992	0
[	Ba	137	52.116	ug/L	0.890	1	30	158461	0
[>	Tb	159		ug/L			348058	339886 ✓	1
[	Tl	205	50.231	ug/L	0.526	1	508	1393733	0
[	Pb	208	51.035	ug/L	0.420	0	1742	1938147	0
[	Bi	209		ug/L			346469	337581	2
[	Th	232	50.526	ug/L	0.188	0	4009	2330872	0
[	U	238	51.373	ug/L	1.167	2	8375	2659236	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 14:53:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	358805 ✓	0
[	Be	9	-0.007	ug/L	0.003	46	7	5	25
	C	13		mg/L			5001	4775	0
	Cl	37		mg/L			2245818	2160545	0
[>	Sc	45		ug/L			216931	193646 ✓	0
	V	51	0.012	ug/L	0.004	35	1182	1156	3
	V-1	51	-0.046	ug/L	0.003	7	2218	1583	2
	Cr	52	0.008	ug/L	0.013	166	4090	3707	2
	Cr	53	-0.169	ug/L	0.009	5	793	555	1
	Mn	55	0.062	ug/L	0.004	5	463	1207	3
[	Co	59	0.004	ug/L	0.000	12	75	104	4
[>	Ge	72		ug/L			267270	238756 ✓	0
	Ni	60	-0.001	ug/L	0.002	223	30	25	14
	Ni	62	0.046	ug/L	0.027	57	54	62	12
	Cu	63	-0.009	ug/L	0.002	18	267	199	3
	Cu	65	0.005	ug/L	0.005	89	72	75	13
	Zn	66	0.034	ug/L	0.012	35	142	174	9
	Zn	67	-0.035	ug/L	0.037	106	87	69	12
	Zn	68	-0.177	ug/L	0.042	23	5921	5117	0
	As	75	0.024	ug/L	0.014	56	423	409	4
	As-1	75	0.234	ug/L	0.033	14	6113	5757	0
	Se	82	-0.057	ug/L	0.066	116	-25	-30	29
	Se	78	0.946	ug/L	0.114	12	6174	5824	0
[	Mo	98	0.008	ug/L	0.005	54	38	78	30
	Y	89		ug/L			252027	238980	1
	Kr	83		ug/L			224	225	1
[>	In	115		ug/L			330111	302099 ✓	0
	Ag	107	0.010	ug/L	0.003	31	44	131	21
	Cd	111	0.001	ug/L	0.004	315	192	179	5
	Cd	114	0.002	ug/L	0.002	82	14	24	38
	Sb	121	0.054	ug/L	0.014	25	67	524	22
	Sb	123	0.055	ug/L	0.013	24	50	398	21
	Ba	135	0.019	ug/L	0.005	24	27	59	13
[	Ba	137	0.023	ug/L	0.002	9	30	97	7
[>	Tb	159		ug/L			348058	337782 ✓	1
	Tl	205	0.056	ug/L	0.006	10	508	2039	7
	Pb	208	0.148	ug/L	0.009	5	1742	7260	4
	Bi	209		ug/L			346469	340720	1
	Th	232	1.261	ug/L	0.086	6	4009	61592	5
[	U	238	1.947	ug/L	0.074	3	8375	107953	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 G-L REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 18, 2013 15:01:50
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	358430 ✓	1
[	Be	9	U -0.004	ug/L	0.014	385	7	6	91
	C	13		mg/L			5001	4307	0
	Cl	37		mg/L			2245818	2148455	0
[>	Sc	45		ug/L			216931	202707 ✓	0
[	V	51	0.486	ug/L	0.004	0	1182	5431	0
[	V-1	51	0.432	ug/L	0.006	1	2218	5996	1
[	Cr	52	U 0.174	ug/L	0.004	2	4090	5186	0
[	Cr	53	0.027	ug/L	0.030	113	793	766	3
[	Mn	55	5.091	ug/L	0.066	1	463	68788	1
[	Co	59	0.130	ug/L	0.006	4	75	1363	4
[>	Ge	72		ug/L			267270	243596 ✓	0
[	Ni	60	0.851	ug/L	0.011	1	30	1767	1
[	Ni	62	0.775	ug/L	0.024	3	54	285	2
[	Cu	63	U 0.193	ug/L	0.004	2	267	1127	1
[	Cu	65	0.222	ug/L	0.010	4	72	547	3
[	Zn	66	U 0.482	ug/L	0.026	5	142	814	4
[	Zn	67	0.472	ug/L	0.020	4	87	193	2
[	Zn	68	0.186	ug/L	0.070	37	5921	5581	1
[	As	75	U 0.175	ug/L	0.019	10	423	615	4
[	As-1	75	0.232	ug/L	0.025	10	6113	5871	0
[	Se	82	U 0.094	ug/L	0.083	88	-25	-10	114
[	Se	78	0.407	ug/L	0.107	26	6174	5762	0
[	Mo	98	0.049	ug/L	0.007	14	38	292	12
	Y	89		ug/L			252027	237315	1
	Kr	83		ug/L			224	217	0
[>	In	115		ug/L			330111	302212 ✓	0
[	Ag	107	U 0.002	ug/L	0.001	54	44	63	19
[	Cd	111	U 0.012	ug/L	0.001	9	192	205	0
[	Cd	114	0.004	ug/L	0.001	31	14	35	19
[	Sb	121	U 0.025	ug/L	0.002	7	67	270	5
[	Sb	123	0.022	ug/L	0.004	16	50	189	12
[	Ba	135	1.959	ug/L	0.035	1	27	3559	1
[	Ba	137	2.017	ug/L	0.045	2	30	6187	2
[>	Tb	159		ug/L			348058	343888 ✓	1
[	Tl	205	U 0.050	ug/L	0.001	2	508	1917	2
[	Pb	208	0.167	ug/L	0.003	1	1742	8143	0
[	Bi	209		ug/L			346469	338558	0
[	Th	232	1.228	ug/L	0.025	1	4009	61196	3
[	U	238	1.996	ug/L	0.017	0	8375	112502	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 15:08:08
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	384096 ✓	1
[	Be	9	U 0.006	ug/L	0.005	78	7	10	17
	C	13		mg/L			5001	5550	5
	Cl	37		mg/L			2245818	2019308	3
[>	Sc	45		ug/L			216931	239018 ✓	2
[	V	51	2.098	ug/L	0.052	2	1182	23313	0
[	V-1	51	2.002	ug/L	0.052	2	2218	23870	0
[	Cr	52	0.780	ug/L	0.024	3	4090	11733	2
[	Cr	53	0.565	ug/L	0.028	4	793	1504	2
[	Mn	55	21.153	ug/L	0.166	0	463	335389	2
[	Co	59	0.505	ug/L	0.018	3	75	6028	2
[>	Ge	72		ug/L			267270	250844 ✓	2
[	Ni	60	4.117	ug/L	0.054	1	30	8695	1
[	Ni	62	3.631	ug/L	0.064	1	54	1190	2
[	Cu	63	0.946	ug/L	0.017	1	267	4714	3
[	Cu	65	1.010	ug/L	0.017	1	72	2326	0
[	Zn	66	U 1.602	ug/L	0.048	2	142	2477	3
[	Zn	67	1.631	ug/L	0.088	5	87	487	2
[	Zn	68	1.281	ug/L	0.032	2	5921	6863	2
[	As	75	0.651	ug/L	0.011	1	423	1278	2
[	As-1	75	0.608	ug/L	0.104	17	6113	6545	0
[	Se	82	U 0.203	ug/L	0.042	20	-25	5	110
[	Se	78	0.037	ug/L	0.426	1144	6174	5805	0
[	Mo	98	0.240	ug/L	0.007	2	38	1343	4
	Y	89		ug/L			252027	260412	1
	Kr	83		ug/L			224	214	2
[>	In	115		ug/L			330111	320238 ✓	0
[	Ag	107	U 0.005	ug/L	0.001	16	44	91	8
[	Cd	111	U 0.028	ug/L	0.004	13	192	259	4
[	Cd	114	0.014	ug/L	0.003	21	14	96	19
[	Sb	121	U 0.063	ug/L	0.005	8	67	631	7
[	Sb	123	0.064	ug/L	0.006	9	50	482	9
[	Ba	135	9.236	ug/L	0.160	1	27	17685	2
[	Ba	137	9.352	ug/L	0.084	0	30	30292	1
[>	Tb	159		ug/L			348058	358416 ✓	0
[	Tl	205	U 0.044	ug/L	0.004	8	508	1801	5
[	Pb	208	0.247	ug/L	0.010	4	1742	11675	3
[	Bi	209		ug/L			346469	348594	1
[	Th	232	1.227	ug/L	0.051	4	4009	63704	4
[	U	238	2.189	ug/L	0.101	4	8375	127761	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 GDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 15:14:27 RR Pb
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	374291 ✓	1
[	Be	9	U 0.013	ug/L	0.012	96	7	13	39
	C	13		mg/L			5001	5668	0
	Cl	37		mg/L			2245818	1957466	0
[>	Sc	45		ug/L			216931	227385	1
[	V	51	2.166	ug/L	0.045	2	1182	22860	0
[	V-1	51	2.070	ug/L	0.044	2	2218	23405	0
[	Cr	52	0.886	ug/L	0.025	2	4090	12100	1
[	Cr	53	0.670	ug/L	0.058	8	793	1541	3
[	Mn	55	21.623	ug/L	0.154	0	463	326123	0
[	Co	59	0.507	ug/L	0.011	2	75	5760	2
[>	Ge	72		ug/L			267270	238562 ✓	0
[	Ni	60	4.187	ug/L	0.110	2	30	8410	2
[	Ni	62	3.990	ug/L	0.112	2	54	1238	2
[	Cu	63	0.950	ug/L	0.025	2	267	4502	2
[	Cu	65	1.012	ug/L	0.022	2	72	2218	1
[	Zn	66	U 1.711	ug/L	0.050	2	142	2507	2
[	Zn	67	1.838	ug/L	0.119	6	87	512	6
[	Zn	68	1.521	ug/L	0.163	10	5921	6759	2
[	As	75	0.654	ug/L	0.007	1	423	1219	1
[	As-1	75	0.733	ug/L	0.043	5	6113	6385	0
[	Se	82	U 0.191	ug/L	0.123	64	-25	3	496
[	Se	78	0.539	ug/L	0.185	34	6174	5686	0
[	Mo	98	0.255	ug/L	0.005	1	38	1354	1
	Y	89		ug/L			252027	256017	1
	Kr	83		ug/L			224	209	3
[>	In	115		ug/L			330111	308447 ✓	1
[	Ag	107	U 0.003	ug/L	0.001	15	44	72	8
[	Cd	111	U 0.027	ug/L	0.008	29	192	249	7
[	Cd	114	0.014	ug/L	0.001	6	14	96	6
[	Sb	121	U 0.058	ug/L	0.005	9	67	570	7
[	Sb	123	0.060	ug/L	0.004	6	50	438	5
[	Ba	135	9.524	ug/L	0.090	0	27	17563	2
[	Ba	137	9.591	ug/L	0.224	2	30	29917	1
[>	Tb	159		ug/L			348058	348612 ✓	0
[	Tl	205	U 0.047	ug/L	0.003	6	508	1835	4
[	Pb	208	0.257	ug/L	0.008	2	1742	11763	2
[	Bi	209		ug/L			346469	340013	0
[	Th	232	1.290	ug/L	0.063	4	4009	64960	3
[	U	238	2.363	ug/L	0.135	5	8375	133458	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 GSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 15:20:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	381147 ✓	1
	Be	9	24.566	ug/L	0.681	2	7	10325	2
	C	13		mg/L			5001	5618	0
	Cl	37		mg/L			2245818	1937785	0
>	Sc	45		ug/L			216931	228038 ✓	1
	V	51	24.686	ug/L	0.327	1	1182	248450	2
	V-1	51	24.679	ug/L	0.201	0	2218	254432	2
	Cr	52	23.113	ug/L	0.324	1	4090	208702	2
	Cr	53	23.188	ug/L	0.351	1	793	25496	1
	Mn	55	43.505	ug/L	0.246	0	463	657533	0
	Co	59	22.816	ug/L	0.321	1	75	256375	2
>	Ge	72		ug/L			267270	244238 ✓	1
	Ni	60	29.850	ug/L	0.955	3	30	61223	4
	Ni	62	29.032	ug/L	0.632	2	54	8915	1
	Cu	63	26.803	ug/L	0.327	1	267	123366	2
	Cu	65	26.579	ug/L	0.225	0	72	57966	1
	Zn	66	83.142	ug/L	1.504	1	142	118572	2
	Zn	67	74.925	ug/L	1.039	1	87	18225	2
	Zn	68	81.360	ug/L	0.689	0	5921	86107	1
	As	75	28.820	ug/L	0.606	2	423	38379	3
	As-1	75	27.362	ug/L	0.279	1	6113	41088	1
	Se	82	87.459	ug/L	1.642	1	-25	12188	2
	Se	78	85.491	ug/L	0.528	0	6174	34201	1
	Mo	98	27.089	ug/L	0.535	1	38	143827	2
	Y	89		ug/L			252027	252023	2
	Kr	83		ug/L			224	215	1
>	In	115		ug/L			330111	309481 ✓	3
	Ag	107	26.564	ug/L	2.120	7	44	246795	4
	Cd	111	25.414	ug/L	0.678	2	192	64060	0
	Cd	114	25.854	ug/L	0.343	1	14	151041	2
	Sb	121	24.244	ug/L	0.485	1	67	210832	2
	Sb	123	24.544	ug/L	0.537	2	50	161163	1
	Ba	135	36.532	ug/L	0.580	1	27	67509	2
	Ba	137	37.507	ug/L	0.793	2	30	117274	1
>	Tb	159		ug/L			348058	352139 ✓	2
	Tl	205	26.480	ug/L	0.211	0	508	761518	2
	Pb	208	26.634	ug/L	0.121	0	1742	1048798	1
	Bi	209		ug/L			346469	343023	0
	Th	232	27.965	ug/L	0.346	1	4009	1338506	2
	U	238	29.308	ug/L	0.037	0	8375	1575656	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~VZ35 GPOST REN~~ ZZZZZZ
Sample Dil Factor: 2 BA 1/21/13
Comments:
Sample Date/Time: Friday, January 18, 2013 15:27:02
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	345354	2
	Be	9	24.367	ug/L	0.528	2	7	9278	0
	C	13		mg/L			5001	5600	1
	Cl	37		mg/L			2245818	1914878	0
>	Sc	45		ug/L			216931	212508	3
	V	51	24.212	ug/L	0.310	1	1182	227021	1
	V-1	51	24.144	ug/L	0.275	1	2218	231940	2
	Cr	52	22.540	ug/L	0.270	1	4090	189707	2
	Cr	53	22.434	ug/L	0.148	0	793	23010	2
	Mn	55	42.738	ug/L	0.430	1	463	601919	2
	Co	59	22.088	ug/L	0.233	1	75	231217	2
>	Ge	72		ug/L			267270	226435	1
	Ni	60	28.831	ug/L	0.224	0	30	54808	0
	Ni	62	28.424	ug/L	0.405	1	54	8095	2
	Cu	63	25.943	ug/L	0.284	1	267	110706	2
	Cu	65	25.793	ug/L	0.431	1	72	52162	3
	Zn	66	80.462	ug/L	0.620	0	142	106381	1
	Zn	67	73.884	ug/L	0.507	0	87	16662	2
	Zn	68	79.868	ug/L	0.429	0	5921	78452	1
	As	75	28.419	ug/L	0.167	0	423	35084	1
	As-1	75	27.282	ug/L	0.361	1	6113	37993	1
	Se	82	82.968	ug/L	0.361	0	-25	10717	1
	Se	78	82.119	ug/L	1.406	1	6174	30664	2
	Mo	98	26.227	ug/L	0.194	0	38	129095	2
	Y	89		ug/L			252027	230938	2
	Kr	83		ug/L			224	215	3
>	In	115		ug/L			330111	279699	3
	Ag	107	24.954	ug/L	0.314	1	44	209892	3
	Cd	111	24.436	ug/L	0.051	0	192	55702	2
	Cd	114	24.635	ug/L	0.338	1	14	130080	2
	Sb	121	25.961	ug/L	0.337	1	67	204054	1
	Sb	123	25.998	ug/L	0.351	1	50	154301	1
	Ba	135	36.299	ug/L	0.257	0	27	60625	2
	Ba	137	36.819	ug/L	0.235	0	30	104076	2
>	Tb	159		ug/L			348058	324738	1
	Tl	205	25.378	ug/L	0.107	0	508	673002	1
	Pb	208	25.586	ug/L	0.168	0	1742	929226	1
	Bi	209		ug/L			346469	314003	2
	Th	232	27.136	ug/L	0.069	0	4009	1197758	1
	U	238	27.886	ug/L	0.281	1	8375	1382789	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 15:32:43
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	382455	0
[	Be	9	U 0.003	ug/L	0.002	53	7	9	7
	C	13		mg/L			5001	6569	2
	Cl	37		mg/L			2245818	1963210	0
[>	Sc	45		ug/L			216931	213011	0
[	V	51	0.984	ug/L	0.016	1	1182	10362	0
[	V-1	51	0.917	ug/L	0.012	1	2218	10930	0
[	Cr	52	U 0.450	ug/L	0.007	1	4090	7734	1
[	Cr	53	0.278	ug/L	0.020	7	793	1055	2
[	Mn	55	4.058	ug/L	0.044	1	463	57705	1
[	Co	59	0.055	ug/L	0.002	4	75	653	3
[>	Ge	72		ug/L			267270	242941	1
[	Ni	60	2.205	ug/L	0.033	1	30	4522	0
[	Ni	62	1.821	ug/L	0.084	4	54	602	3
[	Cu	63	0.816	ug/L	0.027	3	267	3970	3
[	Cu	65	0.905	ug/L	0.024	2	72	2027	1
[	Zn	66	U 1.988	ug/L	0.066	3	142	2946	3
[	Zn	67	1.869	ug/L	0.195	10	87	529	8
[	Zn	68	1.513	ug/L	0.093	6	5921	6874	0
[	As	75	0.599	ug/L	0.002	0	423	1170	0
[	As-1	75	U 0.217	ug/L	0.065	30	6113	5835	0
[	Se	82	1.239	ug/L	0.002	0	-25	148	1
[	Se	78	U -0.117	ug/L	0.310	265	6174	5572	1
[	Mo	98	0.073	ug/L	0.004	5	38	423	6
	Y	89		ug/L			252027	256058	0
	Kr	83		ug/L			224	215	3
[>	In	115		ug/L			330111	309344	2
[	Ag	107	U 0.008	ug/L	0.003	38	44	115	25
[	Cd	111	U 0.025	ug/L	0.011	45	192	242	9
[	Cd	114	0.019	ug/L	0.002	12	14	122	12
[	Sb	121	U 0.149	ug/L	0.009	5	67	1359	7
[	Sb	123	0.157	ug/L	0.014	8	50	1078	10
[	Ba	135	10.359	ug/L	0.063	0	27	19155	2
[	Ba	137	10.573	ug/L	0.146	1	30	33075	1
[>	Tb	159		ug/L			348058	350887	0
[	Tl	205	U 0.057	ug/L	0.002	4	508	2137	2
[	Pb	208	0.160	ug/L	0.009	5	1742	8041	3
[	Bi	209		ug/L			346469	340596	1
[	Th	232	1.273	ug/L	0.044	3	4009	64554	2
[	U	238	2.078	ug/L	0.078	3	8375	119150	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 I REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 15:38:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	381078	0
[	Be	9	U 0.010	ug/L	0.009	88	7	12	30
	C	13		mg/L			5001	7387	1
	Cl	37		mg/L			2245818	2053865	3
[>	Sc	45		ug/L			216931	218999	1
[	V	51	0.559	ug/L	0.009	1	1182	6569	1
[	V-1	51	0.479	ug/L	0.004	0	2218	6934	2
[	Cr	52	U 0.215	ug/L	0.024	11	4090	5952	2
[	Cr	53	-0.012	ug/L	0.003	24	793	789	2
[	Mn	55	2.146	ug/L	0.070	3	463	31591	3
[	Co	59	0.178	ug/L	0.004	2	75	2001	3
[>	Ge	72		ug/L			267270	253560	0
[	Ni	60	2.138	ug/L	0.040	1	30	4577	1
[	Ni	62	0.781	ug/L	0.040	5	54	299	3
[	Cu	63	1.834	ug/L	0.035	1	267	8997	1
[	Cu	65	1.995	ug/L	0.037	1	72	4579	1
[	Zn	66	U 3.132	ug/L	0.059	1	142	4766	2
[	Zn	67	3.565	ug/L	0.074	2	87	978	2
[	Zn	68	3.117	ug/L	0.155	4	5921	8827	1
[	As	75	0.435	ug/L	0.007	1	423	997	1
[	As-1	75	0.252	ug/L	0.039	15	6113	6138	0
[	Se	82	U 0.284	ug/L	0.021	7	-25	17	16
[	Se	78	-0.410	ug/L	0.164	39	6174	5714	0
[	Mo	98	0.096	ug/L	0.003	3	38	568	2
	Y	89		ug/L			252027	271791	0
	Kr	83		ug/L			224	216	2
[>	In	115		ug/L			330111	314710	0
[	Ag	107	U 0.005	ug/L	0.002	32	44	88	16
[	Cd	111	U 0.065	ug/L	0.009	13	192	349	6
[	Cd	114	0.050	ug/L	0.003	6	14	309	6
[	Sb	121	0.242	ug/L	0.008	3	67	2208	3
[	Sb	123	0.244	ug/L	0.008	3	50	1674	2
[	Ba	135	43.859	ug/L	0.328	0	27	82425	1
[	Ba	137	44.447	ug/L	0.449	1	30	141380	1
[>	Tb	159		ug/L			348058	353646	1
[	Tl	205	U 0.055	ug/L	0.009	16	508	2110	12
[	Pb	208	0.170	ug/L	0.026	15	1742	8473	12
[	Bi	209		ug/L			346469	345067	1
[	Th	232	1.270	ug/L	0.147	11	4009	64953	11
[	U	238	2.043	ug/L	0.181	8	8375	118244	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 J REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 15:44:06
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	368515	2
[	Be	9	U 0.006	ug/L	0.011	178	7	10	42
	C	13		mg/L			5001	6304	2
	Cl	37		mg/L			2245818	1962467	0
[>	Sc	45		ug/L			216931	212201	2
[	V	51	0.943	ug/L	0.007	0	1182	9946	2
[	V-1	51	0.870	ug/L	0.009	1	2218	10435	1
[	Cr	52	U 0.193	ug/L	0.014	7	4090	5583	0
[	Cr	53	0.012	ug/L	0.046	388	793	787	3
[	Mn	55	5463.217	ug/L	102.292	1	463	76761789	1
[	Co	59	7.813	ug/L	0.160	2	75	81708	0
[>	Ge	72		ug/L			267270	242683	1
[	Ni	60	2.837	ug/L	0.104	3	30	5805	3
[	Ni	62	2.261	ug/L	0.055	2	54	735	3
[	Cu	63	0.598	ug/L	0.015	2	267	2972	1
[	Cu	65	0.797	ug/L	0.032	4	72	1791	5
[	Zn	66	U 2.915	ug/L	0.074	2	142	4254	1
[	Zn	67	3.212	ug/L	0.068	2	87	852	3
[	Zn	68	2.974	ug/L	0.040	1	5921	8307	1
[	As	75	3.261	ug/L	0.021	0	423	4654	1
[	As-1	75	3.190	ug/L	0.106	3	6113	9662	0
[	Se	82	0.704	ug/L	0.113	15	-25	74	21
[	Se	78	0.263	ug/L	0.389	148	6174	5691	0
[	Mo	98	0.292	ug/L	0.008	2	38	1573	3
	Y	89		ug/L			252027	282191	1
	Kr	83		ug/L			224	202	3
[>	In	115		ug/L			330111	305618	3
[	Ag	107	U 0.006	ug/L	0.001	13	44	97	4
[	Cd	111	U 0.022	ug/L	0.014	64	192	232	15
[	Cd	114	0.006	ug/L	0.004	56	14	49	37
[	Sb	121	U 0.083	ug/L	0.003	3	67	774	4
[	Sb	123	0.089	ug/L	0.006	6	50	620	4
[	Ba	135	36.333	ug/L	0.904	2	27	66276	0
[	Ba	137	36.816	ug/L	0.845	2	30	113688	2
[>	Tb	159		ug/L			348058	343242	2
[	Tl	205	U 0.068	ug/L	0.001	2	508	2406	3
[	Pb	208	0.135	ug/L	0.014	10	1742	6888	9
[	Bi	209		ug/L			346469	336399	2
[	Th	232	1.178	ug/L	0.084	7	4009	58814	8
[	U	238	1.865	ug/L	0.139	7	8375	105528	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 K REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 15:49:48
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	373136	1
	Be	9	0.010	ug/L	0.011	115	7	12	39
	C	13		mg/L			5001	6052	1
	Cl	37		mg/L			2245818	1936377	1
>	Sc	45		ug/L			216931	241635	2
	V	51	0.891	ug/L	0.026	2	1182	10771	1
	V-1	51	0.804	ug/L	0.017	2	2218	11168	1
	Cr	52	0.177	ug/L	0.011	6	4090	6210	2
	Cr	53	-0.049	ug/L	0.020	40	793	828	4
	Mn	55	107.727	ug/L	2.239	2	463	1724107	1
	Co	59	0.114	ug/L	0.006	5	75	1434	2
>	Ge	72		ug/L			267270	241438	0
	Ni	60	4.849	ug/L	0.045	0	30	9852	1
	Ni	62	4.269	ug/L	0.085	1	54	1338	1
	Cu	63	1.039	ug/L	0.008	0	267	4958	0
	Cu	65	1.145	ug/L	0.003	0	72	2529	0
	Zn	66	1.122	ug/L	0.046	4	142	1708	4
	Zn	67	1.162	ug/L	0.138	11	87	356	9
	Zn	68	0.963	ug/L	0.116	12	5921	6293	1
	As	75	0.605	ug/L	0.007	1	423	1171	0
	As-1	75	0.569	ug/L	0.066	11	6113	6252	1
	Se	82	0.370	ug/L	0.037	9	-25	28	17
	Se	78	0.223	ug/L	0.224	100	6174	5650	1
	Mo	98	0.114	ug/L	0.009	7	38	634	6
	Y	89		ug/L			252027	245287	0
	Kr	83		ug/L			224	203	3
>	In	115		ug/L			330111	306571	2
	Ag	107	0.000	ug/L	0.000	105	44	45	7
	Cd	111	0.022	ug/L	0.004	18	192	234	1
	Cd	114	0.016	ug/L	0.001	5	14	107	7
	Sb	121	0.163	ug/L	0.003	2	67	1463	2
	Sb	123	0.164	ug/L	0.001	0	50	1110	2
	Ba	135	12.313	ug/L	0.311	2	27	22548	0
	Ba	137	12.531	ug/L	0.294	2	30	38831	0
>	Tb	159		ug/L			348058	346754	0
	Tl	205	0.046	ug/L	0.002	3	508	1799	2
	Pb	208	0.128	ug/L	0.007	5	1742	6691	4
	Bi	209		ug/L			346469	334863	0
	Th	232	1.094	ug/L	0.041	3	4009	55411	4
	U	238	2.694	ug/L	0.049	1	8375	150205	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 L REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 15:55:32
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	387136	3
	Be	9	U -0.007	ug/L	0.003	50	7	5	26
	C	13		mg/L			5001	5865	1
	Cl	37		mg/L			2245818	1906667	0
>	Sc	45		ug/L			216931	244995	3
	V	51	1.316	ug/L	0.056	4	1182	15478	0
	V-1	51	1.224	ug/L	0.054	4	2218	15925	1
	Cr	52	U 0.108	ug/L	0.019	17	4090	5639	3
	Cr	53	-0.101	ug/L	0.017	16	793	780	4
	Mn	55	20.287	ug/L	0.376	1	463	329665	3
	Co	59	1.421	ug/L	0.049	3	75	17231	4
>	Ge	72		ug/L			267270	241940	1
	Ni	60	6.267	ug/L	0.005	0	30	12752	1
	Ni	62	6.510	ug/L	0.183	2	54	2018	2
	Cu	63	1.259	ug/L	0.016	1	267	5972	2
	Cu	65	1.289	ug/L	0.036	2	72	2846	2
	Zn	66	U 1.692	ug/L	0.079	4	142	2516	5
	Zn	67	1.649	ug/L	0.063	3	87	474	2
	Zn	68	1.285	ug/L	0.176	13	5921	6621	1
	As	75	0.809	ug/L	0.013	1	423	1438	1
	As-1	75	0.689	ug/L	0.070	10	6113	6418	0
	Se	82	U 0.144	ug/L	0.048	33	-25	-3	213
	Se	78	-0.352	ug/L	0.297	84	6174	5471	0
	Mo	98	0.066	ug/L	0.002	3	38	381	2
	Y	89		ug/L			252027	241324	2
	Kr	83		ug/L			224	204	3
>	In	115		ug/L			330111	309173	2
	Ag	107	U 0.002	ug/L	0.002	110	44	58	31
	Cd	111	U 0.016	ug/L	0.007	43	192	220	9
	Cd	114	0.023	ug/L	0.002	9	14	148	10
	Sb	121	U 0.075	ug/L	0.002	2	67	718	2
	Sb	123	0.076	ug/L	0.002	2	50	547	4
	Ba	135	6.350	ug/L	0.019	0	27	11745	2
	Ba	137	6.288	ug/L	0.046	0	30	19673	2
>	Tb	159		ug/L			348058	350792	2
	Tl	205	U 0.051	ug/L	0.001	1	508	1971	2
	Pb	208	0.179	ug/L	0.005	2	1742	8779	0
	Bi	209		ug/L			346469	344893	2
	Th	232	1.227	ug/L	0.040	3	4009	62323	1
	U	238	1.977	ug/L	0.068	3	8375	113721	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 16:01:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	325827	1
[	Be	9	48.163	ug/L	0.881	1	7	17302	2
	C	13		mg/L			5001	3428	1
	Cl	37		mg/L			2245818	1909452	1
[>	Sc	45		ug/L			216931	171233	1
[	V	51	49.792	ug/L	0.782	1	1182	375262	0
[	V-1	51	49.704	ug/L	0.780	1	2218	382919	0
[	Cr	52	49.816	ug/L	0.336	0	4090	333986	0
[	Cr	53	49.542	ug/L	0.686	1	793	40189	1
[	Mn	55	49.129	ug/L	0.420	0	463	557513	1
[	Co	59	50.180	ug/L	0.114	0	75	423271	1
[>	Ge	72		ug/L			267270	212489	1
[	Ni	60	49.596	ug/L	0.515	1	30	88457	1
[	Ni	62	49.113	ug/L	0.918	1	54	13090	0
[	Cu	63	49.429	ug/L	0.462	0	267	197729	1
[	Cu	65	49.276	ug/L	0.228	0	72	93442	1
[	Zn	66	49.776	ug/L	0.408	0	142	61792	0
[	Zn	67	49.646	ug/L	0.977	1	87	10527	1
[	Zn	68	50.092	ug/L	0.143	0	5921	47928	1
[	As	75	50.944	ug/L	0.596	1	423	58749	0
[	As-1	75	51.120	ug/L	0.560	1	6113	62554	0
[	Se	82	51.386	ug/L	0.386	0	-25	6220	1
[	Se	78	52.435	ug/L	0.855	1	6174	20145	1
[	Mo	98	51.174	ug/L	0.826	1	38	236294	0
	Y	89		ug/L			252027	203748	0
	Kr	83		ug/L			224	219	2
[>	In	115		ug/L			330111	264150	1
[	Ag	107	50.079	ug/L	0.461	0	44	397728	0
[	Cd	111	49.722	ug/L	0.996	2	192	106867	0
[	Cd	114	50.760	ug/L	0.428	0	14	253153	1
[	Sb	121	52.055	ug/L	1.180	2	67	386371	0
[	Sb	123	51.902	ug/L	0.278	0	50	290951	1
[	Ba	135	52.941	ug/L	1.485	2	27	83483	1
[	Ba	137	52.795	ug/L	0.294	0	30	140941	0
[>	Tb	159		ug/L			348058	303444	1
[	Tl	205	50.197	ug/L	0.841	1	508	1243376	0
[	Pb	208	50.617	ug/L	0.785	1	1742	1716142	1
[	Bi	209		ug/L			346469	297505	0
[	Th	232	50.992	ug/L	0.943	1	4009	2099824	0
[	U	238	51.254	ug/L	0.734	1	8375	2368865	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 16:08:34
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	329174	1
	Be	9	-0.001	ug/L	0.008	690	7	6	47
	C	13		mg/L			5001	4532	3
	Cl	37		mg/L			2245818	2025725	3
>	Sc	45		ug/L			216931	179386	1
	V	51	0.014	ug/L	0.016	115	1182	1086	11
	V-1	51	-0.036	ug/L	0.009	25	2218	1546	3
	Cr	52	0.018	ug/L	0.006	33	4090	3504	2
	Cr	53	-0.135	ug/L	0.049	36	793	542	7
	Mn	55	0.100	ug/L	0.006	5	463	1567	3
	Co	59	0.003	ug/L	0.002	71	75	87	18
>	Ge	72		ug/L			267270	225039	0
	Ni	60	0.003	ug/L	0.005	148	30	32	28
	Ni	62	0.013	ug/L	0.011	88	54	49	6
	Cu	63	-0.013	ug/L	0.002	16	267	172	5
	Cu	65	0.005	ug/L	0.002	35	72	71	5
	Zn	66	0.030	ug/L	0.010	33	142	159	8
	Zn	67	0.004	ug/L	0.039	1043	87	74	11
	Zn	68	0.200	ug/L	0.019	9	5921	5168	0
	As	75	0.059	ug/L	0.026	43	423	427	7
	As-1	75	0.484	ug/L	0.052	10	6113	5725	0
	Se	82	0.024	ug/L	0.157	657	-25	-18	110
	Se	78	1.904	ug/L	0.188	9	6174	5784	0
	Mo	98	0.010	ug/L	0.003	26	38	79	15
	Y	89		ug/L			252027	215481	0
	Kr	83		ug/L			224	217	3
>	In	115		ug/L			330111	276362	2
	Ag	107	0.009	ug/L	0.003	33	44	107	20
	Cd	111	0.001	ug/L	0.006	1075	192	162	10
	Cd	114	0.003	ug/L	0.001	44	14	26	21
	Sb	121	0.054	ug/L	0.016	30	67	476	24
	Sb	123	0.051	ug/L	0.012	23	50	341	19
	Ba	135	0.021	ug/L	0.003	15	27	56	7
	Ba	137	0.017	ug/L	0.006	38	30	71	23
>	Tb	159		ug/L			348058	311841	1
	Tl	205	0.042	ug/L	0.001	3	508	1531	1
	Pb	208	0.109	ug/L	0.005	4	1742	5350	2
	Bi	209		ug/L			346469	309791	0
	Th	232	0.988	ug/L	0.041	4	4009	45305	2
	U	238	1.595	ug/L	0.090	5	8375	82975	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 16:14:22
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	349353 ✓	1
[	Be	9	-0.003	ug/L	0.008	251	7	6	52
	C	13		mg/L			5001	5279	1
	Cl	37		mg/L			2245818	2027513	2
[>	Sc	45		ug/L			216931	185329 ✓	1
[	V	51	0.012	ug/L	0.024	191	1182	1112	18
[	V-1	51	-0.047	ug/L	0.004	9	2218	1504	3
[	Cr	52	0.027	ug/L	0.006	21	4090	3686	1
[	Cr	53	-0.157	ug/L	0.053	33	793	541	7
[	Mn	55	0.220	ug/L	0.002	0	463	3092	0
[	Co	59	-0.000	ug/L	0.001	274	75	61	13
[>	Ge	72		ug/L			267270	231480 ✓	1
[	Ni	60	0.005	ug/L	0.005	87	30	37	24
[	Ni	62	0.014	ug/L	0.032	235	54	51	19
[	Cu	63	0.082	ug/L	0.003	3	267	590	3
[	Cu	65	0.098	ug/L	0.015	15	72	264	11
[	Zn	66	0.649	ug/L	0.040	6	142	998	5
[	Zn	67	0.481	ug/L	0.046	9	87	185	5
[	Zn	68	0.785	ug/L	0.101	12	5921	5866	1
[	As	75	0.050	ug/L	0.021	41	423	429	5
[	As-1	75	0.399	ug/L	0.034	8	6113	5784	1
[	Se	82	0.004	ug/L	0.118	3330	-25	-21	72
[	Se	78	1.522	ug/L	0.159	10	6174	5829	1
[	Mo	98	0.003	ug/L	0.003	102	38	48	31
	Y	89		ug/L			252027	227178	0
	Kr	83		ug/L			224	216	4
[>	In	115		ug/L			330111	291930 ✓	0
[	Ag	107	0.003	ug/L	0.002	67	44	62	24
[	Cd	111	-0.000	ug/L	0.000	4133	192	170	1
[	Cd	114	0.002	ug/L	0.001	32	14	22	13
[	Sb	121	0.020	ug/L	0.001	3	67	224	2
[	Sb	123	0.020	ug/L	0.005	22	50	167	16
[	Ba	135	0.017	ug/L	0.001	7	27	53	4
[	Ba	137	0.017	ug/L	0.008	49	30	77	32
[>	Tb	159		ug/L			348058	326062 ✓	0
[	Tl	205	0.044	ug/L	0.004	9	508	1655	6
[	Pb	208	0.116	ug/L	0.010	8	1742	5867	5
[	Bi	209		ug/L			346469	322035	0
[	Th	232	1.048	ug/L	0.085	8	4009	50032	6
[	U	238	1.684	ug/L	0.083	4	8375	91190	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 16:20:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	334953 ✓	0
[	Be	9	0.011	ug/L	0.000	2	7	11	
	C	13		mg/L			5001	6109	2
	Cl	37		mg/L			2245818	1896639	0
[>	Sc	45		ug/L			216931	206392 ✓	0
	V	51	0.633	ug/L	0.023	3	1182	6857	2
	V-1	51	0.558	ug/L	0.012	2	2218	7266	1
	Cr	52	0.316	ug/L	0.025	7	4090	6419	2
	Cr	53	0.105	ug/L	0.031	29	793	856	3
	Mn	55	678.175	ug/L	4.435	0	463	9271102	1
[	Co	59	0.324	ug/L	0.006	1	75	3365	2
[>	Ge	72		ug/L			267270	227295 ✓	0
	Ni	60	1.586	ug/L	0.014	0	30	3052	1
	Ni	62	1.526	ug/L	0.064	4	54	480	3
	Cu	63	0.630	ug/L	0.015	2	267	2919	2
	Cu	65	1.125	ug/L	0.036	3	72	2340	2
	Zn	66	4.595	ug/L	0.048	1	142	6212	1
	Zn	67	4.638	ug/L	0.204	4	87	1119	4
	Zn	68	4.433	ug/L	0.169	3	5921	9127	1
	As	75	13.367	ug/L	0.018	0	423	16756	0
	As-1	75	13.872	ug/L	0.060	0	6113	21947	0
	Se	82	0.395	ug/L	0.098	24	-25	29	43
	Se	78	1.698	ug/L	0.189	11	6174	5778	0
[	Mo	98	1.038	ug/L	0.003	0	38	5161	0
	Y	89		ug/L			252027	228193	1
	Kr	83		ug/L			224	209	4
[>	In	115		ug/L			330111	278129 ✓	1
	Ag	107	0.005	ug/L	0.001	24	44	79	13
	Cd	111	0.135	ug/L	0.011	7	192	467	5
	Cd	114	0.142	ug/L	0.001	0	14	758	1
	Sb	121	0.419	ug/L	0.012	2	67	3327	1
	Sb	123	0.419	ug/L	0.002	0	50	2513	1
	Ba	135	35.992	ug/L	0.267	0	27	59779	0
[	Ba	137	36.056	ug/L	0.384	1	30	101354	0
[>	Tb	159		ug/L			348058	318295 ✓	0
	Tl	205	U 0.043	ug/L	0.003	7	508	1584	4
	Pb	208	0.384	ug/L	0.005	1	1742	15236	0
	Bi	209		ug/L			346469	306594	0
	Th	232	1.143	ug/L	0.013	1	4009	52981	1
[	U	238	1.850	ug/L	0.047	2	8375	97091	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 16:27:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	350224	4
[	Be	9	0.001	ug/L	0.005	410	7	7	18
	C	13		mg/L			5001	6172	1
	Cl	37		mg/L			2245818	1940616	0
[>	Sc	45		ug/L			216931	216135	3
[	V	51	0.616	ug/L	0.006	0	1182	7022	3
[	V-1	51	0.547	ug/L	0.014	2	2218	7507	1
[	Cr	52	0.296	ug/L	0.006	2	4090	6552	3
[	Cr	53	0.105	ug/L	0.041	39	793	895	2
[	Mn	55	682.073	ug/L	9.246	1	463	9762721	2
[	Co	59	0.322	ug/L	0.006	1	75	3505	3
[>	Ge	72		ug/L			267270	238179	2
[	Ni	60	1.563	ug/L	0.022	1	30	3152	3
[	Ni	62	1.385	ug/L	0.149	10	54	461	11
[	Cu	63	0.541	ug/L	0.011	2	267	2661	3
[	Cu	65	1.092	ug/L	0.035	3	72	2385	5
[	Zn	66	4.138	ug/L	0.076	1	142	5875	3
[	Zn	67	3.876	ug/L	0.204	5	87	993	7
[	Zn	68	3.667	ug/L	0.277	7	5921	8820	2
[	As	75	13.694	ug/L	0.151	1	423	17976	2
[	As-1	75	13.924	ug/L	0.226	1	6113	23059	1
[	Se	82	0.429	ug/L	0.082	19	-25	35	29
[	Se	78	0.708	ug/L	0.547	77	6174	5729	0
[	Mo	98	1.033	ug/L	0.003	0	38	5383	2
	Y	89		ug/L			252027	237662	4
	Kr	83		ug/L			224	226	2
[>	In	115		ug/L			330111	288307	3
[	Ag	107	0.006	ug/L	0.001	16	44	91	5
[	Cd	111	0.149	ug/L	0.009	6	192	518	5
[	Cd	114	0.150	ug/L	0.005	3	14	827	7
[	Sb	121	0.422	ug/L	0.007	1	67	3476	3
[	Sb	123	0.418	ug/L	0.005	1	50	2597	2
[	Ba	135	36.441	ug/L	0.093	0	27	62740	3
[	Ba	137	37.000	ug/L	0.318	0	30	107801	3
[>	Tb	159		ug/L			348058	330635	2
[	Tl	205	U 0.043	ug/L	0.001	2	508	1644	2
[	Pb	208	0.378	ug/L	0.001	0	1742	15600	2
[	Bi	209		ug/L			346469	318738	2
[	Th	232	1.203	ug/L	0.012	0	4009	57697	3
[	U	238	1.965	ug/L	0.016	0	8375	106623	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 16:33:20
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	362010	0
	Be	9	24.106	ug/L	1.000	4	7	9622	3
	C	13		mg/L			5001	5708	0
	Cl	37		mg/L			2245818	1910603	0
>	Sc	45		ug/L			216931	216785	1
	V	51	22.715	ug/L	0.226	0	1182	217384	0
	V-1	51	22.704	ug/L	0.316	1	2218	222639	0
	Cr	52	22.409	ug/L	0.162	0	4090	192468	2
	Cr	53	22.391	ug/L	0.266	1	793	23429	0
	Mn	55	694.276	ug/L	8.366	1	463	9969618	2
	Co	59	22.582	ug/L	0.234	1	75	241180	1
>	Ge	72		ug/L			267270	241621	0
	Ni	60	26.292	ug/L	0.627	2	30	53340	2
	Ni	62	25.951	ug/L	0.356	1	54	7890	1
	Cu	63	24.967	ug/L	0.295	1	267	113689	0
	Cu	65	25.788	ug/L	0.472	1	72	55637	1
	Zn	66	81.377	ug/L	1.263	1	142	114804	1
	Zn	67	74.676	ug/L	1.259	1	87	17969	2
	Zn	68	80.333	ug/L	0.169	0	5921	84173	0
	As	75	40.749	ug/L	0.373	0	423	53517	1
	As-1	75	39.868	ug/L	0.304	0	6113	56697	0
	Se	82	85.418	ug/L	1.283	1	-25	11774	1
	Se	78	84.894	ug/L	1.007	1	6174	33636	0
	Mo	98	26.837	ug/L	0.381	1	38	140951	1
	Y	89		ug/L			252027	241621	1
	Kr	83		ug/L			224	223	3
>	In	115		ug/L			330111	293409	2
	Ag	107	23.919	ug/L	0.232	0	44	211008	1
	Cd	111	24.960	ug/L	0.108	0	192	59685	2
	Cd	114	25.218	ug/L	0.066	0	14	139718	2
	Sb	121	25.485	ug/L	0.166	0	67	210161	2
	Sb	123	25.384	ug/L	0.266	1	50	158066	1
	Ba	135	61.966	ug/L	0.412	0	27	108550	2
	Ba	137	62.990	ug/L	1.181	1	30	186726	1
>	Tb	159		ug/L			348058	334930	1
	Tl	205	25.423	ug/L	0.053	0	508	695409	1
	Pb	208	25.804	ug/L	0.259	1	1742	966494	0
	Bi	209		ug/L			346469	320938	1
	Th	232	27.454	ug/L	0.363	1	4009	1249784	1
	U	238	27.698	ug/L	0.154	0	8375	1416797	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~VZ75 APOST REN~~ zzzzzz
Sample Dil Factor: 2 BA 1/21/13
Comments:
Sample Date/Time: Friday, January 18, 2013 16:39:38
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	422262	4
[	Be	9	23.475	ug/L	0.566	2	7	10938	6
	C	13		mg/L			5001	6782	2
	Cl	37		mg/L			2245818	2020930	3
[>	Sc	45		ug/L			216931	251885	6
[	V	51	22.706	ug/L	0.258	1	1182	252398	5
[	V-1	51	22.735	ug/L	0.378	1	2218	258897	5
[	Cr	52	22.148	ug/L	0.262	1	4090	221023	6
[	Cr	53	22.269	ug/L	0.587	2	793	27053	4
[	Mn	55	705.419	ug/L	10.379	1	463	11762591	5
[	Co	59	22.310	ug/L	0.509	2	75	276669	5
[>	Ge	72		ug/L			267270	275279	4
[	Ni	60	26.616	ug/L	0.320	1	30	61540	5
[	Ni	62	26.543	ug/L	0.050	0	54	9192	4
[	Cu	63	24.792	ug/L	0.186	0	267	128598	3
[	Cu	65	25.689	ug/L	0.515	2	72	63146	4
[	Zn	66	81.615	ug/L	1.358	1	142	131189	5
[	Zn	67	75.344	ug/L	0.165	0	87	20653	4
[	Zn	68	79.532	ug/L	0.591	0	5921	94986	3
[	As	75	41.539	ug/L	0.248	0	423	62156	5
[	As-1	75	39.906	ug/L	0.224	0	6113	64644	4
[	Se	82	88.749	ug/L	1.426	1	-25	13944	6
[	Se	78	85.223	ug/L	1.195	1	6174	38443	4
[	Mo	98	27.547	ug/L	0.130	0	38	164844	4
	Y	89		ug/L			252027	278581	5
	Kr	83		ug/L			224	216	0
[>	In	115		ug/L			330111	343771	5
[	Ag	107	24.466	ug/L	0.107	0	44	252903	5
[	Cd	111	24.661	ug/L	0.549	2	192	69096	5
[	Cd	114	24.537	ug/L	0.306	1	14	159271	5
[	Sb	121	25.742	ug/L	0.145	0	67	248705	4
[	Sb	123	25.793	ug/L	0.253	0	50	188147	4
[	Ba	135	60.813	ug/L	0.439	0	27	124801	4
[	Ba	137	61.211	ug/L	0.784	1	30	212585	4
[>	Tb	159		ug/L			348058	380756	4
[	Tl	205	25.691	ug/L	0.384	1	508	798903	4
[	Pb	208	26.149	ug/L	0.211	0	1742	1113645	4
[	Bi	209		ug/L			346469	372272	4
[	Th	232	27.636	ug/L	0.087	0	4009	1430231	4
[	U	238	27.943	ug/L	0.340	1	8375	1624306	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 16:45:55
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	404832 ✓	0
[	Be	9	0.038	ug/L	0.002	4	7	25	2
	C	13		mg/L			5001	7180	2
	Cl	37		mg/L			2245818	4083643	2
[>	Sc	45		ug/L			216931	309427	3
	V	51	8.864	ug/L	0.081	0	1182	122118	4
	V-1	51	9.148	ug/L	0.090	0	2218	129968	4
	Cr	52	4.871	ug/L	0.144	2	4090	64238	1
	Cr	53	5.985	ug/L	0.061	1	793	9769	3
	Mn	55	74.468	ug/L	0.820	1	463	1526929	4
[	Co	59	1.048	ug/L	0.011	1	75	16082	2
[>	Ge	72		ug/L			267270	293359 ✓	2
	Ni	60	4.476	ug/L	0.131	2	30	11049	1
	Ni	62	7.382	ug/L	0.207	2	54	2767	3
	Cu	63	7.869	ug/L	0.121	1	267	43705	2
	Cu	65	6.528	ug/L	0.174	2	72	17155	2
	Zn	66	9.878	ug/L	0.006	0	142	17056	2
	Zn	67	10.691	ug/L	0.200	1	87	3205	4
	Zn	68	9.608	ug/L	0.130	1	5921	17944	2
	As	75	6.863	ug/L	0.053	0	423	11329	2
	As-1	75	6.261	ug/L	0.101	1	6113	16464	2
	Se	82	1.659	ug/L	0.027	1	-25	250	4
	Se	78	-1.024	ug/L	0.264	25	6174	6364	1
[	Mo	98	1.181	ug/L	0.009	0	38	7568	3
	Y	89		ug/L			252027	312392	3
	Kr	83		ug/L			224	241	0
[>	In	115		ug/L			330111	354567 ✓	2
	Ag	107	0.026	ug/L	0.004	13	44	327	9
	Cd	111	-0.145	ug/L	0.047	32	192	-211	65
	Cd	114	U 0.058	ug/L	0.004	7	14	402	4
	Sb	121	U 0.152	ug/L	0.008	5	67	1581	2
	Sb	123	0.150	ug/L	0.006	4	50	1182	3
	Ba	135	46.132	ug/L	0.515	1	27	97655	1
[	Ba	137	46.616	ug/L	0.241	0	30	167039	2
[>	Tb	159		ug/L			348058	372330 ✓	1
	Tl	205	U 0.040	ug/L	0.005	11	508	1757	7
	Pb	208	1.555	ug/L	0.013	0	1742	66500	0
	Bi	209		ug/L			346469	356929	1
	Th	232	1.013	ug/L	0.076	7	4009	55372	5
[	U	238	1.559	ug/L	0.109	6	8375	97091	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 16:52:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			348361	421704	6
⌊	Be	9	0.003	ug/L	0.008	313	7	10	42
	C	13		mg/L			5001	5962	1
	Cl	37		mg/L			2245818	2033339	4
⌈>	Sc	45		ug/L			216931	275293	3
|	V	51	0.231	ug/L	0.020	8	1182	4292	5
|	V-1	51	0.209	ug/L	0.021	10	2218	5387	1
|	Cr	52	0.145	ug/L	0.005	3	4090	6734	3
|	Cr	53	0.082	ug/L	0.086	104	793	1111	8
|	Mn	55	503.730	ug/L	7.119	1	463	9185351	4
⌊	Co	59	1.903	ug/L	0.027	1	75	25891	3
⌈>	Ge	72		ug/L			267270	267131	3
|	Ni	60	11.184	ug/L	0.090	0	30	25105	3
|	Ni	62	11.365	ug/L	0.211	1	54	3852	5
|	Cu	63	1.901	ug/L	0.018	0	267	9819	4
|	Cu	65	2.554	ug/L	0.061	2	72	6159	5
|	Zn	66	5.720	ug/L	0.029	0	142	9054	3
|	Zn	67	6.117	ug/L	0.163	2	87	1706	3
|	Zn	68	5.241	ug/L	0.213	4	5921	11598	1
|	As	75	1.109	ug/L	0.005	0	423	2021	3
|	As-1	75	0.851	ug/L	0.136	16	6113	7313	0
|	Se	82	0.483	ug/L	0.110	22	-25	48	34
|	Se	78	-0.696	ug/L	0.600	86	6174	5911	0
⌊	Mo	98	0.125	ug/L	0.005	4	38	762	5
	Y	89		ug/L			252027	275917	5
	Kr	83		ug/L			224	203	5
⌈>	In	115		ug/L			330111	340393	5
|	Ag	107	0.014	ug/L	0.002	12	44	193	12
|	Cd	111	0.224	ug/L	0.004	1	192	818	4
|	Cd	114	0.220	ug/L	0.008	3	14	1426	6
|	Sb	121	0.209	ug/L	0.010	4	67	2069	3
|	Sb	123	0.206	ug/L	0.008	4	50	1538	1
|	Ba	135	58.489	ug/L	1.287	2	27	118817	3
⌊	Ba	137	58.423	ug/L	0.962	1	30	200882	3
⌈>	Tb	159		ug/L			348058	376215	4
|	Tl	205	U 0.033	ug/L	0.003	9	508	1571	3
|	Pb	208	0.328	ug/L	0.004	1	1742	15638	3
|	Bi	209		ug/L			346469	369671	4
|	Th	232	0.558	ug/L	0.040	7	4009	32741	3
⌊	U	238	0.985	ug/L	0.059	5	8375	65237	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 16:58:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	437677	3
[	Be	9	-0.001	ug/L	0.010	762	7	8	51
	C	13		mg/L			5001	6732	3
	Cl	37		mg/L			2245818	2419360	2
[>	Sc	45		ug/L			216931	274943	4
	V	51	1.068	ug/L	0.046	4	1182	14383	3
	V-1	51	1.106	ug/L	0.037	3	2218	16426	3
	Cr	52	0.415	ug/L	0.007	1	4090	9603	4
	Cr	53	0.571	ug/L	0.038	6	793	1738	6
	Mn	55	767.904	ug/L	15.348	1	463	13980256	3
[	Co	59	0.701	ug/L	0.020	2	75	9583	3
[>	Ge	72		ug/L			267270	279242	3
	Ni	60	2.396	ug/L	0.031	1	30	5646	3
	Ni	62	2.371	ug/L	0.122	5	54	884	5
	Cu	63	1.854	ug/L	0.034	1	267	10012	3
	Cu	65	1.746	ug/L	0.031	1	72	4426	4
	Zn	66	5.541	ug/L	0.146	2	142	9169	2
	Zn	67	5.302	ug/L	0.122	2	87	1559	5
	Zn	68	4.701	ug/L	0.180	3	5921	11513	2
	As	75	1.690	ug/L	0.012	0	423	2988	2
	As-1	75	1.234	ug/L	0.107	8	6113	8213	1
	Se	82	0.630	ug/L	0.049	7	-25	74	13
	Se	78	-1.400	ug/L	0.358	25	6174	5912	1
[	Mo	98	0.430	ug/L	0.006	1	38	2650	3
	Y	89		ug/L			252027	282386	2
	Kr	83		ug/L			224	204	0
[>	In	115		ug/L			330111	352442	1
	Ag	107	0.017	ug/L	0.003	17	44	230	15
	Cd	111	0.491	ug/L	0.040	8	192	1612	8
	Cd	114	0.525	ug/L	0.013	2	14	3505	1
	Sb	121	U 0.144	ug/L	0.001	0	67	1502	2
	Sb	123	0.144	ug/L	0.004	2	50	1128	0
	Ba	135	27.897	ug/L	0.534	1	27	58733	3
[	Ba	137	27.937	ug/L	0.265	0	30	99528	1
[>	Tb	159		ug/L			348058	386421	1
	Tl	205	U 0.020	ug/L	0.005	26	508	1207	13
	Pb	208	0.319	ug/L	0.008	2	1742	15702	2
	Bi	209		ug/L			346469	375226	1
	Th	232	0.592	ug/L	0.103	17	4009	35445	15
[	U	238	1.068	ug/L	0.166	15	8375	71996	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 17:04:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	366548	0
[	Be	9	0.041	ug/L	0.020	48	7	24	32
	C	13		mg/L			5001	5382	1
	Cl	37		mg/L			2245818	1918937	0
[>	Sc	45		ug/L			216931	204563	2
[	V	51	2.037	ug/L	0.034	1	1182	19406	1
[	V-1	51	2.025	ug/L	0.043	2	2218	20643	0
[	Cr	52	1.598	ug/L	0.036	2	4090	16528	1
[	Cr	53	1.589	ug/L	0.091	5	793	2263	2
[	Mn	55	31.138	ug/L	0.185	0	463	422311	2
[	Co	59	1.113	ug/L	0.012	1	75	11287	1
[>	Ge	72		ug/L			267270	236843	0
[	Ni	60	5.217	ug/L	0.087	1	30	10397	1
[	Ni	62	5.371	ug/L	0.106	1	54	1639	1
[	Cu	63	11.440	ug/L	0.042	0	267	51193	0
[	Cu	65	11.347	ug/L	0.113	0	72	24032	0
[	Zn	66	18.554	ug/L	0.087	0	142	25754	0
[	Zn	67	16.788	ug/L	0.190	1	87	4019	1
[	Zn	68	18.483	ug/L	0.165	0	5921	23023	0
[	As	75	2.791	ug/L	0.025	0	423	3942	0
[	As-1	75	2.921	ug/L	0.049	1	6113	9091	0
[	Se	82	0.227	ug/L	0.095	41	-25	8	156
[	Se	78	0.633	ug/L	0.106	16	6174	5676	0
[	Mo	98	0.595	ug/L	0.010	1	38	3097	1
	Y	89		ug/L			252027	240915	1
	Kr	83		ug/L			224	206	2
[>	In	115		ug/L			330111	296271	0
[	Ag	107	0.053	ug/L	0.003	5	44	511	5
[	Cd	111	0.321	ug/L	0.028	8	192	945	6
[	Cd	114	0.328	ug/L	0.014	4	14	1845	4
[	Sb	121	1.237	ug/L	0.010	0	67	10363	0
[	Sb	123	1.240	ug/L	0.010	0	50	7842	1
[	Ba	135	10.731	ug/L	0.115	1	27	19004	1
[	Ba	137	10.905	ug/L	0.057	0	30	32675	1
[>	Tb	159		ug/L			348058	334457	0
[	Tl	205	U 0.030	ug/L	0.001	2	508	1296	1
[	Pb	208	2.273	ug/L	0.027	1	1742	86545	1
[	Bi	209		ug/L			346469	331983	0
[	Th	232	0.501	ug/L	0.045	8	4009	26571	7
[	U	238	0.884	ug/L	0.048	5	8375	52943	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 17:11:00
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	362667 ✓	1
[	Be	9	24.094	ug/L	0.652	2	7	9634	1
	C	13		mg/L			5001	4988	2
	Cl	37		mg/L			2245818	2059286	3
[>	Sc	45		ug/L			216931	189789 ✓	0
[	V	51	26.289	ug/L	0.225	0	1182	220114	0
[	V-1	51	26.216	ug/L	0.203	0	2218	224805	0
[	Cr	52	26.412	ug/L	0.211	0	4090	197958	0
[	Cr	53	26.180	ug/L	0.487	1	793	23869	1
[	Mn	55	26.494	ug/L	0.285	1	463	333443	1
[	Co	59	26.673	ug/L	0.154	0	75	249400	0
[>	Ge	72		ug/L			267270	239558 ✓	0
[	Ni	60	26.457	ug/L	0.239	0	30	53216	0
[	Ni	62	26.734	ug/L	0.863	3	54	8056	2
[	Cu	63	27.434	ug/L	0.289	1	267	123836	1
[	Cu	65	27.309	ug/L	0.158	0	72	58414	0
[	Zn	66	83.966	ug/L	1.027	1	142	117435	0
[	Zn	67	75.771	ug/L	1.338	1	87	18076	1
[	Zn	68	82.763	ug/L	0.441	0	5921	85818	0
[	As	75	27.766	ug/L	0.125	0	423	36275	0
[	As-1	75	26.694	ug/L	0.322	1	6113	39448	1
[	Se	82	83.833	ug/L	1.039	1	-25	11456	1
[	Se	78	83.258	ug/L	0.924	1	6174	32813	0
[	Mo	98	25.477	ug/L	0.039	0	38	132662	0
	Y	89		ug/L			252027	232858	0
	Kr	83		ug/L			224	219	4
[>	In	115		ug/L			330111	295852 ✓	0
[	Ag	107	26.317	ug/L	0.201	0	44	234126	0
[	Cd	111	25.435	ug/L	0.254	0	192	61320	0
[	Cd	114	25.590	ug/L	0.089	0	14	142957	1
[	Sb	121	25.751	ug/L	0.233	0	67	214143	0
[	Sb	123	25.591	ug/L	0.132	0	50	160701	1
[	Ba	135	27.262	ug/L	0.539	1	27	48167	1
[	Ba	137	27.713	ug/L	0.846	3	30	82860	2
[>	Tb	159		ug/L			348058	336258 ✓	0
[	Tl	205	26.331	ug/L	0.339	1	508	723033	1
[	Pb	208	26.336	ug/L	0.066	0	1742	990352	0
[	Bi	209		ug/L			346469	332534	1
[	Th	232	26.261	ug/L	0.099	0	4009	1200400	0
[	U	238	26.477	ug/L	0.350	1	8375	1360027	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 17:17:17
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	338495	1
[	Be	9	48.201	ug/L	1.091	2	7	17985	1
	C	13		mg/L			5001	3466	1
	Cl	37		mg/L			2245818	1991425	0
[>	Sc	45		ug/L			216931	184085	0
[	V	51	49.547	ug/L	0.051	0	1182	401494	0
[	V-1	51	49.591	ug/L	0.298	0	2218	410775	0
[	Cr	52	50.071	ug/L	0.146	0	4090	360905	1
[	Cr	53	50.174	ug/L	0.648	1	793	43750	0
[	Mn	55	49.109	ug/L	0.408	0	463	599164	1
[	Co	59	50.606	ug/L	0.993	1	75	458901	2
[>	Ge	72		ug/L			267270	231598	1
[	Ni	60	49.080	ug/L	0.768	1	30	95407	0
[	Ni	62	49.192	ug/L	0.660	1	54	14291	0
[	Cu	63	49.365	ug/L	0.166	0	267	215242	0
[	Cu	65	49.301	ug/L	0.439	0	72	101894	0
[	Zn	66	49.601	ug/L	0.688	1	142	67113	0
[	Zn	67	48.673	ug/L	1.743	3	87	11249	2
[	Zn	68	50.495	ug/L	0.392	0	5921	52620	1
[	As	75	51.283	ug/L	0.198	0	423	64461	0
[	As-1	75	51.438	ug/L	0.229	0	6113	68577	0
[	Se	82	51.219	ug/L	0.500	0	-25	6758	0
[	Se	78	52.004	ug/L	0.681	1	6174	21821	0
[	Mo	98	50.834	ug/L	0.630	1	38	255879	1
	Y	89		ug/L			252027	219385	0
	Kr	83		ug/L			224	219	2
[>	In	115		ug/L			330111	278996	0
[	Ag	107	50.455	ug/L	0.385	0	44	423255	0
[	Cd	111	49.589	ug/L	0.291	0	192	112594	0
[	Cd	114	50.215	ug/L	0.663	1	14	264516	0
[	Sb	121	51.900	ug/L	0.760	1	67	406950	1
[	Sb	123	52.035	ug/L	0.526	1	50	308098	0
[	Ba	135	52.501	ug/L	0.799	1	27	87462	1
[	Ba	137	52.911	ug/L	0.973	1	30	149193	1
[>	Tb	159		ug/L			348058	319149	1
[	Tl	205	48.965	ug/L	0.455	0	508	1275670	0
[	Pb	208	49.692	ug/L	0.508	1	1742	1771951	0
[	Bi	209		ug/L			346469	310784	1
[	Th	232	50.022	ug/L	0.854	1	4009	2166590	1
[	U	238	50.050	ug/L	0.438	0	8375	2433039	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 17:23:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	332024	1
	Be	9	0.002	ug/L	0.009	404	7	7	39
	C	13		mg/L			5001	4366	0
	Cl	37		mg/L			2245818	2128621	0
>	Sc	45		ug/L			216931	183423	0
	V	51	0.008	ug/L	0.006	82	1182	1062	4
	V-1	51	0.001	ug/L	0.004	279	2218	1887	1
	Cr	52	0.016	ug/L	0.012	75	4090	3570	2
	Cr	53	-0.004	ug/L	0.017	384	793	667	2
	Mn	55	0.067	ug/L	0.002	3	463	1210	1
	Co	59	0.003	ug/L	0.002	59	75	89	16
>	Ge	72		ug/L			267270	232673	0
	Ni	60	0.004	ug/L	0.003	71	30	35	17
	Ni	62	0.011	ug/L	0.023	201	54	50	13
	Cu	63	-0.012	ug/L	0.004	34	267	180	10
	Cu	65	0.014	ug/L	0.010	69	72	91	21
	Zn	66	0.023	ug/L	0.013	58	142	155	12
	Zn	67	-0.007	ug/L	0.006	83	87	74	1
	Zn	68	0.289	ug/L	0.054	18	5921	5427	0
	As	75	0.071	ug/L	0.001	1	423	457	0
	As-1	75	0.552	ug/L	0.047	8	6113	6004	0
	Se	82	0.025	ug/L	0.033	130	-25	-18	23
	Se	78	2.156	ug/L	0.126	5	6174	6060	0
	Mo	98	0.008	ug/L	0.004	48	38	75	26
	Y	89		ug/L			252027	219484	0
	Kr	83		ug/L			224	229	4
>	In	115		ug/L			330111	281983	2
	Ag	107	0.010	ug/L	0.005	47	44	119	29
	Cd	111	-0.003	ug/L	0.009	277	192	157	10
	Cd	114	0.001	ug/L	0.001	50	14	18	16
	Sb	121	0.051	ug/L	0.013	25	67	460	19
	Sb	123	0.054	ug/L	0.016	29	50	364	23
	Ba	135	0.013	ug/L	0.006	46	27	44	20
	Ba	137	0.016	ug/L	0.005	32	30	70	18
>	Tb	159		ug/L			348058	311410	0
	Tl	205	0.017	ug/L	0.004	26	508	875	11
	Pb	208	0.031	ug/L	0.002	6	1742	2639	2
	Bi	209		ug/L			346469	306276	0
	Th	232	0.206	ug/L	0.004	2	4009	12297	1
	U	238	0.339	ug/L	0.025	7	8375	23507	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 17:29:44
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR As Cd Sb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	331000	0
	Be	9	-0.005	ug/L	0.008	164	7	5	53
	C	13		mg/L			5001	4670	2
	Cl	37		mg/L			2245818	2154588	0
>	Sc	45		ug/L			216931	184887	0
	V	51	0.027	ug/L	0.021	77	1182	1224	14
	V-1	51	-0.007	ug/L	0.001	8	2218	1830	0
	Cr	52	0.040	ug/L	0.013	31	4090	3773	2
	Cr	53	-0.065	ug/L	0.063	97	793	620	8
	Mn	55	0.083	ug/L	0.007	8	463	1412	5
	Co	59	0.002	ug/L	0.001	32	75	80	6
>	Ge	72		ug/L			267270	232452	0
	Ni	60	0.003	ug/L	0.001	30	30	33	5
	Ni	62	0.022	ug/L	0.045	210	54	53	24
	Cu	63	0.105	ug/L	0.007	6	267	693	4
	Cu	65	0.123	ug/L	0.010	8	72	318	6
	Zn	66	0.757	ug/L	0.030	4	142	1150	3
	Zn	67	0.631	ug/L	0.094	14	87	221	10
	Zn	68	1.050	ug/L	0.002	0	5921	6141	0
	As	75	0.065	ug/L	0.024	37	423	450	6
	As-1	75	0.617	ug/L	0.095	15	6113	6078	1
	Se	82	0.041	ug/L	0.080	193	-25	-16	64
	Se	78	2.366	ug/L	0.347	14	6174	6121	1
	Mo	98	0.005	ug/L	0.003	62	38	61	28
	Y	89		ug/L			252027	220171	1
	Kr	83		ug/L			224	219	3
>	In	115		ug/L			330111	282147	0
	Ag	107	0.004	ug/L	0.001	11	44	76	5
	Cd	111	-0.001	ug/L	0.005	383	192	161	6
	Cd	114	0.001	ug/L	0.001	108	14	19	38
	Sb	121	0.019	ug/L	0.003	14	67	210	10
	Sb	123	0.019	ug/L	0.005	25	50	155	18
	Ba	135	0.008	ug/L	0.005	63	27	37	23
	Ba	137	0.015	ug/L	0.005	30	30	70	18
>	Tb	159		ug/L			348058	313440	0
	Tl	205	0.012	ug/L	0.003	23	508	766	9
	Pb	208	0.027	ug/L	0.002	7	1742	2496	1
	Bi	209		ug/L			346469	305971	1
	Th	232	0.166	ug/L	0.009	5	4009	10663	3
	U	238	0.292	ug/L	0.011	3	8375	21419	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 17:36:04
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR As Cd Sb (5x)

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	359584 ✓	4
[	Be	9	0.049	ug/L	0.007	14	7	27	14
	C	13		mg/L			5001	5802	0
	Cl	37		mg/L			2245818	2215873	0
[>	Sc	45		ug/L			216931	255490 ✓	4
	V	51	9.291	ug/L	0.106	1	1182	105594	3
	V-1	51	9.195	ug/L	0.143	1	2218	107800	2
	Cr	52	4.731	ug/L	0.068	1	4090	51668	2
	Cr	53	4.713	ug/L	0.209	4	793	6543	0
	Mn	55	42.661	ug/L	0.629	1	463	722141	2
[	Co	59	0.518	ug/L	0.009	1	75	6607	3
[>	Ge	72		ug/L			267270	249308 ✓	2
	Ni	60	2.053	ug/L	0.092	4	30	4326	7
	Ni	62	3.984	ug/L	0.063	1	54	1292	2
	Cu	63	3.289	ug/L	0.060	1	267	15675	4
	Cu	65	2.989	ug/L	0.034	1	72	6714	3
	Zn	66	4.536	ug/L	0.037	0	142	6728	3
	Zn	67	5.065	ug/L	0.127	2	87	1333	5
	Zn	68	4.426	ug/L	0.283	6	5921	9999	1
	As	75	284.000	ug/L	2.339	0	423	382458	2
	As-1	75	288.616	ug/L	2.472	0	6113	387884	2
	Se	82	0.442	ug/L	0.122	27	-25	39	47
	Se	78	0.962	ug/L	0.618	64	6174	6083	0
[	Mo	98	1.334	ug/L	0.019	1	38	7263	3
	Y	89		ug/L			252027	270212	2
	Kr	83		ug/L			224	227	3
[>	In	115		ug/L			330111	300379 ✓	2
	Ag	107	0.010	ug/L	0.000	3	44	131	1
	Cd	111	0.406	ug/L	0.016	3	192	1166	5
	Cd	114	0.441	ug/L	0.010	2	14	2514	1
	Sb	121	0.144	ug/L	0.003	2	67	1274	1
	Sb	123	0.149	ug/L	0.009	5	50	993	6
	Ba	135	9.766	ug/L	0.079	0	27	17534	1
[	Ba	137	9.823	ug/L	0.128	1	30	29838	1
[>	Tb	159		ug/L			348058	337430 ✓	3
	Tl	205	u 0.009	ug/L	0.002	27	508	735	5
	Pb	208	0.584	ug/L	0.001	0	1742	23704	3
	Bi	209		ug/L			346469	320413	4
	Th	232	0.358	ug/L	0.025	6	4009	20212	2
[	U	238	0.482	ug/L	0.031	6	8375	32800	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 17:42:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR As Cd Sb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	355878 ✓	0
[	Be	9	0.007	ug/L	0.005	71	7	10	18
	C	13		mg/L			5001	6039	2
	Cl	37		mg/L			2245818	2168993	0
[>	Sc	45		ug/L			216931	222977 ✓	1
	V	51	1.064	ug/L	0.004	0	1182	11633	1
	V-1	51	1.001	ug/L	0.018	1	2218	12274	2
	Cr	52	0.302	ug/L	0.023	7	4090	6817	2
	Cr	53	0.154	ug/L	0.046	29	793	975	6
	Mn	55	512.915	ug/L	9.397	1	463	7576374	3
[	Co	59	0.639	ug/L	0.009	1	75	7092	0
[>	Ge	72		ug/L			267270	248227 ✓	0
	Ni	60	1.604	ug/L	0.044	2	30	3369	1
	Ni	62	0.901	ug/L	0.122	13	54	330	10
	Cu	63	0.529	ug/L	0.016	3	267	2719	2
	Cu	65	0.451	ug/L	0.011	2	72	1065	2
	Zn	66	3.220	ug/L	0.036	1	142	4793	1
	Zn	67	3.476	ug/L	0.065	1	87	936	2
	Zn	68	3.786	ug/L	0.083	2	5921	9315	0
	As	75	4.652	ug/L	0.051	1	423	6624	1
	As-1	75	4.864	ug/L	0.066	1	6113	12090	0
	Se	82	0.305	ug/L	0.053	17	-25	19	38
	Se	78	0.920	ug/L	0.096	10	6174	6046	0
[	Mo	98	0.850	ug/L	0.037	4	38	4618	3
	Y	89		ug/L			252027	243935	1
	Kr	83		ug/L			224	216	3
[>	In	115		ug/L			330111	301206 ✓	0
	Ag	107	0.003	ug/L	0.000	14	44	67	5
	Cd	111	0.053	ug/L	0.009	17	192	305	7
	Cd	114	0.049	ug/L	0.003	6	14	291	6
	Sb	121	0.123	ug/L	0.004	3	67	1101	3
	Sb	123	0.120	ug/L	0.002	2	50	814	1
	Ba	135	36.437	ug/L	0.095	0	27	65541	0
[	Ba	137	36.662	ug/L	0.419	1	30	111614	0
[>	Tb	159		ug/L			348058	330952 ✓	1
	Tl	205	✓ 0.007	ug/L	0.001	16	508	675	3
	Pb	208	0.303	ug/L	0.003	1	1742	12850	0
	Bi	209		ug/L			346469	320109	0
	Th	232	0.141	ug/L	0.009	6	4009	10134	2
[	U	238	0.693	ug/L	0.021	2	8375	42801	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 17:48:43
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR As Cd Sb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	364895 ✓	4
[	Be	9	0.027	ug/L	0.012	42	7	18	23
	C	13		mg/L			5001	6199	2
	Cl	37		mg/L			2245818	2508279	1
[>	Sc	45		ug/L			216931	258773 ✓	4
[	V	51	3.620	ug/L	0.013	0	1182	42542	4
[	V-1	51	3.647	ug/L	0.030	0	2218	44912	3
[	Cr	52	2.054	ug/L	0.005	0	4090	25489	4
[	Cr	53	2.232	ug/L	0.061	2	793	3638	2
[	Mn	55	39.707	ug/L	0.451	1	463	680908	3
[	Co	59	0.347	ug/L	0.005	1	75	4508	5
[>	Ge	72		ug/L			267270	251555 ✓	3
[	Ni	60	1.453	ug/L	0.060	4	30	3096	6
[	Ni	62	1.849	ug/L	0.123	6	54	633	7
[	Cu	63	1.623	ug/L	0.034	2	267	7933	5
[	Cu	65	1.282	ug/L	0.021	1	72	2942	2
[	Zn	66	3.350	ug/L	0.120	3	142	5052	6
[	Zn	67	3.328	ug/L	0.061	1	87	911	3
[	Zn	68	3.030	ug/L	0.151	4	5921	8667	3
[	As	75	0.843	ug/L	0.022	2	423	1542	2
[	As-1	75	0.777	ug/L	0.090	11	6113	6788	1
[	Se	82	0.676	ug/L	0.105	15	-25	72	16
[	Se	78	0.450	ug/L	0.393	87	6174	5962	1
[	Mo	98	0.059	ug/L	0.005	9	38	358	8
	Y	89		ug/L			252027	258596	4
	Kr	83		ug/L			224	216	3
[>	In	115		ug/L			330111	306872 ✓	3
[	Ag	107	0.004	ug/L	0.000	5	44	80	1
[	Cd	111	0.317	ug/L	0.020	6	192	967	3
[	Cd	114	0.347	ug/L	0.008	2	14	2021	2
[	Sb	121	0.081	ug/L	0.002	2	67	765	5
[	Sb	123	0.087	ug/L	0.005	5	50	614	4
[	Ba	135	7.088	ug/L	0.049	0	27	13008	3
[	Ba	137	7.099	ug/L	0.109	1	30	22038	3
[>	Tb	159		ug/L			348058	335262 ✓	1
[	Tl	205	U -0.007	ug/L	0.010	139	508	291	92
[	Pb	208	0.184	ug/L	0.022	12	1742	8565	8
[	Bi	209		ug/L			346469	320359	1
[	Th	232	0.058	ug/L	0.103	178	4009	6456	70
[	U	238	0.033	ug/L	0.216	651	8375	9671	111

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 I REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 17:55:02
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR As Cd Sb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	363491	4
[	Be	9	-0.004	ug/L	0.003	70	7	6	20
	C	13		mg/L			5001	5627	2
	Cl	37		mg/L			2245818	1919803	0
[>	Sc	45		ug/L			216931	226598	3
	V	51	0.919	ug/L	0.034	3	1182	10377	1
	V-1	51	0.846	ug/L	0.034	3	2218	10901	1
	Cr	52	0.113	ug/L	0.013	11	4090	5261	1
	Cr	53	-0.063	ug/L	0.015	24	793	762	1
	Mn	55	2.721	ug/L	0.063	2	463	41341	5
[	Co	59	0.119	ug/L	0.005	4	75	1403	2
[>	Ge	72		ug/L			267270	233280	3
	Ni	60	2.463	ug/L	0.065	2	30	4851	5
	Ni	62	1.566	ug/L	0.047	2	54	504	5
	Cu	63	1.617	ug/L	0.052	3	267	7332	5
	Cu	65	1.912	ug/L	0.041	2	72	4043	5
	Zn	66	2.085	ug/L	0.016	0	142	2960	2
	Zn	67	2.391	ug/L	0.089	3	87	629	5
	Zn	68	2.198	ug/L	0.307	13	5921	7244	0
	As	75	2.818	ug/L	0.035	1	423	3915	2
	As-1	75	2.993	ug/L	0.199	6	6113	9038	0
	Se	82	0.289	ug/L	0.073	25	-25	16	56
	Se	78	0.848	ug/L	0.713	84	6174	5654	1
[	Mo	98	1.240	ug/L	0.016	1	38	6320	3
	Y	89		ug/L			252027	234607	2
	Kr	83		ug/L			224	200	3
[>	In	115		ug/L			330111	297856	4
	Ag	107	0.000	ug/L	0.001	190	44	43	11
	Cd	111	0.077	ug/L	0.002	2	192	359	3
	Cd	114	0.078	ug/L	0.003	4	14	453	8
	Sb	121	1.909	ug/L	0.040	2	67	16032	2
	Sb	123	1.914	ug/L	0.018	0	50	12139	3
	Ba	135	31.511	ug/L	0.376	1	27	56034	3
[	Ba	137	31.663	ug/L	0.204	0	30	95310	3
[>	Tb	159		ug/L			348058	329040	3
	Tl	205	0.012	ug/L	0.001	10	508	801	4
	Pb	208	0.251	ug/L	0.001	0	1742	10883	2
	Bi	209		ug/L			346469	320126	3
	Th	232	0.172	ug/L	0.001	0	4009	11448	3
[	U	238	0.591	ug/L	0.015	2	8375	37448	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 J REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 18:01:21
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR As Cd Sb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	379169	2
[	Be	9	0.003	ug/L	0.004	115	7	9	15
	C	13		mg/L			5001	5594	1
	Cl	37		mg/L			2245818	1918794	0
[>	Sc	45		ug/L			216931	232319	3
[	V	51	2.327	ug/L	0.064	2	1182	24996	2
[	V-1	51	2.248	ug/L	0.071	3	2218	25754	2
[	Cr	52	1.261	ug/L	0.019	1	4090	15737	2
[	Cr	53	1.082	ug/L	0.040	3	793	2020	1
[	Mn	55	69.639	ug/L	0.539	0	463	1071887	2
[	Co	59	0.435	ug/L	0.009	1	75	5056	2
[>	Ge	72		ug/L			267270	244976	2
[	Ni	60	2.262	ug/L	0.053	2	30	4676	1
[	Ni	62	1.997	ug/L	0.036	1	54	661	2
[	Cu	63	1.721	ug/L	0.020	1	267	8171	1
[	Cu	65	1.991	ug/L	0.018	0	72	4416	1
[	Zn	66	3.677	ug/L	0.035	0	142	5382	1
[	Zn	67	3.611	ug/L	0.072	2	87	956	2
[	Zn	68	3.230	ug/L	0.252	7	5921	8637	1
[	As	75	15.818	ug/L	0.101	0	423	21298	2
[	As-1	75	15.984	ug/L	0.153	0	6113	26401	1
[	Se	82	0.206	ug/L	0.091	44	-25	5	230
[	Se	78	-0.103	ug/L	0.500	485	6174	5621	0
[	Mo	98	1.699	ug/L	0.050	2	38	9085	4
	Y	89		ug/L			252027	248137	1
	Kr	83		ug/L			224	206	2
[>	In	115		ug/L			330111	309245	1
[	Ag	107	0.002	ug/L	0.001	39	44	61	12
[	Cd	111	0.018	ug/L	0.004	24	192	226	6
[	Cd	114	0.025	ug/L	0.002	6	14	161	7
[	Sb	121	0.139	ug/L	0.004	2	67	1268	4
[	Sb	123	0.142	ug/L	0.004	2	50	976	3
[	Ba	135	12.525	ug/L	0.174	1	27	23149	2
[	Ba	137	12.745	ug/L	0.118	0	30	39857	2
[>	Tb	159		ug/L			348058	342394	2
[	Tl	205	0.009	ug/L	0.001	13	508	751	3
[	Pb	208	0.478	ug/L	0.012	2	1742	19995	2
[	Bi	209		ug/L			346469	335719	2
[	Th	232	0.197	ug/L	0.009	4	4009	13094	2
[	U	238	0.386	ug/L	0.022	5	8375	28283	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 K REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 18:07:40
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

BR As Cd Sb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	328917 ✓	1
[	Be	9	0.038	ug/L	0.021	54	7	20	36
	C	13		mg/L			5001	7028	1
	Cl	37		mg/L			2245818	2293118	2
[>	Sc	45		ug/L			216931	258434 ✓	4
[	V	51	7.783	ug/L	0.022	0	1182	89736	4
[	V-1	51	7.665	ug/L	0.018	0	2218	91374	4
[	Cr	52	3.282	ug/L	0.043	1	4090	37772	5
[	Cr	53	3.193	ug/L	0.067	2	793	4792	3
[	Mn	55	4820.253	ug/L	8.525	0	463	82502651	4
[	Co	59	1.667	ug/L	0.020	1	75	21311	5
[>	Ge	72		ug/L			267270	239275 ✓	2
[	Ni	60	8.404	ug/L	0.273	3	30	16907	5
[	Ni	62	8.068	ug/L	0.295	3	54	2464	6
[	Cu	63	3.893	ug/L	0.126	3	267	17767	5
[	Cu	65	2.553	ug/L	0.097	3	72	5513	5
[	Zn	66	5.897	ug/L	0.132	2	142	8359	4
[	Zn	67	6.251	ug/L	0.216	3	87	1561	5
[	Zn	68	6.165	ug/L	0.205	3	5921	11293	3
[	As	75	9.510	ug/L	0.067	0	423	12659	3
[	As-1	75	9.745	ug/L	0.018	0	6113	17859	2
[	Se	82	1.332	ug/L	0.098	7	-25	159	10
[	Se	78	2.054	ug/L	0.164	7	6174	6198	2
[	Mo	98	2.735	ug/L	0.026	0	38	14258	3
	Y	89		ug/L			252027	261595	2
	Kr	83		ug/L			224	241	1
[>	In	115		ug/L			330111	283226 ✓	2
[	Ag	107	0.018	ug/L	0.002	12	44	190	12
[	Cd	111	0.245	ug/L	0.008	3	192	730	5
[	Cd	114	0.258	ug/L	0.005	2	14	1391	4
[	Sb	121	0.277	ug/L	0.006	2	67	2263	3
[	Sb	123	0.283	ug/L	0.007	2	50	1744	1
[	Ba	135	13.548	ug/L	0.119	0	27	22927	2
[	Ba	137	13.492	ug/L	0.083	0	30	38636	2
[>	Tb	159		ug/L			348058	305277 ✓	1
[	Tl	205	u 0.013	ug/L	0.002	12	508	770	5
[	Pb	208	1.306	ug/L	0.015	1	1742	46053	2
[	Bi	209		ug/L			346469	291439	1
[	Th	232	0.354	ug/L	0.005	1	4009	18154	1
[	U	238	1.765	ug/L	0.015	0	8375	89147	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 L REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 18:13:57
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR As Cd Sb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	321464	8
	Be	9	0.237	ug/L	0.042	17	7	90	8
	C	13		mg/L			5001	15265	2
	Cl	37		mg/L			2245818	3062181	0
>	Sc	45		ug/L			216931	317259	2
	V	51	78.102	ug/L	0.537	0	1182	1089615	2
	V-1	51	77.325	ug/L	0.594	0	2218	1101938	2
	Cr	52	28.748	ug/L	0.309	1	4090	359614	2
	Cr	53	29.350	ug/L	0.761	2	793	44577	2
	Mn	55	220.329	ug/L	1.338	0	463	4629926	2
	Co	59	0.775	ug/L	0.011	1	75	12214	2
>	Ge	72		ug/L			267270	281689	1
	Ni	60	20.050	ug/L	0.587	2	30	47434	3
	Ni	62	30.864	ug/L	0.516	1	54	10927	1
	Cu	63	9.253	ug/L	0.047	0	267	49305	2
	Cu	65	5.484	ug/L	0.025	0	72	13854	1
	Zn	66	8.038	ug/L	0.129	1	142	13357	2
	Zn	67	17.117	ug/L	0.357	2	87	4873	3
	Zn	68	6.671	ug/L	0.281	4	5921	13868	1
	As	75	34.318	ug/L	0.116	0	423	52616	1
	As-1	75	34.234	ug/L	0.120	0	6113	57667	1
	Se	82	2.715	ug/L	0.178	6	-25	410	8
	Se	78	0.629	ug/L	0.241	38	6174	6748	0
	Mo	98	6.919	ug/L	0.183	2	38	42405	3
	Y	89		ug/L			252027	448226	5
	Kr	83		ug/L			224	265	3
>	In	115		ug/L			330111	328560	1
	Ag	107	0.107	ug/L	0.008	7	44	1104	8
	Cd	111	0.032	ug/L	0.165	518	192	273	159
	Cd	114	0.161	ug/L	0.006	3	14	1015	5
	Sb	121	0.334	ug/L	0.008	2	67	3148	4
	Sb	123	0.335	ug/L	0.007	2	50	2382	3
	Ba	135	9.362	ug/L	0.198	2	27	18391	3
	Ba	137	9.290	ug/L	0.155	1	30	30876	2
>	Tb	159		ug/L			348058	324385	4
	Tl	205	0.006	ug/L	0.001	17	508	637	3
	Pb	208	1.151	ug/L	0.020	1	1742	43287	3
	Bi	209		ug/L			346469	301638	4
	Th	232	1.268	ug/L	0.026	2	4009	59421	3
	U	238	4.562	ug/L	0.008	0	8375	232528	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 M REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 18:20:14
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR As Cd Sb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	324031	2
[	Be	9	0.012	ug/L	0.008	71	7	11	29
	C	13		mg/L			5001	6440	1
	Cl	37		mg/L			2245818	3611036	1
[>	Sc	45		ug/L			216931	276609	2
[	V	51	1.589	ug/L	0.054	3	1182	20801	0
[	V-1	51	1.886	ug/L	0.041	2	2218	26187	2
[	Cr	52	0.764	ug/L	0.012	1	4090	13404	2
[	Cr	53	1.723	ug/L	0.118	6	793	3237	7
[	Mn	55	324.316	ug/L	4.705	1	463	5941043	2
[	Co	59	0.719	ug/L	0.008	1	75	9896	2
[>	Ge	72		ug/L			267270	292631	2
[	Ni	60	1.020	ug/L	0.030	2	30	2540	4
[	Ni	62	1.441	ug/L	0.124	8	54	587	9
[	Cu	63	1.722	ug/L	0.010	0	267	9767	2
[	Cu	65	0.702	ug/L	0.019	2	72	1911	3
[	Zn	66	2.321	ug/L	0.068	2	142	4116	2
[	Zn	67	2.599	ug/L	0.109	4	87	849	5
[	Zn	68	2.287	ug/L	0.230	10	5921	9197	0
[	As	75	8.175	ug/L	0.047	0	423	13373	1
[	As-1	75	7.823	ug/L	0.151	1	6113	18850	0
[	Se	82	1.457	ug/L	0.113	7	-25	216	9
[	Se	78	-0.404	ug/L	0.441	109	6174	6595	0
[	Mo	98	1.038	ug/L	0.005	0	38	6640	2
	Y	89		ug/L			252027	272530	3
	Kr	83		ug/L			224	232	8
[>	In	115		ug/L			330111	347678	2
[	Ag	107	0.004	ug/L	0.000	9	44	92	4
[	Cd	111	-0.102	ug/L	0.021	20	192	-84	66
[	Cd	114	0.027	ug/L	0.002	8	14	192	9
[	Sb	121	0.221	ug/L	0.001	0	67	2232	2
[	Sb	123	0.221	ug/L	0.005	2	50	1683	2
[	Ba	135	18.948	ug/L	0.127	0	27	39351	1
[	Ba	137	18.840	ug/L	0.267	1	30	66208	0
[>	Tb	159		ug/L			348058	331543	2
[	Tl	205	0.004	ug/L	0.001	16	508	594	5
[	Pb	208	0.156	ug/L	0.001	0	1742	7427	2
[	Bi	209		ug/L			346469	332206	2
[	Th	232	0.066	ug/L	0.005	7	4009	6771	6
[	U	238	0.147	ug/L	0.012	7	8375	15363	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 18, 2013 18:26:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

RR As Cd Sb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			348361	372027 ✓	3
[	Be	9	26.133	ug/L	0.480	1	7	10718	2
	C	13		mg/L			5001	5586	0
	Cl	37		mg/L			2245818	2522214	0
[>	Sc	45		ug/L			216931	261458 ✓	1
	V	51	26.239	ug/L	0.159	0	1182	302649	0
	V-1	51	26.162	ug/L	0.213	0	2218	309057	1
	Cr	52	26.179	ug/L	0.170	0	4090	270348	1
	Cr	53	25.947	ug/L	0.183	0	793	32598	1
	Mn	55	27.547	ug/L	0.383	1	463	477544	0
[	Co	59	27.148	ug/L	0.233	0	75	349717	1
[>	Ge	72		ug/L			267270	322803	0
	Ni	60	27.607	ug/L	0.502	1	30	74819	1
	Ni	62	27.967	ug/L	0.603	2	54	11354	2
	Cu	63	28.518	ug/L	0.180	0	267	173449	0
	Cu	65	28.531	ug/L	0.509	1	72	82229	1
	Zn	66	86.710	ug/L	1.368	1	142	163420	2
	Zn	67	79.613	ug/L	0.768	0	87	25586	1
	Zn	68	84.549	ug/L	0.233	0	5921	117982	0
	As	75	26.751	ug/L	0.162	0	423	47113	1
	As-1	75	25.193	ug/L	0.278	1	6113	50582	1
	Se	82	82.140	ug/L	0.347	0	-25	15125	1
	Se	78	79.274	ug/L	0.722	0	6174	42456	0
[	Mo	98	25.087	ug/L	0.738	2	38	176037	3
	Y	89		ug/L			252027	299576	0
	Kr	83		ug/L			224	230	3
[>	In	115		ug/L			330111	401897	1
	Ag	107	26.365	ug/L	0.173	0	44	318621	1
	Cd	111	24.558	ug/L	0.664	2	192	80419	1
	Cd	114	24.832	ug/L	0.314	1	14	188438	1
	Sb	121	24.223	ug/L	0.740	3	67	273578	2
	Sb	123	23.955	ug/L	0.501	2	50	204309	0
	Ba	135	24.591	ug/L	0.278	1	27	59024	1
[	Ba	137	24.560	ug/L	0.511	2	30	99763	1
[>	Tb	159		ug/L			348058	376673 ✓	0
	Tl	205	27.900	ug/L	0.219	0	508	858227	1
	Pb	208	28.094	ug/L	0.081	0	1742	1183308	0
	Bi	209		ug/L			346469	395867	1
	Th	232	26.539	ug/L	0.137	0	4009	1358920	0
[	U	238	26.370	ug/L	0.476	1	8375	1517402	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 18:32:48
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			348361	374918	1
	Be	9	54.629	ug/L	0.445	0	7	22578	1
	C	13		mg/L			5001	3887	2
	Cl	37		mg/L			2245818	2557869	0
>	Sc	45		ug/L			216931	273805	0
	V	51	51.202	ug/L	0.387	0	1182	617071	0
	V-1	51	51.003	ug/L	0.427	0	2218	628306	0
	Cr	52	51.490	ug/L	0.061	0	4090	551865	0
	Cr	53	50.861	ug/L	0.224	0	793	65953	0
	Mn	55	51.540	ug/L	0.258	0	463	935247	1
	Co	59	52.018	ug/L	0.622	1	75	701582	0
>	Ge	72		ug/L			267270	333436	0
	Ni	60	52.891	ug/L	0.657	1	30	148043	1
	Ni	62	53.362	ug/L	0.678	1	54	22317	1
	Cu	63	52.844	ug/L	0.361	0	267	331712	0
	Cu	65	52.677	ug/L	0.271	0	72	156747	0
	Zn	66	53.285	ug/L	0.080	0	142	103796	0
	Zn	67	52.957	ug/L	0.917	1	87	17616	1
	Zn	68	51.908	ug/L	0.197	0	5921	77670	0
	As	75	50.933	ug/L	0.189	0	423	92179	0
	As-1	75	50.560	ug/L	0.279	0	6113	97180	0
	Se	82	50.774	ug/L	0.721	1	-25	9645	1
	Se	78	49.075	ug/L	0.658	1	6174	30083	1
	Mo	98	51.464	ug/L	1.086	2	38	372971	2
	Y	89		ug/L			252027	306884	1
	Kr	83		ug/L			224	237	3
>	In	115		ug/L			330111	412900	0
	Ag	107	51.568	ug/L	0.664	1	44	640246	1
	Cd	111	50.606	ug/L	0.757	1	192	170043	1
	Cd	114	50.510	ug/L	0.598	1	14	393794	1
	Sb	121	49.589	ug/L	0.160	0	67	575459	0
	Sb	123	49.302	ug/L	0.195	0	50	432036	0
	Ba	135	47.778	ug/L	0.830	1	27	117807	2
	Ba	137	47.765	ug/L	0.124	0	30	199332	0
>	Tb	159		ug/L			348058	381537	0
	Tl	205	54.460	ug/L	0.619	1	508	1696316	1
	Pb	208	54.627	ug/L	0.340	0	1742	2328808	1
	Bi	209		ug/L			346469	403615	1
	Th	232	53.079	ug/L	0.812	1	4009	2748305	0
	U	238	53.116	ug/L	0.569	1	8375	3086365	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 18, 2013 18:39:26
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\011813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			348361	372212	4
⌊	Be	9	-0.000	ug/L	0.006	2078	7	7	32
	C	13		mg/L			5001	4785	1
	Cl	37		mg/L			2245818	2618671	0
⌈>	Sc	45		ug/L			216931	269782	2
|	V	51	0.011	ug/L	0.012	110	1182	1603	11
|	V-1	51	-0.046	ug/L	0.008	16	2218	2197	3
|	Cr	52	-0.012	ug/L	0.013	105	4090	4954	2
|	Cr	53	-0.187	ug/L	0.064	34	793	749	8
|	Mn	55	0.080	ug/L	0.003	3	463	2014	4
⌊	Co	59	0.001	ug/L	0.001	79	75	114	15
⌈>	Ge	72		ug/L			267270	333064	2
|	Ni	60	0.001	ug/L	0.003	447	30	40	21
|	Ni	62	0.083	ug/L	0.007	8	54	102	5
|	Cu	63	0.013	ug/L	0.004	31	267	412	3
|	Cu	65	0.008	ug/L	0.003	34	72	114	8
|	Zn	66	0.029	ug/L	0.008	27	142	233	4
|	Zn	67	-0.014	ug/L	0.042	289	87	103	13
|	Zn	68	-0.774	ug/L	0.176	22	5921	6328	1
|	As	75	-0.029	ug/L	0.029	98	423	473	8
|	As-1	75	-0.481	ug/L	0.108	22	6113	6763	0
|	Se	82	0.098	ug/L	0.121	122	-25	-13	173
|	Se	78	-1.852	ug/L	0.411	22	6174	6846	0
⌊	Mo	98	0.008	ug/L	0.002	25	38	104	16
	Y	89		ug/L			252027	307431	1
	Kr	83		ug/L			224	241	5
⌈>	In	115		ug/L			330111	406422	1
|	Ag	107	0.011	ug/L	0.004	34	44	184	25
|	Cd	111	0.013	ug/L	0.006	43	192	279	8
|	Cd	114	0.000	ug/L	0.000	2434	14	17	16
|	Sb	121	0.050	ug/L	0.011	21	67	654	20
|	Sb	123	0.051	ug/L	0.017	33	50	501	30
|	Ba	135	0.003	ug/L	0.005	156	27	41	31
⌊	Ba	137	0.008	ug/L	0.006	68	30	71	34
⌈>	Tb	159		ug/L			348058	381770	1
|	Tl	205	0.008	ug/L	0.003	39	508	821	14
|	Pb	208	0.010	ug/L	0.003	27	1742	2349	6
|	Bi	209		ug/L			346469	397246	3
|	Th	232	0.070	ug/L	0.009	13	4009	8036	7
⌊	U	238	0.053	ug/L	0.008	14	8375	12262	2

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-21-13 **Analyst:** EL **Page:** 1 **of** 5

All corrections made by analyst unless otherwise noted. AJ 1-21-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			3005-3
		1			3006-15
		2			↓ -16
		3			3007-3
		4			↓ -1
		Rinse sample			
		ICV			2955-7
		ICB			
		CCV1			
		CCB1			
		Low check			Cr^{53} low
		ICSA			
		ICSAB			Ni^{62} ↑
		LR200			
		LR300			
		CCV2			
		CCB2			
✓ REN		VZ35 MB2	REN ~~LEN~~	2	Pb
		A-L		10	
		A		2	
		A Dup		✓	
		Aspk		✓	
		ZZZZZZ ~~APOST~~			0.06ml ICPMSspk#1 2999-12 0.06ml ICPMSspk#2 2956-7
		D			

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-21-13 **Analyst:** EL **Page:** 2 **of** 5

All corrections made by analyst unless otherwise noted. 1-21-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		V235 E	REN	2	Pb
		F			
		M325pk		✓	
		CCV3			~~Cr53~~
		CCB3			Cr53
		V235 G-L	REN	10	Pb
		G		2	
		GDup		✓	
		GSpk		✓	
		zzzzzz ~~GPOST~~			
		H			
		I			
		J			
		K			
		L			
		CCV4			
		CCB4			Cr53
		V275 MB1	REN	2	Pb
		ADup		✓	
		A			
		Aspk		✓	
		zzzzzz ~~APOST~~			
		B			+As
	✓	C			Tb high RR Pb

V275 : 00259

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-21-13 **Analyst:** EL **Page:** 3 **of** 5

All corrections made by analyst unless otherwise noted. 1-21-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	VZ75 D	REN	2	Tb high RR Pb
		E			
		MB1spk		✓	
		CCV 5			
		CCB 5			Li↑ Cr^{53}, As2, Se^{78}↓
		SO			
		CCV6			
		CCB6			
	✓	VZ75 MB2	REN	2	As, Cd, Sb RR-(ccv)
	✓	F		5	
	✓	G		2	
	✓	H			
	✓	I			
	✓	J			
	✓	K			
	✓	L			
	✓	M			
	✓	MB2spk		✓	I.S. high
		CCV7			All I.S. high
		CCB7			
	✓	VZ75 N	REN	2	RR -CCV
	✓	O			
	✓	P		20	
	✓	Q		2	

VZ75 : 00260

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-21-13 **Analyst:** QV **Page:** 4 of 5

All corrections made by analyst unless otherwise noted. QV 1-22-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	V275 R	REN	2	RR-CCV
	✓	S			
	✓	T			
	✓	V			
	✓	W			
	✓	X			
		CCV8			
		CCB8			Cr53 high
		V275 uDup	REN	2	✓
		u			
		uSpk			✓
		~~222222 uPost~~			
		Y			
		Z		20	As only RR Cd,Sb,Tl,Pb x2
		AA		2	
		AB			
		AC			
		AD			
		CCV9			
		CCB9			
		V275 AE	REN	2	
		AF			RR As x5
		AG			
		AH			

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-21-13 **Analyst:** QL **Page:** 5 **of** 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		V275 AI	REN	2	RR AS x5
	✓	AJ		20	IS high RR
		AK		2	RR AS
		AL			↓
		AM			
		AN	↓	↓	RR AS
		CCV 10			Th high
		CCB 10			As 2 Se ↓
		Rinse/DI			
		QL 1-21-13			

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ~~ICP-MS~~ GFA CVA **Analysis Date:** 1-21-13

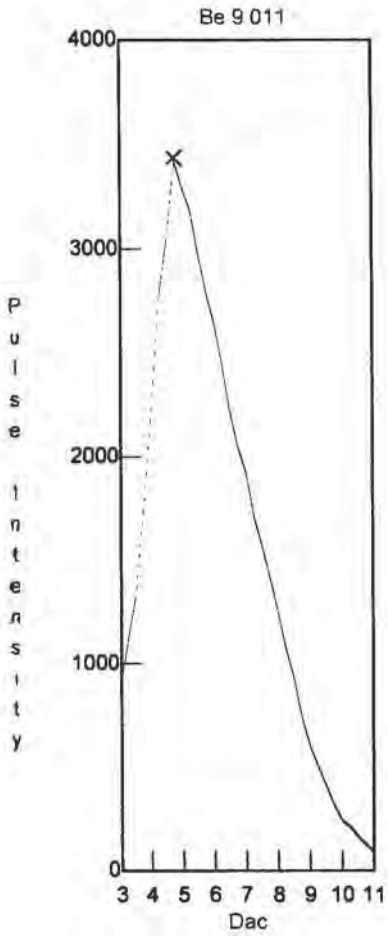
M1	Analyst 1-22-13	Peer 1-23-13	Comment
Logbook			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calib.			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
QC			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	
Samples			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	See log
Carry-over	✓	✓	
Method QC			
CRI/CRA	✓	✓	See log
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Deliverables			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Miscellaneous	—	—	

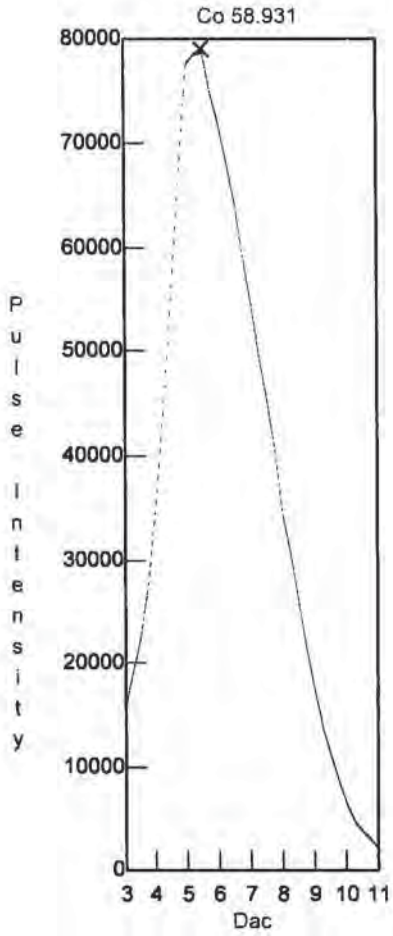
Instrument Tuning Report

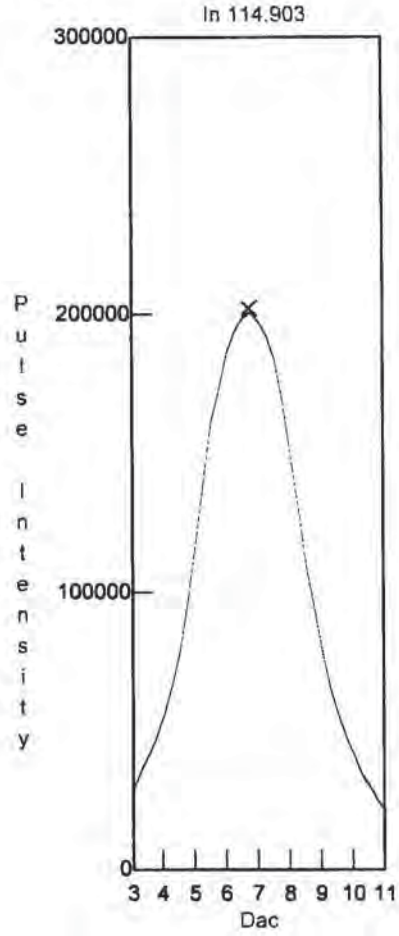
File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

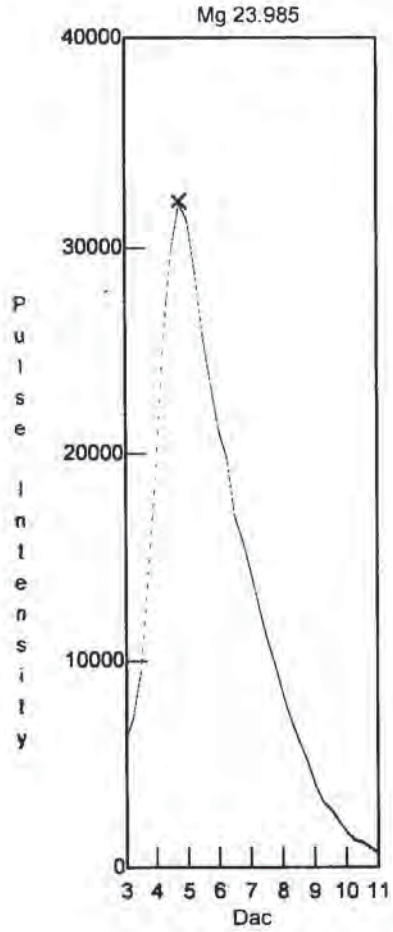
Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	9.026	2043	2160	0.683	
Mg	23.985	23.929	5656	2265	0.719	
Co	58.933	58.929	14150	2530	0.691	
In	114.904	114.928	27790	2977	0.674	
Pb	207.977	207.976	50445	3725	0.673	

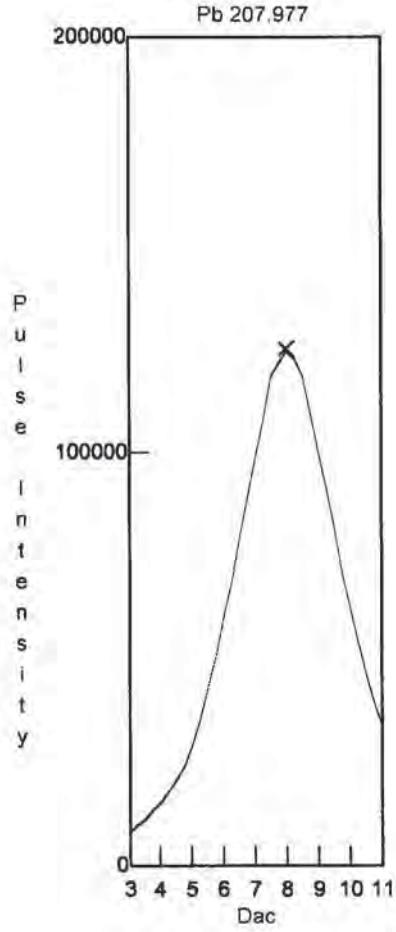
VZ75 : 00264

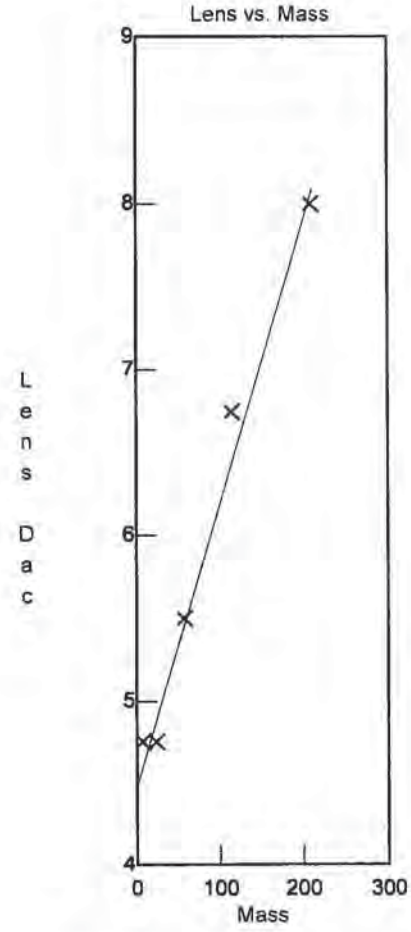

Be 9.011
Pulse Intensity
Dac


Co 58.931
Pulse Intensity
Dac


In 114.903
Pulse Intensity
Dac


Mg 23.985
Pulse Intensity
Dac


Pb 207.977
Pulse Intensity
Dac


Lens vs. Mass
Lens Dac
Mass

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, January 21, 2013 09:16:37
Sample Description:
Sample File: 1119.sam
Method File: C:\Elandata\Method\aridailyperf.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.1341
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\Default.dac
Number of Replicates: 5
Dual Detector Mode: Dual

neb = 990

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24	30892.244	489.009	1.583
	In	115	217231.317	2077.962	0.957
	Pb	208	165596.133	1678.532	1.014
⌈>	Ba	138	150678.460	842.391	0.559
⌊	Ba++	69	0.008	0.000	3.457
⌈>	Ce	140	178057.864	1805.765	1.014
⌊	CeO	156	0.030	0.001	1.872
	Bkgd	220	5.001	1.768	35.355

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 09:43:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L				239650	0
|	Be	9		ug/L				7	40
	C	13		mg/L				4584	1
	Cl	37		mg/L				1805713	0
⌈>	Sc	45		ug/L				182221	0
|	V	51		ug/L				1093	15
|	V-1	51		ug/L				2423	6
|	Cr	52		ug/L				3710	1
|	Cr	53		ug/L				844	0
|	Mn	55		ug/L				1107	8
|	Co	59		ug/L				43	9
⌈>	Ge	72		ug/L				182198	0
|	Ni	60		ug/L				44	42
|	Ni	62		ug/L				81	11
|	Cu	63		ug/L				470	2
|	Cu	65		ug/L				68	6
|	Zn	66		ug/L				662	9
|	Zn	67		ug/L				152	2
|	Zn	68		ug/L				5338	1
|	As	75		ug/L				267	8
|	As-1	75		ug/L				6008	0
|	Se	82		ug/L				-20	39
|	Se	78		ug/L				6082	0
|	Mo	98		ug/L				331	22
	Y	89		ug/L				201615	1
	Kr	83		ug/L				162	2
⌈>	In	115		ug/L				241678	0
|	Ag	107		ug/L				20	18
|	Cd	111		ug/L				115	5
|	Cd	114		ug/L				30	8
|	Sb	121		ug/L				17	39
|	Sb	123		ug/L				15	27
|	Ba	135		ug/L				20	21
|	Ba	137		ug/L				26	19
⌈>	Tb	159		ug/L				269963	1
|	Tl	205		ug/L				19	19
|	Pb	208		ug/L				207	15
|	Bi	209		ug/L				259036	0
|	Th	232		ug/L				44	20
|	U	238		ug/L				14	26

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 09:49:21
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			239650	238287	1
⌊	Be	9	10.000	ug/L	0.153	1	7	2972	2
	C	13		mg/L			4584	4105	0
	Cl	37		mg/L			1805713	1785769	0
⌈>	Sc	45		ug/L			182221	180566	0
|	V	51	10.000	ug/L	0.137	1	1093	75812	1
|	V-1	51	10.000	ug/L	0.091	0	2423	77923	1
|	Cr	52	10.000	ug/L	0.116	1	3710	69242	1
|	Cr	53	10.000	ug/L	0.119	1	844	8499	0
|	Mn	55	10.000	ug/L	0.053	0	1107	113830	0
⌊	Co	59	10.000	ug/L	0.102	1	43	79708	1
⌈>	Ge	72		ug/L			182198	178079	0
|	Ni	60	10.000	ug/L	0.081	0	44	16477	0
|	Ni	62	10.000	ug/L	0.277	2	81	2453	2
|	Cu	63	10.000	ug/L	0.136	1	470	35680	1
|	Cu	65	10.000	ug/L	0.152	1	68	16371	1
|	Zn	66	10.000	ug/L	0.196	1	662	10816	2
|	Zn	67	10.000	ug/L	0.424	4	152	1830	3
|	Zn	68	10.000	ug/L	0.281	2	5338	12203	1
|	As	75	10.000	ug/L	0.027	0	267	10227	0
|	As-1	75	10.000	ug/L	0.081	0	6008	15804	0
|	Se	82	10.000	ug/L	0.084	0	-20	1207	0
|	Se	78	10.000	ug/L	0.213	2	6082	9036	0
⌊	Mo	98	10.000	ug/L	0.081	0	331	44535	0
	Y	89		ug/L			201615	200704	0
	Kr	83		ug/L			162	163	3
⌈>	In	115		ug/L			241678	238773	0
|	Ag	107	10.000	ug/L	0.164	1	20	73444	2
|	Cd	111	10.000	ug/L	0.097	0	115	20035	0
|	Cd	114	10.000	ug/L	0.086	0	30	45463	0
|	Sb	121	10.000	ug/L	0.088	0	17	64950	1
|	Sb	123	10.000	ug/L	0.024	0	15	49249	0
|	Ba	135	10.000	ug/L	0.168	1	20	14466	1
⌊	Ba	137	10.000	ug/L	0.112	1	26	25077	1
⌈>	Tb	159		ug/L			269963	268924	2
|	Tl	205	10.000	ug/L	0.178	1	19	212380	0
|	Pb	208	10.000	ug/L	0.080	0	207	297563	1
|	Bi	209		ug/L			259036	255504	0
|	Th	232	10.000	ug/L	0.172	1	44	360823	0
⌊	U	238	10.000	ug/L	0.140	1	14	410016	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 09:55:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			239650	238656	0
L	Be	9	20.096	ug/L	0.189	0	7	6092	1
	C	13		mg/L			4584	4153	3
	Cl	37		mg/L			1805713	1801045	0
⌈>	Sc	45		ug/L			182221	180947	1
|	V	51	20.007	ug/L	0.265	1	1093	151105	0
|	V-1	51	20.022	ug/L	0.224	1	2423	154606	0
|	Cr	52	20.026	ug/L	0.134	0	3710	135942	0
|	Cr	53	20.073	ug/L	0.209	1	844	16481	1
|	Mn	55	20.027	ug/L	0.174	0	1107	228585	0
L	Co	59	20.007	ug/L	0.271	1	43	160010	2
⌈>	Ge	72		ug/L			182198	179365	0
|	Ni	60	19.912	ug/L	0.364	1	44	32434	1
|	Ni	62	19.979	ug/L	0.297	1	81	4836	1
|	Cu	63	20.006	ug/L	0.328	1	470	71517	1
|	Cu	65	19.984	ug/L	0.371	1	68	32781	1
|	Zn	66	20.075	ug/L	0.416	2	662	21526	1
|	Zn	67	20.000	ug/L	0.547	2	152	3536	2
|	Zn	68	20.032	ug/L	0.210	1	5338	19439	0
|	As	75	20.042	ug/L	0.045	0	267	20552	0
|	As-1	75	19.955	ug/L	0.064	0	6008	25697	0
|	Se	82	20.040	ug/L	0.239	1	-20	2476	1
|	Se	78	19.742	ug/L	0.114	0	6082	11834	0
L	Mo	98	19.948	ug/L	0.275	1	331	88255	1
	Y	89		ug/L			201615	199271	1
	Kr	83		ug/L			162	164	1
⌈>	In	115		ug/L			241678	239673	1
|	Ag	107	19.972	ug/L	0.378	1	20	146368	1
|	Cd	111	19.940	ug/L	0.214	1	115	39511	1
|	Cd	114	20.002	ug/L	0.242	1	30	91268	0
|	Sb	121	20.018	ug/L	0.341	1	17	130941	0
|	Sb	123	20.024	ug/L	0.246	1	15	99434	0
|	Ba	135	19.996	ug/L	0.505	2	20	28987	0
L	Ba	137	19.959	ug/L	0.250	1	26	49793	0
⌈>	Tb	159		ug/L			269963	270435	0
|	Tl	205	20.047	ug/L	0.240	1	19	432253	1
|	Pb	208	19.996	ug/L	0.231	1	207	597790	1
|	Bi	209		ug/L			259036	255516	1
|	Th	232	20.048	ug/L	0.114	0	44	734590	0
L	U	238	20.020	ug/L	0.186	0	14	828880	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:01:38
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	254239	1
[	Be	9	49.821	ug/L	0.442	0	7	15794	0
	C	13		mg/L			4584	3875	0
	Cl	37		mg/L			1805713	1793644	0
[>	Sc	45		ug/L			182221	190497	0
[	V	51	50.021	ug/L	0.349	0	1093	396862	0
[	V-1	51	50.043	ug/L	0.189	0	2423	404778	0
[	Cr	52	49.911	ug/L	0.416	0	3710	347867	0
[	Cr	53	49.987	ug/L	0.666	1	844	41840	1
[	Mn	55	49.802	ug/L	0.273	0	1107	585192	0
[	Co	59	49.820	ug/L	0.237	0	43	411941	0
[>	Ge	72		ug/L			182198	188468	0
[	Ni	60	49.855	ug/L	0.285	0	44	84047	0
[	Ni	62	49.710	ug/L	0.333	0	81	12168	0
[	Cu	63	49.742	ug/L	0.379	0	470	181463	0
[	Cu	65	49.808	ug/L	0.393	0	68	84131	0
[	Zn	66	50.055	ug/L	0.610	1	662	55677	0
[	Zn	67	50.067	ug/L	0.348	0	152	9125	0
[	Zn	68	49.858	ug/L	0.296	0	5338	42099	0
[	As	75	49.917	ug/L	0.320	0	267	52936	0
[	As-1	75	49.767	ug/L	0.377	0	6008	56874	0
[	Se	82	49.908	ug/L	0.214	0	-20	6453	0
[	Se	78	49.369	ug/L	0.223	0	6082	20741	0
[	Mo	98	50.060	ug/L	0.281	0	331	233586	0
	Y	89		ug/L			201615	211280	0
	Kr	83		ug/L			162	169	1
[>	In	115		ug/L			241678	251826	1
[	Ag	107	49.959	ug/L	0.608	1	20	383140	0
[	Cd	111	49.818	ug/L	0.593	1	115	101687	0
[	Cd	114	49.960	ug/L	0.388	0	30	238556	0
[	Sb	121	49.935	ug/L	1.049	2	17	340957	1
[	Sb	123	49.850	ug/L	0.631	1	15	256235	0
[	Ba	135	49.929	ug/L	0.336	0	20	75502	0
[	Ba	137	49.957	ug/L	0.255	0	26	130373	1
[>	Tb	159		ug/L			269963	282147	0
[	Tl	205	50.006	ug/L	0.282	0	19	1125515	0
[	Pb	208	50.043	ug/L	0.376	0	207	1567304	1
[	Bi	209		ug/L			259036	270545	0
[	Th	232	50.000	ug/L	0.742	1	44	1911354	1
[	U	238	50.361	ug/L	0.504	1	14	2256693	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:07:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			239650	236496	1
⌊	Be	9	100.235	ug/L	1.596	1	7	29784	0
	C	13		mg/L			4584	4060	2
	Cl	37		mg/L			1805713	1763723	0
⌈>	Sc	45		ug/L			182221	180954	0
|	V	51	99.573	ug/L	1.037	1	1093	738854	0
|	V-1	51	99.672	ug/L	1.069	1	2423	755191	0
|	Cr	52	99.602	ug/L	0.460	0	3710	647238	0
|	Cr	53	99.909	ug/L	0.582	0	844	78362	0
|	Mn	55	99.503	ug/L	1.617	1	1107	1091470	1
⌊	Co	59	99.551	ug/L	0.801	0	43	770351	0
⌈>	Ge	72		ug/L			182198	178022	1
|	Ni	60	99.462	ug/L	1.987	1	44	155534	1
|	Ni	62	99.438	ug/L	2.690	2	81	22492	2
|	Cu	63	99.339	ug/L	0.561	0	470	334487	0
|	Cu	65	99.340	ug/L	1.200	1	68	155013	0
|	Zn	66	99.285	ug/L	1.818	1	662	101270	0
|	Zn	67	99.354	ug/L	1.471	1	152	16602	0
|	Zn	68	99.904	ug/L	1.183	1	5338	74219	0
|	As	75	99.678	ug/L	0.733	0	267	98528	0
|	As-1	75	99.720	ug/L	0.579	0	6008	100863	0
|	Se	82	99.457	ug/L	1.895	1	-20	11948	1
|	Se	78	99.627	ug/L	1.821	1	6082	33147	1
⌊	Mo	98	100.002	ug/L	0.540	0	331	440458	0
	Y	89		ug/L			201615	198423	0
	Kr	83		ug/L			162	187	2
⌈>	In	115		ug/L			241678	238874	1
|	Ag	107	99.198	ug/L	0.535	0	20	702861	0
|	Cd	111	99.563	ug/L	1.589	1	115	189928	2
|	Cd	114	99.307	ug/L	0.504	0	30	439635	1
|	Sb	121	99.863	ug/L	1.144	1	17	643909	0
|	Sb	123	99.685	ug/L	1.038	1	15	481039	1
|	Ba	135	99.687	ug/L	1.141	1	20	141489	0
⌊	Ba	137	99.394	ug/L	1.004	1	26	241133	0
⌈>	Tb	159		ug/L			269963	269052	0
|	Tl	205	100.143	ug/L	0.897	0	19	2159662	0
|	Pb	208	99.331	ug/L	0.740	0	207	2901662	0
|	Bi	209		ug/L			259036	253911	0
|	Th	232	100.449	ug/L	1.838	1	44	3717172	1
⌊	U	238	99.670	ug/L	0.668	0	14	4212646	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:14:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	248395	0
[	Be	9	-0.002	ug/L	0.005	207	7	6	21
	C	13		mg/L			4584	4526	1
	Cl	37		mg/L			1805713	1810822	0
[>	Sc	45		ug/L			182221	185965	1
	V	51	0.010	ug/L	0.008	82	1093	1191	4
	V-1	51	-0.086	ug/L	0.010	11	2423	1807	3
	Cr	52	0.005	ug/L	0.016	345	3710	3817	2
	Cr	53	-0.293	ug/L	0.016	5	844	628	1
	Mn	55	-0.023	ug/L	0.001	4	1107	866	0
[	Co	59	0.009	ug/L	0.001	15	43	118	10
[>	Ge	72		ug/L			182198	183821	0
	Ni	60	-0.008	ug/L	0.004	47	44	32	19
	Ni	62	-0.076	ug/L	0.053	69	81	64	18
	Cu	63	-0.039	ug/L	0.007	18	470	340	7
	Cu	65	0.002	ug/L	0.012	691	68	72	26
	Zn	66	-0.009	ug/L	0.029	317	662	658	4
	Zn	67	-0.001	ug/L	0.084	11751	152	154	9
	Zn	68	-0.419	ug/L	0.261	62	5338	5086	3
	As	75	0.001	ug/L	0.009	1190	267	270	2
	As-1	75	0.127	ug/L	0.037	29	6008	6186	0
	Se	82	0.005	ug/L	0.063	1276	-20	-19	40
	Se	78	0.446	ug/L	0.121	27	6082	6262	0
[	Mo	98	-0.030	ug/L	0.009	30	331	196	21
	Y	89		ug/L			201615	207121	0
	Kr	83		ug/L			162	164	4
[>	In	115		ug/L			241678	249057	0
	Ag	107	0.015	ug/L	0.005	34	20	129	27
	Cd	111	0.009	ug/L	0.001	16	115	137	1
	Cd	114	-0.001	ug/L	0.003	475	30	27	50
	Sb	121	0.096	ug/L	0.027	28	17	659	27
	Sb	123	0.096	ug/L	0.022	23	15	498	22
	Ba	135	0.007	ug/L	0.005	67	20	31	22
[	Ba	137	0.009	ug/L	0.004	45	26	50	20
[>	Tb	159		ug/L			269963	281338	1
	Tl	205	0.010	ug/L	0.003	34	19	245	31
	Pb	208	0.008	ug/L	0.003	36	207	470	19
	Bi	209		ug/L			259036	265546	1
	Th	232	0.067	ug/L	0.016	23	44	2627	22
[	U	238	0.004	ug/L	0.002	49	14	205	46

Quantitative Analysis - Calibration Report

Sample Date/Time: Monday, January 21, 2013 10:07:46
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	1.0000	0.0013	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	1.0000	0.0409	10	20	50	100	
V-1	51	1.0000	0.0417	10	20	50	100	
Cr	52	1.0000	0.0357	10	20	50	100	
Cr	53	1.0000	0.0043	10	20	50	100	
Mn	55	0.9999	0.0606	10	20	50	100	
Co	59	1.0000	0.0428	10	20	50	100	
Ge	72							
Ni	60	0.9999	0.0088	10	20	50	100	
Ni	62	0.9999	0.0013	10	20	50	100	
Cu	63	0.9999	0.0189	10	20	50	100	
Cu	65	0.9999	0.0088	10	20	50	100	
Zn	66	0.9999	0.0057	10	20	50	100	
Zn	67	0.9999	0.0009	10	20	50	100	
Zn	68	1.0000	0.0039	10	20	50	100	
As	75	1.0000	0.0055	10	20	50	100	
As-1	75	1.0000	0.0054	10	20	50	100	
Se	82	0.9999	0.0007	10	20	50	100	
Se	78	0.9999	0.0015	10	20	50	100	
Mo	98	1.0000	0.0247	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	0.9999	0.0297	10	20	50	100	
Cd	111	1.0000	0.0080	10	20	50	100	
Cd	114	0.9999	0.0185	10	20	50	100	
Sb	121	1.0000	0.0270	10	20	50	100	
Sb	123	1.0000	0.0202	10	20	50	100	
Ba	135	1.0000	0.0059	10	20	50	100	
Ba	137	0.9999	0.0102	10	20	50	100	
Tb	159							
Tl	205	1.0000	0.0802	10	20	50	100	
Pb	208	0.9999	0.1086	10	20	50	100	
Bi	209							
Th	232	1.0000	0.1375	10	20	50	100	
U	238	1.0000	0.1571	10	20	50	100	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:31:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			239650	250197	1
⌊	Be	9	49.800	ug/L	0.740	1	7	15658	0
	C	13		mg/L			4584	10573	3
	Cl	37		mg/L			1805713	1799082	0
⌈>	Sc	45		ug/L			182221	186596	0
|	V	51	51.358	ug/L	0.767	1	1093	393522	1
|	V-1	51	51.239	ug/L	0.555	1	2423	401543	1
|	Cr	52	50.799	ug/L	0.239	0	3710	342261	0
|	Cr	53	50.461	ug/L	0.400	0	844	41240	0
|	Mn	55	51.734	ug/L	0.239	0	1107	585730	0
⌊	Co	59	50.528	ug/L	0.117	0	43	403214	0
⌈>	Ge	72		ug/L			182198	185345	0
|	Ni	60	51.134	ug/L	0.228	0	44	83280	0
|	Ni	62	51.459	ug/L	1.124	2	81	12158	1
|	Cu	63	51.621	ug/L	0.354	0	470	181197	0
|	Cu	65	50.974	ug/L	0.487	0	68	82852	0
|	Zn	66	51.024	ug/L	0.303	0	662	54520	0
|	Zn	67	50.622	ug/L	0.663	1	152	8883	1
|	Zn	68	50.292	ug/L	0.511	1	5338	41597	0
|	As	75	52.401	ug/L	0.769	1	267	54057	1
|	As-1	75	51.477	ug/L	0.797	1	6008	57166	1
|	Se	82	81.639	ug/L	0.386	0	-20	10208	0
|	Se	78	81.889	ug/L	0.437	0	6082	29469	0
⌊	Mo	98	49.713	ug/L	0.200	0	331	228140	0
	Y	89		ug/L			201615	208080	0
	Kr	83		ug/L			162	175	2
⌈>	In	115		ug/L			241678	245979	0
|	Ag	107	52.439	ug/L	0.149	0	20	382611	0
|	Cd	111	50.994	ug/L	0.525	1	115	100218	1
|	Cd	114	50.858	ug/L	0.537	1	30	231853	1
|	Sb	121	50.444	ug/L	0.979	1	17	334929	1
|	Sb	123	50.755	ug/L	0.735	1	15	252187	1
|	Ba	135	51.671	ug/L	0.418	0	20	75532	0
⌊	Ba	137	51.744	ug/L	0.467	0	26	129282	0
⌈>	Tb	159		ug/L			269963	279579	0
|	Tl	205	50.000	ug/L	0.540	1	19	1120453	0
|	Pb	208	51.504	ug/L	0.217	0	207	1563472	0
|	Bi	209		ug/L			259036	265887	1
|	Th	232	50.073	ug/L	0.564	1	44	1925563	1
⌊	U	238	52.291	ug/L	0.575	1	14	2296769	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:38:34
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			239650	250203	1
⌊	Be	9	-0.005	ug/L	0.006	116	7	5	32
	C	13		mg/L			4584	4617	1
	Cl	37		mg/L			1805713	1813163	0
⌈>	Sc	45		ug/L			182221	184546	0
|	V	51	-0.000	ug/L	0.019	7591	1093	1106	13
|	V-1	51	-0.095	ug/L	0.007	7	2423	1726	2
|	Cr	52	0.004	ug/L	0.001	21	3710	3785	0
|	Cr	53	-0.290	ug/L	0.080	27	844	625	9
|	Mn	55	-0.030	ug/L	0.002	6	1107	780	1
⌊	Co	59	0.005	ug/L	0.002	33	43	86	15
⌈>	Ge	72		ug/L			182198	183874	0
|	Ni	60	-0.008	ug/L	0.001	11	44	32	4
|	Ni	62	-0.091	ug/L	0.027	29	81	60	9
|	Cu	63	-0.034	ug/L	0.007	20	470	357	7
|	Cu	65	0.002	ug/L	0.008	367	68	72	17
|	Zn	66	-0.002	ug/L	0.046	2924	662	666	6
|	Zn	67	0.005	ug/L	0.141	2922	152	155	14
|	Zn	68	-0.330	ug/L	0.049	14	5338	5151	0
|	As	75	-0.001	ug/L	0.012	961	267	268	3
|	As-1	75	0.077	ug/L	0.107	139	6008	6138	0
|	Se	82	0.016	ug/L	0.133	847	-20	-18	90
|	Se	78	0.287	ug/L	0.419	146	6082	6218	1
⌊	Mo	98	-0.051	ug/L	0.004	7	331	104	15
	Y	89		ug/L			201615	207276	0
	Kr	83		ug/L			162	163	5
⌈>	In	115		ug/L			241678	249349	0
|	Ag	107	0.010	ug/L	0.003	24	20	97	19
|	Cd	111	-0.001	ug/L	0.005	481	115	117	7
|	Cd	114	-0.003	ug/L	0.001	22	30	19	13
|	Sb	121	0.028	ug/L	0.004	15	17	203	14
|	Sb	123	0.028	ug/L	0.007	24	15	156	22
|	Ba	135	-0.001	ug/L	0.005	681	20	19	36
⌊	Ba	137	0.008	ug/L	0.003	38	26	47	16
⌈>	Tb	159		ug/L			269963	277940	0
|	Tl	205	0.004	ug/L	0.002	36	19	112	29
|	Pb	208	0.005	ug/L	0.002	42	207	359	17
|	Bi	209		ug/L			259036	265923	0
|	Th	232	0.039	ug/L	0.008	21	44	1530	20
⌊	U	238	0.002	ug/L	0.001	25	14	118	22

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:44:23
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			239650	260228	0
Be	9	48.960	ug/L	0.484	0	7	16013	0
C	13		mg/L			4584	3945	1
Cl	37		mg/L			1805713	1782649	0
Sc	45		ug/L			182221	192882	0
V	51	50.752	ug/L	0.694	1	1093	401996	1
V-1	51	50.586	ug/L	0.575	1	2423	409815	1
Cr	52	50.124	ug/L	0.215	0	3710	349138	0
Cr	53	49.644	ug/L	0.269	0	844	41953	0
Mn	55	51.382	ug/L	0.580	1	1107	601358	1
Co	59	50.175	ug/L	0.333	0	43	413878	0
Ge	72		ug/L			182198	189292	0
Ni	60	50.165	ug/L	0.547	1	44	83442	0
Ni	62	51.441	ug/L	0.923	1	81	12413	1
Cu	63	50.912	ug/L	0.598	1	470	182515	0
Cu	65	51.019	ug/L	0.659	1	68	84690	1
Zn	66	51.293	ug/L	0.525	1	662	55968	0
Zn	67	51.384	ug/L	1.991	3	152	9207	3
Zn	68	50.538	ug/L	0.409	0	5338	42664	0
As	75	50.773	ug/L	0.720	1	267	53502	1
As-1	75	50.780	ug/L	0.383	0	6008	57679	0
Se	82	51.133	ug/L	0.800	1	-20	6522	1
Se	78	51.085	ug/L	0.620	1	6082	21152	1
Mo	98	50.688	ug/L	0.466	0	331	237559	0
Y	89		ug/L			201615	215070	1
Kr	83		ug/L			162	168	3
In	115		ug/L			241678	257956	0
Ag	107	51.045	ug/L	0.175	0	20	390585	0
Cd	111	50.780	ug/L	0.271	0	115	104656	0
Cd	114	50.664	ug/L	0.779	1	30	242226	1
Sb	121	49.930	ug/L	0.556	1	17	347696	1
Sb	123	50.333	ug/L	0.549	1	15	262278	1
Ba	135	50.548	ug/L	0.121	0	20	77493	0
Ba	137	50.446	ug/L	0.096	0	26	132183	0
Tb	159		ug/L			269963	288660	0
Tl	205	49.582	ug/L	0.317	0	19	1147231	0
Pb	208	50.857	ug/L	0.427	0	207	1593945	0
Bi	209		ug/L			259036	273957	0
Th	232	49.287	ug/L	0.921	1	44	1956772	1
U	238	51.022	ug/L	0.748	1	14	2313559	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:53:41
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	251480	0
[	Be	9	-0.006	ug/L	0.010	155	7	5	58
	C	13		mg/L			4584	4511	1
	Cl	37		mg/L			1805713	1845838	0
[>	Sc	45		ug/L			182221	189385	0
[	V	51	0.015	ug/L	0.013	83	1093	1254	8
[	V-1	51	-0.106	ug/L	0.003	2	2423	1682	2
[	Cr	52	-0.002	ug/L	0.013	579	3710	3841	2
[	Cr	53	-0.378	ug/L	0.021	5	844	570	2
[	Mn	55	-0.037	ug/L	0.001	3	1107	723	1
[	Co	59	0.005	ug/L	0.001	12	43	85	5
[>	Ge	72		ug/L			182198	186033	0
[	Ni	60	-0.011	ug/L	0.004	35	44	27	23
[	Ni	62	-0.037	ug/L	0.048	129	81	74	15
[	Cu	63	-0.042	ug/L	0.004	9	470	331	4
[	Cu	65	-0.007	ug/L	0.001	11	68	58	2
[	Zn	66	-0.008	ug/L	0.022	296	662	668	3
[	Zn	67	-0.052	ug/L	0.096	184	152	147	10
[	Zn	68	-0.521	ug/L	0.097	18	5338	5074	1
[	As	75	0.021	ug/L	0.019	90	267	294	6
[	As-1	75	-0.016	ug/L	0.070	426	6008	6118	0
[	Se	82	-0.010	ug/L	0.081	786	-20	-21	46
[	Se	78	-0.047	ug/L	0.247	520	6082	6196	0
[	Mo	98	-0.055	ug/L	0.004	6	331	87	19
	Y	89		ug/L			201615	208608	1
	Kr	83		ug/L			162	176	3
[>	In	115		ug/L			241678	248946	1
[	Ag	107	0.007	ug/L	0.003	40	20	74	30
[	Cd	111	0.004	ug/L	0.006	136	115	127	9
[	Cd	114	-0.005	ug/L	0.000	6	30	9	14
[	Sb	121	0.026	ug/L	0.004	15	17	193	14
[	Sb	123	0.029	ug/L	0.005	18	15	161	17
[	Ba	135	-0.001	ug/L	0.007	796	20	19	55
[	Ba	137	0.003	ug/L	0.001	43	26	35	10
[>	Tb	159		ug/L			269963	278834	1
[	Tl	205	0.002	ug/L	0.001	43	19	69	30
[	Pb	208	0.003	ug/L	0.001	33	207	309	10
[	Bi	209		ug/L			259036	270090	0
[	Th	232	0.028	ug/L	0.002	7	44	1109	7
[	U	238	0.001	ug/L	0.000	16	14	59	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:59:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	241891	0
[	Be	9	0.204	ug/L	0.033	16	7	69	14
	C	13		mg/L			4584	3984	2
	Cl	37		mg/L			1805713	1854623	0
[>	Sc	45		ug/L			182221	178493	0
	V	51	0.230	ug/L	0.010	4	1093	2754	2
	V-1	51	0.113	ug/L	0.005	4	2423	3217	1
	Cr	52	0.550	ug/L	0.012	2	3710	7137	0
	Cr	53	0.166	ug/L	0.020	12	844	954	1
	Mn	55	0.510	ug/L	0.015	2	1107	6594	1
[	Co	59	0.215	ug/L	0.005	2	43	1681	1
[>	Ge	72		ug/L			182198	177747	1
	Ni	60	0.528	ug/L	0.018	3	44	868	2
	Ni	62	0.479	ug/L	0.069	14	81	187	8
	Cu	63	0.532	ug/L	0.010	1	470	2245	2
	Cu	65	0.534	ug/L	0.020	3	68	899	4
	Zn	66	4.084	ug/L	0.053	1	662	4779	1
	Zn	67	3.551	ug/L	0.199	5	152	736	4
	Zn	68	3.728	ug/L	0.135	3	5338	7778	0
	As	75	0.255	ug/L	0.021	8	267	511	4
	As-1	75	0.500	ug/L	0.088	17	6008	6336	0
	Se	82	0.594	ug/L	0.029	4	-20	51	5
	Se	78	1.623	ug/L	0.285	17	6082	6375	0
[	Mo	98	0.137	ug/L	0.008	5	331	926	4
	Y	89		ug/L			201615	202612	0
	Kr	83		ug/L			162	173	5
[>	In	115		ug/L			241678	240338	1
	Ag	107	0.201	ug/L	0.007	3	20	1451	3
	Cd	111	0.109	ug/L	0.003	2	115	324	1
	Cd	114	0.104	ug/L	0.003	2	30	491	3
	Sb	121	0.215	ug/L	0.012	5	17	1412	4
	Sb	123	0.205	ug/L	0.007	3	15	1012	2
	Ba	135	0.507	ug/L	0.026	5	20	743	5
[	Ba	137	0.520	ug/L	0.013	2	26	1295	2
[>	Tb	159		ug/L			269963	269097	1
	Tl	205	0.209	ug/L	0.004	1	19	4537	3
	Pb	208	0.120	ug/L	0.003	2	207	3702	0
	Bi	209		ug/L			259036	259544	0
	Th	232	0.219	ug/L	0.003	1	44	8155	0
[	U	238	0.201	ug/L	0.005	2	14	8516	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:05:17
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	258795	0
[	Be	9	0.001	ug/L	0.002	278	7	7	9
	C	13		mg/L			4584	13379	0
	Cl	37		mg/L			1805713	2953060	0
[>	Sc	45		ug/L			182221	177509	1
	V	51	0.047	ug/L	0.038	80	1093	1401	18
	V-1	51	0.365	ug/L	0.023	6	2423	5066	2
	Cr	52	0.470	ug/L	0.033	7	3710	6589	2
	Cr	53	1.437	ug/L	0.019	1	844	1916	2
	Mn	55	-0.005	ug/L	0.002	36	1107	1027	1
[	Co	59	0.026	ug/L	0.008	28	43	240	23
[>	Ge	72		ug/L			182198	175164	1
	Ni	60	0.476	ug/L	0.033	6	44	775	7
	Ni	62	4.059	ug/L	0.161	3	81	978	2
	Cu	63	0.484	ug/L	0.029	5	470	2053	3
	Cu	65	0.690	ug/L	0.027	3	68	1125	4
	Zn	66	1.135	ug/L	0.024	2	662	1768	1
	Zn	67	1.345	ug/L	0.073	5	152	366	3
	Zn	68	-0.055	ug/L	0.059	108	5338	5094	0
	As	75	0.086	ug/L	0.053	61	267	340	15
	As-1	75	0.144	ug/L	0.052	35	6008	5911	1
	Se	82	-0.008	ug/L	0.069	888	-20	-20	41
	Se	78	0.452	ug/L	0.083	18	6082	5968	0
[	Mo	98	398.440	ug/L	6.057	1	331	1725803	1
	Y	89		ug/L			201615	194456	0
	Kr	83		ug/L			162	185	5
[>	In	115		ug/L			241678	233635	2
	Ag	107	0.025	ug/L	0.003	13	20	192	14
	Cd	111	0.091	ug/L	0.028	30	115	280	16
	Cd	114	0.592	ug/L	0.013	2	30	2591	2
	Sb	121	0.074	ug/L	0.002	2	17	485	2
	Sb	123	0.069	ug/L	0.004	5	15	338	4
	Ba	135	0.044	ug/L	0.006	12	20	80	8
[	Ba	137	0.042	ug/L	0.011	25	26	126	21
[>	Tb	159		ug/L			269963	263816	1
	Tl	205	0.031	ug/L	0.001	3	19	675	2
	Pb	208	0.031	ug/L	0.001	2	207	1100	3
	Bi	209		ug/L			259036	248147	0
	Th	232	0.069	ug/L	0.007	9	44	2536	9
[	U	238	0.001	ug/L	0.000	14	14	42	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:11:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			239650	267312	0
	Be	9	-0.005	ug/L	0.010	198	7	6	52
	C	13		mg/L			4584	13503	1
	Cl	37		mg/L			1805713	2900123	0
>	Sc	45		ug/L			182221	176447	0
	V	51	-0.335	ug/L	0.130	38	1093	-1364	69
	V-1	51	0.408	ug/L	0.015	3	2423	5352	2
	Cr	52	20.419	ug/L	0.123	0	3710	132235	0
	Cr	53	21.507	ug/L	0.333	1	844	17090	1
	Mn	55	19.828	ug/L	0.179	0	1107	212953	1
	Co	59	19.573	ug/L	0.228	1	43	147722	1
>	Ge	72		ug/L			182198	171197	1
	Ni	60	20.447	ug/L	0.162	0	44	30784	1
	Ni	62	24.291	ug/L	0.427	1	81	5342	3
	Cu	63	20.359	ug/L	0.138	0	470	66273	1
	Cu	65	20.694	ug/L	0.177	0	68	31105	1
	Zn	66	20.752	ug/L	0.343	1	662	20853	3
	Zn	67	18.732	ug/L	0.262	1	152	3127	1
	Zn	68	19.227	ug/L	0.235	1	5338	17789	2
	As	75	19.468	ug/L	0.195	1	267	18707	0
	As-1	75	20.275	ug/L	0.325	1	6008	24217	0
	Se	82	0.071	ug/L	0.126	177	-20	-10	134
	Se	78	0.717	ug/L	0.418	58	6082	5902	1
	Mo	98	402.796	ug/L	3.353	0	331	1705050	0
	Y	89		ug/L			201615	190967	1
	Kr	83		ug/L			162	173	5
>	In	115		ug/L			241678	230611	0
	Ag	107	19.995	ug/L	0.247	1	20	136786	1
	Cd	111	20.299	ug/L	0.121	0	115	37466	0
	Cd	114	20.814	ug/L	0.279	1	30	88973	0
	Sb	121	0.071	ug/L	0.004	5	17	460	5
	Sb	123	0.069	ug/L	0.008	11	15	338	11
	Ba	135	0.043	ug/L	0.004	8	20	77	7
	Ba	137	0.038	ug/L	0.005	14	26	113	11
>	Tb	159		ug/L			269963	259816	0
	Tl	205	0.031	ug/L	0.002	5	19	666	5
	Pb	208	0.033	ug/L	0.000	1	207	1131	0
	Bi	209		ug/L			259036	241692	1
	Th	232	0.040	ug/L	0.002	5	44	1489	6
	U	238	0.001	ug/L	0.000	44	14	37	28

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:17:52
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			239650	261546	1
	Be	9	190.656	ug/L	6.242	3	7	62627	1
	C	13		mg/L			4584	4111	1
	Cl	37		mg/L			1805713	1718023	0
>	Sc	45		ug/L			182221	174037	0
	V	51	206.594	ug/L	2.468	1	1093	1473242	0
	V-1	51	205.600	ug/L	2.190	1	2423	1495763	0
	Cr	52	202.794	ug/L	1.796	0	3710	1263732	0
	Cr	53	199.923	ug/L	1.026	0	844	150004	0
	Mn	55	205.507	ug/L	2.763	1	1107	2166912	0
	Co	59	196.478	ug/L	1.627	0	43	1462199	0
>	Ge	72		ug/L			182198	168313	1
	Ni	60	199.093	ug/L	3.754	1	44	294301	0
	Ni	62	201.158	ug/L	2.006	0	81	42945	1
	Cu	63	198.337	ug/L	3.463	1	470	630905	0
	Cu	65	198.807	ug/L	3.571	1	68	293223	0
	Zn	66	201.890	ug/L	2.981	1	662	194068	0
	Zn	67	202.483	ug/L	1.406	0	152	31845	0
	Zn	68	202.250	ug/L	2.236	1	5338	137006	0
	As	75	203.851	ug/L	1.763	0	267	190250	0
	As-1	75	204.646	ug/L	1.425	0	6008	189859	0
	Se	82	201.176	ug/L	2.588	1	-20	22869	0
	Se	78	203.665	ug/L	1.823	0	6082	58199	0
	Mo	98	206.831	ug/L	2.836	1	331	860900	0
	Y	89		ug/L			201615	189409	0
	Kr	83		ug/L			162	200	1
>	In	115		ug/L			241678	228709	0
	Ag	107	201.263	ug/L	1.696	0	20	1365391	1
	Cd	111	206.458	ug/L	3.657	1	115	376939	1
	Cd	114	202.228	ug/L	1.451	0	30	857112	0
	Sb	121	206.717	ug/L	1.859	0	17	1276196	0
	Sb	123	208.214	ug/L	0.823	0	15	961921	0
	Ba	135	209.335	ug/L	3.760	1	20	284461	1
	Ba	137	208.414	ug/L	0.976	0	26	484105	0
>	Tb	159		ug/L			269963	261371	0
	Tl	205	203.879	ug/L	1.334	0	19	4271326	0
	Pb	208	206.250	ug/L	0.787	0	207	5852757	0
	Bi	209		ug/L			259036	236712	0
	Th	232	207.104	ug/L	2.061	0	44	7445583	1
	U	238	206.921	ug/L	1.285	0	14	8496230	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:24:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			239650	253170	0
⌊	Be	9	286.150	ug/L	5.607	1	7	91008	1
	C	13		mg/L			4584	3830	2
	Cl	37		mg/L			1805713	1699765	0
⌈>	Sc	45		ug/L			182221	173329	0
|	V	51	315.929	ug/L	1.473	0	1093	2243277	0
|	V-1	51	314.243	ug/L	0.639	0	2423	2275682	0
|	Cr	52	302.683	ug/L	1.496	0	3710	1876812	0
|	Cr	53	298.218	ug/L	5.074	1	844	222443	1
|	Mn	55	310.210	ug/L	3.142	1	1107	3257119	0
⌊	Co	59	303.697	ug/L	4.043	1	43	2250827	0
⌈>	Ge	72		ug/L			182198	170150	0
|	Ni	60	291.532	ug/L	5.739	1	44	435668	1
|	Ni	62	294.784	ug/L	2.718	0	81	63585	0
|	Cu	63	288.929	ug/L	3.393	1	470	928988	0
|	Cu	65	290.128	ug/L	2.861	0	68	432607	0
|	Zn	66	292.430	ug/L	4.036	1	662	283913	1
|	Zn	67	290.255	ug/L	4.337	1	152	46086	1
|	Zn	68	292.446	ug/L	7.183	2	5338	198047	1
|	As	75	298.709	ug/L	2.795	0	267	281717	0
|	As-1	75	299.231	ug/L	2.558	0	6008	278054	0
|	Se	82	291.333	ug/L	3.044	1	-20	33490	0
|	Se	78	292.233	ug/L	2.281	0	6082	81952	0
⌊	Mo	98	305.656	ug/L	1.825	0	331	1286129	0
	Y	89		ug/L			201615	188073	0
	Kr	83		ug/L			162	215	0
⌈>	In	115		ug/L			241678	226822	0
|	Ag	107	294.735	ug/L	3.465	1	20	1982872	0
|	Cd	111	298.234	ug/L	2.659	0	115	539951	1
|	Cd	114	300.158	ug/L	1.145	0	30	1261679	0
|	Sb	121	307.068	ug/L	1.127	0	17	1880091	0
|	Sb	123	307.543	ug/L	5.159	1	15	1408995	1
|	Ba	135	302.529	ug/L	5.479	1	20	407692	1
⌊	Ba	137	307.213	ug/L	4.594	1	26	707669	1
⌈>	Tb	159		ug/L			269963	258527	0
|	Tl	205	307.482	ug/L	2.925	0	19	6371953	1
|	Pb	208	313.955	ug/L	0.441	0	207	8812063	0
|	Bi	209		ug/L			259036	232375	0
|	Th	232	315.081	ug/L	2.790	0	44	11203876	0
⌊	U	238	311.704	ug/L	2.277	0	14	12659420	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:31:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	272770	0
[	Be	9	48.034	ug/L	0.507	1	7	16467	0
	C	13		mg/L			4584	4008	0
	Cl	37		mg/L			1805713	1742671	0
[>	Sc	45		ug/L			182221	188009	0
[	V	51	50.650	ug/L	0.898	1	1093	391014	1
[	V-1	51	50.399	ug/L	0.914	1	2423	397961	1
[	Cr	52	50.564	ug/L	0.642	1	3710	343254	0
[	Cr	53	49.790	ug/L	0.712	1	844	41009	0
[	Mn	55	51.048	ug/L	0.218	0	1107	582350	0
[	Co	59	50.021	ug/L	0.705	1	43	402188	1
[>	Ge	72		ug/L			182198	182696	0
[	Ni	60	51.109	ug/L	1.003	1	44	82047	1
[	Ni	62	51.132	ug/L	1.326	2	81	11909	2
[	Cu	63	50.500	ug/L	1.010	2	470	174732	1
[	Cu	65	50.500	ug/L	0.962	1	68	80908	1
[	Zn	66	50.875	ug/L	0.638	1	662	53583	0
[	Zn	67	50.590	ug/L	1.192	2	152	8751	1
[	Zn	68	50.949	ug/L	0.443	0	5338	41470	0
[	As	75	50.692	ug/L	0.337	0	267	51556	0
[	As-1	75	50.419	ug/L	0.407	0	6008	55315	0
[	Se	82	51.233	ug/L	0.323	0	-20	6307	0
[	Se	78	50.278	ug/L	0.575	1	6082	20189	0
[	Mo	98	50.243	ug/L	0.601	1	331	227271	1
	Y	89		ug/L			201615	207096	0
	Kr	83		ug/L			162	167	5
[>	In	115		ug/L			241678	248914	0
[	Ag	107	51.114	ug/L	1.012	1	20	377382	1
[	Cd	111	50.244	ug/L	0.204	0	115	99924	0
[	Cd	114	50.020	ug/L	0.635	1	30	230747	0
[	Sb	121	51.348	ug/L	0.098	0	17	345035	0
[	Sb	123	51.559	ug/L	0.268	0	15	259257	1
[	Ba	135	51.391	ug/L	0.173	0	20	76023	0
[	Ba	137	51.889	ug/L	0.441	0	26	131199	1
[>	Tb	159		ug/L			269963	283035	0
[	Tl	205	49.390	ug/L	0.131	0	19	1120524	1
[	Pb	208	50.914	ug/L	0.612	1	207	1564630	1
[	Bi	209		ug/L			259036	267801	1
[	Th	232	48.945	ug/L	0.720	1	44	1905358	0
[	U	238	51.543	ug/L	0.811	1	14	2291584	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:37:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	257236	1
[	Be	9	-0.005	ug/L	0.002	43	7	5	12
	C	13		mg/L			4584	4814	2
	Cl	37		mg/L			1805713	1808221	0
[>	Sc	45		ug/L			182221	178479	0
	V	51	0.004	ug/L	0.010	255	1093	1100	6
	V-1	51	-0.098	ug/L	0.006	5	2423	1640	2
	Cr	52	0.001	ug/L	0.014	1373	3710	3640	1
	Cr	53	-0.318	ug/L	0.022	6	844	584	2
	Mn	55	-0.035	ug/L	0.004	10	1107	710	5
[	Co	59	0.020	ug/L	0.004	18	43	197	13
[>	Ge	72		ug/L			182198	176787	0
	Ni	60	-0.002	ug/L	0.006	240	44	39	22
	Ni	62	-0.073	ug/L	0.040	55	81	62	14
	Cu	63	-0.043	ug/L	0.004	9	470	314	4
	Cu	65	-0.001	ug/L	0.002	147	68	65	3
	Zn	66	-0.278	ug/L	0.013	4	662	362	3
	Zn	67	-0.299	ug/L	0.141	47	152	99	22
	Zn	68	-0.983	ug/L	0.060	6	5338	4505	0
	As	75	0.062	ug/L	0.011	18	267	320	3
	As-1	75	0.035	ug/L	0.065	183	6008	5863	0
	Se	82	0.079	ug/L	0.042	53	-20	-10	48
	Se	78	0.048	ug/L	0.254	525	6082	5914	0
[	Mo	98	-0.038	ug/L	0.008	20	331	153	22
	Y	89		ug/L			201615	196816	0
	Kr	83		ug/L			162	164	4
[>	In	115		ug/L			241678	237977	0
	Ag	107	0.019	ug/L	0.004	21	20	156	18
	Cd	111	0.001	ug/L	0.004	285	115	116	6
	Cd	114	-0.002	ug/L	0.002	122	30	22	40
	Sb	121	0.114	ug/L	0.025	22	17	752	21
	Sb	123	0.122	ug/L	0.028	23	15	600	22
	Ba	135	0.002	ug/L	0.002	92	20	22	11
[	Ba	137	0.008	ug/L	0.004	51	26	45	22
[>	Tb	159		ug/L			269963	268368	0
	Tl	205	0.011	ug/L	0.002	14	19	264	14
	Pb	208	0.007	ug/L	0.002	31	207	423	16
	Bi	209		ug/L			259036	258078	0
	Th	232	0.074	ug/L	0.014	18	44	2781	18
[	U	238	0.004	ug/L	0.002	43	14	176	40

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 11:43:57
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	266213	1
[	Be	9	-0.007	ug/L	0.002	31	7	5	13
	C	13		mg/L			4584	5280	1
	Cl	37		mg/L			1805713	1808242	0
[>	Sc	45		ug/L			182221	184585	0
	V	51	0.021	ug/L	0.009	44	1093	1266	5
	V-1	51	-0.121	ug/L	0.008	6	2423	1526	4
	Cr	52	0.024	ug/L	0.012	50	3710	3916	1
	Cr	53	-0.417	ug/L	0.044	10	844	525	6
	Mn	55	-0.035	ug/L	0.002	4	1107	729	2
[	Co	59	0.011	ug/L	0.001	8	43	132	6
[>	Ge	72		ug/L			182198	178683	0
	Ni	60	0.007	ug/L	0.005	75	44	54	14
	Ni	62	-0.072	ug/L	0.026	36	81	63	9
	Cu	63	0.008	ug/L	0.008	93	470	488	5
	Cu	65	0.043	ug/L	0.009	20	68	134	10
	Zn	66	0.107	ug/L	0.027	25	662	758	2
	Zn	67	-0.073	ug/L	0.128	175	152	137	15
	Zn	68	-0.624	ug/L	0.034	5	5338	4802	1
	As	75	0.039	ug/L	0.018	46	267	300	5
	As-1	75	0.088	ug/L	0.070	79	6008	5976	0
	Se	82	0.007	ug/L	0.071	1051	-20	-18	46
	Se	78	0.286	ug/L	0.237	82	6082	6043	0
[	Mo	98	-0.026	ug/L	0.015	56	331	209	30
	Y	89		ug/L			201615	204342	0
	Kr	83		ug/L			162	171	2
[>	In	115		ug/L			241678	245772	1
	Ag	107	0.009	ug/L	0.000	1	20	82	3
	Cd	111	-0.000	ug/L	0.013	4048	115	117	21
	Cd	114	-0.003	ug/L	0.000	10	30	18	7
	Sb	121	0.059	ug/L	0.009	14	17	411	15
	Sb	123	0.057	ug/L	0.002	4	15	297	5
	Ba	135	0.004	ug/L	0.001	23	20	26	5
[	Ba	137	0.009	ug/L	0.003	31	26	49	14
[>	Tb	159		ug/L			269963	277612	0
	Tl	205	0.009	ug/L	0.002	23	19	221	21
	Pb	208	0.005	ug/L	0.001	15	207	374	6
	Bi	209		ug/L			259036	264180	0
	Th	232	0.050	ug/L	0.007	14	44	1971	14
[	U	238	0.002	ug/L	0.000	16	14	82	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 A-L REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, January 21, 2013 11:50:14
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	262304	1
[	Be	9	-0.002	ug/L	0.002	94	7	7	10
	C	13		mg/L			4584	4559	0
	Cl	37		mg/L			1805713	1793314	0
[>	Sc	45		ug/L			182221	188412	1
	V	51	0.521	ug/L	0.013	2	1093	5149	1
	V-1	51	0.397	ug/L	0.013	3	2423	5627	0
	Cr	52	0.214	ug/L	0.012	5	3710	5274	2
	Cr	53	-0.154	ug/L	0.015	9	844	748	2
	Mn	55	5.128	ug/L	0.087	1	1107	59650	1
[	Co	59	0.141	ug/L	0.010	7	43	1182	6
[>	Ge	72		ug/L			182198	178948	0
	Ni	60	0.908	ug/L	0.021	2	44	1471	2
	Ni	62	0.718	ug/L	0.064	8	81	242	5
	Cu	63	0.143	ug/L	0.014	9	470	945	4
	Cu	65	0.204	ug/L	0.006	3	68	387	3
	Zn	66	-0.132	ug/L	0.019	14	662	515	3
	Zn	67	-0.067	ug/L	0.124	186	152	139	15
	Zn	68	-0.859	ug/L	0.046	5	5338	4646	1
	As	75	0.165	ug/L	0.024	14	267	425	6
	As-1	75	0.066	ug/L	0.061	92	6008	5964	0
	Se	82	-0.029	ug/L	0.076	263	-20	-23	39
	Se	78	-0.276	ug/L	0.222	80	6082	5897	0
[	Mo	98	-0.013	ug/L	0.003	23	331	270	5
	Y	89		ug/L			201615	203355	1
	Kr	83		ug/L			162	172	3
[>	In	115		ug/L			241678	243631	1
	Ag	107	0.009	ug/L	0.005	53	20	85	42
	Cd	111	0.019	ug/L	0.018	96	115	154	24
	Cd	114	-0.002	ug/L	0.002	85	30	22	32
	Sb	121	0.045	ug/L	0.003	5	17	313	4
	Sb	123	0.045	ug/L	0.003	7	15	237	5
	Ba	135	1.957	ug/L	0.026	1	20	2852	0
[	Ba	137	2.004	ug/L	0.022	1	26	4985	0
[>	Tb	159		ug/L			269963	273705	1
	Tl	205	0.005	ug/L	0.001	26	19	135	24
	Pb	208	-0.032	ug/L	0.001	4	207	1154	3
	Bi	209		ug/L			259036	262564	0
	Th	232	0.047	ug/L	0.000	0	44	1812	2
[	U	238	0.084	ug/L	0.001	1	14	3632	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 11:56:31
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	269520	1
[	Be	9	0.009	ug/L	0.010	113	7	10	29
	C	13		mg/L			4584	6394	3
	Cl	37		mg/L			1805713	1770898	0
[>	Sc	45		ug/L			182221	210689	0
	V	51	2.310	ug/L	0.022	0	1093	21190	1
	V-1	51	2.165	ug/L	0.013	0	2423	21843	0
	Cr	52	1.035	ug/L	0.011	1	3710	12078	1
	Cr	53	0.661	ug/L	0.035	5	844	1573	1
	Mn	55	22.832	ug/L	0.245	1	1107	292584	0
[	Co	59	0.579	ug/L	0.007	1	43	5262	0
[>	Ge	72		ug/L			182198	177771	0
	Ni	60	4.538	ug/L	0.048	1	44	7129	1
	Ni	62	3.988	ug/L	0.252	6	81	976	5
	Cu	63	0.911	ug/L	0.007	0	470	3518	0
	Cu	65	1.006	ug/L	0.048	4	68	1634	5
	Zn	66	1.022	ug/L	0.020	1	662	1680	0
	Zn	67	1.161	ug/L	0.122	10	152	341	6
	Zn	68	0.534	ug/L	0.175	32	5338	5576	2
	As	75	0.720	ug/L	0.024	3	267	969	1
	As-1	75	0.696	ug/L	0.072	10	6008	6524	0
	Se	82	0.178	ug/L	0.090	50	-20	1	661
	Se	78	0.143	ug/L	0.223	155	6082	5973	0
[	Mo	98	0.167	ug/L	0.005	2	331	1057	1
	Y	89		ug/L			201615	211325	1
	Kr	83		ug/L			162	171	4
[>	In	115		ug/L			241678	241971	1
	Ag	107	0.010	ug/L	0.002	23	20	92	17
	Cd	111	0.015	ug/L	0.017	115	115	144	20
	Cd	114	0.008	ug/L	0.002	31	30	64	17
	Sb	121	0.079	ug/L	0.005	6	17	531	7
	Sb	123	0.082	ug/L	0.003	3	15	416	1
	Ba	135	9.654	ug/L	0.236	2	20	13894	0
[	Ba	137	9.761	ug/L	0.150	1	26	24011	1
[>	Tb	159		ug/L			269963	272875	0
	Tl	205	0.007	ug/L	0.001	15	19	177	13
	Pb	208	0.147	ug/L	0.001	0	207	4569	0
	Bi	209		ug/L			259036	255914	1
	Th	232	0.155	ug/L	0.003	1	44	5859	1
[	U	238	0.418	ug/L	0.005	1	14	17920	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:02:48
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	273449	0
[	Be	9	0.002	ug/L	0.013	679	7	8	51
	C	13		mg/L			4584	7116	1
	Cl	37		mg/L			1805713	1792777	0
[>	Sc	45		ug/L			182221	211556	1
	V	51	2.360	ug/L	0.063	2	1093	21712	1
	V-1	51	2.174	ug/L	0.050	2	2423	22002	0
	Cr	52	1.051	ug/L	0.030	2	3710	12243	0
	Cr	53	0.546	ug/L	0.033	6	844	1476	2
	Mn	55	22.631	ug/L	0.120	0	1107	291214	0
[	Co	59	0.579	ug/L	0.022	3	43	5282	2
[>	Ge	72		ug/L			182198	182067	1
	Ni	60	4.355	ug/L	0.070	1	44	7007	0
	Ni	62	3.995	ug/L	0.128	3	81	1001	1
	Cu	63	0.871	ug/L	0.036	4	470	3463	2
	Cu	65	0.959	ug/L	0.004	0	68	1598	1
	Zn	66	1.166	ug/L	0.051	4	662	1869	2
	Zn	67	1.457	ug/L	0.298	20	152	400	14
	Zn	68	0.414	ug/L	0.051	12	5338	5627	2
	As	75	0.697	ug/L	0.029	4	267	969	3
	As-1	75	0.460	ug/L	0.075	16	6008	6451	0
	Se	82	0.153	ug/L	0.061	40	-20	-1	594
	Se	78	-0.668	ug/L	0.277	41	6082	5890	0
[	Mo	98	0.152	ug/L	0.005	3	331	1014	2
	Y	89		ug/L			201615	214771	0
	Kr	83		ug/L			162	170	3
[>	In	115		ug/L			241678	246637	1
	Ag	107	0.009	ug/L	0.001	15	20	87	11
	Cd	111	0.016	ug/L	0.008	47	115	149	11
	Cd	114	0.007	ug/L	0.001	17	30	63	9
	Sb	121	0.064	ug/L	0.002	3	17	440	4
	Sb	123	0.063	ug/L	0.005	7	15	327	6
	Ba	135	9.536	ug/L	0.124	1	20	13993	1
[	Ba	137	9.584	ug/L	0.087	0	26	24031	0
[>	Tb	159		ug/L			269963	276395	1
	Tl	205	0.005	ug/L	0.000	6	19	140	5
	Pb	208	0.139	ug/L	0.000	0	207	4383	1
	Bi	209		ug/L			259036	262173	1
	Th	232	0.143	ug/L	0.002	1	44	5498	1
[	U	238	0.416	ug/L	0.012	2	14	18065	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:09:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	273215	1
[	Be	9	25.131	ug/L	0.623	2	7	8631	0
	C	13		mg/L			4584	6268	1
	Cl	37		mg/L			1805713	1782618	0
[>	Sc	45		ug/L			182221	217832	0
	V	51	25.455	ug/L	0.293	1	1093	228338	0
	V-1	51	25.342	ug/L	0.329	1	2423	233292	0
	Cr	52	23.673	ug/L	0.311	1	3710	188548	0
	Cr	53	23.427	ug/L	0.483	2	844	22890	1
	Mn	55	45.143	ug/L	0.494	1	1107	596814	1
[	Co	59	23.089	ug/L	0.388	1	43	215107	1
[>	Ge	72		ug/L			182198	179500	1
	Ni	60	31.184	ug/L	0.682	2	44	49196	1
	Ni	62	31.297	ug/L	0.727	2	81	7192	1
	Cu	63	27.589	ug/L	0.276	1	470	93996	1
	Cu	65	27.970	ug/L	0.299	1	68	44054	0
	Zn	66	87.203	ug/L	0.894	1	662	89769	1
	Zn	67	80.826	ug/L	2.106	2	152	13645	1
	Zn	68	84.865	ug/L	0.952	1	5338	64364	1
	As	75	30.246	ug/L	0.376	1	267	30329	1
	As-1	75	28.001	ug/L	0.202	0	6008	32814	1
	Se	82	86.182	ug/L	1.598	1	-20	10435	0
	Se	78	85.102	ug/L	1.915	2	6082	29419	0
[	Mo	98	26.573	ug/L	0.194	0	331	118250	1
	Y	89		ug/L			201615	217021	0
	Kr	83		ug/L			162	173	8
[>	In	115		ug/L			241678	248292	1
	Ag	107	25.584	ug/L	0.414	1	20	188420	0
	Cd	111	25.822	ug/L	0.324	1	115	51282	1
	Cd	114	25.803	ug/L	0.403	1	30	118746	0
	Sb	121	24.392	ug/L	0.291	1	17	163489	0
	Sb	123	24.806	ug/L	0.184	0	15	124421	0
	Ba	135	36.920	ug/L	0.348	0	20	54484	1
[	Ba	137	36.800	ug/L	0.487	1	26	92820	1
[>	Tb	159		ug/L			269963	279335	1
	Tl	205	26.426	ug/L	0.238	0	19	591660	0
	Pb	208	27.150	ug/L	0.387	1	207	823505	0
	Bi	209		ug/L			259036	261445	0
	Th	232	26.308	ug/L	0.380	1	44	1010777	0
[	U	238	26.348	ug/L	0.384	1	14	1156136	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:21:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	269811	0
[	Be	9	-0.000	ug/L	0.006	3892	7	7	24
	C	13		mg/L			4584	6478	1
	Cl	37		mg/L			1805713	1771181	0
[>	Sc	45		ug/L			182221	199928	0
	V	51	1.124	ug/L	0.034	3	1093	10403	2
	V-1	51	0.948	ug/L	0.032	3	2423	10573	2
	Cr	52	0.223	ug/L	0.004	1	3710	5660	0
	Cr	53	-0.272	ug/L	0.002	0	844	693	0
	Mn	55	5477.334	ug/L	46.182	0	1107	66315808	0
[	Co	59	7.412	ug/L	0.122	1	43	63405	0
[>	Ge	72		ug/L			182198	178106	1
	Ni	60	2.927	ug/L	0.153	5	44	4620	4
	Ni	62	2.052	ug/L	0.106	5	81	542	4
	Cu	63	1.753	ug/L	0.021	1	470	6357	1
	Cu	65	2.084	ug/L	0.058	2	68	3318	2
	Zn	66	2.564	ug/L	0.092	3	662	3247	3
	Zn	67	2.806	ug/L	0.159	5	152	614	3
	Zn	68	1.884	ug/L	0.193	10	5338	6520	1
	As	75	3.557	ug/L	0.057	1	267	3770	2
	As-1	75	3.406	ug/L	0.065	1	6008	9119	1
	Se	82	0.618	ug/L	0.081	13	-20	54	18
	Se	78	-0.141	ug/L	0.203	143	6082	5906	1
[	Mo	98	0.244	ug/L	0.012	4	331	1398	3
	Y	89		ug/L			201615	242826	0
	Kr	83		ug/L			162	172	1
[>	In	115		ug/L			241678	241932	1
	Ag	107	0.025	ug/L	0.005	19	20	196	17
	Cd	111	0.037	ug/L	0.010	26	115	186	8
	Cd	114	0.009	ug/L	0.003	34	30	70	17
	Sb	121	0.151	ug/L	0.017	11	17	1004	10
	Sb	123	0.147	ug/L	0.014	9	15	735	8
	Ba	135	35.202	ug/L	0.800	2	20	50607	0
[	Ba	137	35.603	ug/L	0.749	2	26	87482	0
[>	Tb	159		ug/L			269963	277382	1
	Tl	205	0.026	ug/L	0.001	4	19	598	3
	Pb	208	U0.030	ug/L	0.002	5	207	1126	4
	Bi	209		ug/L			259036	259742	0
	Th	232	0.088	ug/L	0.014	15	44	3405	16
[	U	238	0.054	ug/L	0.002	3	14	2370	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 APOST REN
Sample Dil Factor: 2 ZZZZZZ
Comments: EL 1-21-13
Sample Date/Time: Monday, January 21, 2013 12:15:26
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			239650	270609	1
Be	9	23.384	ug/L	0.896	3	7	7955	2
C	13		mg/L			4584	6563	2
Cl	37		mg/L			1805713	1781721	0
Sc	45		ug/L			182221	210256	0
V	51	24.242	ug/L	0.326	1	1093	209959	0
V-1	51	24.099	ug/L	0.258	1	2423	214277	0
Cr	52	23.044	ug/L	0.143	0	3710	177279	0
Cr	53	22.670	ug/L	0.072	0	844	21413	0
Mn	55	44.843	ug/L	0.691	1	1107	572258	1
Co	59	21.839	ug/L	0.510	2	43	196389	2
Ge	72		ug/L			182198	175918	1
Ni	60	29.923	ug/L	0.421	1	44	46272	1
Ni	62	29.400	ug/L	0.553	1	81	6626	0
Cu	63	26.207	ug/L	0.164	0	470	87532	0
Cu	65	26.115	ug/L	0.278	1	68	40318	0
Zn	66	82.121	ug/L	0.721	0	662	82891	1
Zn	67	77.758	ug/L	1.336	1	152	12873	2
Zn	68	80.699	ug/L	0.485	0	5338	60239	1
As	75	29.007	ug/L	0.460	1	267	28516	1
As-1	75	27.090	ug/L	0.330	1	6008	31301	0
Se	82	82.637	ug/L	1.503	1	-20	9807	1
Se	78	82.457	ug/L	1.295	1	6082	28121	0
Mo	98	25.590	ug/L	0.197	0	331	111611	0
Y	89		ug/L			201615	211101	1
Kr	83		ug/L			162	173	5
In	115		ug/L			241678	243144	1
Ag	107	24.861	ug/L	0.542	2	20	179274	1
Cd	111	24.730	ug/L	0.371	1	115	48093	0
Cd	114	24.779	ug/L	0.639	2	30	111664	2
Sb	121	24.301	ug/L	0.368	1	17	159484	0
Sb	123	24.374	ug/L	0.361	1	15	119710	0
Ba	135	35.616	ug/L	0.741	2	20	51463	1
Ba	137	35.455	ug/L	0.557	1	26	87568	1
Tb	159		ug/L			269963	271359	1
Tl	205	25.381	ug/L	0.192	0	19	552058	0
Pb	208	26.003	ug/L	0.263	1	207	766237	1
Bi	209		ug/L			259036	254881	2
Th	232	25.196	ug/L	0.224	0	44	940462	1
U	238	25.235	ug/L	0.246	0	14	1075689	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:28:03
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
[>	Li	6		ug/L			239650	266541	0
[	Be	9	-0.002	ug/L	0.009	396	7	7	44
	C	13		mg/L			4584	6321	2
	Cl	37		mg/L			1805713	1759611	0
[>	Sc	45		ug/L			182221	216418	1
[	V	51	1.079	ug/L	0.021	1	1093	10863	2
[	V-1	51	0.893	ug/L	0.017	1	2423	10945	2
[	Cr	52	0.246	ug/L	0.015	6	3710	6311	3
[	Cr	53	-0.285	ug/L	0.015	5	844	739	3
[	Mn	55	134.299	ug/L	2.071	1	1107	1761186	0
[	Co	59	0.166	ug/L	0.007	4	43	1585	2
[>	Ge	72		ug/L			182198	173782	2
[	Ni	60	5.503	ug/L	0.090	1	44	8440	1
[	Ni	62	4.533	ug/L	0.229	5	81	1074	4
[	Cu	63	1.099	ug/L	0.008	0	470	4056	1
[	Cu	65	1.221	ug/L	0.058	4	68	1923	2
[	Zn	66	1.399	ug/L	0.034	2	662	2015	3
[	Zn	67	1.447	ug/L	0.211	14	152	379	8
[	Zn	68	0.680	ug/L	0.108	15	5338	5548	1
[	As	75	0.707	ug/L	0.024	3	267	934	0
[	As-1	75	0.578	ug/L	0.197	34	6008	6265	0
[	Se	82	0.373	ug/L	0.128	34	-20	24	61
[	Se	78	0.033	ug/L	0.602	1799	6082	5807	0
[	Mo	98	0.063	ug/L	0.001	1	331	586	2
	Y	89		ug/L			201615	204087	1
	Kr	83		ug/L			162	171	2
[>	In	115		ug/L			241678	237734	1
[	Ag	107	0.005	ug/L	0.001	22	20	54	15
[	Cd	111	0.028	ug/L	0.001	5	115	166	1
[	Cd	114	0.012	ug/L	0.003	27	30	80	18
[	Sb	121	0.190	ug/L	0.011	5	17	1237	4
[	Sb	123	0.198	ug/L	0.003	1	15	966	1
[	Ba	135	13.297	ug/L	0.234	1	20	18799	1
[	Ba	137	13.432	ug/L	0.347	2	26	32446	0
[>	Tb	159		ug/L			269963	267251	0
[	Tl	205	0.004	ug/L	0.001	29	19	105	23
[	Pb	208	0.015	ug/L	0.001	5	207	647	4
[	Bi	209		ug/L			259036	254219	1
[	Th	232	0.030	ug/L	0.001	3	44	1129	3
[	U	238	0.944	ug/L	0.007	0	14	39661	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:34:20
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			239650	267347	2
⌊	Be	9	0.005	ug/L	0.007	145	7	9	27
	C	13		mg/L			4584	6363	2
	Cl	37		mg/L			1805713	1761680	0
⌈>	Sc	45		ug/L			182221	223109	0
|	V	51	1.443	ug/L	0.004	0	1093	14518	0
|	V-1	51	1.263	ug/L	0.016	1	2423	14730	1
|	Cr	52	0.245	ug/L	0.015	6	3710	6491	2
|	Cr	53	-0.243	ug/L	0.028	11	844	801	3
|	Mn	55	21.915	ug/L	0.162	0	1107	297458	1
⌊	Co	59	1.732	ug/L	0.032	1	43	16578	1
⌈>	Ge	72		ug/L			182198	173935	0
|	Ni	60	6.749	ug/L	0.113	1	44	10351	1
|	Ni	62	7.020	ug/L	0.161	2	81	1623	2
|	Cu	63	0.909	ug/L	0.059	6	470	3434	5
|	Cu	65	0.974	ug/L	0.004	0	68	1550	0
|	Zn	66	1.916	ug/L	0.071	3	662	2530	3
|	Zn	67	1.802	ug/L	0.130	7	152	437	4
|	Zn	68	1.160	ug/L	0.180	15	5338	5878	1
|	As	75	0.867	ug/L	0.032	3	267	1089	2
|	As-1	75	0.743	ug/L	0.088	11	6008	6427	0
|	Se	82	0.142	ug/L	0.020	13	-20	-2	92
|	Se	78	-0.229	ug/L	0.325	141	6082	5745	1
⌊	Mo	98	0.018	ug/L	0.002	9	331	394	1
	Y	89		ug/L			201615	197533	1
	Kr	83		ug/L			162	170	1
⌈>	In	115		ug/L			241678	239961	0
|	Ag	107	0.006	ug/L	0.000	3	20	62	3
|	Cd	111	0.012	ug/L	0.007	62	115	137	9
|	Cd	114	0.020	ug/L	0.002	10	30	118	7
|	Sb	121	0.098	ug/L	0.007	7	17	655	7
|	Sb	123	0.102	ug/L	0.009	8	15	507	8
|	Ba	135	6.253	ug/L	0.104	1	20	8935	2
⌊	Ba	137	6.434	ug/L	0.039	0	26	15707	1
⌈>	Tb	159		ug/L			269963	268787	1
|	Tl	205	0.005	ug/L	0.000	5	19	122	5
|	Pb	208	0.024	ug/L	0.001	4	207	898	4
|	Bi	209		ug/L			259036	251117	0
|	Th	232	0.021	ug/L	0.001	6	44	829	6
⌊	U	238	0.019	ug/L	0.001	4	14	836	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:40:39
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			239650	264269	1
⌊	Be	9	23.385	ug/L	0.355	1	7	7771	2
	C	13		mg/L			4584	5563	1
	Cl	37		mg/L			1805713	1766468	0
⌈>	Sc	45		ug/L			182221	178273	1
|	V	51	25.674	ug/L	0.575	2	1093	188456	1
|	V-1	51	25.405	ug/L	0.632	2	2423	191375	1
|	Cr	52	25.692	ug/L	0.250	0	3710	167159	0
|	Cr	53	24.853	ug/L	0.457	1	844	19822	0
|	Mn	55	26.551	ug/L	0.537	2	1107	287710	1
⌊	Co	59	26.008	ug/L	0.605	2	43	198274	1
⌈>	Ge	72		ug/L			182198	173319	0
|	Ni	60	26.600	ug/L	0.250	0	44	40531	0
|	Ni	62	26.760	ug/L	0.288	1	81	5950	0
|	Cu	63	27.146	ug/L	0.416	1	470	89315	1
|	Cu	65	27.146	ug/L	0.392	1	68	41292	1
|	Zn	66	85.223	ug/L	1.297	1	662	84728	1
|	Zn	67	78.922	ug/L	1.721	2	152	12871	2
|	Zn	68	83.474	ug/L	0.953	1	5338	61215	1
|	As	75	28.184	ug/L	0.129	0	267	27306	0
|	As-1	75	26.338	ug/L	0.123	0	6008	30142	0
|	Se	82	83.176	ug/L	0.711	0	-20	9726	0
|	Se	78	83.477	ug/L	0.858	1	6082	27979	0
⌊	Mo	98	25.005	ug/L	0.158	0	331	107462	0
	Y	89		ug/L			201615	199199	1
	Kr	83		ug/L			162	178	4
⌈>	In	115		ug/L			241678	243446	1
|	Ag	107	25.413	ug/L	0.213	0	20	183518	1
|	Cd	111	24.955	ug/L	0.219	0	115	48598	1
|	Cd	114	24.872	ug/L	0.445	1	30	112222	0
|	Sb	121	24.480	ug/L	0.146	0	17	160878	0
|	Sb	123	24.748	ug/L	0.260	1	15	121706	1
|	Ba	135	25.754	ug/L	0.153	0	20	37270	1
⌊	Ba	137	25.789	ug/L	0.220	0	26	63781	0
⌈>	Tb	159		ug/L			269963	274812	0
|	Tl	205	25.072	ug/L	0.278	1	19	552257	0
|	Pb	208	25.986	ug/L	0.407	1	207	775454	1
|	Bi	209		ug/L			259036	260008	0
|	Th	232	24.663	ug/L	0.456	1	44	932223	1
⌊	U	238	24.221	ug/L	0.182	0	14	1045606	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 12:46:57
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	260181	1
[	Be	9	48.685	ug/L	1.115	2	7	15919	2
	C	13		mg/L			4584	4113	1
	Cl	37		mg/L			1805713	1769536	0
[>	Sc	45		ug/L			182221	180594	0
	V	51	50.345	ug/L	0.663	1	1093	373372	1
	V-1	51	50.108	ug/L	0.638	1	2423	380098	1
	Cr	52	50.292	ug/L	0.181	0	3710	327977	0
	Cr	53	49.559	ug/L	1.132	2	844	39212	1
	Mn	55	51.423	ug/L	1.187	2	1107	563447	1
[	Co	59	49.112	ug/L	0.142	0	43	379305	0
[>	Ge	72		ug/L			182198	177307	0
	Ni	60	50.187	ug/L	0.920	1	44	78188	1
	Ni	62	49.578	ug/L	1.114	2	81	11209	1
	Cu	63	50.525	ug/L	0.830	1	470	169657	0
	Cu	65	50.625	ug/L	1.495	2	68	78708	2
	Zn	66	51.623	ug/L	0.408	0	662	52757	0
	Zn	67	51.456	ug/L	0.846	1	152	8636	1
	Zn	68	50.337	ug/L	0.402	0	5338	39825	0
	As	75	50.999	ug/L	0.136	0	267	50338	0
	As-1	75	50.711	ug/L	0.173	0	6008	53961	0
	Se	82	51.225	ug/L	0.126	0	-20	6120	0
	Se	78	50.425	ug/L	0.750	1	6082	19632	0
[	Mo	98	50.527	ug/L	0.226	0	331	221813	0
	Y	89		ug/L			201615	200595	0
	Kr	83		ug/L			162	189	0
[>	In	115		ug/L			241678	243320	0
	Ag	107	49.921	ug/L	0.186	0	20	360312	0
	Cd	111	50.452	ug/L	0.606	1	115	98082	1
	Cd	114	50.570	ug/L	0.536	1	30	228054	0
	Sb	121	50.693	ug/L	0.853	1	17	332973	1
	Sb	123	50.762	ug/L	0.602	1	15	249505	1
	Ba	135	50.721	ug/L	0.446	0	20	73345	0
[	Ba	137	50.699	ug/L	0.129	0	26	125308	0
[>	Tb	159		ug/L			269963	271784	0
	Tl	205	49.756	ug/L	0.583	1	19	1083899	0
	Pb	208	51.698	ug/L	0.490	0	207	1525582	0
	Bi	209		ug/L			259036	261456	0
	Th	232	49.902	ug/L	0.496	0	44	1865456	0
[	U	238	52.163	ug/L	0.690	1	14	2227017	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 12:53:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			239650	251994	0
	Be	9	0.001	ug/L	0.006	408	7	7	24
	C	13		mg/L			4584	4693	0
	Cl	37		mg/L			1805713	1788900	0
>	Sc	45		ug/L			182221	173885	1
	V	51	0.016	ug/L	0.015	95	1093	1156	9
	V-1	51	-0.149	ug/L	0.009	6	2423	1232	4
	Cr	52	0.012	ug/L	0.007	56	3710	3618	1
	Cr	53	-0.500	ug/L	0.047	9	844	432	7
	Mn	55	0.030	ug/L	0.005	17	1107	1369	3
	Co	59	0.006	ug/L	0.001	11	43	89	6
>	Ge	72		ug/L			182198	173245	1
	Ni	60	-0.008	ug/L	0.002	29	44	30	10
	Ni	62	-0.128	ug/L	0.052	40	81	49	21
	Cu	63	-0.057	ug/L	0.003	5	470	260	3
	Cu	65	-0.012	ug/L	0.005	39	68	46	14
	Zn	66	-0.265	ug/L	0.033	12	662	367	7
	Zn	67	-0.307	ug/L	0.056	18	152	95	8
	Zn	68	-0.982	ug/L	0.076	7	5338	4416	2
	As	75	0.068	ug/L	0.028	40	267	318	7
	As-1	75	0.177	ug/L	0.021	12	6008	5876	1
	Se	82	-0.010	ug/L	0.082	810	-20	-20	48
	Se	78	0.595	ug/L	0.055	9	6082	5941	1
	Mo	98	-0.057	ug/L	0.004	7	331	68	23
	Y	89		ug/L			201615	194018	1
	Kr	83		ug/L			162	179	6
>	In	115		ug/L			241678	236647	1
	Ag	107	0.010	ug/L	0.000	1	20	89	2
	Cd	111	0.003	ug/L	0.001	41	115	118	3
	Cd	114	-0.003	ug/L	0.001	29	30	15	28
	Sb	121	0.059	ug/L	0.015	24	17	395	21
	Sb	123	0.056	ug/L	0.015	27	15	280	23
	Ba	135	0.001	ug/L	0.003	279	20	21	21
	Ba	137	0.007	ug/L	0.001	17	26	42	7
>	Tb	159		ug/L			269963	262498	0
	Tl	205	0.006	ug/L	0.001	20	19	136	16
	Pb	208	0.004	ug/L	0.002	45	207	322	16
	Bi	209		ug/L			259036	255939	1
	Th	232	0.047	ug/L	0.010	20	44	1747	19
	U	238	0.002	ug/L	0.001	23	14	105	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 G-L REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, January 21, 2013 12:59:23
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			239650	252203	0
⌊	Be	9	-0.005	ug/L	0.002	46	7	5	12
	C	13		mg/L			4584	4015	1
	Cl	37		mg/L			1805713	1777723	0
⌈>	Sc	45		ug/L			182221	179855	0
|	V	51	0.498	ug/L	0.021	4	1093	4743	3
|	V-1	51	0.333	ug/L	0.017	5	2423	4895	2
|	Cr	52	0.166	ug/L	0.030	17	3710	4726	4
|	Cr	53	-0.326	ug/L	0.003	0	844	582	0
|	Mn	55	5.156	ug/L	0.096	1	1107	57252	1
⌊	Co	59	0.122	ug/L	0.005	4	43	979	4
⌈>	Ge	72		ug/L			182198	171940	0
|	Ni	60	0.847	ug/L	0.054	6	44	1321	5
|	Ni	62	0.659	ug/L	0.102	15	81	220	9
|	Cu	63	0.154	ug/L	0.007	4	470	944	1
|	Cu	65	0.195	ug/L	0.003	1	68	357	0
|	Zn	66	-0.113	ug/L	0.043	38	662	513	7
|	Zn	67	-0.092	ug/L	0.045	49	152	129	5
|	Zn	68	-0.691	ug/L	0.091	13	5338	4576	1
|	As	75	0.203	ug/L	0.025	12	267	445	4
|	As-1	75	0.265	ug/L	0.038	14	6008	5913	0
|	Se	82	0.054	ug/L	0.037	68	-20	-12	33
|	Se	78	0.462	ug/L	0.074	16	6082	5861	0
⌊	Mo	98	-0.015	ug/L	0.005	30	331	247	7
	Y	89		ug/L			201615	195605	0
	Kr	83		ug/L			162	175	4
⌈>	In	115		ug/L			241678	231707	0
|	Ag	107	0.004	ug/L	0.002	47	20	46	28
|	Cd	111	0.001	ug/L	0.009	816	115	113	15
|	Cd	114	-0.001	ug/L	0.001	90	30	22	23
|	Sb	121	0.033	ug/L	0.006	17	17	221	15
|	Sb	123	0.033	ug/L	0.004	13	15	167	12
|	Ba	135	1.930	ug/L	0.047	2	20	2675	2
⌊	Ba	137	1.943	ug/L	0.007	0	26	4598	1
⌈>	Tb	159		ug/L			269963	261870	0
|	Tl	205	0.004	ug/L	0.001	30	19	92	24
|	Pb	208	U 0.029	ug/L	0.001	3	207	1018	2
|	Bi	209		ug/L			259036	253486	1
|	Th	232	0.042	ug/L	0.004	8	44	1552	8
⌊	U	238	0.085	ug/L	0.002	2	14	3495	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 13:05:40
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	255255	1
[	Be	9	0.005	ug/L	0.009	186	7	9	34
	C	13		mg/L			4584	5509	2
	Cl	37		mg/L			1805713	1782623	0
[>	Sc	45		ug/L			182221	202433	1
	V	51	2.273	ug/L	0.049	2	1093	20059	3
	V-1	51	2.085	ug/L	0.059	2	2423	20311	3
	Cr	52	0.875	ug/L	0.035	4	3710	10442	1
	Cr	53	0.371	ug/L	0.059	15	844	1260	4
	Mn	55	22.337	ug/L	0.534	2	1107	275011	1
[	Co	59	0.520	ug/L	0.034	6	43	4545	5
[>	Ge	72		ug/L			182198	168386	0
	Ni	60	4.263	ug/L	0.066	1	44	6345	1
	Ni	62	3.828	ug/L	0.200	5	81	891	5
	Cu	63	0.949	ug/L	0.018	1	470	3452	2
	Cu	65	1.038	ug/L	0.015	1	68	1595	1
	Zn	66	1.127	ug/L	0.067	5	662	1692	4
	Zn	67	1.215	ug/L	0.057	4	152	331	3
	Zn	68	0.672	ug/L	0.232	34	5338	5372	3
	As	75	0.697	ug/L	0.026	3	267	896	1
	As-1	75	0.754	ug/L	0.075	9	6008	6232	1
	Se	82	0.105	ug/L	0.127	120	-20	-6	215
	Se	78	0.559	ug/L	0.258	46	6082	5765	1
[	Mo	98	0.175	ug/L	0.005	2	331	1036	2
	Y	89		ug/L			201615	201295	0
	Kr	83		ug/L			162	183	3
[>	In	115		ug/L			241678	230693	0
	Ag	107	0.006	ug/L	0.001	13	20	61	8
	Cd	111	0.025	ug/L	0.002	8	115	157	3
	Cd	114	0.009	ug/L	0.002	25	30	66	14
	Sb	121	0.070	ug/L	0.004	5	17	450	6
	Sb	123	0.073	ug/L	0.005	7	15	354	7
	Ba	135	9.464	ug/L	0.321	3	20	12990	3
[	Ba	137	9.669	ug/L	0.355	3	26	22677	3
[>	Tb	159		ug/L			269963	258524	0
	Tl	205	0.004	ug/L	0.001	29	19	108	24
	Pb	208	0.127	ug/L	0.001	0	207	3757	0
	Bi	209		ug/L			259036	244516	1
	Th	232	0.118	ug/L	0.002	2	44	4253	2
[	U	238	0.431	ug/L	0.007	1	14	17530	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 GDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 13:11:57
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	254921	1
[	Be	9	0.006	ug/L	0.008	129	7	9	27
	C	13		mg/L			4584	5544	0
	Cl	37		mg/L			1805713	1771715	0
[>	Sc	45		ug/L			182221	197833	0
	V	51	2.140	ug/L	0.025	1	1093	18518	0
	V-1	51	1.963	ug/L	0.020	1	2423	18837	0
	Cr	52	0.848	ug/L	0.013	1	3710	10021	0
	Cr	53	0.374	ug/L	0.090	24	844	1234	6
	Mn	55	21.613	ug/L	0.357	1	1107	260120	1
[	Co	59	0.495	ug/L	0.011	2	43	4236	1
[>	Ge	72		ug/L			182198	168251	0
	Ni	60	3.971	ug/L	0.094	2	44	5908	2
	Ni	62	3.400	ug/L	0.189	5	81	799	4
	Cu	63	0.859	ug/L	0.011	1	470	3163	0
	Cu	65	0.967	ug/L	0.046	4	68	1489	4
	Zn	66	1.791	ug/L	0.051	2	662	2326	2
	Zn	67	1.853	ug/L	0.103	5	152	431	3
	Zn	68	1.174	ug/L	0.167	14	5338	5696	1
	As	75	0.667	ug/L	0.013	1	267	867	1
	As-1	75	0.707	ug/L	0.056	7	6008	6185	0
	Se	82	0.122	ug/L	0.076	61	-20	-4	181
	Se	78	0.432	ug/L	0.163	37	6082	5728	0
[	Mo	98	0.155	ug/L	0.001	0	331	950	0
	Y	89		ug/L			201615	199129	0
	Kr	83		ug/L			162	174	4
[>	In	115		ug/L			241678	229915	1
	Ag	107	0.006	ug/L	0.002	25	20	59	17
	Cd	111	0.021	ug/L	0.008	36	115	149	9
	Cd	114	0.007	ug/L	0.002	30	30	57	16
	Sb	121	0.065	ug/L	0.002	3	17	418	3
	Sb	123	0.062	ug/L	0.003	4	15	301	3
	Ba	135	9.052	ug/L	0.088	0	20	12383	0
[	Ba	137	8.922	ug/L	0.026	0	26	20858	1
[>	Tb	159		ug/L			269963	257705	1
	Tl	205	0.003	ug/L	0.000	3	19	80	4
	Pb	208	0.123	ug/L	0.001	0	207	3644	1
	Bi	209		ug/L			259036	244738	0
	Th	232	0.106	ug/L	0.003	2	44	3795	1
[	U	238	0.400	ug/L	0.008	2	14	16198	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 GSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 13:18:14
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			239650	253821	0
⌊	Be	9	25.254	ug/L	0.241	0	7	8060	1
	C	13		mg/L			4584	5591	1
	Cl	37		mg/L			1805713	1774584	0
⌈>	Sc	45		ug/L			182221	198117	0
|	V	51	25.825	ug/L	0.038	0	1093	210690	0
|	V-1	51	25.620	ug/L	0.051	0	2423	214487	0
|	Cr	52	24.197	ug/L	0.328	1	3710	175199	1
|	Cr	53	23.654	ug/L	0.235	0	844	21011	0
|	Mn	55	45.895	ug/L	0.521	1	1107	551815	0
⌊	Co	59	23.410	ug/L	0.363	1	43	198365	1
⌈>	Ge	72		ug/L			182198	168086	1
|	Ni	60	30.851	ug/L	0.232	0	44	45584	1
|	Ni	62	30.862	ug/L	0.685	2	81	6642	1
|	Cu	63	27.851	ug/L	0.280	1	470	88851	0
|	Cu	65	27.830	ug/L	0.348	1	68	41051	1
|	Zn	66	87.264	ug/L	0.885	1	662	84123	1
|	Zn	67	80.740	ug/L	0.666	0	152	12766	0
|	Zn	68	85.770	ug/L	0.348	0	5338	60863	0
|	As	75	30.012	ug/L	0.268	0	267	28182	0
|	As-1	75	28.080	ug/L	0.411	1	6008	30797	0
|	Se	82	84.650	ug/L	1.147	1	-20	9599	0
|	Se	78	84.724	ug/L	2.018	2	6082	27453	1
⌊	Mo	98	26.552	ug/L	0.036	0	331	110647	1
	Y	89		ug/L			201615	199945	2
	Kr	83		ug/L			162	184	3
⌈>	In	115		ug/L			241678	228398	1
|	Ag	107	25.961	ug/L	0.514	1	20	175906	2
|	Cd	111	26.198	ug/L	0.068	0	115	47860	1
|	Cd	114	26.354	ug/L	0.313	1	30	111580	2
|	Sb	121	25.352	ug/L	0.295	1	17	156308	1
|	Sb	123	25.506	ug/L	0.313	1	15	117680	1
|	Ba	135	36.982	ug/L	0.174	0	20	50202	1
⌊	Ba	137	37.283	ug/L	0.058	0	26	86504	1
⌈>	Tb	159		ug/L			269963	255756	1
|	Tl	205	27.102	ug/L	0.540	1	19	555483	0
|	Pb	208	27.902	ug/L	0.360	1	207	774829	1
|	Bi	209		ug/L			259036	244963	0
|	Th	232	26.943	ug/L	0.304	1	44	947752	1
⌊	U	238	27.065	ug/L	0.391	1	14	1087284	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35-~~GPOST REN~~ 22222
Sample Dil Factor: 2 EL 1-21-13
Comments:
Sample Date/Time: Monday, January 21, 2013 13:24:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			239650	252613	0
⌊	Be	9	22.599	ug/L	0.742	3	7	7178	2
	C	13		mg/L			4584	5695	1
	Cl	37		mg/L			1805713	1742799	0
⌈>	Sc	45		ug/L			182221	194375	0
|	V	51	24.476	ug/L	0.036	0	1093	195976	0
|	V-1	51	24.236	ug/L	0.054	0	2423	199210	0
|	Cr	52	22.763	ug/L	0.132	0	3710	161939	0
|	Cr	53	22.116	ug/L	0.355	1	844	19333	1
|	Mn	55	44.434	ug/L	0.432	0	1107	524201	0
⌊	Co	59	21.902	ug/L	0.144	0	43	182088	0
⌈>	Ge	72		ug/L			182198	161402	0
|	Ni	60	29.456	ug/L	0.347	1	44	41791	0
|	Ni	62	29.317	ug/L	0.085	0	81	6063	0
|	Cu	63	26.381	ug/L	0.455	1	470	80835	0
|	Cu	65	26.382	ug/L	0.299	1	68	37369	0
|	Zn	66	83.223	ug/L	0.300	0	662	77066	0
|	Zn	67	77.091	ug/L	1.111	1	152	11710	1
|	Zn	68	80.784	ug/L	0.825	1	5338	55318	0
|	As	75	28.456	ug/L	0.421	1	267	25670	0
|	As-1	75	27.004	ug/L	0.234	0	6008	28645	0
|	Se	82	80.675	ug/L	1.287	1	-20	8783	0
|	Se	78	82.110	ug/L	0.404	0	6082	25716	0
⌊	Mo	98	25.686	ug/L	0.355	1	331	102785	1
	Y	89		ug/L			201615	193488	1
	Kr	83		ug/L			162	175	1
⌈>	In	115		ug/L			241678	220351	0
|	Ag	107	24.961	ug/L	0.146	0	20	163161	0
|	Cd	111	24.817	ug/L	0.380	1	115	43742	0
|	Cd	114	24.610	ug/L	0.251	1	30	100517	0
|	Sb	121	24.738	ug/L	0.385	1	17	147148	0
|	Sb	123	24.842	ug/L	0.349	1	15	110584	1
|	Ba	135	35.507	ug/L	0.229	0	20	46505	1
⌊	Ba	137	36.265	ug/L	0.255	0	26	81176	0
⌈>	Tb	159		ug/L			269963	248991	0
|	Tl	205	25.392	ug/L	0.300	1	19	506784	0
|	Pb	208	26.112	ug/L	0.029	0	207	706053	0
|	Bi	209		ug/L			259036	235644	0
|	Th	232	25.832	ug/L	0.369	1	44	884718	1
⌊	U	238	25.529	ug/L	0.123	0	14	998586	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 13:30:47
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	249824	1
[	Be	9	0.004	ug/L	0.020	454	7	8	71
	C	13		mg/L			4584	7307	2
	Cl	37		mg/L			1805713	1770728	0
[>	Sc	45		ug/L			182221	182817	0
	V	51	1.018	ug/L	0.014	1	1093	8721	1
	V-1	51	0.842	ug/L	0.004	0	2423	8858	0
	Cr	52	0.527	ug/L	0.009	1	3710	7166	0
	Cr	53	0.008	ug/L	0.037	446	844	853	3
	Mn	55	4.241	ug/L	0.035	0	1107	48065	0
[	Co	59	0.061	ug/L	0.003	5	43	520	5
[>	Ge	72		ug/L			182198	166266	0
	Ni	60	2.184	ug/L	0.077	3	44	3229	3
	Ni	62	1.909	ug/L	0.130	6	81	475	5
	Cu	63	0.799	ug/L	0.016	2	470	2939	1
	Cu	65	0.879	ug/L	0.021	2	68	1343	2
	Zn	66	1.200	ug/L	0.053	4	662	1739	2
	Zn	67	1.183	ug/L	0.081	6	152	322	3
	Zn	68	0.589	ug/L	0.121	20	5338	5251	1
	As	75	0.719	ug/L	0.035	4	267	906	3
	As-1	75	0.314	ug/L	0.067	21	6008	5762	0
	Se	82	1.274	ug/L	0.109	8	-20	124	9
	Se	78	0.166	ug/L	0.258	155	6082	5592	0
[	Mo	98	0.006	ug/L	0.006	104	331	325	7
	Y	89		ug/L			201615	197600	1
	Kr	83		ug/L			162	172	1
[>	In	115		ug/L			241678	225608	0
	Ag	107	0.007	ug/L	0.002	25	20	66	18
	Cd	111	0.021	ug/L	0.008	38	115	145	9
	Cd	114	0.016	ug/L	0.002	12	30	96	8
	Sb	121	0.178	ug/L	0.013	7	17	1098	7
	Sb	123	0.183	ug/L	0.018	9	15	847	9
	Ba	135	10.477	ug/L	0.189	1	20	14062	1
[	Ba	137	10.539	ug/L	0.191	1	26	24173	2
[>	Tb	159		ug/L			269963	255622	0
	Tl	205	0.009	ug/L	0.001	15	19	200	14
	Pb	208	0.018	ug/L	0.001	4	207	695	3
	Bi	209		ug/L			259036	240578	1
	Th	232	0.044	ug/L	0.007	15	44	1592	15
[	U	238	0.118	ug/L	0.003	2	14	4762	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 I REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 13:37:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			239650	248971	0
	Be	9	0.006	ug/L	0.010	173	7	9	34
	C	13		mg/L			4584	7111	0
	Cl	37		mg/L			1805713	1762262	0
>	Sc	45		ug/L			182221	182098	0
	V	51	0.579	ug/L	0.017	2	1093	5413	2
	V-1	51	0.402	ug/L	0.007	1	2423	5480	0
	Cr	52	0.259	ug/L	0.018	6	3710	5390	2
	Cr	53	-0.273	ug/L	0.049	17	844	630	5
	Mn	55	2.212	ug/L	0.032	1	1107	25504	1
	Co	59	0.170	ug/L	0.008	4	43	1368	4
>	Ge	72		ug/L			182198	166327	0
	Ni	60	2.049	ug/L	0.052	2	44	3033	3
	Ni	62	0.560	ug/L	0.013	2	81	192	1
	Cu	63	1.837	ug/L	0.012	0	470	6200	0
	Cu	65	2.088	ug/L	0.052	2	68	3105	2
	Zn	66	2.771	ug/L	0.090	3	662	3228	2
	Zn	67	3.304	ug/L	0.076	2	152	650	2
	Zn	68	2.590	ug/L	0.012	0	5338	6544	0
	As	75	0.491	ug/L	0.034	6	267	696	3
	As-1	75	0.463	ug/L	0.028	5	6008	5897	0
	Se	82	0.232	ug/L	0.108	46	-20	7	157
	Se	78	0.352	ug/L	0.083	23	6082	5642	0
	Mo	98	0.031	ug/L	0.003	8	331	431	2
	Y	89		ug/L			201615	207012	0
	Kr	83		ug/L			162	173	2
>	In	115		ug/L			241678	226848	0
	Ag	107	0.005	ug/L	0.000	4	20	55	2
	Cd	111	0.073	ug/L	0.008	10	115	240	5
	Cd	114	0.048	ug/L	0.008	16	30	230	13
	Sb	121	0.262	ug/L	0.002	0	17	1623	1
	Sb	123	0.256	ug/L	0.010	3	15	1187	3
	Ba	135	44.099	ug/L	0.300	0	20	59454	0
	Ba	137	43.768	ug/L	0.690	1	26	100853	1
>	Tb	159		ug/L			269963	255877	0
	Tl	205	0.005	ug/L	0.000	3	19	117	2
	Pb	208	0.020	ug/L	0.001	3	207	760	2
	Bi	209		ug/L			259036	244070	1
	Th	232	0.032	ug/L	0.001	2	44	1179	2
	U	238	0.071	ug/L	0.002	2	14	2883	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 J REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 13:43:26
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			239650	254333	0
⌊	Be	9	0.013	ug/L	0.022	171	7	11	60
	C	13		mg/L			4584	6008	0
	Cl	37		mg/L			1805713	1752585	0
⌈>	Sc	45		ug/L			182221	188316	0
|	V	51	1.000	ug/L	0.023	2	1093	8837	1
|	V-1	51	0.794	ug/L	0.032	4	2423	8744	2
|	Cr	52	0.209	ug/L	0.007	3	3710	5238	1
|	Cr	53	-0.385	ug/L	0.026	6	844	562	3
|	Mn	55	5781.228	ug/L	53.314	0	1107	65930850	1
⌊	Co	59	7.867	ug/L	0.077	0	43	63392	0
⌈>	Ge	72		ug/L			182198	166411	0
|	Ni	60	3.045	ug/L	0.025	0	44	4490	0
|	Ni	62	2.072	ug/L	0.102	4	81	510	4
|	Cu	63	0.560	ug/L	0.009	1	470	2190	2
|	Cu	65	0.832	ug/L	0.047	5	68	1276	5
|	Zn	66	2.509	ug/L	0.048	1	662	2982	1
|	Zn	67	2.815	ug/L	0.283	10	152	575	7
|	Zn	68	2.111	ug/L	0.151	7	5338	6238	1
|	As	75	3.267	ug/L	0.024	0	267	3254	1
|	As-1	75	3.241	ug/L	0.058	1	6008	8374	0
|	Se	82	0.638	ug/L	0.100	15	-20	53	21
|	Se	78	0.428	ug/L	0.259	60	6082	5664	0
⌊	Mo	98	0.225	ug/L	0.017	7	331	1227	5
	Y	89		ug/L			201615	227571	0
	Kr	83		ug/L			162	168	5
⌈>	In	115		ug/L			241678	229093	1
|	Ag	107	0.007	ug/L	0.001	14	20	65	8
|	Cd	111	0.031	ug/L	0.012	38	115	166	11
|	Cd	114	-0.001	ug/L	0.002	265	30	25	31
|	Sb	121	0.089	ug/L	0.003	2	17	565	1
|	Sb	123	0.092	ug/L	0.005	5	15	441	3
|	Ba	135	36.538	ug/L	0.614	1	20	49741	0
⌊	Ba	137	36.914	ug/L	0.680	1	26	85888	0
⌈>	Tb	159		ug/L			269963	259845 ✓	1
|	Tl	205	0.022	ug/L	0.000	0	19	472	1
|	Pb	208	u 0.007	ug/L	0.001	8	207	397	3
|	Bi	209		ug/L			259036	249373	1
|	Th	232	0.029	ug/L	0.001	3	44	1091	2
⌊	U	238	0.050	ug/L	0.001	2	14	2069	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 K REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 13:49:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	257720	0
[	Be	9	0.007	ug/L	0.007	93	7	10	21
	C	13		mg/L			4584	6914	1
	Cl	37		mg/L			1805713	1745187	0
[>	Sc	45		ug/L			182221	205350	0
	V	51	0.965	ug/L	0.020	2	1093	9349	1
	V-1	51	0.757	ug/L	0.001	0	2423	9221	0
	Cr	52	0.233	ug/L	0.012	5	3710	5890	1
	Cr	53	-0.372	ug/L	0.063	17	844	624	8
	Mn	55	117.472	ug/L	0.828	0	1107	1462115	0
[	Co	59	0.118	ug/L	0.002	1	43	1087	1
[>	Ge	72		ug/L			182198	166263	0
	Ni	60	5.117	ug/L	0.111	2	44	7513	2
	Ni	62	4.338	ug/L	0.329	7	81	987	6
	Cu	63	1.017	ug/L	0.009	0	470	3624	1
	Cu	65	1.169	ug/L	0.012	1	68	1765	1
	Zn	66	0.630	ug/L	0.033	5	662	1200	2
	Zn	67	0.660	ug/L	0.121	18	152	241	8
	Zn	68	-0.064	ug/L	0.133	206	5338	4830	2
	As	75	0.659	ug/L	0.033	5	267	850	2
	As-1	75	0.558	ug/L	0.067	11	6008	5979	0
	Se	82	0.312	ug/L	0.120	38	-20	16	81
	Se	78	0.171	ug/L	0.170	99	6082	5593	0
[	Mo	98	0.051	ug/L	0.012	24	331	513	10
	Y	89		ug/L			201615	197529	0
	Kr	83		ug/L			162	173	3
[>	In	115		ug/L			241678	230482	0
	Ag	107	0.001	ug/L	0.002	197	20	25	49
	Cd	111	0.026	ug/L	0.008	30	115	158	9
	Cd	114	0.012	ug/L	0.000	3	30	80	2
	Sb	121	0.168	ug/L	0.004	2	17	1062	2
	Sb	123	0.162	ug/L	0.006	3	15	769	3
	Ba	135	12.459	ug/L	0.187	1	20	17080	1
[	Ba	137	12.459	ug/L	0.087	0	26	29187	0
[>	Tb	159		ug/L			269963	259348 ✓	0
	Tl	205	0.004	ug/L	0.000	11	19	107	9
	Pb	208	u 0.005	ug/L	0.001	27	207	332	10
	Bi	209		ug/L			259036	247098	0
	Th	232	0.012	ug/L	0.000	2	44	487	1
[	U	238	0.920	ug/L	0.005	0	14	37507	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ35 L REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 13:55:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			239650	265205	0
Be	9	0.003	ug/L	0.004	136	7	8	14
C	13		mg/L			4584	6200	1
Cl	37		mg/L			1805713	1758641	0
Sc	45		ug/L			182221	220949	0
V	51	1.397	ug/L	0.021	1	1093	13961	1
V-1	51	1.186	ug/L	0.024	2	2423	13874	2
Cr	52	0.131	ug/L	0.015	11	3710	5534	1
Cr	53	-0.450	ug/L	0.012	2	844	597	2
Mn	55	21.359	ug/L	0.284	1	1107	287136	1
Co	59	1.454	ug/L	0.020	1	43	13785	0
Ge	72		ug/L			182198	171495	1
Ni	60	6.683	ug/L	0.041	0	44	10108	1
Ni	62	7.096	ug/L	0.301	4	81	1617	4
Cu	63	1.290	ug/L	0.036	2	470	4621	1
Cu	65	1.365	ug/L	0.044	3	68	2115	2
Zn	66	1.238	ug/L	0.061	4	662	1831	2
Zn	67	1.098	ug/L	0.058	5	152	319	3
Zn	68	0.405	ug/L	0.308	75	5338	5294	4
As	75	0.853	ug/L	0.011	1	267	1061	1
As-1	75	0.688	ug/L	0.074	10	6008	6286	0
Se	82	0.081	ug/L	0.085	104	-20	-9	101
Se	78	-0.377	ug/L	0.318	84	6082	5625	0
Mo	98	0.002	ug/L	0.003	150	331	320	3
Y	89		ug/L			201615	196907	0
Kr	83		ug/L			162	174	5
In	115		ug/L			241678	236102	1
Ag	107	0.002	ug/L	0.002	71	20	35	31
Cd	111	0.017	ug/L	0.009	53	115	146	12
Cd	114	0.016	ug/L	0.001	3	30	99	3
Sb	121	0.079	ug/L	0.005	6	17	518	5
Sb	123	0.078	ug/L	0.006	7	15	388	7
Ba	135	6.165	ug/L	0.063	1	20	8667	0
Ba	137	6.298	ug/L	0.075	1	26	15126	0
Tb	159		ug/L			269963	263373	0
Tl	205	0.003	ug/L	0.000	13	19	87	10
Pb	208	0.044	ug/L	0.001	2	207	1461	2
Bi	209		ug/L			259036	251904	0
Th	232	0.008	ug/L	0.000	4	44	320	4
U	238	0.017	ug/L	0.001	3	14	712	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 14:01:49
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	253847	2
[	Be	9	48.101	ug/L	0.503	1	7	15349	3
	C	13		mg/L			4584	3996	2
	Cl	37		mg/L			1805713	1748166	0
[>	Sc	45		ug/L			182221	174303	2
	V	51	50.024	ug/L	0.415	0	1093	358107	3
	V-1	51	49.821	ug/L	0.089	0	2423	364758	2
	Cr	52	50.441	ug/L	0.647	1	3710	317556	4
	Cr	53	49.782	ug/L	1.308	2	844	38011	3
	Mn	55	51.500	ug/L	0.643	1	1107	544751	3
[	Co	59	50.173	ug/L	1.272	2	43	374112	4
[>	Ge	72		ug/L			182198	170850	4
	Ni	60	50.333	ug/L	0.848	1	44	75530	2
	Ni	62	50.163	ug/L	0.951	1	81	10922	2
	Cu	63	50.427	ug/L	0.946	1	470	163093	2
	Cu	65	50.205	ug/L	0.065	0	68	75224	4
	Zn	66	51.718	ug/L	0.759	1	662	50911	2
	Zn	67	52.723	ug/L	0.529	1	152	8521	3
	Zn	68	49.976	ug/L	0.982	1	5338	38120	2
	As	75	50.321	ug/L	0.878	1	267	47840	2
	As-1	75	50.145	ug/L	1.335	2	6008	51446	2
	Se	82	50.694	ug/L	0.714	1	-20	5834	3
	Se	78	50.366	ug/L	2.056	4	6082	18888	1
[	Mo	98	50.334	ug/L	0.958	1	331	212820	2
	Y	89		ug/L			201615	194099	3
	Kr	83		ug/L			162	188	0
[>	In	115		ug/L			241678	234841	2
	Ag	107	50.119	ug/L	1.133	2	20	349280	5
	Cd	111	50.575	ug/L	1.021	2	115	94902	3
	Cd	114	50.679	ug/L	0.509	1	30	220570	2
	Sb	121	51.141	ug/L	0.265	0	17	324191	2
	Sb	123	51.207	ug/L	0.353	0	15	242959	3
	Ba	135	51.050	ug/L	0.337	0	20	71243	2
[	Ba	137	50.435	ug/L	0.323	0	26	120315	3
[>	Tb	159		ug/L			269963	264326	3
	Tl	205	49.785	ug/L	0.393	0	19	1054624	2
	Pb	208	51.527	ug/L	0.438	0	207	1478595	3
	Bi	209		ug/L			259036	255595	1
	Th	232	49.516	ug/L	0.810	1	44	1799587	2
[	U	238	51.995	ug/L	0.523	1	14	2158578	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 14:08:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	238131	1
[	Be	9	0.003	ug/L	0.009	296	7	7	32
	C	13		mg/L			4584	4446	1
	Cl	37		mg/L			1805713	1779129	0
[>	Sc	45		ug/L			182221	164804	0
	V	51	0.023	ug/L	0.005	23	1093	1141	2
	V-1	51	-0.162	ug/L	0.010	6	2423	1081	6
	Cr	52	0.020	ug/L	0.009	46	3710	3471	1
	Cr	53	-0.553	ug/L	0.013	2	844	372	2
	Mn	55	0.061	ug/L	0.006	9	1107	1610	3
[	Co	59	0.004	ug/L	0.001	24	43	65	9
[>	Ge	72		ug/L			182198	164212	0
	Ni	60	-0.006	ug/L	0.002	32	44	32	8
	Ni	62	-0.154	ug/L	0.040	25	81	41	19
	Cu	63	-0.072	ug/L	0.006	8	470	200	8
	Cu	65	-0.013	ug/L	0.009	67	68	42	29
	Zn	66	-0.247	ug/L	0.005	2	662	366	1
	Zn	67	-0.389	ug/L	0.038	9	152	78	7
	Zn	68	-0.875	ug/L	0.050	5	5338	4253	0
	As	75	0.087	ug/L	0.013	15	267	320	3
	As-1	75	0.242	ug/L	0.102	42	6008	5628	1
	Se	82	0.013	ug/L	0.111	843	-20	-16	74
	Se	78	0.826	ug/L	0.300	36	6082	5689	1
[	Mo	98	-0.057	ug/L	0.003	6	331	65	21
	Y	89		ug/L			201615	185953	0
	Kr	83		ug/L			162	174	4
[>	In	115		ug/L			241678	225470	1
	Ag	107	0.010	ug/L	0.002	18	20	87	15
	Cd	111	0.002	ug/L	0.005	206	115	112	6
	Cd	114	-0.004	ug/L	0.001	20	30	12	24
	Sb	121	0.059	ug/L	0.014	23	17	376	23
	Sb	123	0.064	ug/L	0.015	24	15	304	24
	Ba	135	-0.002	ug/L	0.002	128	20	16	20
[	Ba	137	0.005	ug/L	0.003	53	26	35	17
[>	Tb	159		ug/L			269963	253332	0
	Tl	205	0.006	ug/L	0.000	7	19	149	6
	Pb	208	0.004	ug/L	0.002	45	207	298	16
	Bi	209		ug/L			259036	247684	1
	Th	232	0.040	ug/L	0.009	21	44	1436	21
[	U	238	0.003	ug/L	0.001	47	14	122	42

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 14:14:14
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

Pb only

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	241226	1
[	Be	9	-0.012	ug/L	0.005	39	7	3	43
	C	13		mg/L			4584	5028	0
	Cl	37		mg/L			1805713	1768474	0
[>	Sc	45		ug/L			182221	168490	0
[	V	51	0.030	ug/L	0.006	20	1093	1218	2
[	V-1	51	-0.172	ug/L	0.003	1	2423	1031	2
[	Cr	52	0.036	ug/L	0.019	52	3710	3649	2
[	Cr	53	-0.593	ug/L	0.031	5	844	352	6
[	Mn	55	0.059	ug/L	0.009	14	1107	1625	6
[	Co	59	0.002	ug/L	0.001	42	43	58	13
[>	Ge	72		ug/L			182198	164981	0
[	Ni	60	-0.009	ug/L	0.003	32	44	27	16
[	Ni	62	-0.147	ug/L	0.035	23	81	42	16
[	Cu	63	0.035	ug/L	0.010	27	470	533	5
[	Cu	65	0.107	ug/L	0.017	15	68	216	10
[	Zn	66	0.257	ug/L	0.022	8	662	840	2
[	Zn	67	0.130	ug/L	0.082	62	152	158	7
[	Zn	68	-0.317	ug/L	0.124	39	5338	4631	2
[	As	75	u 0.078	ug/L	0.010	12	267	312	2
[	As-1	75	0.252	ug/L	0.018	7	6008	5663	0
[	Se	82	0.125	ug/L	0.087	69	-20	-4	222
[	Se	78	0.905	ug/L	0.091	10	6082	5736	0
[	Mo	98	-0.062	ug/L	0.001	1	331	45	9
	Y	89		ug/L			201615	191330	1
	Kr	83		ug/L			162	164	4
[>	In	115		ug/L			241678	227233	1
[	Ag	107	0.004	ug/L	0.002	52	20	42	28
[	Cd	111	u 0.005	ug/L	0.008	152	115	118	11
[	Cd	114	-0.005	ug/L	0.001	12	30	7	35
[	Sb	121	u 0.021	ug/L	0.005	21	17	146	17
[	Sb	123	0.024	ug/L	0.006	23	15	122	19
[	Ba	135	0.020	ug/L	0.011	56	20	46	34
[	Ba	137	0.017	ug/L	0.011	65	26	63	40
[>	Tb	159		ug/L			269963	258082	0
[	Tl	205	0.003	ug/L	0.001	38	19	87	30
[	Pb	208	0.008	ug/L	0.001	16	207	415	8
[	Bi	209		ug/L			259036	250192	1
[	Th	232	0.023	ug/L	0.004	18	44	851	17
[	U	238	0.000	ug/L	0.000	36	14	34	20

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 14:20:33
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	250925	1
[	Be	9	-0.002	ug/L	0.004	179	7	6	21
	C	13		mg/L			4584	6126	1
	Cl	37		mg/L			1805713	1735390	0
[>	Sc	45		ug/L			182221	190152	1
[	V	51	0.599	ug/L	0.013	2	1093	5801	0
[	V-1	51	0.419	ug/L	0.019	4	2423	5853	0
[	Cr	52	0.333	ug/L	0.038	11	3710	6133	2
[	Cr	53	-0.210	ug/L	0.055	25	844	709	4
[	Mn	55	698.791	ug/L	6.988	1	1107	8047030	0
[	Co	59	0.313	ug/L	0.009	2	43	2591	3
[>	Ge	72		ug/L			182198	162699	2
[	Ni	60	1.578	ug/L	0.045	2	44	2293	2
[	Ni	62	1.284	ug/L	0.105	8	81	336	4
[	Cu	63	0.567	ug/L	0.021	3	470	2161	1
[	Cu	65	1.137	ug/L	0.043	3	68	1683	5
[	Zn	66	3.880	ug/L	0.067	1	662	4186	3
[	Zn	67	3.744	ug/L	0.265	7	152	702	3
[	Zn	68	3.289	ug/L	0.125	3	5338	6842	1
[	As	75	12.763	ug/L	0.151	1	267	11736	1
[	As-1	75	13.383	ug/L	0.286	2	6008	17012	0
[	Se	82	0.369	ug/L	0.138	37	-20	22	69
[	Se	78	1.283	ug/L	0.493	38	6082	5749	0
[	Mo	98	0.924	ug/L	0.016	1	331	4013	1
	Y	89		ug/L			201615	191046	0
	Kr	83		ug/L			162	171	7
[>	In	115		ug/L			241678	220264	2
[	Ag	107	0.006	ug/L	0.003	43	20	60	28
[	Cd	111	0.137	ug/L	0.011	8	115	345	3
[	Cd	114	0.134	ug/L	0.006	4	30	575	4
[	Sb	121	0.419	ug/L	0.019	4	17	2506	2
[	Sb	123	0.404	ug/L	0.017	4	15	1813	4
[	Ba	135	34.431	ug/L	0.813	2	20	45064	0
[	Ba	137	34.581	ug/L	1.030	2	26	77347	0
[>	Tb	159		ug/L			269963	250717	1
[	Tl	205	0.002	ug/L	0.001	32	19	56	21
[	Pb	208	0.254	ug/L	0.000	0	207	7108	1
[	Bi	209		ug/L			259036	235215	2
[	Th	232	0.075	ug/L	0.007	9	44	2621	7
[	U	238	0.110	ug/L	0.003	2	14	4336	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 14:26:50
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			239650	263266	1
	Be	9	0.007	ug/L	0.013	196	7	10	43
	C	13		mg/L			4584	6010	1
	Cl	37		mg/L			1805713	1779562	0
>	Sc	45		ug/L			182221	202559	1
	V	51	0.621	ug/L	0.013	2	1093	6363	3
	V-1	51	0.422	ug/L	0.018	4	2423	6261	2
	Cr	52	0.302	ug/L	0.021	6	3710	6309	2
	Cr	53	-0.298	ug/L	0.044	14	844	680	3
	Mn	55	725.759	ug/L	13.747	1	1107	8901985	0
	Co	59	0.333	ug/L	0.024	7	43	2926	5
>	Ge	72		ug/L			182198	171172	1
	Ni	60	1.680	ug/L	0.024	1	44	2567	2
	Ni	62	1.506	ug/L	0.117	7	81	402	7
	Cu	63	0.543	ug/L	0.006	1	470	2197	0
	Cu	65	1.192	ug/L	0.025	2	68	1851	1
	Zn	66	3.808	ug/L	0.081	2	662	4332	1
	Zn	67	3.511	ug/L	0.121	3	152	702	1
	Zn	68	2.656	ug/L	0.156	5	5338	6778	0
	As	75	13.286	ug/L	0.259	1	267	12843	0
	As-1	75	13.574	ug/L	0.371	2	6008	18075	0
	Se	82	0.405	ug/L	0.091	22	-20	27	38
	Se	78	0.038	ug/L	0.364	957	6082	5723	0
	Mo	98	0.972	ug/L	0.025	2	331	4425	1
	Y	89		ug/L			201615	200503	2
	Kr	83		ug/L			162	173	1
>	In	115		ug/L			241678	236660	1
	Ag	107	0.005	ug/L	0.001	26	20	57	17
	Cd	111	0.160	ug/L	0.007	4	115	414	1
	Cd	114	0.147	ug/L	0.006	4	30	675	2
	Sb	121	0.401	ug/L	0.009	2	17	2576	0
	Sb	123	0.408	ug/L	0.016	3	15	1964	2
	Ba	135	34.717	ug/L	0.800	2	20	48820	0
	Ba	137	34.487	ug/L	0.604	1	26	82896	0
>	Tb	159		ug/L			269963	264581	1
	Tl	205	0.001	ug/L	0.000	18	19	44	11
	Pb	208	0.263	ug/L	0.005	2	207	7764	0
	Bi	209		ug/L			259036	250062	1
	Th	232	0.054	ug/L	0.000	0	44	2005	1
	U	238	0.111	ug/L	0.002	1	14	4642	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 14:33:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	274941	0
[	Be	9	23.666	ug/L	0.044	0	7	8182	0
	C	13		mg/L			4584	5434	1
	Cl	37		mg/L			1805713	1798925	0
[>	Sc	45		ug/L			182221	210900	1
	V	51	23.721	ug/L	0.201	0	1093	206092	1
	V-1	51	23.533	ug/L	0.167	0	2423	209937	1
	Cr	52	22.639	ug/L	0.033	0	3710	174774	1
	Cr	53	22.117	ug/L	0.238	1	844	20979	2
	Mn	55	726.546	ug/L	13.417	1	1107	9279513	1
[	Co	59	22.207	ug/L	0.157	0	43	200308	1
[>	Ge	72		ug/L			182198	176989	0
	Ni	60	27.396	ug/L	0.365	1	44	42631	1
	Ni	62	27.525	ug/L	0.333	1	81	6247	0
	Cu	63	25.931	ug/L	0.666	2	470	87152	3
	Cu	65	26.674	ug/L	0.380	1	68	41436	2
	Zn	66	85.407	ug/L	0.869	1	662	86712	1
	Zn	67	80.096	ug/L	0.806	1	152	13336	0
	Zn	68	82.391	ug/L	1.291	1	5338	61772	2
	As	75	41.985	ug/L	0.246	0	267	41412	0
	As-1	75	39.855	ug/L	0.222	0	6008	43584	0
	Se	82	85.517	ug/L	0.939	1	-20	10212	1
	Se	78	83.273	ug/L	0.938	1	6082	28516	1
[	Mo	98	26.907	ug/L	0.161	0	331	118067	1
	Y	89		ug/L			201615	208292	0
	Kr	83		ug/L			162	164	4
[>	In	115		ug/L			241678	242473	1
	Ag	107	24.737	ug/L	0.310	1	20	177921	1
	Cd	111	25.329	ug/L	0.402	1	115	49125	1
	Cd	114	25.199	ug/L	0.300	1	30	113260	1
	Sb	121	25.403	ug/L	0.208	0	17	166290	1
	Sb	123	25.526	ug/L	0.065	0	15	125038	0
	Ba	135	60.306	ug/L	0.457	0	20	86899	1
[	Ba	137	60.424	ug/L	0.297	0	26	148819	0
[>	Tb	159		ug/L			269963	272964	0
	Tl	205	25.763	ug/L	0.118	0	19	563704	0
	Pb	208	26.980	ug/L	0.223	0	207	799760	1
	Bi	209		ug/L			259036	259470	1
	Th	232	26.258	ug/L	0.477	1	44	985852	1
[	U	238	25.856	ug/L	0.462	1	14	1108667	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~VZ75 APOST REN~~ 2222222
Sample Dil Factor: 2
EL 1-21-13
Comments:
Sample Date/Time: Monday, January 21, 2013 14:39:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	281631	1
[	Be	9	23.284	ug/L	0.494	2	7	8246	2
	C	13		mg/L			4584	5899	1
	Cl	37		mg/L			1805713	1824906	0
[>	Sc	45		ug/L			182221	216920	2
	V	51	23.053	ug/L	0.465	2	1093	206002	0
	V-1	51	22.788	ug/L	0.393	1	2423	209159	0
	Cr	52	22.191	ug/L	0.596	2	3710	176232	0
	Cr	53	21.419	ug/L	0.362	1	844	20923	0
	Mn	55	725.498	ug/L	11.883	1	1107	9530254	1
[	Co	59	21.656	ug/L	0.437	2	43	200878	1
[>	Ge	72		ug/L			182198	182019	1
	Ni	60	27.174	ug/L	0.123	0	44	43487	2
	Ni	62	26.869	ug/L	0.572	2	81	6275	3
	Cu	63	25.489	ug/L	0.231	0	470	88093	0
	Cu	65	26.332	ug/L	0.469	1	68	42056	0
	Zn	66	83.479	ug/L	0.516	0	662	87170	1
	Zn	67	78.439	ug/L	0.381	0	152	13435	1
	Zn	68	81.633	ug/L	0.830	1	5338	62981	0
	As	75	41.857	ug/L	0.642	1	267	42453	0
	As-1	75	39.511	ug/L	0.694	1	6008	44479	0
	Se	82	84.140	ug/L	1.468	1	-20	10331	0
	Se	78	80.976	ug/L	1.836	2	6082	28680	0
[	Mo	98	27.266	ug/L	0.167	0	331	123036	2
	Y	89		ug/L			201615	212966	2
	Kr	83		ug/L			162	167	2
[>	In	115		ug/L			241678	248182	0
	Ag	107	24.820	ug/L	0.132	0	20	182735	1
	Cd	111	24.785	ug/L	0.300	1	115	49209	1
	Cd	114	24.785	ug/L	0.308	1	30	114012	0
	Sb	121	26.091	ug/L	0.240	0	17	174803	0
	Sb	123	26.070	ug/L	0.321	1	15	130699	0
	Ba	135	59.195	ug/L	0.644	1	20	87301	0
[	Ba	137	59.632	ug/L	0.379	0	26	150324	0
[>	Tb	159		ug/L			269963	277270	1
	Tl	205	25.517	ug/L	0.277	1	19	567077	0
	Pb	208	26.651	ug/L	0.372	1	207	802391	1
	Bi	209		ug/L			259036	263270	1
	Th	232	26.077	ug/L	0.407	1	44	994413	0
[	U	238	25.510	ug/L	0.472	1	14	1111034	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 14:45:06
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	309451	3
[	Be	9	0.037	ug/L	0.010	27	7	23	16
	C	13		mg/L			4584	5995	2
	Cl	37		mg/L			1805713	3493462	1
[>	Sc	45		ug/L			182221	273694	2
	V	51	8.951	ug/L	0.075	0	1093	101950	1
	V-1	51	9.145	ug/L	0.038	0	2423	108110	2
	Cr	52	4.815	ug/L	0.098	2	3710	52617	2
	Cr	53	5.663	ug/L	0.045	0	844	7915	3
	Mn	55	75.200	ug/L	0.856	1	1107	1247858	1
[	Co	59	1.043	ug/L	0.026	2	43	12266	1
[>	Ge	72		ug/L			182198	196847	1
	Ni	60	4.662	ug/L	0.127	2	44	8110	4
	Ni	62	6.973	ug/L	0.295	4	81	1826	5
	Cu	63	8.129	ug/L	0.047	0	470	30731	0
	Cu	65	6.825	ug/L	0.055	0	68	11845	1
	Zn	66	9.972	ug/L	0.114	1	662	11890	1
	Zn	67	10.466	ug/L	0.256	2	152	2082	3
	Zn	68	8.550	ug/L	0.211	2	5338	12297	1
	As	75	6.899	ug/L	0.035	0	267	7809	1
	As-1	75	5.667	ug/L	0.062	1	6008	12460	0
	Se	82	1.759	ug/L	0.072	4	-20	212	4
	Se	78	-3.059	ug/L	0.138	4	6082	5647	0
[	Mo	98	1.162	ug/L	0.022	1	331	6012	1
	Y	89		ug/L			201615	257311	1
	Kr	83		ug/L			162	186	4
[>	In	115		ug/L			241678	267394	2
	Ag	107	0.038	ug/L	0.007	18	20	324	15
	Cd	111	-0.095	ug/L	0.025	26	115	-74	72
	Cd	114	0.057	ug/L	0.005	8	30	316	7
	Sb	121	0.202	ug/L	0.019	9	17	1477	7
	Sb	123	0.195	ug/L	0.028	14	15	1068	12
	Ba	135	47.483	ug/L	0.202	0	20	75454	1
[	Ba	137	47.508	ug/L	0.787	1	26	129013	0
[>	Tb	159		ug/L			269963	303638	1
	Tl	205	0.016	ug/L	0.001	6	19	411	5
	Pb	208	1.521	ug/L	0.027	1	207	50374	0
	Bi	209		ug/L			259036	282054	1
	Th	232	0.327	ug/L	0.009	2	44	13713	2
[	U	238	0.368	ug/L	0.006	1	14	17557	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 14:50:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	357864	1
[	Be	9	0.006	ug/L	0.010	166	7	13	35
	C	13		mg/L			4584	5779	0
	Cl	37		mg/L			1805713	1882456	0
[>	Sc	45		ug/L			182221	299595	4
[	V	51	0.234	ug/L	0.008	3	1093	4668	3
[	V-1	51	0.047	ug/L	0.005	10	2423	4574	3
[	Cr	52	0.072	ug/L	0.012	17	3710	6870	3
[	Cr	53	-0.500	ug/L	0.024	4	844	746	5
[	Mn	55	527.845	ug/L	8.181	1	1107	9574340	3
[	Co	59	1.932	ug/L	0.034	1	43	24805	3
[>	Ge	72		ug/L			182198	218528	3
[	Ni	60	12.175	ug/L	0.274	2	44	23430	5
[	Ni	62	11.605	ug/L	0.444	3	81	3309	5
[	Cu	63	1.961	ug/L	0.007	0	470	8657	3
[	Cu	65	2.773	ug/L	0.036	1	68	5392	3
[	Zn	66	5.532	ug/L	0.052	0	662	7678	4
[	Zn	67	5.664	ug/L	0.212	3	152	1333	1
[	Zn	68	3.214	ug/L	0.053	1	5338	9126	3
[	As	75	1.113	ug/L	0.020	1	267	1667	2
[	As-1	75	-0.335	ug/L	0.158	47	6008	6811	0
[	Se	82	0.501	ug/L	0.098	19	-20	49	28
[	Se	78	-4.861	ug/L	0.528	10	6082	5661	0
[	Mo	98	0.064	ug/L	0.015	23	331	741	8
	Y	89		ug/L			201615	265417	3
	Kr	83		ug/L			162	161	3
[>	In	115		ug/L			241678	304470	3
[	Ag	107	0.019	ug/L	0.003	13	20	196	14
[	Cd	111	0.269	ug/L	0.010	3	115	775	4
[	Cd	114	0.221	ug/L	0.009	3	30	1285	6
[	Sb	121	0.228	ug/L	0.007	2	17	1898	3
[	Sb	123	0.230	ug/L	0.005	2	15	1436	3
[	Ba	135	57.884	ug/L	0.528	0	20	104736	3
[	Ba	137	57.721	ug/L	0.311	0	26	178506	2
[>	Tb	159		ug/L			269963	336599	2
[	Tl	205	0.018	ug/L	0.001	4	19	505	5
[	Pb	208	0.287	ug/L	0.006	2	207	10763	4
[	Bi	209		ug/L			259036	317549	3
[	Th	232	0.028	ug/L	0.002	5	44	1371	7
[	U	238	0.056	ug/L	0.001	2	14	2974	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 14:56:28
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			239650	338977	2
⌊	Be	9	0.010	ug/L	0.006	57	7	14	18
	C	13		mg/L			4584	6443	1
	Cl	37		mg/L			1805713	2299139	0
⌈>	Sc	45		ug/L			182221	276309	1
|	V	51	1.040	ug/L	0.036	3	1093	13420	2
|	V-1	51	0.957	ug/L	0.030	3	2423	14710	1
|	Cr	52	0.359	ug/L	0.029	8	3710	9164	1
|	Cr	53	0.142	ug/L	0.047	32	844	1448	2
|	Mn	55	799.539	ug/L	11.929	1	1107	13379014	1
⌊	Co	59	0.684	ug/L	0.028	4	43	8147	2
⌈>	Ge	72		ug/L			182198	208817	0
|	Ni	60	2.528	ug/L	0.068	2	44	4687	3
|	Ni	62	2.318	ug/L	0.157	6	81	705	5
|	Cu	63	1.888	ug/L	0.024	1	470	7984	1
|	Cu	65	1.881	ug/L	0.011	0	68	3520	0
|	Zn	66	5.426	ug/L	0.128	2	662	7210	2
|	Zn	67	5.168	ug/L	0.261	5	152	1178	3
|	Zn	68	3.199	ug/L	0.240	7	5338	8710	2
|	As	75	1.738	ug/L	0.013	0	267	2316	0
|	As-1	75	0.339	ug/L	0.024	7	6008	7264	0
|	Se	82	0.611	ug/L	0.112	18	-20	63	24
|	Se	78	-4.545	ug/L	0.055	1	6082	5515	0
⌊	Mo	98	0.372	ug/L	0.006	1	331	2299	2
	Y	89		ug/L			201615	252100	1
	Kr	83		ug/L			162	167	4
⌈>	In	115		ug/L			241678	288169	1
|	Ag	107	0.019	ug/L	0.002	11	20	184	11
|	Cd	111	0.559	ug/L	0.011	1	115	1423	1
|	Cd	114	0.549	ug/L	0.009	1	30	2967	0
|	Sb	121	0.160	ug/L	0.005	3	17	1263	2
|	Sb	123	0.160	ug/L	0.004	2	15	952	3
|	Ba	135	28.107	ug/L	0.623	2	20	48135	0
⌊	Ba	137	28.075	ug/L	0.441	1	26	82183	0
⌈>	Tb	159		ug/L			269963	326448	1
|	Tl	205	0.001	ug/L	0.000	10	19	61	7
|	Pb	208	0.274	ug/L	0.004	1	207	9952	1
|	Bi	209		ug/L			259036	304012	1
|	Th	232	0.028	ug/L	0.001	2	44	1309	3
⌊	U	238	0.093	ug/L	0.003	3	14	4767	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 15:02:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			239650	330885	1
[	Be	9	0.030	ug/L	0.018	60	7	22	34
	C	13		mg/L			4584	5378	1
	Cl	37		mg/L			1805713	1851134	0
[>	Sc	45		ug/L			182221	238074	0
	V	51	2.108	ug/L	0.018	0	1093	21977	0
	V-1	51	1.901	ug/L	0.009	0	2423	22054	0
	Cr	52	1.562	ug/L	0.030	1	3710	18123	1
	Cr	53	0.949	ug/L	0.048	5	844	2072	2
	Mn	55	32.644	ug/L	0.321	0	1107	472067	0
[	Co	59	1.103	ug/L	0.012	1	43	11288	0
[>	Ge	72		ug/L			182198	207471	1
	Ni	60	5.563	ug/L	0.035	0	44	10187	1
	Ni	62	5.817	ug/L	0.055	0	81	1620	2
	Cu	63	11.775	ug/L	0.165	1	470	46677	1
	Cu	65	11.929	ug/L	0.178	1	68	21762	1
	Zn	66	19.671	ug/L	0.170	0	662	23992	1
	Zn	67	18.399	ug/L	0.098	0	152	3725	1
	Zn	68	16.999	ug/L	0.211	1	5338	19762	0
	As	75	2.779	ug/L	0.036	1	267	3496	0
	As-1	75	1.643	ug/L	0.072	4	6008	8665	0
	Se	82	0.327	ug/L	0.054	16	-20	22	32
	Se	78	-4.099	ug/L	0.167	4	6082	5621	0
[	Mo	98	0.541	ug/L	0.025	4	331	3153	3
	Y	89		ug/L			201615	254216	0
	Kr	83		ug/L			162	162	2
[>	In	115		ug/L			241678	292547	1
	Ag	107	0.053	ug/L	0.003	6	20	484	7
	Cd	111	0.365	ug/L	0.019	5	115	991	3
	Cd	114	0.328	ug/L	0.004	1	30	1815	1
	Sb	121	1.266	ug/L	0.021	1	17	10017	0
	Sb	123	1.256	ug/L	0.015	1	15	7441	0
	Ba	135	10.597	ug/L	0.149	1	20	18443	2
[	Ba	137	10.526	ug/L	0.072	0	26	31304	1
[>	Tb	159		ug/L			269963	321838	0
	Tl	205	0.014	ug/L	0.001	9	19	387	8
	Pb	208	2.318	ug/L	0.015	0	207	81250	1
	Bi	209		ug/L			259036	309880	1
	Th	232	0.144	ug/L	0.004	2	44	6419	2
[	U	238	0.209	ug/L	0.003	1	14	10573	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 15:07:57
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			239650	310576	0
⌊	Be	9	24.817	ug/L	0.238	0	7	9692	1
	C	13		mg/L			4584	4971	1
	Cl	37		mg/L			1805713	1893615	0
⌈>	Sc	45		ug/L			182221	213349	0
|	V	51	26.359	ug/L	0.234	0	1093	231544	0
|	V-1	51	26.182	ug/L	0.219	0	2423	235978	0
|	Cr	52	26.604	ug/L	0.166	0	3710	207009	0
|	Cr	53	26.039	ug/L	0.373	1	844	24810	1
|	Mn	55	27.878	ug/L	0.431	1	1107	361461	1
⌊	Co	59	27.328	ug/L	0.423	1	43	249358	1
⌈>	Ge	72		ug/L			182198	204984	0
|	Ni	60	28.035	ug/L	0.372	1	44	50518	0
|	Ni	62	28.087	ug/L	0.679	2	81	7380	1
|	Cu	63	28.586	ug/L	0.415	1	470	111205	1
|	Cu	65	28.733	ug/L	0.356	1	68	51684	1
|	Zn	66	89.926	ug/L	0.839	0	662	105700	1
|	Zn	67	83.176	ug/L	0.494	0	152	16033	0
|	Zn	68	87.262	ug/L	0.773	0	5338	75412	1
|	As	75	29.820	ug/L	0.431	1	267	34152	1
|	As-1	75	26.597	ug/L	0.391	1	6008	35932	0
|	Se	82	87.778	ug/L	1.286	1	-20	12140	1
|	Se	78	83.347	ug/L	1.404	1	6082	33048	0
⌊	Mo	98	26.038	ug/L	0.136	0	331	132336	1
	Y	89		ug/L			201615	240804	0
	Kr	83		ug/L			162	174	4
⌈>	In	115		ug/L			241678	287369	0
|	Ag	107	27.008	ug/L	0.304	1	20	230236	1
|	Cd	111	26.515	ug/L	0.055	0	115	60945	0
|	Cd	114	26.385	ug/L	0.284	1	30	140544	1
|	Sb	121	25.658	ug/L	0.275	1	17	199053	1
|	Sb	123	25.832	ug/L	0.200	0	15	149968	0
|	Ba	135	26.986	ug/L	0.051	0	20	46098	0
⌊	Ba	137	26.573	ug/L	0.139	0	26	77584	0
⌈>	Tb	159		ug/L			269963	319669	0
|	Tl	205	26.939	ug/L	0.259	0	19	690264	0
|	Pb	208	27.918	ug/L	0.277	0	207	969124	0
|	Bi	209		ug/L			259036	311817	0
|	Th	232	25.940	ug/L	0.165	0	44	1140604	0
⌊	U	238	25.786	ug/L	0.314	1	14	1294890	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 15:14:17
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			239650	305635	0
⌊	Be	9	48.571	ug/L	0.364	0	7	18658	0
	C	13		mg/L			4584	3968	1
	Cl	37		mg/L			1805713	1876597	0
⌈>	Sc	45		ug/L			182221	211211	0
|	V	51	50.539	ug/L	0.286	0	1093	438356	1
|	V-1	51	50.271	ug/L	0.191	0	2423	445982	1
|	Cr	52	50.603	ug/L	0.423	0	3710	385942	1
|	Cr	53	49.763	ug/L	0.274	0	844	46050	1
|	Mn	55	51.066	ug/L	0.250	0	1107	654444	0
⌊	Co	59	50.313	ug/L	0.355	0	43	454457	1
⌈>	Ge	72		ug/L			182198	204218	0
|	Ni	60	51.661	ug/L	0.251	0	44	92706	0
|	Ni	62	51.833	ug/L	0.675	1	81	13494	1
|	Cu	63	51.292	ug/L	0.291	0	470	198383	1
|	Cu	65	51.416	ug/L	0.354	0	68	92084	1
|	Zn	66	52.449	ug/L	0.543	1	662	61725	0
|	Zn	67	52.990	ug/L	1.378	2	152	10238	2
|	Zn	68	50.377	ug/L	0.562	1	5338	45903	1
|	As	75	51.510	ug/L	0.345	0	267	58555	0
|	As-1	75	50.361	ug/L	0.510	1	6008	61767	0
|	Se	82	53.030	ug/L	0.425	0	-20	7298	0
|	Se	78	49.081	ug/L	0.864	1	6082	22191	0
⌊	Mo	98	52.185	ug/L	0.887	1	331	263841	1
	Y	89		ug/L			201615	237607	0
	Kr	83		ug/L			162	179	4
⌈>	In	115		ug/L			241678	283898	0
|	Ag	107	50.634	ug/L	0.331	0	20	426401	0
|	Cd	111	52.179	ug/L	0.705	1	115	118351	1
|	Cd	114	51.345	ug/L	0.449	0	30	270155	0
|	Sb	121	50.731	ug/L	0.457	0	17	388785	0
|	Sb	123	51.125	ug/L	0.267	0	15	293201	0
|	Ba	135	49.648	ug/L	0.370	0	20	83766	0
⌊	Ba	137	49.734	ug/L	0.546	1	26	143427	1
⌈>	Tb	159		ug/L			269963	315481	0
|	Tl	205	50.550	ug/L	0.646	1	19	1278267	0
|	Pb	208	52.374	ug/L	0.371	0	207	1794041	0
|	Bi	209		ug/L			259036	310001	0
|	Th	232	53.135	ug/L	0.555	1	44	2305730	0
⌊	U	238	53.377	ug/L	0.416	0	14	2645356	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 15:20:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			239650	299666	0
Be	9	-0.006	ug/L	0.012	201	7	6	65
C	13		mg/L			4584	4543	2
Cl	37		mg/L			1805713	1916987	1
> Sc	45		ug/L			182221	208410	1
V	51	-0.007	ug/L	0.015	202	1093	1188	12
V-1	51	-0.187	ug/L	0.004	1	2423	1147	2
Cr	52	-0.044	ug/L	0.021	46	3710	3915	4
Cr	53	-0.600	ug/L	0.040	6	844	429	7
Mn	55	0.001	ug/L	0.007	620	1107	1280	5
Co	59	0.003	ug/L	0.000	1	43	78	0
> Ge	72		ug/L			182198	205929	1
Ni	60	-0.014	ug/L	0.003	19	44	24	20
Ni	62	-0.114	ug/L	0.048	42	81	62	21
Cu	63	-0.078	ug/L	0.008	10	470	227	13
Cu	65	-0.001	ug/L	0.002	120	68	75	4
Zn	66	-0.390	ug/L	0.013	3	662	290	5
Zn	67	-0.500	ug/L	0.026	5	152	77	5
Zn	68	-2.374	ug/L	0.078	3	5338	4135	0
As	75	0.039	ug/L	0.018	46	267	346	6
As-1	75	-0.979	ug/L	0.096	9	6008	5711	1
Se	82	0.136	ug/L	0.059	43	-20	-3	216
Se	78	-3.465	ug/L	0.348	10	6082	5779	1
Mo	98	-0.060	ug/L	0.001	1	331	69	7
Y	89		ug/L			201615	235167	2
Kr	83		ug/L			162	174	1
> In	115		ug/L			241678	283432	0
Ag	107	0.006	ug/L	0.003	48	20	74	32
Cd	111	0.009	ug/L	0.005	55	115	155	6
Cd	114	-0.004	ug/L	0.001	27	30	13	43
Sb	121	0.055	ug/L	0.014	24	17	441	23
Sb	123	0.056	ug/L	0.016	28	15	341	26
Ba	135	-0.002	ug/L	0.002	98	20	20	16
Ba	137	0.003	ug/L	0.005	179	26	39	36
> Tb	159		ug/L			269963	308589	0
Tl	205	0.006	ug/L	0.001	21	19	158	18
Pb	208	0.002	ug/L	0.001	55	207	293	10
Bi	209		ug/L			259036	312559	0
Th	232	0.033	ug/L	0.010	31	44	1431	30
U	238	0.002	ug/L	0.001	39	14	120	34

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 15:27:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L				286436	1
[	Be	9		ug/L				4	17
	C	13		mg/L				4514	2
	Cl	37		mg/L				1945798	0
[>	Sc	45		ug/L				206181	0
[	V	51		ug/L				1248	5
[	V-1	51		ug/L				1187	2
[	Cr	52		ug/L				3779	1
[	Cr	53		ug/L				407	4
[	Mn	55		ug/L				1176	6
[	Co	59		ug/L				71	16
[>	Ge	72		ug/L				204867	0
[	Ni	60		ug/L				19	33
[	Ni	62		ug/L				54	7
[	Cu	63		ug/L				232	11
[	Cu	65		ug/L				73	20
[	Zn	66		ug/L				287	7
[	Zn	67		ug/L				76	18
[	Zn	68		ug/L				4109	0
[	As	75		ug/L				331	9
[	As-1	75		ug/L				5650	0
[	Se	82		ug/L				-9	133
[	Se	78		ug/L				5714	0
[	Mo	98		ug/L				24	8
	Y	89		ug/L				232566	1
	Kr	83		ug/L				173	3
[>	In	115		ug/L				278279	0
[	Ag	107		ug/L				41	1
[	Cd	111		ug/L				154	1
[	Cd	114		ug/L				8	27
[	Sb	121		ug/L				152	16
[	Sb	123		ug/L				120	14
[	Ba	135		ug/L				17	4
[	Ba	137		ug/L				22	14
[>	Tb	159		ug/L				307498	0
[	Tl	205		ug/L				54	42
[	Pb	208		ug/L				227	2
[	Bi	209		ug/L				307353	1
[	Th	232		ug/L				490	14
[	U	238		ug/L				32	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 15:34:43
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	295358	1
[	Be	9	49.642	ug/L	1.101	2	4	18425	2
	C	13		mg/L			4514	3843	0
	Cl	37		mg/L			1945798	1935300	0
[>	Sc	45		ug/L			206181	210387	0
	V	51	50.527	ug/L	0.079	0	1248	436548	0
	V-1	51	50.662	ug/L	0.145	0	1187	446085	0
	Cr	52	50.791	ug/L	0.616	1	3779	385407	1
	Cr	53	51.194	ug/L	0.311	0	407	46600	0
	Mn	55	50.539	ug/L	0.190	0	1176	645102	0
[	Co	59	51.113	ug/L	0.389	0	71	459907	0
[>	Ge	72		ug/L			204867	210185	0
	Ni	60	51.203	ug/L	0.316	0	19	94539	0
	Ni	62	50.849	ug/L	0.475	0	54	13589	1
	Cu	63	51.170	ug/L	0.418	0	232	203380	0
	Cu	65	50.190	ug/L	0.383	0	73	92513	1
	Zn	66	52.960	ug/L	0.704	1	287	63676	1
	Zn	67	52.702	ug/L	0.931	1	76	10383	1
	Zn	68	52.349	ug/L	0.799	1	4109	46912	2
	As	75	51.158	ug/L	0.413	0	331	59887	0
	As-1	75	50.949	ug/L	0.595	1	5650	63098	0
	Se	82	51.133	ug/L	0.626	1	-9	7255	1
	Se	78	50.354	ug/L	0.991	1	5714	22097	0
[	Mo	98	50.765	ug/L	0.954	1	24	263827	1
	Y	89		ug/L			232566	235749	0
	Kr	83		ug/L			173	185	7
[>	In	115		ug/L			278279	278377	0
	Ag	107	51.820	ug/L	0.610	1	41	427906	0
	Cd	111	52.119	ug/L	0.503	0	154	115940	1
	Cd	114	52.134	ug/L	0.983	1	8	268937	1
	Sb	121	51.488	ug/L	0.645	1	152	387046	0
	Sb	123	51.621	ug/L	0.589	1	120	290385	1
	Ba	135	49.655	ug/L	0.713	1	17	82143	1
[	Ba	137	50.233	ug/L	0.151	0	22	142037	0
[>	Tb	159		ug/L			307498	312504	0
	Tl	205	51.388	ug/L	0.403	0	54	1287242	0
	Pb	208	52.935	ug/L	0.264	0	227	1796152	0
	Bi	209		ug/L			307353	312355	0
	Th	232	54.158	ug/L	0.073	0	490	2328448	0
[	U	238	53.505	ug/L	0.538	1	32	2626639	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 15:41:21
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	282993	0
[	Be	9	0.004	ug/L	0.002	54	4	5	13
	C	13		mg/L			4514	4616	0
	Cl	37		mg/L			1945798	1965911	0
[>	Sc	45		ug/L			206181	203929	1
	V	51	-0.001	ug/L	0.007	627	1248	1226	5
	V-1	51	0.006	ug/L	0.007	106	1187	1230	6
	Cr	52	-0.005	ug/L	0.014	269	3779	3700	1
	Cr	53	0.019	ug/L	0.017	91	407	419	3
	Mn	55	-0.012	ug/L	0.002	13	1176	1009	1
[	Co	59	0.002	ug/L	0.001	61	71	89	13
[>	Ge	72		ug/L			204867	204893	0
	Ni	60	0.003	ug/L	0.007	204	19	25	50
	Ni	62	-0.014	ug/L	0.019	131	54	50	9
	Cu	63	0.001	ug/L	0.005	355	232	237	8
	Cu	65	-0.011	ug/L	0.006	54	73	54	19
	Zn	66	-0.073	ug/L	0.009	12	287	202	4
	Zn	67	-0.037	ug/L	0.048	128	76	69	12
	Zn	68	0.095	ug/L	0.070	73	4109	4185	1
	As	75	-0.006	ug/L	0.020	336	331	324	7
	As-1	75	0.050	ug/L	0.054	108	5650	5705	1
	Se	82	-0.023	ug/L	0.014	60	-9	-12	15
	Se	78	0.195	ug/L	0.169	86	5714	5777	1
[	Mo	98	0.008	ug/L	0.003	32	24	63	20
	Y	89		ug/L			232566	227489	2
	Kr	83		ug/L			173	176	5
[>	In	115		ug/L			278279	273699	1
	Ag	107	0.002	ug/L	0.000	22	41	55	6
	Cd	111	-0.002	ug/L	0.004	183	154	146	7
	Cd	114	0.000	ug/L	0.001	475	8	9	47
	Sb	121	0.034	ug/L	0.014	39	152	403	25
	Sb	123	0.031	ug/L	0.016	50	120	291	30
	Ba	135	0.003	ug/L	0.003	97	17	22	25
[	Ba	137	0.002	ug/L	0.003	147	22	28	34
[>	Tb	159		ug/L			307498	302024	0
	Tl	205	0.003	ug/L	0.001	33	54	130	18
	Pb	208	0.001	ug/L	0.000	37	227	241	1
	Bi	209		ug/L			307353	306750	0
	Th	232	0.021	ug/L	0.008	40	490	1335	25
[	U	238	0.001	ug/L	0.001	59	32	80	35

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 MB2 REN
Sample Dil Factor: 2 Dl
Comments:
Sample Date/Time: Monday, January 21, 2013 15:47:09
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	291034	0
[	Be	9	0.004	ug/L	0.004	90	4	5	24
	C	13		mg/L			4514	4728	0
	Cl	37		mg/L			1945798	1954106	0
[>	Sc	45		ug/L			206181	210845	0
	V	51	-0.004	ug/L	0.012	295	1248	1243	8
	V-1	51	-0.007	ug/L	0.000	7	1187	1154	0
	Cr	52	0.008	ug/L	0.018	210	3779	3928	3
	Cr	53	-0.001	ug/L	0.040	2976	407	415	8
	Mn	55	0.017	ug/L	0.004	24	1176	1414	3
[	Co	59	0.000	ug/L	0.001	769	71	74	9
[>	Ge	72		ug/L			204867	208061	0
	Ni	60	0.009	ug/L	0.002	25	19	35	11
	Ni	62	0.002	ug/L	0.033	1971	54	55	15
	Cu	63	0.125	ug/L	0.013	10	232	725	6
	Cu	65	0.130	ug/L	0.007	5	73	312	3
	Zn	66	4.658	ug/L	0.008	0	287	5809	0
	Zn	67	4.260	ug/L	0.151	3	76	902	3
	Zn	68	4.750	ug/L	0.166	3	4109	8008	1
	As	75	u 0.006	ug/L	0.024	415	331	343	7
	As-1	75	-0.007	ug/L	0.055	781	5650	5730	0
	Se	82	0.041	ug/L	0.082	201	-9	-3	293
	Se	78	0.013	ug/L	0.183	1387	5714	5808	0
[	Mo	98	0.006	ug/L	0.003	43	24	55	24
	Y	89		ug/L			232566	237334	0
	Kr	83		ug/L			173	177	2
[>	In	115		ug/L			278279	283919	0
	Ag	107	-0.000	ug/L	0.001	170	41	38	16
	Cd	111	u -0.009	ug/L	0.001	8	154	136	1
	Cd	114	0.002	ug/L	0.001	41	8	21	23
	Sb	121	u 0.003	ug/L	0.003	98	152	179	13
	Sb	123	0.006	ug/L	0.003	52	120	158	12
	Ba	135	0.005	ug/L	0.003	51	17	26	17
[	Ba	137	0.011	ug/L	0.002	20	22	53	12
[>	Tb	159		ug/L			307498	311177	0
	Tl	205	0.002	ug/L	0.001	60	54	111	30
	Pb	208	0.015	ug/L	0.002	14	227	747	9
	Bi	209		ug/L			307353	310676	0
	Th	232	0.009	ug/L	0.003	30	490	860	12
[	U	238	0.000	ug/L	0.000	25	32	43	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 F REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, January 21, 2013 15:53:28
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			286436	293160	1
	Be	9	0.021	ug/L	0.004	16	4	12	11
	C	13		mg/L			4514	4608	2
	Cl	37		mg/L			1945798	1984733	0
>	Sc	45		ug/L			206181	232872	0
	V	51	4.491	ug/L	0.058	1	1248	44227	0
	V-1	51	4.453	ug/L	0.049	1	1187	44622	0
	Cr	52	2.255	ug/L	0.026	1	3779	23018	0
	Cr	53	2.270	ug/L	0.011	0	407	2727	1
	Mn	55	20.953	ug/L	0.401	1	1176	296784	1
	Co	59	0.251	ug/L	0.005	2	71	2576	2
>	Ge	72		ug/L			204867	205528	0
	Ni	60	0.880	ug/L	0.014	1	19	1608	1
	Ni	62	1.418	ug/L	0.116	8	54	423	7
	Cu	63	1.460	ug/L	0.024	1	232	5900	1
	Cu	65	1.263	ug/L	0.058	4	73	2348	4
	Zn	66	2.203	ug/L	0.087	3	287	2866	3
	Zn	67	2.405	ug/L	0.091	3	76	536	3
	Zn	68	2.355	ug/L	0.114	4	4109	6000	1
	As	75	114.892	ug/L	1.264	1	331	131103	0
	As-1	75	118.814	ug/L	1.319	1	5650	136338	0
	Se	82	0.127	ug/L	0.057	44	-9	8	96
	Se	78	-0.104	ug/L	0.073	70	5714	5700	0
	Mo	98	0.529	ug/L	0.006	1	24	2713	0
	Y	89		ug/L			232566	243253	0
	Kr	83		ug/L			173	182	4
>	In	115		ug/L			278279	272097	1
	Ag	107	0.002	ug/L	0.002	77	41	56	22
	Cd	111	0.184	ug/L	0.016	8	154	549	6
	Cd	114	0.202	ug/L	0.006	3	8	1025	1
	Sb	121	0.056	ug/L	0.002	3	152	557	3
	Sb	123	0.060	ug/L	0.010	16	120	446	10
	Ba	135	3.943	ug/L	0.095	2	17	6390	1
	Ba	137	3.972	ug/L	0.129	3	22	10995	1
>	Tb	159		ug/L			307498	306115	0
	Tl	205	0.002	ug/L	0.001	78	54	92	32
	Pb	208	0.252	ug/L	0.008	3	227	8615	2
	Bi	209		ug/L			307353	297937	0
	Th	232	0.097	ug/L	0.002	1	490	4571	1
	U	238	0.120	ug/L	0.002	1	32	5782	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 G REN
Sample Dil Factor: 2 Dil
Comments:
Sample Date/Time: Monday, January 21, 2013 15:59:47
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			286436	293027	1
⌊	Be	9	0.011	ug/L	0.002	18	4	8	8
	C	13		mg/L			4514	6122	1
	Cl	37		mg/L			1945798	1940667	0
⌈>	Sc	45		ug/L			206181	235477	1
|	V	51	1.012	ug/L	0.027	2	1248	11179	1
|	V-1	51	1.008	ug/L	0.016	1	1187	11266	0
|	Cr	52	0.283	ug/L	0.014	5	3779	6694	1
|	Cr	53	0.316	ug/L	0.062	19	407	784	8
|	Mn	55	525.510	ug/L	9.671	1	1176	7494325	1
⌊	Co	59	0.635	ug/L	0.010	1	71	6475	3
⌈>	Ge	72		ug/L			204867	205655 ✓	0
|	Ni	60	1.737	ug/L	0.144	8	19	3155	7
|	Ni	62	0.881	ug/L	0.069	7	54	283	6
|	Cu	63	0.547	ug/L	0.013	2	232	2358	1
|	Cu	65	0.452	ug/L	0.028	6	73	888	5
|	Zn	66	3.169	ug/L	0.021	0	287	3999	0
|	Zn	67	3.769	ug/L	0.233	6	76	798	5
|	Zn	68	3.884	ug/L	0.170	4	4109	7225	2
|	As	75	4.354	ug/L	0.041	0	331	5291	0
|	As-1	75	4.389	ug/L	0.052	1	5650	10501	0
|	Se	82	0.096	ug/L	0.054	56	-9	3	200
|	Se	78	-0.141	ug/L	0.077	54	5714	5692	0
⌊	Mo	98	0.823	ug/L	0.015	1	24	4211	1
	Y	89		ug/L			232566	235882	1
	Kr	83		ug/L			173	193	2
⌈>	In	115		ug/L			278279	274777 ✓	0
|	Ag	107	0.000	ug/L	0.000	62	41	45	5
|	Cd	111	u 0.058	ug/L	0.005	8	154	278	3
|	Cd	114	0.049	ug/L	0.007	14	8	258	14
|	Sb	121	u 0.105	ug/L	0.005	4	152	932	3
|	Sb	123	0.108	ug/L	0.005	4	120	720	3
|	Ba	135	34.195	ug/L	0.556	1	17	55840	1
⌊	Ba	137	34.346	ug/L	0.631	1	22	95858	1
⌈>	Tb	159		ug/L			307498	302408	0
|	Tl	205	0.000	ug/L	0.000	108	54	61	14
|	Pb	208	0.295	ug/L	0.006	2	227	9921	1
|	Bi	209		ug/L			307353	297480	1
|	Th	232	0.021	ug/L	0.002	7	490	1371	5
⌊	U	238	0.470	ug/L	0.012	2	32	22366	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 H REN Del
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 16:06:06
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			286436	313950	1
⌊	Be	9	0.024	ug/L	0.013	53	4	14	36
	C	13		mg/L			4514	6273	2
	Cl	37		mg/L			1945798	2358747	0
⌈>	Sc	45		ug/L			206181	278439	1
|	V	51	3.566	ug/L	0.058	1	1248	42331	0
|	V-1	51	3.643	ug/L	0.051	1	1187	43937	0
|	Cr	52	1.987	ug/L	0.042	2	3779	24858	0
|	Cr	53	2.322	ug/L	0.047	2	407	3322	2
|	Mn	55	39.350	ug/L	0.530	1	1176	665019	0
⌊	Co	59	0.336	ug/L	0.005	1	71	4093	2
⌈>	Ge	72		ug/L			204867	205309	0
|	Ni	60	1.501	ug/L	0.071	4	19	2726	5
|	Ni	62	1.853	ug/L	0.177	9	54	535	8
|	Cu	63	1.691	ug/L	0.021	1	232	6791	1
|	Cu	65	1.335	ug/L	0.027	2	73	2475	1
|	Zn	66	3.390	ug/L	0.028	0	287	4251	1
|	Zn	67	3.318	ug/L	0.093	2	76	710	2
|	Zn	68	3.364	ug/L	0.169	5	4109	6797	1
|	As	75	0.872	ug/L	0.014	1	331	1323	1
|	As-1	75	0.485	ug/L	0.005	1	5650	6195	0
|	Se	82	0.758	ug/L	0.066	8	-9	95	9
|	Se	78	-0.548	ug/L	0.116	21	5714	5554	0
⌊	Mo	98	0.065	ug/L	0.007	10	24	355	9
	Y	89		ug/L			232566	251778	0
	Kr	83		ug/L			173	180	1
⌈>	In	115		ug/L			278279	277095	1
|	Ag	107	0.000	ug/L	0.000	169	41	43	7
|	Cd	111	0.319	ug/L	0.011	3	154	857	1
|	Cd	114	0.344	ug/L	0.016	4	8	1772	3
|	Sb	121	u 0.070	ug/L	0.002	3	152	675	3
|	Sb	123	0.070	ug/L	0.001	1	120	514	1
|	Ba	135	6.925	ug/L	0.035	0	17	11418	1
⌊	Ba	137	6.991	ug/L	0.092	1	22	19692	0
⌈>	Tb	159		ug/L			307498	311812	0
|	Tl	205	0.001	ug/L	0.001	79	54	71	18
|	Pb	208	0.215	ug/L	0.008	3	227	7512	3
|	Bi	209		ug/L			307353	296320	0
|	Th	232	0.055	ug/L	0.000	0	490	2853	0
⌊	U	238	0.059	ug/L	0.002	3	32	2944	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 I REN
Sample Dil Factor: 2 DD
Comments:
Sample Date/Time: Monday, January 21, 2013 16:12:23
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	317711	1
[	Be	9	0.007	ug/L	0.009	130	4	7	50
	C	13		mg/L			4514	5816	1
	Cl	37		mg/L			1945798	1811439	0
[>	Sc	45		ug/L			206181	252099	2
	V	51	0.883	ug/L	0.006	0	1248	10639	2
	V-1	51	0.865	ug/L	0.009	1	1187	10556	1
	Cr	52	0.088	ug/L	0.017	18	3779	5418	4
	Cr	53	0.081	ug/L	0.029	35	407	585	4
	Mn	55	2.652	ug/L	0.029	1	1176	41922	1
[	Co	59	0.119	ug/L	0.005	3	71	1369	4
[>	Ge	72		ug/L			204867	201500	0
	Ni	60	2.506	ug/L	0.124	4	19	4454	5
	Ni	62	1.496	ug/L	0.119	7	54	435	6
	Cu	63	1.603	ug/L	0.028	1	232	6329	1
	Cu	65	1.858	ug/L	0.014	0	73	3353	0
	Zn	66	2.159	ug/L	0.048	2	287	2760	1
	Zn	67	2.448	ug/L	0.118	4	76	534	3
	Zn	68	2.253	ug/L	0.106	4	4109	5804	1
	As	75	2.713	ug/L	0.032	1	331	3354	1
	As-1	75	2.543	ug/L	0.071	2	5650	8299	1
	Se	82	0.276	ug/L	0.107	38	-9	28	51
	Se	78	-0.526	ug/L	0.133	25	5714	5458	1
[	Mo	98	1.180	ug/L	0.018	1	24	5904	1
	Y	89		ug/L			232566	235399	1
	Kr	83		ug/L			173	180	7
[>	In	115		ug/L			278279	279426	1
	Ag	107	-0.001	ug/L	0.000	27	41	30	11
	Cd	111	u0.075	ug/L	0.009	12	154	323	6
	Cd	114	0.079	ug/L	0.004	5	8	418	6
	Sb	121	1.864	ug/L	0.033	1	152	14209	2
	Sb	123	1.888	ug/L	0.037	1	120	10776	3
	Ba	135	29.901	ug/L	0.262	0	17	49657	1
[	Ba	137	30.125	ug/L	0.181	0	22	85513	1
[>	Tb	159		ug/L			307498	307193	1
	Tl	205	0.003	ug/L	0.001	18	54	126	9
	Pb	208	0.235	ug/L	0.003	1	227	8069	0
	Bi	209		ug/L			307353	299787	0
	Th	232	0.005	ug/L	0.002	33	490	718	9
[	U	238	0.255	ug/L	0.003	1	32	12334	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 J REN
Sample Dil Factor: 2 Del
Comments:
Sample Date/Time: Monday, January 21, 2013 16:18:40
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			286436	309170	2
⌊	Be	9	0.027	ug/L	0.010	38	4	15	25
	C	13		mg/L			4514	5704	2
	Cl	37		mg/L			1945798	1829587	0
⌈>	Sc	45		ug/L			206181	251522	3
|	V	51	2.318	ug/L	0.045	1	1248	25390	2
|	V-1	51	2.298	ug/L	0.036	1	1187	25570	3
|	Cr	52	1.231	ug/L	0.025	2	3779	15661	1
|	Cr	53	1.233	ug/L	0.032	2	407	1827	5
|	Mn	55	71.258	ug/L	1.356	1	1176	1086438	1
⌊	Co	59	0.437	ug/L	0.013	2	71	4790	1
⌈>	Ge	72		ug/L			204867	202546	2
|	Ni	60	2.456	ug/L	0.050	2	19	4387	2
|	Ni	62	1.990	ug/L	0.066	3	54	563	3
|	Cu	63	1.783	ug/L	0.030	1	232	7047	1
|	Cu	65	2.068	ug/L	0.005	0	73	3742	2
|	Zn	66	3.965	ug/L	0.046	1	287	4856	2
|	Zn	67	3.943	ug/L	0.202	5	76	818	1
|	Zn	68	3.783	ug/L	0.120	3	4109	7035	2
|	As	75	15.737	ug/L	0.057	0	331	17980	3
|	As-1	75	16.015	ug/L	0.111	0	5650	22942	2
|	Se	82	0.084	ug/L	0.026	30	-9	2	174
|	Se	78	-0.683	ug/L	0.394	57	5714	5435	0
⌊	Mo	98	1.720	ug/L	0.052	3	24	8643	5
	Y	89		ug/L			232566	242763	3
	Kr	83		ug/L			173	191	5
⌈>	In	115		ug/L			278279	277701	2
|	Ag	107	0.002	ug/L	0.001	63	41	58	16
|	Cd	111	u0.030	ug/L	0.013	43	154	221	15
|	Cd	114	0.029	ug/L	0.004	13	8	155	15
|	Sb	121	u0.128	ug/L	0.002	1	152	1110	3
|	Sb	123	0.129	ug/L	0.009	6	120	845	5
|	Ba	135	12.437	ug/L	0.182	1	17	20534	1
⌊	Ba	137	12.332	ug/L	0.102	0	22	34797	1
⌈>	Tb	159		ug/L			307498	306415	2
|	Tl	205	0.002	ug/L	0.001	31	54	112	16
|	Pb	208	0.489	ug/L	0.009	1	227	16493	4
|	Bi	209		ug/L			307353	299311	3
|	Th	232	0.065	ug/L	0.003	4	490	3223	5
⌊	U	238	0.127	ug/L	0.003	2	32	6165	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 K REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 16:24:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			286436	294455	4
Be	9	0.047	ug/L	0.015	32	4	21	27
C	13		mg/L			4514	6520	1
Cl	37		mg/L			1945798	1962506	0
Sc	45		ug/L			206181	274548	3
V	51	7.470	ug/L	0.056	0	1248	85637	3
V-1	51	7.412	ug/L	0.046	0	1187	86515	3
Cr	52	3.060	ug/L	0.039	1	3779	35027	2
Cr	53	3.140	ug/L	0.025	0	407	4238	2
Mn	55	4617.826	ug/L	77.636	1	1176	76751871	2
Co	59	1.573	ug/L	0.040	2	71	18555	3
Ge	72		ug/L			204867	197471	1
Ni	60	8.607	ug/L	0.125	1	19	14946	2
Ni	62	8.140	ug/L	0.319	3	54	2086	2
Cu	63	3.897	ug/L	0.017	0	232	14760	1
Cu	65	2.445	ug/L	0.063	2	73	4299	0
Zn	66	5.591	ug/L	0.064	1	287	6563	1
Zn	67	6.163	ug/L	0.106	1	76	1206	2
Zn	68	5.631	ug/L	0.224	3	4109	8273	0
As	75	9.006	ug/L	0.023	0	331	10168	2
As-1	75	8.803	ug/L	0.066	0	5650	14747	1
Se	82	1.169	ug/L	0.093	7	-9	146	6
Se	78	-0.170	ug/L	0.333	196	5714	5455	0
Mo	98	2.676	ug/L	0.025	0	24	13089	2
Y	89		ug/L			232566	260382	2
Kr	83		ug/L			173	205	1
In	115		ug/L			278279	262499	3
Ag	107	0.016	ug/L	0.003	17	41	165	11
Cd	111	0.240	ug/L	0.013	5	154	648	7
Cd	114	0.240	ug/L	0.009	3	8	1175	7
Sb	121	0.252	ug/L	0.006	2	152	1927	5
Sb	123	0.252	ug/L	0.005	2	120	1448	4
Ba	135	12.403	ug/L	0.250	2	17	19351	1
Ba	137	12.489	ug/L	0.150	1	22	33306	2
Tb	159		ug/L			307498	295730	2
Tl	205	0.004	ug/L	0.000	9	54	155	4
Pb	208	1.308	ug/L	0.004	0	227	42204	2
Bi	209		ug/L			307353	281955	2
Th	232	0.227	ug/L	0.005	2	490	9695	4
U	238	1.489	ug/L	0.016	1	32	69213	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 L REN
Sample Dil Factor: 2 Dil
Comments:
Sample Date/Time: Monday, January 21, 2013 16:31:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	313644	9
[	Be	9	0.271	ug/L	0.025	9	4	112	17
	C	13		mg/L			4514	14270	4
	Cl	37		mg/L			1945798	2595896	2
[>	Sc	45		ug/L			206181	308486	10
	V	51	76.099	ug/L	1.612	2	1248	961659	8
	V-1	51	75.305	ug/L	1.636	2	1187	969878	8
	Cr	52	27.820	ug/L	0.476	1	3779	311735	9
	Cr	53	28.198	ug/L	0.637	2	407	37854	8
	Mn	55	216.422	ug/L	5.643	2	1176	4039029	8
[	Co	59	0.737	ug/L	0.010	1	71	9827	9
[>	Ge	72		ug/L			204867	209779	6
	Ni	60	20.091	ug/L	0.525	2	19	37079	9
	Ni	62	30.982	ug/L	1.034	3	54	8297	10
	Cu	63	9.418	ug/L	0.246	2	232	37600	9
	Cu	65	5.350	ug/L	0.092	1	73	9917	8
	Zn	66	7.868	ug/L	0.215	2	287	9703	9
	Zn	67	17.356	ug/L	0.689	3	76	3471	10
	Zn	68	6.505	ug/L	0.622	9	4109	9480	2
	As	75	33.930	ug/L	0.347	1	331	39777	7
	As-1	75	33.850	ug/L	0.148	0	5650	43776	6
	Se	82	3.013	ug/L	0.312	10	-9	419	17
	Se	78	-0.643	ug/L	1.539	239	5714	5621	1
[	Mo	98	7.129	ug/L	0.159	2	24	37035	9
	Y	89		ug/L			232566	426884	9
	Kr	83		ug/L			173	225	2
[>	In	115		ug/L			278279	278509	7
	Ag	107	0.097	ug/L	0.005	4	41	848	11
	Cd	111	-0.017	ug/L	0.083	487	154	120	150
	Cd	114	0.164	ug/L	0.003	1	8	857	8
	Sb	121	0.320	ug/L	0.006	1	152	2559	9
	Sb	123	0.330	ug/L	0.007	2	120	1971	5
	Ba	135	9.194	ug/L	0.087	0	17	15225	6
[	Ba	137	9.197	ug/L	0.093	1	22	26042	7
[>	Tb	159		ug/L			307498	318224	8
	Tl	205	0.003	ug/L	0.000	14	54	125	16
	Pb	208	1.171	ug/L	0.007	0	227	40705	8
	Bi	209		ug/L			307353	292082	8
	Th	232	1.258	ug/L	0.025	1	490	55495	6
[	U	238	4.574	ug/L	0.030	0	32	228632	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 M REN
Sample Dil Factor: 2 Del
Comments:
Sample Date/Time: Monday, January 21, 2013 16:37:28
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	299321	7
[	Be	9	0.008	ug/L	0.006	73	4	7	33
	C	13		mg/L			4514	6066	2
	Cl	37		mg/L			1945798	3042568	3
[>	Sc	45		ug/L			206181	257770	9
	V	51	1.521	ug/L	0.038	2	1248	17590	7
	V-1	51	1.816	ug/L	0.016	0	1187	21013	9
	Cr	52	0.715	ug/L	0.031	4	3779	11288	7
	Cr	53	1.680	ug/L	0.050	2	407	2370	11
	Mn	55	321.056	ug/L	8.087	2	1176	5005964	7
[	Co	59	0.677	ug/L	0.020	2	71	7544	8
[>	Ge	72		ug/L			204867	216342	6
	Ni	60	1.023	ug/L	0.096	9	19	1970	14
	Ni	62	1.574	ug/L	0.118	7	54	489	11
	Cu	63	1.758	ug/L	0.022	1	232	7433	7
	Cu	65	0.660	ug/L	0.038	5	73	1329	9
	Zn	66	2.110	ug/L	0.119	5	287	2902	7
	Zn	67	2.478	ug/L	0.093	3	76	580	8
	Zn	68	2.227	ug/L	0.290	13	4109	6200	2
	As	75	7.895	ug/L	0.098	1	331	9812	6
	As-1	75	7.349	ug/L	0.263	3	5650	14462	4
	Se	82	1.449	ug/L	0.174	11	-9	202	16
	Se	78	-1.004	ug/L	1.034	102	5714	5687	0
[	Mo	98	1.043	ug/L	0.031	2	24	5610	8
	Y	89		ug/L			232566	256424	8
	Kr	83		ug/L			173	213	2
[>	In	115		ug/L			278279	288805	7
	Ag	107	0.003	ug/L	0.001	42	41	71	15
	Cd	111	U-0.082	ug/L	0.019	23	154	-26	166
	Cd	114	0.030	ug/L	0.001	3	8	167	7
	Sb	121	U 0.197	ug/L	0.008	3	152	1689	4
	Sb	123	0.202	ug/L	0.007	3	120	1302	7
	Ba	135	18.612	ug/L	0.272	1	17	31931	6
[	Ba	137	18.620	ug/L	0.165	0	22	54648	8
[>	Tb	159		ug/L			307498	317326	7
	Tl	205	0.000	ug/L	0.000	774	54	56	12
	Pb	208	0.150	ug/L	0.003	2	227	5393	7
	Bi	209		ug/L			307353	306990	6
	Th	232	0.018	ug/L	0.002	9	490	1286	10
[	U	238	0.073	ug/L	0.003	3	32	3666	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 MB2SPK REN
Sample Dil Factor: 2 Dil
Comments:
Sample Date/Time: Monday, January 21, 2013 16:43:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			286436	366878	2
	Be	9	25.215	ug/L	0.202	0	4	11627	3
	C	13		mg/L			4514	5334	1
	Cl	37		mg/L			1945798	2024876	4
>	Sc	45		ug/L			206181	282089	3
	V	51	25.848	ug/L	0.274	1	1248	300230	3
	V-1	51	25.741	ug/L	0.380	1	1187	304664	3
	Cr	52	25.812	ug/L	0.262	1	3779	265091	2
	Cr	53	25.481	ug/L	0.399	1	407	31373	3
	Mn	55	27.057	ug/L	0.094	0	1176	463833	3
	Co	59	26.797	ug/L	0.256	0	71	323302	3
>	Ge	72		ug/L			204867	268444	2
	Ni	60	28.237	ug/L	0.489	1	19	66614	4
	Ni	62	28.580	ug/L	0.816	2	54	9790	5
	Cu	63	29.116	ug/L	0.142	0	232	147951	3
	Cu	65	28.490	ug/L	0.114	0	73	67113	3
	Zn	66	89.764	ug/L	0.469	0	287	137580	3
	Zn	67	83.932	ug/L	1.003	1	76	21065	3
	Zn	68	86.594	ug/L	1.302	1	4109	95560	2
	As	75	29.096	ug/L	0.159	0	331	43686	2
	As-1	75	25.566	ug/L	0.167	0	5650	44124	2
	Se	82	88.253	ug/L	0.261	0	-9	16002	2
	Se	78	82.818	ug/L	0.454	0	5714	41589	2
	Mo	98	25.954	ug/L	0.256	0	24	172271	2
	Y	89		ug/L			232566	314882	1
	Kr	83		ug/L			173	202	1
>	In	115		ug/L			278279	376542	3
	Ag	107	27.036	ug/L	0.305	1	41	301938	2
	Cd	111	26.334	ug/L	0.207	0	154	79334	3
	Cd	114	26.025	ug/L	0.242	0	8	181574	2
	Sb	121	24.555	ug/L	0.083	0	152	249784	3
	Sb	123	24.487	ug/L	0.200	0	120	186387	3
	Ba	135	25.097	ug/L	0.075	0	17	56172	3
	Ba	137	25.186	ug/L	0.326	1	22	96337	3
>	Tb	159		ug/L			307498	401221	3
	Tl	205	27.448	ug/L	0.294	1	54	882638	2
	Pb	208	28.537	ug/L	0.264	0	227	1243088	2
	Bi	209		ug/L			307353	410424	3
	Th	232	26.403	ug/L	0.128	0	490	1457554	2
	U	238	26.093	ug/L	0.174	0	32	1644530	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 16:50:05
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	345588	0
[	Be	9	50.394	ug/L	0.245	0	4	21883	0
	C	13		mg/L			4514	4097	3
	Cl	37		mg/L			1945798	1980561	0
[>	Sc	45		ug/L			206181	262608	0
	V	51	50.080	ug/L	0.420	0	1248	540085	0
	V-1	51	50.046	ug/L	0.346	0	1187	550044	0
	Cr	52	50.080	ug/L	0.287	0	3779	474397	0
	Cr	53	49.972	ug/L	0.446	0	407	56791	1
	Mn	55	50.685	ug/L	1.112	2	1176	807599	2
[	Co	59	50.549	ug/L	0.562	1	71	567711	0
[>	Ge	72		ug/L			204867	252778	0
	Ni	60	52.814	ug/L	0.224	0	19	117273	0
	Ni	62	53.887	ug/L	0.109	0	54	17314	0
	Cu	63	52.195	ug/L	0.364	0	232	249499	0
	Cu	65	51.517	ug/L	0.433	0	73	114194	0
	Zn	66	53.801	ug/L	0.100	0	287	77787	0
	Zn	67	53.978	ug/L	0.989	1	76	12788	1
	Zn	68	52.192	ug/L	0.543	1	4109	56259	0
	As	75	51.591	ug/L	0.193	0	331	72631	0
	As-1	75	50.617	ug/L	0.276	0	5650	75438	0
	Se	82	53.024	ug/L	0.718	1	-9	9049	1
	Se	78	49.724	ug/L	0.223	0	5714	26331	0
[	Mo	98	52.037	ug/L	0.605	1	24	325232	1
	Y	89		ug/L			232566	290012	1
	Kr	83		ug/L			173	217	3
[>	In	115		ug/L			278279	344702	0
	Ag	107	52.436	ug/L	0.480	0	41	536172	0
	Cd	111	52.380	ug/L	0.303	0	154	144280	0
	Cd	114	52.358	ug/L	0.372	0	8	334463	0
	Sb	121	50.235	ug/L	0.544	1	152	467618	1
	Sb	123	50.301	ug/L	0.295	0	120	350390	0
	Ba	135	48.904	ug/L	0.659	1	17	100178	1
[	Ba	137	48.881	ug/L	0.310	0	22	171146	0
[>	Tb	159		ug/L			307498	374476	1
	Tl	205	52.453	ug/L	0.975	1	54	1574224	0
	Pb	208	54.169	ug/L	0.622	1	227	2202271	0
	Bi	209		ug/L			307353	379251	0
	Th	232	54.759	ug/L	1.059	1	490	2820693	1
[	U	238	54.039	ug/L	1.289	2	32	3178250	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 16:56:43
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			286436	299586	1
⌊	Be	9	0.008	ug/L	0.014	172	4	7	72
	C	13		mg/L			4514	4767	1
	Cl	37		mg/L			1945798	1976349	0
⌈>	Sc	45		ug/L			206181	221025	0
|	V	51	-0.019	ug/L	0.002	12	1248	1165	1
|	V-1	51	-0.018	ug/L	0.006	34	1187	1108	5
|	Cr	52	-0.016	ug/L	0.010	60	3779	3927	1
|	Cr	53	-0.012	ug/L	0.018	146	407	425	3
|	Mn	55	0.035	ug/L	0.002	6	1176	1735	1
⌊	Co	59	0.001	ug/L	0.001	68	71	86	7
⌈>	Ge	72		ug/L			204867	221491	0
|	Ni	60	0.003	ug/L	0.002	53	19	26	11
|	Ni	62	0.088	ug/L	0.072	81	54	83	23
|	Cu	63	0.017	ug/L	0.005	30	232	322	6
|	Cu	65	-0.004	ug/L	0.003	83	73	72	9
|	Zn	66	-0.085	ug/L	0.009	10	287	203	6
|	Zn	67	-0.099	ug/L	0.060	60	76	62	19
|	Zn	68	-0.383	ug/L	0.149	38	4109	4113	2
|	As	75	0.056	ug/L	0.013	23	331	426	3
|	As-1	75	-0.319	ug/L	0.043	13	5650	5730	0
|	Se	82	0.009	ug/L	0.006	66	-9	-8	10
|	Se	78	-1.101	ug/L	0.111	10	5714	5804	0
⌊	Mo	98	0.007	ug/L	0.003	47	24	65	28
	Y	89		ug/L			232566	248804	2
	Kr	83		ug/L			173	214	0
⌈>	In	115		ug/L			278279	298094	0
|	Ag	107	0.002	ug/L	0.001	33	41	59	8
|	Cd	111	-0.003	ug/L	0.003	86	154	158	4
|	Cd	114	-0.000	ug/L	0.001	675	8	8	49
|	Sb	121	0.030	ug/L	0.014	46	152	404	27
|	Sb	123	0.027	ug/L	0.013	48	120	289	26
|	Ba	135	-0.002	ug/L	0.003	140	17	14	35
⌊	Ba	137	0.001	ug/L	0.001	110	22	26	9
⌈>	Tb	159		ug/L			307498	322708	1
|	Tl	205	0.002	ug/L	0.001	29	54	121	16
|	Pb	208	0.002	ug/L	0.001	38	227	316	10
|	Bi	209		ug/L			307353	330356	1
|	Th	232	0.014	ug/L	0.007	47	490	1141	26
⌊	U	238	0.001	ug/L	0.000	47	32	84	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 N REN
Sample Dil Factor: 2 DL
Comments:
Sample Date/Time: Monday, January 21, 2013 17:02:31
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			286436	339225	7
⌊	Be	9	0.031	ug/L	0.019	61	4	18	50
	C	13		mg/L			4514	7155	1
	Cl	37		mg/L			1945798	3848824	3
⌈>	Sc	45		ug/L			206181	301767	9
|	V	51	4.674	ug/L	0.110	2	1248	59518	8
|	V-1	51	5.134	ug/L	0.074	1	1187	66361	8
|	Cr	52	1.954	ug/L	0.026	1	3779	26569	8
|	Cr	53	3.545	ug/L	0.099	2	407	5190	11
|	Mn	55	292.474	ug/L	4.760	1	1176	5341125	8
⌊	Co	59	0.361	ug/L	0.007	1	71	4764	11
⌈>	Ge	72		ug/L			204867	234718	7
|	Ni	60	1.424	ug/L	0.067	4	19	2964	11
|	Ni	62	1.833	ug/L	0.182	9	54	608	14
|	Cu	63	2.639	ug/L	0.059	2	232	11974	8
|	Cu	65	1.034	ug/L	0.036	3	73	2207	3
|	Zn	66	2.132	ug/L	0.107	4	287	3180	9
|	Zn	67	3.228	ug/L	0.151	4	76	793	9
|	Zn	68	1.961	ug/L	0.566	28	4109	6470	0
|	As	75	2.528	ug/L	0.049	1	331	3668	8
|	As-1	75	1.220	ug/L	0.374	30	5650	7984	1
|	Se	82	2.052	ug/L	0.342	16	-9	317	23
|	Se	78	-2.480	ug/L	1.293	52	5714	5633	1
⌊	Mo	98	0.378	ug/L	0.011	2	24	2226	9
	Y	89		ug/L			232566	291105	8
	Kr	83		ug/L			173	207	6
⌈>	In	115		ug/L			278279	316670	7
|	Ag	107	0.006	ug/L	0.002	29	41	106	21
|	Cd	111	-0.124	ug/L	0.034	27	154	-138	66
|	Cd	114	0.026	ug/L	0.003	12	8	164	7
|	Sb	121	0.126	ug/L	0.003	2	152	1246	5
|	Sb	123	0.129	ug/L	0.003	1	120	960	6
|	Ba	135	26.210	ug/L	0.200	0	17	49315	6
⌊	Ba	137	26.036	ug/L	0.148	0	22	83780	7
⌈>	Tb	159		ug/L			307498	350098	8
|	Tl	205	0.001	ug/L	0.001	92	54	77	10
|	Pb	208	0.324	ug/L	0.003	0	227	12574	9
|	Bi	209		ug/L			307353	337490	7
|	Th	232	0.082	ug/L	0.005	5	490	4509	4
⌊	U	238	0.107	ug/L	0.002	1	32	5894	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 O REN
Sample Dil Factor: 2 Bd
Comments:
Sample Date/Time: Monday, January 21, 2013 17:08:51
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	294191	4
[	Be	9	0.011	ug/L	0.009	83	4	8	37
	C	13		mg/L			4514	6224	1
	Cl	37		mg/L			1945798	4040043	1
[>	Sc	45		ug/L			206181	234998	4
[	V	51	1.475	ug/L	0.013	0	1248	15609	3
[	V-1	51	2.182	ug/L	0.020	0	1187	22763	5
[	Cr	52	0.633	ug/L	0.013	2	3779	9618	4
[	Cr	53	2.886	ug/L	0.088	3	407	3374	7
[	Mn	55	56.289	ug/L	0.672	1	1176	802179	3
[	Co	59	0.960	ug/L	0.006	0	71	9728	3
[>	Ge	72		ug/L			204867	199276	2
[	Ni	60	3.432	ug/L	0.038	1	19	6027	3
[	Ni	62	6.294	ug/L	0.369	5	54	1640	5
[	Cu	63	4.446	ug/L	0.018	0	232	16960	2
[	Cu	65	2.191	ug/L	0.018	0	73	3898	3
[	Zn	66	4.019	ug/L	0.057	1	287	4838	2
[	Zn	67	4.168	ug/L	0.124	2	76	847	3
[	Zn	68	4.059	ug/L	0.255	6	4109	7132	1
[	As	75	17.909	ug/L	0.043	0	331	20088	3
[	As-1	75	17.967	ug/L	0.174	0	5650	24651	2
[	Se	82	1.694	ug/L	0.034	1	-9	219	4
[	Se	78	0.233	ug/L	0.755	324	5714	5625	1
[	Mo	98	10.360	ug/L	0.192	1	24	51079	4
	Y	89		ug/L			232566	246525	4
	Kr	83		ug/L			173	206	1
[>	In	115		ug/L			278279	268217	4
[	Ag	107	0.012	ug/L	0.002	18	41	136	16
[	Cd	111	0.766	ug/L	0.081	10	154	1784	7
[	Cd	114	0.931	ug/L	0.042	4	8	4632	1
[	Sb	121	1.503	ug/L	0.020	1	152	11025	2
[	Sb	123	1.480	ug/L	0.005	0	120	8133	3
[	Ba	135	27.165	ug/L	0.696	2	17	43274	1
[	Ba	137	27.107	ug/L	0.551	2	22	73822	2
[>	Tb	159		ug/L			307498	298658	2
[	Tl	205	0.006	ug/L	0.000	3	54	187	0
[	Pb	208	0.314	ug/L	0.006	1	227	10403	3
[	Bi	209		ug/L			307353	283227	3
[	Th	232	0.036	ug/L	0.001	2	490	1939	1
[	U	238	0.670	ug/L	0.014	2	32	31462	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 P REN
Sample Dil Factor: 20 Dil
Comments:
Sample Date/Time: Monday, January 21, 2013 17:15:10
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			286436	336219	0
Be	9	0.002	ug/L	0.006	273	4	5	44
C	13		mg/L			4514	4215	4
Cl	37		mg/L			1945798	1958793	0
Sc	45		ug/L			206181	247416	0
V	51	0.273	ug/L	0.004	1	1248	4261	1
V-1	51	0.298	ug/L	0.003	1	1187	4499	1
Cr	52	0.115	ug/L	0.007	5	3779	5550	0
Cr	53	0.202	ug/L	0.014	7	407	703	1
Mn	55	343.195	ug/L	5.819	1	1176	5143084	0
Co	59	0.139	ug/L	0.005	3	71	1559	2
Ge	72		ug/L			204867	237753	0
Ni	60	0.411	ug/L	0.034	8	19	879	7
Ni	62	0.404	ug/L	0.060	14	54	184	9
Cu	63	0.256	ug/L	0.007	2	232	1421	2
Cu	65	0.217	ug/L	0.005	2	73	537	2
Zn	66	0.792	ug/L	0.033	4	287	1406	3
Zn	67	1.054	ug/L	0.100	9	76	322	6
Zn	68	0.091	ug/L	0.079	86	4109	4853	1
As	75	170.038	ug/L	0.671	0	331	224274	0
As-1	75	175.173	ug/L	0.668	0	5650	229423	0
Se	82	0.109	ug/L	0.100	91	-9	6	248
Se	78	-2.685	ug/L	0.059	2	5714	5653	0
Mo	98	0.237	ug/L	0.006	2	24	1421	2
Y	89		ug/L			232566	271279	0
Kr	83		ug/L			173	199	4
In	115		ug/L			278279	327133	0
Ag	107	-0.003	ug/L	0.000	4	41	22	5
Cd	111	0.012	ug/L	0.002	16	154	213	1
Cd	114	0.013	ug/L	0.000	2	8	87	2
Sb	121	0.010	ug/L	0.001	8	152	271	3
Sb	123	0.009	ug/L	0.004	42	120	201	12
Ba	135	9.219	ug/L	0.056	0	17	17939	0
Ba	137	9.243	ug/L	0.181	1	22	30730	1
Tb	159		ug/L			307498	350120	0
Tl	205	0.000	ug/L	0.000	33691	54	61	19
Pb	208	0.105	ug/L	0.002	1	227	4257	2
Bi	209		ug/L			307353	354063	0
Th	232	-0.002	ug/L	0.001	39	490	437	11
U	238	0.099	ug/L	0.001	0	32	5465	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 Q REN
Sample Dil Factor: 2
Comments: Del
Sample Date/Time: Monday, January 21, 2013 17:21:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	339767	9
[	Be	9	0.105	ug/L	0.008	7	4	49	7
	C	13		mg/L			4514	7248	0
	Cl	37		mg/L			1945798	2910647	3
[>	Sc	45		ug/L			206181	345276	14
	V	51	22.763	ug/L	0.657	2	1248	323237	12
	V-1	51	22.833	ug/L	0.652	2	1187	330319	11
	Cr	52	13.197	ug/L	0.421	3	3779	168596	11
	Cr	53	13.978	ug/L	0.457	3	407	21316	11
	Mn	55	181.284	ug/L	7.868	4	1176	3778931	10
[	Co	59	1.203	ug/L	0.029	2	71	17850	12
[>	Ge	72		ug/L			204867	224037	8
	Ni	60	6.168	ug/L	0.127	2	19	12170	9
	Ni	62	9.469	ug/L	0.430	4	54	2751	12
	Cu	63	9.628	ug/L	0.233	2	232	41050	10
	Cu	65	7.656	ug/L	0.081	1	73	15118	8
	Zn	66	9.728	ug/L	0.295	3	287	12743	10
	Zn	67	12.604	ug/L	0.395	3	76	2714	10
	Zn	68	9.243	ug/L	0.062	0	4109	12526	7
	As	75	2.895	ug/L	0.080	2	331	3959	10
	As-1	75	1.737	ug/L	0.380	21	5650	8237	2
	Se	82	2.297	ug/L	0.211	9	-9	338	16
	Se	78	-1.607	ug/L	1.476	91	5714	5670	0
[	Mo	98	0.379	ug/L	0.023	5	24	2133	13
	Y	89		ug/L			232566	337304	9
	Kr	83		ug/L			173	215	1
[>	In	115		ug/L			278279	300888	10
	Ag	107	0.022	ug/L	0.003	11	41	241	17
	Cd	111	-0.058	ug/L	0.048	82	154	22	505
	Cd	114	0.051	ug/L	0.004	7	8	293	8
	Sb	121	0.191	ug/L	0.010	5	152	1715	7
	Sb	123	0.187	ug/L	0.007	3	120	1261	6
	Ba	135	24.707	ug/L	0.826	3	17	44107	7
[	Ba	137	24.684	ug/L	0.132	0	22	75426	9
[>	Tb	159		ug/L			307498	335376	8
	Tl	205	0.008	ug/L	0.000	2	54	285	8
	Pb	208	1.214	ug/L	0.012	1	227	44460	9
	Bi	209		ug/L			307353	318268	8
	Th	232	0.830	ug/L	0.011	1	490	38819	7
[	U	238	0.589	ug/L	0.010	1	32	31105	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 R REN
Sample Dil Factor: 2 Dil
Comments:
Sample Date/Time: Monday, January 21, 2013 17:27:49
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			286436	283504	14
⌊	Be	9	0.007	ug/L	0.001	9	4	6	10
	C	13		mg/L			4514	5635	4
	Cl	37		mg/L			1945798	8867253	9
⌈>	Sc	45		ug/L			206181	221831	14
|	V	51	0.856	ug/L	0.045	5	1248	9078	9
|	V-1	51	3.339	ug/L	0.281	8	1187	32443	23
|	Cr	52	0.438	ug/L	0.029	6	3779	7515	11
|	Cr	53	8.192	ug/L	0.980	11	407	8321	26
|	Mn	55	195.897	ug/L	2.233	1	1176	2630004	13
⌊	Co	59	4.284	ug/L	0.039	0	71	40678	13
⌈>	Ge	72		ug/L			204867	188127	10
|	Ni	60	9.524	ug/L	0.666	6	19	15830	17
|	Ni	62	13.655	ug/L	0.771	5	54	3315	16
|	Cu	63	7.090	ug/L	0.114	1	232	25434	12
|	Cu	65	2.896	ug/L	0.091	3	73	4851	13
|	Zn	66	18.454	ug/L	0.055	0	287	20035	10
|	Zn	67	19.256	ug/L	0.523	2	76	3434	8
|	Zn	68	19.499	ug/L	0.806	4	4109	17965	7
|	As	75	10.717	ug/L	0.218	2	331	11485	12
|	As-1	75	9.721	ug/L	0.627	6	5650	14930	6
|	Se	82	4.267	ug/L	0.559	13	-9	538	24
|	Se	78	0.784	ug/L	2.517	320	5714	5422	3
⌊	Mo	98	0.731	ug/L	0.006	0	24	3424	10
	Y	89		ug/L			232566	228089	13
	Kr	83		ug/L			173	245	0
⌈>	In	115		ug/L			278279	244881	11
|	Ag	107	0.009	ug/L	0.001	6	41	100	8
|	Cd	111	0.134	ug/L	0.097	71	154	384	39
|	Cd	114	0.538	ug/L	0.010	1	8	2446	11
|	Sb	121	1.008	ug/L	0.042	4	152	6773	7
|	Sb	123	0.996	ug/L	0.023	2	120	5024	10
|	Ba	135	112.053	ug/L	1.330	1	17	162894	10
⌊	Ba	137	111.933	ug/L	1.751	1	22	278049	10
⌈>	Tb	159		ug/L			307498	272553	12
|	Tl	205	0.007	ug/L	0.001	9	54	203	11
|	Pb	208	0.075	ug/L	0.002	3	227	2412	15
|	Bi	209		ug/L			307353	255684	10
|	Th	232	0.011	ug/L	0.004	33	490	838	6
⌊	U	238	0.041	ug/L	0.000	1	32	1775	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 S REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 17:34:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			286436	285583	3
Be	9	0.052	ug/L	0.025	48	4	22	42
C	13		mg/L			4514	6297	2
Cl	37		mg/L			1945798	2225599	0
Sc	45		ug/L			206181	252194	5
V	51	8.764	ug/L	0.084	0	1248	91998	4
V-1	51	8.905	ug/L	0.102	1	1187	95154	4
Cr	52	4.776	ug/L	0.088	1	3779	47601	3
Cr	53	5.451	ug/L	0.146	2	407	6388	2
Mn	55	136.877	ug/L	1.840	1	1176	2092740	6
Co	59	0.805	ug/L	0.015	1	71	8760	3
Ge	72		ug/L			204867	198024	4
Ni	60	3.703	ug/L	0.057	1	19	6457	2
Ni	62	5.196	ug/L	0.125	2	54	1356	6
Cu	63	4.145	ug/L	0.019	0	232	15726	3
Cu	65	3.555	ug/L	0.039	1	73	6239	3
Zn	66	6.682	ug/L	0.102	1	287	7812	4
Zn	67	7.169	ug/L	0.315	4	76	1396	7
Zn	68	6.979	ug/L	0.179	2	4109	9331	2
As	75	8.511	ug/L	0.022	0	331	9654	3
As-1	75	8.586	ug/L	0.210	2	5650	14554	2
Se	82	0.614	ug/L	0.116	18	-9	73	23
Se	78	0.294	ug/L	0.738	250	5714	5607	0
Mo	98	0.480	ug/L	0.012	2	24	2374	6
Y	89		ug/L			232566	247457	5
Kr	83		ug/L			173	212	2
In	115		ug/L			278279	260798	4
Ag	107	0.009	ug/L	0.002	26	41	109	13
Cd	111	1.759	ug/L	0.054	3	154	3808	6
Cd	114	1.737	ug/L	0.020	1	8	8404	5
Sb	121	0.227	ug/L	0.002	1	152	1740	4
Sb	123	0.219	ug/L	0.009	4	120	1269	7
Ba	135	17.396	ug/L	0.015	0	17	26971	3
Ba	137	17.162	ug/L	0.251	1	22	45470	3
Tb	159		ug/L			307498	287281	3
Tl	205	0.005	ug/L	0.000	6	54	175	4
Pb	208	0.877	ug/L	0.009	0	227	27563	4
Bi	209		ug/L			307353	279554	3
Th	232	0.282	ug/L	0.005	1	490	11602	4
U	238	0.199	ug/L	0.005	2	32	8996	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 T REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 17:40:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	263640	0
[	Be	9	0.009	ug/L	0.011	127	4	6	54
	C	13		mg/L			4514	5744	2
	Cl	37		mg/L			1945798	8263327	0
[>	Sc	45		ug/L			206181	204379	1
	V	51	0.716	ug/L	0.049	6	1248	7236	7
	V-1	51	3.040	ug/L	0.103	3	1187	27100	2
	Cr	52	0.409	ug/L	0.014	3	3779	6731	2
	Cr	53	7.660	ug/L	0.472	6	407	7113	4
	Mn	55	198.664	ug/L	3.347	1	1176	2460005	2
[	Co	59	4.185	ug/L	0.053	1	71	36650	2
[>	Ge	72		ug/L			204867	178086	1
	Ni	60	8.884	ug/L	0.123	1	19	13912	2
	Ni	62	13.303	ug/L	0.170	1	54	3047	2
	Cu	63	6.834	ug/L	0.111	1	232	23189	1
	Cu	65	2.754	ug/L	0.031	1	73	4361	2
	Zn	66	18.042	ug/L	0.119	0	287	18542	0
	Zn	67	18.745	ug/L	0.325	1	76	3172	1
	Zn	68	19.322	ug/L	0.245	1	4109	16924	1
	As	75	10.624	ug/L	0.015	0	331	10766	1
	As-1	75	9.944	ug/L	0.076	0	5650	14387	1
	Se	82	3.903	ug/L	0.111	2	-9	461	2
	Se	78	1.579	ug/L	0.055	3	5714	5399	1
[	Mo	98	0.683	ug/L	0.036	5	24	3025	4
	Y	89		ug/L			232566	211550	1
	Kr	83		ug/L			173	244	6
[>	In	115		ug/L			278279	229164	1
	Ag	107	0.007	ug/L	0.001	7	41	84	3
	Cd	111	-0.137	ug/L	0.032	23	154	-123	48
	Cd	114	0.337	ug/L	0.000	0	8	1437	1
	Sb	121	0.996	ug/L	0.008	0	152	6284	2
	Sb	123	0.972	ug/L	0.006	0	120	4600	1
	Ba	135	111.112	ug/L	1.429	1	17	151304	2
[	Ba	137	110.282	ug/L	1.585	1	22	256654	1
[>	Tb	159		ug/L			307498	254436	1
	Tl	205	0.006	ug/L	0.000	5	54	175	4
	Pb	208	0.047	ug/L	0.001	2	227	1487	1
	Bi	209		ug/L			307353	239898	2
	Th	232	-0.000	ug/L	0.002	1768	490	401	14
[	U	238	0.040	ug/L	0.003	7	32	1625	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 V REN
Sample Dil Factor: 2
Comments: Dil
Sample Date/Time: Monday, January 21, 2013 17:46:41
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	323429	4
[	Be	9	0.021	ug/L	0.008	35	4	13	21
	C	13		mg/L			4514	6833	1
	Cl	37		mg/L			1945798	3684105	2
[>	Sc	45		ug/L			206181	281513	3
	V	51	3.784	ug/L	0.045	1	1248	45311	3
	V-1	51	4.412	ug/L	0.037	0	1187	53469	4
	Cr	52	1.863	ug/L	0.023	1	3779	23896	4
	Cr	53	3.933	ug/L	0.157	3	407	5309	7
	Mn	55	59.032	ug/L	0.149	0	1176	1008035	3
[	Co	59	0.345	ug/L	0.007	2	71	4245	1
[>	Ge	72		ug/L			204867	214398	4
	Ni	60	0.498	ug/L	0.010	2	19	957	4
	Ni	62	2.595	ug/L	0.257	9	54	760	9
	Cu	63	2.501	ug/L	0.003	0	232	10370	4
	Cu	65	0.935	ug/L	0.031	3	73	1835	7
	Zn	66	1.577	ug/L	0.028	1	287	2226	5
	Zn	67	2.909	ug/L	0.150	5	76	659	2
	Zn	68	1.987	ug/L	0.115	5	4109	5950	2
	As	75	5.876	ug/L	0.122	2	331	7324	5
	As-1	75	5.010	ug/L	0.154	3	5650	11656	3
	Se	82	1.961	ug/L	0.131	6	-9	274	8
	Se	78	-1.236	ug/L	0.717	58	5714	5567	0
[	Mo	98	0.889	ug/L	0.011	1	24	4736	3
	Y	89		ug/L			232566	258516	4
	Kr	83		ug/L			173	219	4
[>	In	115		ug/L			278279	286394	3
	Ag	107	0.002	ug/L	0.001	74	41	57	21
	Cd	111	-0.158	ug/L	0.011	7	154	-202	11
	Cd	114	0.010	ug/L	0.001	8	8	64	8
	Sb	121	0.052	ug/L	0.001	2	152	557	5
	Sb	123	0.053	ug/L	0.002	3	120	427	3
	Ba	135	38.111	ug/L	0.387	1	17	64866	3
[	Ba	137	37.953	ug/L	0.124	0	22	110419	3
[>	Tb	159		ug/L			307498	313835	3
	Tl	205	-0.000	ug/L	0.000	67	54	42	14
	Pb	208	0.136	ug/L	0.000	0	227	4859	4
	Bi	209		ug/L			307353	297928	4
	Th	232	0.066	ug/L	0.004	5	490	3362	8
[	U	238	0.098	ug/L	0.002	1	32	4869	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 W REN
Sample Dil Factor: 2
Comments: Dil
Sample Date/Time: Monday, January 21, 2013 17:52:57
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			286436	317131	3
	Be	9	0.022	ug/L	0.007	31	4	13	19
	C	13		mg/L			4514	6297	1
	Cl	37		mg/L			1945798	1937442	2
>	Sc	45		ug/L			206181	262385	2
	V	51	0.214	ug/L	0.016	7	1248	3889	2
	V-1	51	0.372	ug/L	0.032	8	1187	5582	3
	Cr	52	0.137	ug/L	0.019	13	3779	6092	2
	Cr	53	0.633	ug/L	0.065	10	407	1229	3
	Mn	55	550.825	ug/L	3.317	0	1176	8753508	2
	Co	59	2.600	ug/L	0.004	0	71	29266	2
>	Ge	72		ug/L			204867	206045	2
	Ni	60	11.657	ug/L	0.225	1	19	21112	2
	Ni	62	12.322	ug/L	0.257	2	54	3267	0
	Cu	63	1.556	ug/L	0.020	1	232	6289	2
	Cu	65	2.200	ug/L	0.031	1	73	4047	4
	Zn	66	5.795	ug/L	0.117	2	287	7085	0
	Zn	67	6.221	ug/L	0.185	2	76	1269	2
	Zn	68	5.833	ug/L	0.419	7	4109	8790	1
	As	75	1.240	ug/L	0.019	1	331	1748	2
	As-1	75	0.896	ug/L	0.191	21	5650	6666	0
	Se	82	0.367	ug/L	0.013	3	-9	41	3
	Se	78	-0.665	ug/L	0.692	104	5714	5533	1
	Mo	98	0.122	ug/L	0.004	3	24	647	3
	Y	89		ug/L			232566	241271	1
	Kr	83		ug/L			173	208	1
>	In	115		ug/L			278279	279666	2
	Ag	107	-0.001	ug/L	0.001	61	41	32	17
	Cd	111	0.098	ug/L	0.005	4	154	374	1
	Cd	114	0.085	ug/L	0.003	3	8	451	0
	Sb	121	0.219	ug/L	0.005	2	152	1806	1
	Sb	123	0.206	ug/L	0.001	0	120	1283	3
	Ba	135	56.118	ug/L	0.070	0	17	93265	2
	Ba	137	55.841	ug/L	0.336	0	22	158610	2
>	Tb	159		ug/L			307498	304336	1
	Tl	205	0.017	ug/L	0.001	3	54	470	4
	Pb	208	0.030	ug/L	0.001	4	227	1217	5
	Bi	209		ug/L			307353	293660	1
	Th	232	-0.005	ug/L	0.000	9	490	287	7
	U	238	0.048	ug/L	0.001	1	32	2310	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 X REN
Sample Dil Factor: 2 Dil
Comments:
Sample Date/Time: Monday, January 21, 2013 17:59:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	317083	0
[	Be	9	0.026	ug/L	0.008	31	4	15	22
	C	13		mg/L			4514	6362	1
	Cl	37		mg/L			1945798	2276344	0
[>	Sc	45		ug/L			206181	260139	0
	V	51	0.830	ug/L	0.031	3	1248	10421	3
	V-1	51	1.028	ug/L	0.024	2	1187	12656	2
	Cr	52	0.354	ug/L	0.024	6	3779	8052	2
	Cr	53	0.995	ug/L	0.027	2	407	1624	2
	Mn	55	813.360	ug/L	10.588	1	1176	12815125	1
[	Co	59	1.308	ug/L	0.013	0	71	14646	1
[>	Ge	72		ug/L			204867	205998	0
	Ni	60	2.404	ug/L	0.048	1	19	4368	2
	Ni	62	2.649	ug/L	0.159	6	54	745	5
	Cu	63	1.007	ug/L	0.008	0	232	4150	0
	Cu	65	0.882	ug/L	0.057	6	73	1666	6
	Zn	66	4.044	ug/L	0.028	0	287	5032	1
	Zn	67	4.205	ug/L	0.133	3	76	883	3
	Zn	68	3.909	ug/L	0.191	4	4109	7256	1
	As	75	1.723	ug/L	0.019	1	331	2299	0
	As-1	75	1.195	ug/L	0.064	5	5650	6998	1
	Se	82	0.600	ug/L	0.055	9	-9	73	10
	Se	78	-1.123	ug/L	0.116	10	5714	5391	0
[	Mo	98	0.423	ug/L	0.010	2	24	2180	3
	Y	89		ug/L			232566	241992	0
	Kr	83		ug/L			173	205	1
[>	In	115		ug/L			278279	277147	1
	Ag	107	0.000	ug/L	0.001	188	41	43	8
	Cd	111	-0.014	ug/L	0.012	85	154	123	22
	Cd	114	0.013	ug/L	0.003	22	8	76	20
	Sb	121	0.170	ug/L	0.009	5	152	1420	5
	Sb	123	0.161	ug/L	0.011	6	120	1017	5
	Ba	135	27.384	ug/L	0.331	1	17	45103	0
[	Ba	137	27.128	ug/L	0.416	1	22	76369	0
[>	Tb	159		ug/L			307498	307140	1
	Tl	205	-0.000	ug/L	0.000	949	54	53	12
	Pb	208	0.062	ug/L	0.001	1	227	2279	1
	Bi	209		ug/L			307353	296586	1
	Th	232	-0.001	ug/L	0.001	79	490	440	10
[	U	238	0.081	ug/L	0.002	2	32	3946	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 18:05:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	270025	0
[	Be	9	50.222	ug/L	0.719	1	4	17040	1
	C	13		mg/L			4514	4017	1
	Cl	37		mg/L			1945798	1859076	0
[>	Sc	45		ug/L			206181	190990	1
	V	51	51.231	ug/L	0.189	0	1248	401786	1
	V-1	51	51.055	ug/L	0.212	0	1187	408076	1
	Cr	52	51.266	ug/L	0.140	0	3779	353118	1
	Cr	53	50.717	ug/L	0.105	0	407	41913	1
	Mn	55	51.053	ug/L	0.357	0	1176	591554	1
[	Co	59	51.139	ug/L	0.538	1	71	417674	0
[>	Ge	72		ug/L			204867	190493	1
	Ni	60	50.623	ug/L	0.652	1	19	84707	1
	Ni	62	51.329	ug/L	1.195	2	54	12430	1
	Cu	63	51.389	ug/L	0.687	1	232	185099	0
	Cu	65	50.889	ug/L	0.259	0	73	85008	1
	Zn	66	52.484	ug/L	0.506	0	287	57188	0
	Zn	67	53.067	ug/L	0.739	1	76	9475	1
	Zn	68	53.054	ug/L	0.289	0	4109	43034	0
	As	75	51.357	ug/L	0.336	0	331	54485	0
	As-1	75	51.592	ug/L	0.327	0	5650	57842	0
	Se	82	50.042	ug/L	0.281	0	-9	6435	0
	Se	78	51.007	ug/L	0.310	0	5714	20217	0
[	Mo	98	50.392	ug/L	0.648	1	24	237330	0
	Y	89		ug/L			232566	212228	0
	Kr	83		ug/L			173	209	3
[>	In	115		ug/L			278279	256286	1
	Ag	107	51.126	ug/L	0.268	0	41	388670	0
	Cd	111	52.057	ug/L	0.384	0	154	106615	2
	Cd	114	51.035	ug/L	0.498	0	8	242399	2
	Sb	121	51.306	ug/L	0.766	1	152	355031	0
	Sb	123	51.790	ug/L	0.259	0	120	268209	1
	Ba	135	49.404	ug/L	0.838	1	17	75235	1
[	Ba	137	49.920	ug/L	0.602	1	22	129937	0
[>	Tb	159		ug/L			307498	277611	0
	Tl	205	52.567	ug/L	0.174	0	54	1169770	0
	Pb	208	53.868	ug/L	0.635	1	227	1623613	0
	Bi	209		ug/L			307353	282013	0
	Th	232	54.905	ug/L	2.243	4	490	2096933	4
[	U	238	54.673	ug/L	0.625	1	32	2384401	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 18:12:09
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	252775	0
[	Be	9	0.019	ug/L	0.006	32	4	9	19
	C	13		mg/L			4514	4594	1
	Cl	37		mg/L			1945798	1893440	0
[>	Sc	45		ug/L			206181	184462	1
	V	51	-0.004	ug/L	0.009	232	1248	1087	7
	V-1	51	0.160	ug/L	0.017	10	1187	2290	5
	Cr	52	0.017	ug/L	0.017	104	3779	3489	1
	Cr	53	0.525	ug/L	0.045	8	407	779	3
	Mn	55	0.047	ug/L	0.011	23	1176	1579	6
[	Co	59	-0.001	ug/L	0.002	206	71	58	21
[>	Ge	72		ug/L			204867	187716	0
	Ni	60	0.002	ug/L	0.001	61	19	21	10
	Ni	62	0.319	ug/L	0.093	29	54	125	17
	Cu	63	0.023	ug/L	0.002	8	232	293	2
	Cu	65	0.007	ug/L	0.003	46	73	79	7
	Zn	66	-0.088	ug/L	0.007	7	287	169	4
	Zn	67	0.046	ug/L	0.046	100	76	78	10
	Zn	68	0.146	ug/L	0.076	51	4109	3872	1
	As	75	0.112	ug/L	0.017	15	331	419	4
	As-1	75	0.212	ug/L	0.039	18	5650	5390	0
	Se	82	-0.063	ug/L	0.101	161	-9	-16	77
	Se	78	0.736	ug/L	0.104	14	5714	5448	0
[	Mo	98	0.004	ug/L	0.003	66	24	42	31
	Y	89		ug/L			232566	207870	0
	Kr	83		ug/L			173	212	5
[>	In	115		ug/L			278279	250380	1
	Ag	107	-0.001	ug/L	0.000	55	41	32	10
	Cd	111	-0.003	ug/L	0.006	166	154	131	7
	Cd	114	0.000	ug/L	0.001	819	8	8	44
	Sb	121	0.024	ug/L	0.014	57	152	297	32
	Sb	123	0.024	ug/L	0.013	53	120	229	29
	Ba	135	0.000	ug/L	0.004	12024	17	15	38
[	Ba	137	0.008	ug/L	0.000	5	22	41	4
[>	Tb	159		ug/L			307498	270855	0
	Tl	205	0.002	ug/L	0.001	34	54	85	15
	Pb	208	0.001	ug/L	0.000	65	227	222	7
	Bi	209		ug/L			307353	278845	0
	Th	232	0.007	ug/L	0.005	64	490	693	25
[	U	238	0.001	ug/L	0.001	85	32	59	44

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 UDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 18:17:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	261376	2
[	Be	9	0.025	ug/L	0.006	25	4	12	15
	C	13		mg/L			4514	5588	0
	Cl	37		mg/L			1945798	1851793	0
[>	Sc	45		ug/L			206181	208916	4
[	V	51	0.412	ug/L	0.022	5	1248	4784	3
[	V-1	51	0.548	ug/L	0.028	5	1187	5977	1
[	Cr	52	0.196	ug/L	0.003	1	3779	5294	4
[	Cr	53	0.634	ug/L	0.038	6	407	979	2
[	Mn	55	709.605	ug/L	0.414	0	1176	8979021	4
[	Co	59	1.004	ug/L	0.015	1	71	9042	5
[>	Ge	72		ug/L			204867	181843	1
[	Ni	60	1.372	ug/L	0.086	6	19	2208	7
[	Ni	62	1.769	ug/L	0.236	13	54	455	12
[	Cu	63	0.435	ug/L	0.012	2	232	1701	1
[	Cu	65	0.927	ug/L	0.035	3	73	1543	4
[	Zn	66	3.018	ug/L	0.163	5	287	3380	5
[	Zn	67	3.196	ug/L	0.124	3	76	608	4
[	Zn	68	3.278	ug/L	0.101	3	4109	5960	0
[	As	75	11.906	ug/L	0.076	0	331	12284	1
[	As-1	75	12.435	ug/L	0.010	0	5650	17115	1
[	Se	82	0.390	ug/L	0.055	14	-9	39	18
[	Se	78	1.308	ug/L	0.236	18	5714	5436	0
[	Mo	98	0.900	ug/L	0.024	2	24	4068	3
	Y	89		ug/L			232566	205071	2
	Kr	83		ug/L			173	206	3
[>	In	115		ug/L			278279	239464	2
[	Ag	107	0.003	ug/L	0.001	22	41	57	11
[	Cd	111	u 0.016	ug/L	0.005	31	154	163	8
[	Cd	114	0.013	ug/L	0.001	10	8	64	9
[	Sb	121	0.339	ug/L	0.008	2	152	2324	4
[	Sb	123	0.346	ug/L	0.012	3	120	1776	4
[	Ba	135	32.277	ug/L	0.213	0	17	45942	3
[	Ba	137	32.145	ug/L	0.170	0	22	78201	3
[>	Tb	159		ug/L			307498	265428	3
[	Tl	205	u 0.003	ug/L	0.001	23	54	110	15
[	Pb	208	u 0.021	ug/L	0.001	3	227	795	4
[	Bi	209		ug/L			307353	261902	3
[	Th	232	0.009	ug/L	0.004	50	490	738	22
[	U	238	0.100	ug/L	0.004	3	32	4178	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 U REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 18:24:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	286279	2
[	Be	9	0.010	ug/L	0.010	95	4	7	45
	C	13		mg/L			4514	6068	2
	Cl	37		mg/L			1945798	1891202	0
[>	Sc	45		ug/L			206181	225990	2
	V	51	0.423	ug/L	0.016	3	1248	5277	0
	V-1	51	0.521	ug/L	0.024	4	1187	6207	0
	Cr	52	0.199	ug/L	0.010	5	3779	5746	2
	Cr	53	0.517	ug/L	0.043	8	407	946	2
	Mn	55	734.591	ug/L	15.717	2	1176	10058763	5
[	Co	59	1.014	ug/L	0.018	1	71	9879	4
[>	Ge	72		ug/L			204867	192319	1
	Ni	60	1.554	ug/L	0.032	2	19	2643	3
	Ni	62	1.531	ug/L	0.034	2	54	423	3
	Cu	63	0.487	ug/L	0.014	2	232	1987	4
	Cu	65	1.075	ug/L	0.044	4	73	1881	5
	Zn	66	3.105	ug/L	0.086	2	287	3669	2
	Zn	67	3.250	ug/L	0.107	3	76	653	2
	Zn	68	3.006	ug/L	0.120	3	4109	6100	1
	As	75	12.445	ug/L	0.036	0	331	13566	1
	As-1	75	12.731	ug/L	0.097	0	5650	18405	1
	Se	82	0.386	ug/L	0.083	21	-9	41	26
	Se	78	0.210	ug/L	0.359	170	5714	5425	0
[	Mo	98	0.941	ug/L	0.010	1	24	4495	1
	Y	89		ug/L			232566	220514	2
	Kr	83		ug/L			173	197	2
[>	In	115		ug/L			278279	255108	3
	Ag	107	-0.002	ug/L	0.001	28	41	23	18
	Cd	111	u 0.010	ug/L	0.007	70	154	162	12
	Cd	114	0.012	ug/L	0.003	24	8	67	23
	Sb	121	0.343	ug/L	0.003	0	152	2503	2
	Sb	123	0.343	ug/L	0.006	1	120	1878	2
	Ba	135	33.360	ug/L	0.363	1	17	50571	2
[	Ba	137	33.552	ug/L	0.187	0	22	86937	3
[>	Tb	159		ug/L			307498	280215	3
	Tl	205	u 0.000	ug/L	0.000	349	54	52	18
	Pb	208	u 0.013	ug/L	0.002	14	227	593	7
	Bi	209		ug/L			307353	277112	2
	Th	232	-0.002	ug/L	0.002	109	490	386	14
[	U	238	0.100	ug/L	0.004	4	32	4449	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 USPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 18:30:32
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			286436	277385	1
	Be	9	25.129	ug/L	0.393	1	4	8762	3
	C	13		mg/L			4514	5818	1
	Cl	37		mg/L			1945798	1875122	0
>	Sc	45		ug/L			206181	215962	2
	V	51	23.803	ug/L	0.192	0	1248	211783	2
	V-1	51	23.900	ug/L	0.325	1	1187	216656	2
	Cr	52	23.033	ug/L	0.061	0	3779	181571	2
	Cr	53	23.379	ug/L	0.396	1	407	22076	2
	Mn	55	763.284	ug/L	15.991	2	1176	9981316	1
	Co	59	23.567	ug/L	0.142	0	71	217709	2
>	Ge	72		ug/L			204867	187457	0
	Ni	60	27.123	ug/L	0.719	2	19	44677	3
	Ni	62	27.334	ug/L	0.546	1	54	6538	2
	Cu	63	26.307	ug/L	0.197	0	232	93360	1
	Cu	65	26.846	ug/L	0.367	1	73	44166	2
	Zn	66	86.423	ug/L	0.877	1	287	92510	1
	Zn	67	80.049	ug/L	1.268	1	76	14030	1
	Zn	68	84.801	ug/L	0.487	0	4109	65444	1
	As	75	42.055	ug/L	0.434	1	331	43966	1
	As-1	75	40.422	ug/L	0.274	0	5650	45720	1
	Se	82	83.686	ug/L	1.545	1	-9	10597	2
	Se	78	83.313	ug/L	1.163	1	5714	29187	1
	Mo	98	26.486	ug/L	0.210	0	24	122770	0
	Y	89		ug/L			232566	211348	0
	Kr	83		ug/L			173	207	2
>	In	115		ug/L			278279	243598	2
	Ag	107	25.663	ug/L	0.198	0	41	185464	2
	Cd	111	25.772	ug/L	0.720	2	154	50222	2
	Cd	114	25.752	ug/L	0.088	0	8	116262	2
	Sb	121	25.782	ug/L	0.194	0	152	169652	1
	Sb	123	25.920	ug/L	0.332	1	120	127645	2
	Ba	135	60.140	ug/L	0.504	0	17	87059	2
	Ba	137	60.058	ug/L	0.209	0	22	148592	2
>	Tb	159		ug/L			307498	272716	1
	Tl	205	27.131	ug/L	0.260	0	54	593072	1
	Pb	208	27.937	ug/L	0.426	1	227	827286	1
	Bi	209		ug/L			307353	269298	1
	Th	232	27.433	ug/L	0.442	1	490	1029411	1
	U	238	26.629	ug/L	0.473	1	32	1140750	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ~~75 UPOST REN~~ 222222
Sample Dil Factor: 2 EL 1-22-13
Comments:
Sample Date/Time: Monday, January 21, 2013 18:36:52
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	376629	6
[	Be	9	0.015	ug/L	0.008	53	4	12	36
	C	13		mg/L			4514	6075	0
	Cl	37		mg/L			1945798	1937279	0
[>	Sc	45		ug/L			206181	306793	10
	V	51	0.390	ug/L	0.009	2	1248	6752	8
	V-1	51	0.415	ug/L	0.024	5	1187	7060	5
	Cr	52	0.111	ug/L	0.030	26	3779	6817	5
	Cr	53	0.205	ug/L	0.076	37	407	868	1
	Mn	55	724.375	ug/L	18.259	2	1176	13437650	7
[	Co	59	0.991	ug/L	0.012	1	71	13101	9
[>	Ge	72		ug/L			204867	242975	6
	Ni	60	1.958	ug/L	0.222	11	19	4222	17
	Ni	62	1.576	ug/L	0.079	5	54	550	10
	Cu	63	0.490	ug/L	0.025	5	232	2526	8
	Cu	65	1.177	ug/L	0.048	4	73	2597	10
	Zn	66	3.173	ug/L	0.048	1	287	4729	6
	Zn	67	3.204	ug/L	0.134	4	76	816	10
	Zn	68	1.735	ug/L	0.416	23	4109	6492	0
	As	75	12.639	ug/L	0.061	0	331	17403	7
	As-1	75	11.863	ug/L	0.226	1	5650	22112	5
	Se	82	0.507	ug/L	0.061	11	-9	72	17
	Se	78	-3.682	ug/L	1.062	28	5714	5387	0
[	Mo	98	0.983	ug/L	0.012	1	24	5932	5
	Y	89		ug/L			232566	290314	7
	Kr	83		ug/L			173	202	0
[>	In	115		ug/L			278279	331293	7
	Ag	107	0.001	ug/L	0.002	276	41	56	30
	Cd	111	0.028	ug/L	0.009	34	154	257	16
	Cd	114	0.012	ug/L	0.002	14	8	83	6
	Sb	121	0.348	ug/L	0.017	4	152	3282	4
	Sb	123	0.340	ug/L	0.018	5	120	2414	5
	Ba	135	32.736	ug/L	0.309	0	17	64427	6
[	Ba	137	32.728	ug/L	0.322	0	22	110087	6
[>	Tb	159		ug/L			307498	364067	6
	Tl	205	0.000	ug/L	0.001	1039	54	65	39
	Pb	208	0.014	ug/L	0.001	5	227	840	5
	Bi	209		ug/L			307353	352674	7
	Th	232	0.008	ug/L	0.010	135	490	944	48
[	U	238	0.101	ug/L	0.001	1	32	5795	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 Y REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 18:43:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	316802	1
[	Be	9	0.034	ug/L	0.006	16	4	18	14
	C	13		mg/L			4514	5203	1
	Cl	37		mg/L			1945798	1904678	0
[>	Sc	45		ug/L			206181	235509	2
	V	51	1.586	ug/L	0.025	1	1248	16720	3
	V-1	51	1.647	ug/L	0.009	0	1187	17550	2
	Cr	52	1.093	ug/L	0.008	0	3779	13510	3
	Cr	53	1.314	ug/L	0.061	4	407	1792	2
	Mn	55	32.546	ug/L	0.047	0	1176	465508	2
[	Co	59	1.113	ug/L	0.008	0	71	11290	1
[>	Ge	72		ug/L			204867	212622	2
	Ni	60	5.071	ug/L	0.041	0	19	9489	2
	Ni	62	5.380	ug/L	0.076	1	54	1504	3
	Cu	63	11.439	ug/L	0.097	0	232	46185	2
	Cu	65	11.584	ug/L	0.095	0	73	21657	2
	Zn	66	18.917	ug/L	0.190	1	287	23200	2
	Zn	67	17.549	ug/L	0.527	3	76	3551	4
	Zn	68	18.555	ug/L	0.533	2	4109	19567	1
	As	75	2.689	ug/L	0.022	0	331	3510	1
	As-1	75	2.195	ug/L	0.111	5	5650	8359	1
	Se	82	0.171	ug/L	0.067	39	-9	14	66
	Se	78	-1.655	ug/L	0.320	19	5714	5389	0
[	Mo	98	0.559	ug/L	0.003	0	24	2965	3
	Y	89		ug/L			232566	252931	1
	Kr	83		ug/L			173	205	1
[>	In	115		ug/L			278279	286608	2
	Ag	107	0.030	ug/L	0.001	2	41	297	3
	Cd	111	0.105	ug/L	0.007	6	154	398	4
	Cd	114	0.084	ug/L	0.007	8	8	457	8
	Sb	121	1.331	ug/L	0.004	0	152	10455	1
	Sb	123	1.325	ug/L	0.014	1	120	7792	2
	Ba	135	9.762	ug/L	0.096	0	17	16643	3
[	Ba	137	9.803	ug/L	0.061	0	22	28558	2
[>	Tb	159		ug/L			307498	311520	2
	Tl	205	0.013	ug/L	0.000	3	54	371	0
	Pb	208	2.258	ug/L	0.015	0	227	76591	2
	Bi	209		ug/L			307353	313442	2
	Th	232	0.071	ug/L	0.001	0	490	3549	2
[	U	238	0.220	ug/L	0.003	1	32	10805	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 Z REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, January 21, 2013 18:49:31
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

As only

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	300774	0
[	Be	9	0.005	ug/L	0.009	177	4	6	52
	C	13		mg/L			4514	3804	2
	Cl	37		mg/L			1945798	1914462	0
[>	Sc	45		ug/L			206181	214917	0
|	V	51	0.924	ug/L	0.020	2	1248	9435	1
|	V-1	51	0.980	ug/L	0.012	1	1187	10028	1
|	Cr	52	0.428	ug/L	0.021	5	3779	7227	2
|	Cr	53	0.631	ug/L	0.005	0	407	1006	0
|	Mn	55	4.850	ug/L	0.150	3	1176	64352	3
[	Co	59	0.098	ug/L	0.001	0	71	970	1
[>	Ge	72		ug/L			204867	205515	1
|	Ni	60	0.084	ug/L	0.005	6	19	170	6
|	Ni	62	0.271	ug/L	0.082	30	54	124	15
|	Cu	63	0.236	ug/L	0.019	7	232	1149	5
|	Cu	65	0.178	ug/L	0.010	5	73	393	5
|	Zn	66	0.276	ug/L	0.039	13	287	611	5
|	Zn	67	0.387	ug/L	0.050	12	76	150	5
|	Zn	68	-0.002	ug/L	0.148	8720	4109	4120	2
|	As	75	31.283	ug/L	0.173	0	331	35936	1
|	As-1	75	32.012	ug/L	0.236	0	5650	40871	1
|	Se	82	0.023	ug/L	0.064	279	-9	-6	139
|	Se	78	-0.998	ug/L	0.289	28	5714	5417	0
[	Mo	98	0.123	ug/L	0.009	6	24	651	7
	Y	89		ug/L			232566	236132	1
	Kr	83		ug/L			173	203	3
[>	In	115		ug/L			278279	279007	1
|	Ag	107	-0.002	ug/L	0.001	52	41	25	35
|	Cd	111	u -0.012	ug/L	0.011	90	154	127	19
|	Cd	114	0.001	ug/L	0.001	88	8	13	31
|	Sb	121	u 0.000	ug/L	0.001	312	152	155	4
|	Sb	123	-0.001	ug/L	0.001	98	120	114	6
|	Ba	135	0.799	ug/L	0.013	1	17	1341	2
[	Ba	137	0.801	ug/L	0.008	0	22	2293	1
[>	Tb	159		ug/L			307498	307201	1
|	Tl	205	u -0.001	ug/L	0.000	24	54	31	15
|	Pb	208	u 0.032	ug/L	0.001	3	227	1295	3
|	Bi	209		ug/L			307353	307571	1
|	Th	232	0.007	ug/L	0.001	7	490	779	1
[	U	238	0.025	ug/L	0.000	1	32	1250	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AA REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 18:55:50
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			286436	321962	0
	Be	9	0.013	ug/L	0.011	84	4	10	45
	C	13		mg/L			4514	6197	0
	Cl	37		mg/L			1945798	1934218	0
>	Sc	45		ug/L			206181	250981	0
	V	51	0.814	ug/L	0.006	0	1248	9885	0
	V-1	51	0.850	ug/L	0.004	0	1187	10350	0
	Cr	52	0.174	ug/L	0.025	14	3779	6157	3
	Cr	53	0.324	ug/L	0.013	3	407	844	0
	Mn	55	544.035	ug/L	2.745	0	1176	8270117	0
	Co	59	1.330	ug/L	0.009	0	71	14360	1
>	Ge	72		ug/L			204867	212889	0
	Ni	60	1.844	ug/L	0.064	3	19	3467	3
	Ni	62	0.998	ug/L	0.025	2	54	325	2
	Cu	63	0.537	ug/L	0.019	3	232	2399	2
	Cu	65	0.403	ug/L	0.008	1	73	829	1
	Zn	66	2.182	ug/L	0.043	1	287	2944	1
	Zn	67	2.777	ug/L	0.093	3	76	629	3
	Zn	68	2.314	ug/L	0.205	8	4109	6181	2
	As	75	4.595	ug/L	0.026	0	331	5761	0
	As-1	75	4.142	ug/L	0.026	0	5650	10590	0
	Se	82	0.174	ug/L	0.062	35	-9	15	58
	Se	78	-1.722	ug/L	0.071	4	5714	5376	0
	Mo	98	0.891	ug/L	0.016	1	24	4713	1
	Y	89		ug/L			232566	246856	0
	Kr	83		ug/L			173	207	7
>	In	115		ug/L			278279	287497	0
	Ag	107	-0.001	ug/L	0.000	30	41	36	5
	Cd	111	u 0.002	ug/L	0.004	153	154	164	4
	Cd	114	0.005	ug/L	0.001	16	8	37	12
	Sb	121	u 0.134	ug/L	0.005	3	152	1198	2
	Sb	123	0.136	ug/L	0.006	4	120	915	3
	Ba	135	33.850	ug/L	0.283	0	17	57837	0
	Ba	137	34.132	ug/L	0.226	0	22	99679	0
>	Tb	159		ug/L			307498	318289	0
	Tl	205	u -0.001	ug/L	0.000	9	54	42	2
	Pb	208	u 0.039	ug/L	0.002	5	227	1593	3
	Bi	209		ug/L			307353	313925	0
	Th	232	-0.003	ug/L	0.001	26	490	388	7
	U	238	0.493	ug/L	0.004	0	32	24704	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 19:02:09
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	331648	3
[	Be	9	0.008	ug/L	0.009	103	4	8	45
	C	13		mg/L			4514	7144	0
	Cl	37		mg/L			1945798	2395481	0
[>	Sc	45		ug/L			206181	287754	4
[	V	51	2.287	ug/L	0.042	1	1248	28676	3
[	V-1	51	2.405	ug/L	0.054	2	1187	30520	2
[	Cr	52	1.294	ug/L	0.020	1	3779	18564	4
[	Cr	53	1.719	ug/L	0.058	3	407	2687	2
[	Mn	55	34.441	ug/L	0.559	1	1176	601488	3
[	Co	59	0.389	ug/L	0.008	2	71	4886	4
[>	Ge	72		ug/L			204867	212008	2
[	Ni	60	0.728	ug/L	0.019	2	19	1376	5
[	Ni	62	0.868	ug/L	0.038	4	54	289	4
[	Cu	63	0.897	ug/L	0.006	0	232	3831	2
[	Cu	65	0.477	ug/L	0.021	4	73	961	2
[	Zn	66	1.011	ug/L	0.052	5	287	1517	5
[	Zn	67	1.152	ug/L	0.157	13	76	306	8
[	Zn	68	0.275	ug/L	0.175	63	4109	4477	1
[	As	75	0.541	ug/L	0.018	3	331	979	4
[	As-1	75	-0.251	ug/L	0.145	57	5650	5559	1
[	Se	82	0.829	ug/L	0.067	8	-9	109	11
[	Se	78	-1.705	ug/L	0.541	31	5714	5357	1
[	Mo	98	0.022	ug/L	0.005	20	24	141	16
	Y	89		ug/L			232566	255449	3
	Kr	83		ug/L			173	203	0
[>	In	115		ug/L			278279	288417	2
[	Ag	107	-0.000	ug/L	0.001	194	41	39	19
[	Cd	111	u -0.011	ug/L	0.018	161	154	135	31
[	Cd	114	0.014	ug/L	0.002	17	8	84	13
[	Sb	121	u 0.057	ug/L	0.003	6	152	598	6
[	Sb	123	0.055	ug/L	0.005	9	120	445	6
[	Ba	135	5.835	ug/L	0.129	2	17	10019	4
[	Ba	137	5.856	ug/L	0.066	1	22	17175	2
[>	Tb	159		ug/L			307498	318458	2
[	Tl	205	u -0.001	ug/L	0.000	24	54	25	30
[	Pb	208	u 0.019	ug/L	0.001	4	227	880	4
[	Bi	209		ug/L			307353	306725	2
[	Th	232	0.007	ug/L	0.001	8	490	823	4
[	U	238	0.035	ug/L	0.001	2	32	1799	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AC REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 19:08:26
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	344117	3
[	Be	9	0.004	ug/L	0.001	35	4	6	10
	C	13		mg/L			4514	5990	0
	Cl	37		mg/L			1945798	1842180	0
[>	Sc	45		ug/L			206181	276659	4
	V	51	0.778	ug/L	0.017	2	1248	10483	3
	V-1	51	0.774	ug/L	0.020	2	1187	10526	3
	Cr	52	0.013	ug/L	0.021	165	3779	5192	3
	Cr	53	0.046	ug/L	0.031	67	407	600	5
	Mn	55	5.601	ug/L	0.060	1	1176	95387	3
[	Co	59	0.847	ug/L	0.022	2	71	10109	3
[>	Ge	72		ug/L			204867	219141	4
	Ni	60	2.656	ug/L	0.169	6	19	5143	11
	Ni	62	1.726	ug/L	0.134	7	54	537	10
	Cu	63	1.198	ug/L	0.016	1	232	5208	5
	Cu	65	1.501	ug/L	0.065	4	73	2956	0
	Zn	66	1.628	ug/L	0.045	2	287	2337	4
	Zn	67	2.176	ug/L	0.093	4	76	525	7
	Zn	68	1.016	ug/L	0.224	22	4109	5254	1
	As	75	2.592	ug/L	0.015	0	331	3499	4
	As-1	75	1.904	ug/L	0.191	10	5650	8269	2
	Se	82	0.225	ug/L	0.015	6	-9	23	6
	Se	78	-2.343	ug/L	0.667	28	5714	5318	0
[	Mo	98	1.164	ug/L	0.006	0	24	6332	5
	Y	89		ug/L			232566	259534	5
	Kr	83		ug/L			173	199	3
[>	In	115		ug/L			278279	301106	4
	Ag	107	-0.002	ug/L	0.001	53	41	26	34
	Cd	111	u 0.019	ug/L	0.006	32	154	211	9
	Cd	114	0.011	ug/L	0.001	4	8	70	1
	Sb	121	1.872	ug/L	0.014	0	152	15379	5
	Sb	123	1.867	ug/L	0.020	1	120	11483	4
	Ba	135	28.128	ug/L	0.509	1	17	50316	3
[	Ba	137	28.166	ug/L	0.175	0	22	86138	4
[>	Tb	159		ug/L			307498	330844	4
	Tl	205	u 0.003	ug/L	0.000	14	54	131	6
	Pb	208	u 0.016	ug/L	0.001	3	227	806	7
	Bi	209		ug/L			307353	323873	4
	Th	232	-0.007	ug/L	0.001	11	490	204	12
[	U	238	0.266	ug/L	0.005	1	32	13346	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AD REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 19:14:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	301822	1
[	Be	9	0.010	ug/L	0.008	77	4	8	37
	C	13		mg/L			4514	5661	1
	Cl	37		mg/L			1945798	1796234	0
[>	Sc	45		ug/L			206181	237179	2
	V	51	0.568	ug/L	0.004	0	1248	6955	2
	V-1	51	0.599	ug/L	0.010	1	1187	7293	1
	Cr	52	0.084	ug/L	0.017	19	3779	5061	5
	Cr	53	0.208	ug/L	0.021	10	407	680	2
	Mn	55	66.131	ug/L	1.238	1	1176	950988	2
[	Co	59	0.368	ug/L	0.011	2	71	3815	2
[>	Ge	72		ug/L			204867	195734	0
	Ni	60	1.071	ug/L	0.020	1	19	1860	2
	Ni	62	0.466	ug/L	0.092	19	54	167	13
	Cu	63	0.323	ug/L	0.006	1	232	1416	2
	Cu	65	0.567	ug/L	0.015	2	73	1042	3
	Zn	66	1.559	ug/L	0.042	2	287	2012	2
	Zn	67	1.582	ug/L	0.140	8	76	361	6
	Zn	68	1.398	ug/L	0.222	15	4109	4988	3
	As	75	14.896	ug/L	0.128	0	331	16464	1
	As-1	75	15.082	ug/L	0.036	0	5650	21195	1
	Se	82	0.155	ug/L	0.064	41	-9	11	74
	Se	78	-0.687	ug/L	0.314	45	5714	5253	1
[	Mo	98	1.766	ug/L	0.009	0	24	8567	0
	Y	89		ug/L			232566	225014	1
	Kr	83		ug/L			173	201	1
[>	In	115		ug/L			278279	269428	2
	Ag	107	-0.002	ug/L	0.000	12	41	23	9
	Cd	111	u -0.004	ug/L	0.004	89	154	140	4
	Cd	114	0.004	ug/L	0.002	59	8	27	41
	Sb	121	u 0.133	ug/L	0.006	4	152	1113	4
	Sb	123	0.126	ug/L	0.010	8	120	804	7
	Ba	135	10.164	ug/L	0.036	0	17	16287	2
[	Ba	137	9.969	ug/L	0.238	2	22	27288	1
[>	Tb	159		ug/L			307498	295348	1
	Tl	205	u -0.001	ug/L	0.000	41	54	25	44
	Pb	208	u 0.013	ug/L	0.001	8	227	649	6
	Bi	209		ug/L			307353	287969	1
	Th	232	-0.004	ug/L	0.000	4	490	296	3
[	U	238	0.083	ug/L	0.002	2	32	3881	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 19:21:00
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			286436	275393	1
	Be	9	48.441	ug/L	1.116	2	4	16759	0
	C	13		mg/L			4514	3926	1
	Cl	37		mg/L			1945798	1806652	0
>	Sc	45		ug/L			206181	187251	1
	V	51	51.134	ug/L	0.561	1	1248	393167	0
	V-1	51	50.887	ug/L	0.563	1	1187	398768	0
	Cr	52	50.778	ug/L	0.139	0	3779	342930	0
	Cr	53	50.031	ug/L	0.236	0	407	40542	1
	Mn	55	50.910	ug/L	0.258	0	1176	578359	0
	Co	59	50.132	ug/L	0.729	1	71	401437	0
>	Ge	72		ug/L			204867	185826	0
	Ni	60	50.341	ug/L	0.808	1	19	82169	0
	Ni	62	51.686	ug/L	0.119	0	54	12210	0
	Cu	63	50.059	ug/L	0.178	0	232	175916	0
	Cu	65	50.373	ug/L	0.502	0	73	82086	1
	Zn	66	52.138	ug/L	0.339	0	287	55426	1
	Zn	67	52.566	ug/L	0.684	1	76	9156	0
	Zn	68	52.560	ug/L	0.400	0	4109	41625	0
	As	75	50.834	ug/L	0.424	0	331	52613	0
	As-1	75	50.773	ug/L	0.302	0	5650	55612	0
	Se	82	50.154	ug/L	0.563	1	-9	6291	1
	Se	78	50.231	ug/L	0.950	1	5714	19502	1
	Mo	98	50.007	ug/L	1.077	2	24	229747	1
	Y	89		ug/L			232566	207717	1
	Kr	83		ug/L			173	210	2
>	In	115		ug/L			278279	247586	1
	Ag	107	50.549	ug/L	0.471	0	41	371251	1
	Cd	111	51.047	ug/L	0.771	1	154	101003	2
	Cd	114	50.975	ug/L	0.876	1	8	233862	0
	Sb	121	52.005	ug/L	0.286	0	152	347682	0
	Sb	123	52.128	ug/L	0.161	0	120	260803	0
	Ba	135	50.196	ug/L	0.382	0	17	73849	0
	Ba	137	49.830	ug/L	0.561	1	22	125307	1
>	Tb	159		ug/L			307498	274660	0
	Tl	205	51.631	ug/L	0.635	1	54	1136694	0
	Pb	208	53.720	ug/L	0.828	1	227	1601982	1
	Bi	209		ug/L			307353	275514	1
	Th	232	51.722	ug/L	0.508	0	490	1954370	0
	U	238	54.033	ug/L	0.611	1	32	2331331	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 19:27:38
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	272660	0
[	Be	9	0.016	ug/L	0.009	55	4	9	32
	C	13		mg/L			4514	4358	1
	Cl	37		mg/L			1945798	1826816	0
[>	Sc	45		ug/L			206181	186777	0
	V	51	-0.005	ug/L	0.020	385	1248	1091	13
	V-1	51	0.045	ug/L	0.004	8	1187	1426	1
	Cr	52	-0.006	ug/L	0.014	249	3779	3386	2
	Cr	53	0.150	ug/L	0.056	36	407	489	9
	Mn	55	-0.008	ug/L	0.006	66	1176	970	5
[	Co	59	-0.000	ug/L	0.002	564	71	62	22
[>	Ge	72		ug/L			204867	187174	0
	Ni	60	0.004	ug/L	0.002	62	19	23	16
	Ni	62	0.124	ug/L	0.043	34	54	78	12
	Cu	63	0.003	ug/L	0.004	148	232	221	6
	Cu	65	0.001	ug/L	0.002	161	73	69	4
	Zn	66	-0.093	ug/L	0.011	12	287	163	8
	Zn	67	-0.015	ug/L	0.017	114	76	67	3
	Zn	68	0.228	ug/L	0.141	61	4109	3919	1
	As	75	0.144	ug/L	0.014	9	331	452	2
	As-1	75	0.253	ug/L	0.067	26	5650	5415	0
	Se	82	0.016	ug/L	0.053	327	-9	-6	100
	Se	78	0.842	ug/L	0.230	27	5714	5462	0
[	Mo	98	0.009	ug/L	0.002	25	24	64	15
	Y	89		ug/L			232566	208546	0
	Kr	83		ug/L			173	210	4
[>	In	115		ug/L			278279	249346	0
	Ag	107	0.004	ug/L	0.002	57	41	68	27
	Cd	111	-0.003	ug/L	0.010	397	154	132	14
	Cd	114	0.001	ug/L	0.001	220	8	10	51
	Sb	121	0.028	ug/L	0.009	33	152	325	20
	Sb	123	0.031	ug/L	0.014	45	120	263	27
	Ba	135	0.002	ug/L	0.002	70	17	18	13
[	Ba	137	0.004	ug/L	0.002	50	22	30	16
[>	Tb	159		ug/L			307498	276688	1
	Tl	205	0.002	ug/L	0.001	45	54	94	21
	Pb	208	0.003	ug/L	0.001	16	227	297	4
	Bi	209		ug/L			307353	277244	0
	Th	232	0.021	ug/L	0.008	38	490	1255	24
[	U	238	0.002	ug/L	0.001	38	32	103	27

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AE REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 19:33:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	255843	3
[	Be	9	0.030	ug/L	0.020	65	4	13	46
	C	13		mg/L			4514	6316	6
	Cl	37		mg/L			1945798	1853260	0
[>	Sc	45		ug/L			206181	222702	2
	V	51	5.042	ug/L	0.208	4	1248	47293	1
	V-1	51	5.043	ug/L	0.217	4	1187	48126	1
	Cr	52	1.548	ug/L	0.052	3	3779	16387	0
	Cr	53	1.758	ug/L	0.091	5	407	2117	1
	Mn	55	4776.132	ug/L	164.902	3	1176	64377255	0
[	Co	59	1.735	ug/L	0.055	3	71	16594	1
[>	Ge	72		ug/L			204867	172605	2
	Ni	60	5.922	ug/L	0.164	2	19	8989	2
	Ni	62	5.112	ug/L	0.199	3	54	1162	4
	Cu	63	1.778	ug/L	0.050	2	232	5989	0
	Cu	65	0.413	ug/L	0.012	2	73	685	1
	Zn	66	2.111	ug/L	0.093	4	287	2315	1
	Zn	67	2.755	ug/L	0.120	4	76	506	1
	Zn	68	3.015	ug/L	0.174	5	4109	5479	1
	As	75	8.282	ug/L	0.301	3	331	8190	1
	As-1	75	8.707	ug/L	0.387	4	5650	12796	1
	Se	82	0.945	ug/L	0.319	33	-9	101	33
	Se	78	2.187	ug/L	0.456	20	5714	5391	0
[	Mo	98	2.439	ug/L	0.040	1	24	10427	2
	Y	89		ug/L			232566	215169	3
	Kr	83		ug/L			173	215	10
[>	In	115		ug/L			278279	225714	2
	Ag	107	0.007	ug/L	0.000	6	41	80	5
	Cd	111	u -0.004	ug/L	0.007	162	154	116	11
	Cd	114	0.009	ug/L	0.003	30	8	46	24
	Sb	121	0.246	ug/L	0.011	4	152	1618	1
	Sb	123	0.235	ug/L	0.013	5	120	1167	3
	Ba	135	6.728	ug/L	0.169	2	17	9033	1
[	Ba	137	6.697	ug/L	0.127	1	22	15366	1
[>	Tb	159		ug/L			307498	256997	2
	Tl	205	u 0.001	ug/L	0.001	98	54	71	34
	Pb	208	u 0.061	ug/L	0.003	5	227	1885	2
	Bi	209		ug/L			307353	247131	3
	Th	232	0.114	ug/L	0.016	14	490	4414	10
[	U	238	1.338	ug/L	0.040	2	32	54015	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AF REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 19:39:41
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	255843	3
[	Be	9	0.224	ug/L	0.026	11	4	75	14
	C	13		mg/L			4514	12674	1
	Cl	37		mg/L			1945798	2382210	0
[>	Sc	45		ug/L			206181	231657	2
[	V	51	73.051	ug/L	1.917	2	1248	694060	1
[	V-1	51	72.272	ug/L	1.928	2	1187	699845	1
[	Cr	52	26.434	ug/L	0.068	0	3779	222903	2
[	Cr	53	26.761	ug/L	0.221	0	407	27037	1
[	Mn	55	218.766	ug/L	1.671	0	1176	3069986	1
[	Co	59	1.378	ug/L	0.009	0	71	13733	2
[>	Ge	72		ug/L			204867	176543	2
[	Ni	60	16.023	ug/L	0.102	0	19	24858	1
[	Ni	62	24.082	ug/L	0.498	2	54	5430	3
[	Cu	63	6.737	ug/L	0.038	0	232	22662	1
[	Cu	65	2.932	ug/L	0.025	0	73	4599	1
[	Zn	66	4.490	ug/L	0.091	2	287	4759	0
[	Zn	67	11.755	ug/L	0.152	1	76	1996	2
[	Zn	68	4.417	ug/L	0.201	4	4109	6565	0
[	As	75	30.242	ug/L	0.207	0	331	29851	1
[	As-1	75	31.026	ug/L	0.326	1	5650	34176	1
[	Se	82	2.191	ug/L	0.045	2	-9	253	3
[	Se	78	2.295	ug/L	0.575	25	5714	5544	0
[	Mo	98	6.177	ug/L	0.048	0	24	26978	1
	Y	89		ug/L			232566	328241	2
	Kr	83		ug/L			173	233	2
[>	In	115		ug/L			278279	225057	1
[	Ag	107	0.074	ug/L	0.005	7	41	529	7
[	Cd	111	u-0.063	ug/L	0.109	171	154	10	1879
[	Cd	114	0.031	ug/L	0.005	16	8	137	16
[	Sb	121	0.333	ug/L	0.002	0	152	2143	1
[	Sb	123	0.335	ug/L	0.006	1	120	1621	1
[	Ba	135	7.371	ug/L	0.090	1	17	9870	2
[	Ba	137	7.317	ug/L	0.127	1	22	16744	3
[>	Tb	159		ug/L			307498	261847	1
[	Tl	205	u-0.000	ug/L	0.000	401	54	44	15
[	Pb	208	0.609	ug/L	0.011	1	227	17497	3
[	Bi	209		ug/L			307353	244785	2
[	Th	232	1.049	ug/L	0.010	0	490	38208	2
[	U	238	4.168	ug/L	0.019	0	32	171458	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AG REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 19:45:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	316202	2
[	Be	9	0.015	ug/L	0.009	63	4	10	34
	C	13		mg/L			4514	6078	0
	Cl	37		mg/L			1945798	3050369	1
[>	Sc	45		ug/L			206181	263467	3
[	V	51	1.383	ug/L	0.004	0	1248	16517	3
[	V-1	51	1.697	ug/L	0.008	0	1187	20175	3
[	Cr	52	0.618	ug/L	0.023	3	3779	10636	1
[	Cr	53	1.639	ug/L	0.028	1	407	2371	2
[	Mn	55	325.903	ug/L	4.814	1	1176	5199565	2
[	Co	59	0.775	ug/L	0.019	2	71	8818	1
[>	Ge	72		ug/L			204867	218124	2
[	Ni	60	0.949	ug/L	0.045	4	19	1839	6
[	Ni	62	1.818	ug/L	0.120	6	54	559	3
[	Cu	63	1.650	ug/L	0.031	1	232	7041	0
[	Cu	65	0.469	ug/L	0.023	4	73	973	2
[	Zn	66	1.744	ug/L	0.033	1	287	2472	3
[	Zn	67	2.189	ug/L	0.106	4	76	525	2
[	Zn	68	1.598	ug/L	0.054	3	4109	5726	1
[	As	75	8.276	ug/L	0.038	0	331	10350	2
[	As-1	75	7.531	ug/L	0.188	2	5650	14802	1
[	Se	82	1.540	ug/L	0.125	8	-9	217	10
[	Se	78	-1.656	ug/L	0.396	23	5714	5528	0
[	Mo	98	1.063	ug/L	0.029	2	24	5758	2
	Y	89		ug/L			232566	259433	2
	Kr	83		ug/L			173	213	2
[>	In	115		ug/L			278279	294352	3
[	Ag	107	0.000	ug/L	0.000	55	41	47	7
[	Cd	111	u -0.089	ug/L	0.035	39	154	-46	176
[	Cd	114	0.008	ug/L	0.001	14	8	54	8
[	Sb	121	0.208	ug/L	0.004	1	152	1811	2
[	Sb	123	0.203	ug/L	0.009	4	120	1335	4
[	Ba	135	18.597	ug/L	0.228	1	17	32535	2
[	Ba	137	18.597	ug/L	0.213	1	22	55602	2
[>	Tb	159		ug/L			307498	323872	1
[	Tl	205	u -0.000	ug/L	0.000	53	54	51	6
[	Pb	208	u 0.075	ug/L	0.003	3	227	2875	4
[	Bi	209		ug/L			307353	315242	1
[	Th	232	0.015	ug/L	0.001	5	490	1186	4
[	U	238	0.067	ug/L	0.002	3	32	3429	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AH REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 19:52:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	308933	3
[	Be	9	0.024	ug/L	0.005	23	4	13	18
	C	13		mg/L			4514	6665	1
	Cl	37		mg/L			1945798	3597526	1
[>	Sc	45		ug/L			206181	268153	4
|	V	51	3.940	ug/L	0.010	0	1248	44878	3
|	V-1	51	4.398	ug/L	0.032	0	1187	50775	4
|	Cr	52	1.545	ug/L	0.004	0	3779	19712	4
|	Cr	53	3.113	ug/L	0.134	4	407	4113	7
|	Mn	55	293.137	ug/L	2.947	1	1176	4760476	3
[	Co	59	0.224	ug/L	0.003	1	71	2667	5
[>	Ge	72		ug/L			204867	214007	3
|	Ni	60	0.706	ug/L	0.058	8	19	1348	10
|	Ni	62	1.763	ug/L	0.092	5	54	533	2
|	Cu	63	2.028	ug/L	0.041	2	232	8441	3
|	Cu	65	0.394	ug/L	0.006	1	73	815	3
|	Zn	66	1.257	ug/L	0.010	0	287	1832	3
|	Zn	67	2.126	ug/L	0.238	11	76	503	9
|	Zn	68	1.289	ug/L	0.107	8	4109	5361	1
|	As	75	1.705	ug/L	0.087	5	331	2368	7
|	As-1	75	0.754	ug/L	0.122	16	5650	6763	1
|	Se	82	1.520	ug/L	0.129	8	-9	210	11
|	Se	78	-1.574	ug/L	0.555	35	5714	5449	0
[	Mo	98	0.334	ug/L	0.004	1	24	1791	4
	Y	89		ug/L			232566	260550	4
	Kr	83		ug/L			173	211	3
[>	In	115		ug/L			278279	282552	2
|	Ag	107	0.002	ug/L	0.001	23	41	62	5
|	Cd	111	-0.117	ug/L	0.037	31	154	-109	78
|	Cd	114	u 0.013	ug/L	0.001	10	8	78	9
|	Sb	121	0.113	ug/L	0.004	3	152	1013	2
|	Sb	123	0.113	ug/L	0.006	5	120	766	3
|	Ba	135	25.769	ug/L	0.430	1	17	43288	3
[	Ba	137	25.542	ug/L	0.427	1	22	73333	3
[>	Tb	159		ug/L			307498	315339	3
|	Tl	205	u -0.001	ug/L	0.000	15	54	25	17
|	Pb	208	u 0.062	ug/L	0.001	1	227	2354	3
|	Bi	209		ug/L			307353	305959	3
|	Th	232	0.046	ug/L	0.001	2	490	2482	4
[	U	238	0.093	ug/L	0.002	2	32	4637	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 Al REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 19:58:31
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			286436	330605	1
Be	9	0.005	ug/L	0.012	222	4	7	71
C	13		mg/L			4514	6236	1
Cl	37		mg/L			1945798	5498129	1
Sc	45		ug/L			206181	265198	2
V	51	0.568	ug/L	0.052	9	1248	7780	8
V-1	51	1.839	ug/L	0.055	3	1187	21893	5
Cr	52	0.025	ug/L	0.013	50	3779	5100	3
Cr	53	4.013	ug/L	0.180	4	407	5089	5
Mn	55	49.225	ug/L	0.535	1	1176	792006	2
Co	59	0.850	ug/L	0.007	0	71	9726	1
Ge	72		ug/L			204867	219306	0
Ni	60	2.794	ug/L	0.113	4	19	5401	4
Ni	62	6.640	ug/L	0.618	9	54	1900	8
Cu	63	3.999	ug/L	0.083	2	232	16812	1
Cu	65	1.045	ug/L	0.020	1	73	2087	1
Zn	66	2.606	ug/L	0.058	2	287	3561	1
Zn	67	2.872	ug/L	0.307	10	76	668	10
Zn	68	1.486	ug/L	0.169	11	4109	5663	1
As	75	15.249	ug/L	0.107	0	331	18875	1
As-1	75	14.082	ug/L	0.102	0	5650	22573	0
Se	82	2.766	ug/L	0.237	8	-9	400	9
Se	78	-2.605	ug/L	0.242	9	5714	5240	0
Mo	98	8.967	ug/L	0.023	0	24	48643	0
Y	89		ug/L			232566	271990	1
Kr	83		ug/L			173	213	7
In	115		ug/L			278279	293531	1
Ag	107	0.001	ug/L	0.001	108	41	51	15
Cd	111	0.108	ug/L	0.073	67	154	413	39
Cd	114	0.353	ug/L	0.004	1	8	1929	1
Sb	121	1.272	ug/L	0.011	0	152	10239	2
Sb	123	1.257	ug/L	0.020	1	120	7578	3
Ba	135	31.700	ug/L	0.239	0	17	55296	1
Ba	137	31.716	ug/L	0.471	1	22	94553	0
Tb	159		ug/L			307498	327631	1
Tl	205	u 0.003	ug/L	0.001	32	54	137	19
Pb	208	u 0.023	ug/L	0.001	4	227	1050	4
Bi	209		ug/L			307353	309886	0
Th	232	-0.001	ug/L	0.001	92	490	475	10
U	238	0.572	ug/L	0.011	1	32	29455	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AJ REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, January 21, 2013 20:04:48
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			286436	352221	0
Be	9	0.006	ug/L	0.007	110	4	7	39
C	13		mg/L			4514	3891	2
Cl	37		mg/L			1945798	1971800	0
Sc	45		ug/L			206181	272526	0
V	51	0.139	ug/L	0.007	5	1248	3206	2
V-1	51	0.177	ug/L	0.007	3	1187	3584	1
Cr	52	-0.024	ug/L	0.011	44	3779	4763	2
Cr	53	0.103	ug/L	0.033	31	407	659	5
Mn	55	333.891	ug/L	7.299	2	1176	5512639	2
Co	59	0.154	ug/L	0.005	3	71	1895	3
Ge	72		ug/L			204867	255373	1
Ni	60	0.305	ug/L	0.009	2	19	708	3
Ni	62	0.749	ug/L	0.018	2	54	309	1
Cu	63	0.109	ug/L	0.004	3	232	814	3
Cu	65	0.040	ug/L	0.009	21	73	182	11
Zn	66	0.442	ug/L	0.025	5	287	1001	4
Zn	67	0.581	ug/L	0.091	15	76	233	10
Zn	68	-0.767	ug/L	0.021	2	4109	4362	0
As	75	174.041	ug/L	0.239	0	331	246557	1
As-1	75	178.931	ug/L	0.256	0	5650	251561	1
Se	82	0.059	ug/L	0.045	76	-9	-1	476
Se	78	-4.168	ug/L	0.037	0	5714	5491	0
Mo	98	0.246	ug/L	0.002	0	24	1583	0
Y	89		ug/L			232566	300544	1
Kr	83		ug/L			173	200	3
In	115		ug/L			278279	353121	0
Ag	107	-0.003	ug/L	0.000	5	41	25	5
Cd	111	0.015	ug/L	0.003	21	154	239	3
Cd	114	0.001	ug/L	0.001	71	8	18	27
Sb	121	0.002	ug/L	0.000	16	152	216	0
Sb	123	0.002	ug/L	0.002	71	120	168	6
Ba	135	8.767	ug/L	0.012	0	17	18415	1
Ba	137	8.658	ug/L	0.020	0	22	31076	0
Tb	159		ug/L			307498	376328	0
Tl	205	-0.001	ug/L	0.000	48	54	40	31
Pb	208	0.012	ug/L	0.001	9	227	756	6
Bi	209		ug/L			307353	387951	0
Th	232	-0.009	ug/L	0.000	2	490	135	7
U	238	0.089	ug/L	0.001	1	32	5311	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 20:11:06
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	333046	4
[	Be	9	0.065	ug/L	0.031	47	4	31	37
	C	13		mg/L			4514	7331	1
	Cl	37		mg/L			1945798	2917646	0
[>	Sc	45		ug/L			206181	332120	5
	V	51	18.440	ug/L	0.976	5	1248	252320	0
	V-1	51	18.560	ug/L	1.009	5	1187	258707	0
	Cr	52	10.037	ug/L	0.481	4	3779	124925	1
	Cr	53	10.906	ug/L	0.594	5	407	16158	0
	Mn	55	156.663	ug/L	7.379	4	1176	3147662	0
[	Co	59	0.688	ug/L	0.036	5	71	9867	2
[>	Ge	72		ug/L			204867	229831	5
	Ni	60	0.863	ug/L	0.050	5	19	1760	1
	Ni	62	3.073	ug/L	0.043	1	54	954	4
	Cu	63	4.241	ug/L	0.253	5	232	18629	0
	Cu	65	2.131	ug/L	0.120	5	73	4365	2
	Zn	66	1.526	ug/L	0.066	4	287	2316	2
	Zn	67	4.285	ug/L	0.158	3	76	1001	4
	Zn	68	0.908	ug/L	0.372	40	4109	5407	0
	As	75	1.185	ug/L	0.068	5	331	1877	3
	As-1	75	-0.175	ug/L	0.255	145	5650	6111	1
	Se	82	1.796	ug/L	0.043	2	-9	268	6
	Se	78	-2.701	ug/L	0.821	30	5714	5448	0
[	Mo	98	0.250	ug/L	0.006	2	24	1449	3
	Y	89		ug/L			232566	327843	5
	Kr	83		ug/L			173	216	2
[>	In	115		ug/L			278279	307877	5
	Ag	107	0.013	ug/L	0.002	14	41	166	8
	Cd	111	u -0.062	ug/L	0.047	76	154	17	661
	Cd	114	0.010	ug/L	0.002	17	8	67	14
	Sb	121	u 0.129	ug/L	0.006	5	152	1235	2
	Sb	123	0.129	ug/L	0.006	4	120	934	3
	Ba	135	18.438	ug/L	0.887	4	17	33686	1
[	Ba	137	18.388	ug/L	0.994	5	22	57402	0
[>	Tb	159		ug/L			307498	341229	5
	Tl	205	u -0.001	ug/L	0.000	21	54	35	21
	Pb	208	0.218	ug/L	0.010	4	227	8311	1
	Bi	209		ug/L			307353	325223	5
	Th	232	0.560	ug/L	0.027	4	490	26761	1
[	U	238	0.466	ug/L	0.024	5	32	24970	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AL REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 20:17:23
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	339244	5
[	Be	9	0.012	ug/L	0.014	116	4	10	54
	C	13		mg/L			4514	5666	1
	Cl	37		mg/L			1945798	9438128	2
[>	Sc	45		ug/L			206181	263927	6
	V	51	0.701	ug/L	0.086	12	1248	9164	10
	V-1	51	3.446	ug/L	0.151	4	1187	39559	10
	Cr	52	0.302	ug/L	0.014	4	3779	7681	5
	Cr	53	8.871	ug/L	0.568	6	407	10588	12
	Mn	55	188.243	ug/L	2.701	1	1176	3008616	5
[	Co	59	3.970	ug/L	0.040	1	71	44873	5
[>	Ge	72		ug/L			204867	209169	3
	Ni	60	9.768	ug/L	0.460	4	19	17985	8
	Ni	62	14.717	ug/L	0.759	5	54	3951	5
	Cu	63	6.865	ug/L	0.080	1	232	27354	3
	Cu	65	2.713	ug/L	0.072	2	73	5051	6
	Zn	66	17.647	ug/L	0.121	0	287	21306	3
	Zn	67	18.010	ug/L	0.810	4	76	3586	7
	Zn	68	17.201	ug/L	0.247	1	4109	18151	2
	As	75	10.546	ug/L	0.186	1	331	12556	4
	As-1	75	8.516	ug/L	0.329	3	5650	15294	2
	Se	82	4.666	ug/L	0.281	6	-9	651	9
	Se	78	-2.565	ug/L	0.843	32	5714	5005	1
[	Mo	98	0.723	ug/L	0.010	1	24	3767	5
	Y	89		ug/L			232566	261082	5
	Kr	83		ug/L			173	246	0
[>	In	115		ug/L			278279	276977	4
	Ag	107	0.003	ug/L	0.002	44	41	69	13
	Cd	111	u -0.035	ug/L	0.028	80	154	78	83
	Cd	114	0.269	ug/L	0.006	2	8	1390	3
	Sb	121	0.936	ug/L	0.006	0	152	7153	4
	Sb	123	0.934	ug/L	0.020	2	120	5344	5
	Ba	135	104.437	ug/L	0.392	0	17	171869	4
[	Ba	137	104.759	ug/L	0.735	0	22	294652	4
[>	Tb	159		ug/L			307498	310520	5
	Tl	205	u 0.005	ug/L	0.001	12	54	182	14
	Pb	208	u 0.033	ug/L	0.000	0	227	1337	4
	Bi	209		ug/L			307353	289096	4
	Th	232	-0.002	ug/L	0.003	117	490	391	25
[	U	238	0.035	ug/L	0.001	2	32	1727	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AM REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 20:23:40
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			286436	335630	6
⌊	Be	9	0.033	ug/L	0.016	46	4	18	30
	C	13		mg/L			4514	6036	4
	Cl	37		mg/L			1945798	2272672	1
⌈>	Sc	45		ug/L			206181	315694	8
|	V	51	4.766	ug/L	0.131	2	1248	63426	5
|	V-1	51	4.879	ug/L	0.117	2	1187	66026	5
|	Cr	52	2.179	ug/L	0.070	3	3779	30320	6
|	Cr	53	2.685	ug/L	0.023	0	407	4257	7
|	Mn	55	121.937	ug/L	1.303	1	1176	2331676	6
⌊	Co	59	0.298	ug/L	0.007	2	71	4131	6
⌈>	Ge	72		ug/L			204867	238295	5
|	Ni	60	0.550	ug/L	0.035	6	19	1174	8
|	Ni	62	1.690	ug/L	0.167	9	54	571	6
|	Cu	63	1.241	ug/L	0.048	3	232	5864	8
|	Cu	65	0.566	ug/L	0.027	4	73	1266	4
|	Zn	66	1.165	ug/L	0.029	2	287	1913	3
|	Zn	67	1.899	ug/L	0.109	5	76	509	4
|	Zn	68	0.401	ug/L	0.154	38	4109	5145	2
|	As	75	4.891	ug/L	0.020	0	331	6840	5
|	As-1	75	3.866	ug/L	0.195	5	5650	11493	3
|	Se	82	0.641	ug/L	0.030	4	-9	92	1
|	Se	78	-3.479	ug/L	0.753	21	5714	5366	0
⌊	Mo	98	0.363	ug/L	0.005	1	24	2170	5
	Y	89		ug/L			232566	295723	6
	Kr	83		ug/L			173	195	1
⌈>	In	115		ug/L			278279	317571	6
|	Ag	107	0.002	ug/L	0.001	53	41	67	12
|	Cd	111	u-0.012	ug/L	0.002	20	154	145	6
|	Cd	114	0.006	ug/L	0.001	21	8	46	11
|	Sb	121	u 0.142	ug/L	0.002	1	152	1387	5
|	Sb	123	0.141	ug/L	0.003	1	120	1044	6
|	Ba	135	13.466	ug/L	0.027	0	17	25425	5
⌊	Ba	137	13.286	ug/L	0.208	1	22	42854	5
⌈>	Tb	159		ug/L			307498	348282	7
|	Tl	205	u-0.001	ug/L	0.000	9	54	31	10
|	Pb	208	0.137	ug/L	0.002	1	227	5445	7
|	Bi	209		ug/L			307353	339899	5
|	Th	232	0.068	ug/L	0.003	4	490	3789	3
⌊	U	238	0.113	ug/L	0.001	0	32	6195	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AN REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 20:29:57
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	368467	3
[	Be	9	0.009	ug/L	0.004	42	4	9	15
	C	13		mg/L			4514	5914	1
	Cl	37		mg/L			1945798	9541348	2
[>	Sc	45		ug/L			206181	279038	4
	V	51	0.531	ug/L	0.072	13	1248	7782	14
	V-1	51	3.633	ug/L	0.143	3	1187	43963	8
	Cr	52	0.301	ug/L	0.022	7	3779	8106	2
	Cr	53	9.968	ug/L	0.223	2	407	12486	6
	Mn	55	186.364	ug/L	2.383	1	1176	3149676	3
[	Co	59	4.015	ug/L	0.084	2	71	47971	2
[>	Ge	72		ug/L			204867	215254	2
	Ni	60	10.050	ug/L	0.167	1	19	19025	4
	Ni	62	15.426	ug/L	0.223	1	54	4260	1
	Cu	63	6.849	ug/L	0.076	1	232	28087	2
	Cu	65	2.825	ug/L	0.041	1	73	5405	2
	Zn	66	17.547	ug/L	0.172	0	287	21803	1
	Zn	67	18.168	ug/L	0.230	1	76	3718	2
	Zn	68	16.890	ug/L	0.124	0	4109	18423	2
	As	75	10.989	ug/L	0.141	1	331	13451	4
	As-1	75	8.359	ug/L	0.080	0	5650	15563	2
	Se	82	5.668	ug/L	0.234	4	-9	815	6
	Se	78	-3.636	ug/L	0.624	17	5714	4800	1
[	Mo	98	0.711	ug/L	0.008	1	24	3809	1
	Y	89		ug/L			232566	272361	4
	Kr	83		ug/L			173	246	3
[>	In	115		ug/L			278279	285933	4
	Ag	107	0.002	ug/L	0.001	30	41	62	13
	Cd	111	-0.220	ug/L	0.058	26	154	-344	40
	Cd	114	0.267	ug/L	0.012	4	8	1424	4
	Sb	121	0.921	ug/L	0.026	2	152	7263	2
	Sb	123	0.919	ug/L	0.023	2	120	5429	1
	Ba	135	104.449	ug/L	0.611	0	17	177432	3
[	Ba	137	104.371	ug/L	1.839	1	22	302961	2
[>	Tb	159		ug/L			307498	323358	3
	Tl	205	0.006	ug/L	0.001	12	54	203	6
	Pb	208	0.033	ug/L	0.001	4	227	1408	4
	Bi	209		ug/L			307353	297216	3
	Th	232	-0.006	ug/L	0.001	12	490	247	14
[	U	238	0.034	ug/L	0.001	3	32	1755	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV10
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 20:36:15
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	317766	2
[	Be	9	49.673	ug/L	1.283	2	4	19839	4
	C	13		mg/L			4514	3778	2
	Cl	37		mg/L			1945798	1924713	1
[>	Sc	45		ug/L			206181	242048	2
	V	51	50.627	ug/L	0.678	1	1248	503157	1
	V-1	51	50.634	ug/L	0.605	1	1187	512854	1
	Cr	52	51.350	ug/L	0.987	1	3779	448125	1
	Cr	53	51.330	ug/L	0.907	1	407	53739	0
	Mn	55	51.154	ug/L	0.679	1	1176	751063	1
[	Co	59	52.003	ug/L	1.077	2	71	538148	0
[>	Ge	72		ug/L			204867	235110	1
	Ni	60	53.110	ug/L	0.267	0	19	109684	0
	Ni	62	54.965	ug/L	0.405	0	54	16426	1
	Cu	63	53.018	ug/L	0.139	0	232	235708	0
	Cu	65	52.226	ug/L	0.695	1	73	107670	1
	Zn	66	54.050	ug/L	0.417	0	287	72685	1
	Zn	67	55.071	ug/L	1.644	2	76	12132	2
	Zn	68	52.623	ug/L	0.511	0	4109	52726	2
	As	75	52.031	ug/L	0.163	0	331	68126	1
	As-1	75	51.051	ug/L	0.010	0	5650	70712	1
	Se	82	52.331	ug/L	0.330	0	-9	8306	0
	Se	78	48.943	ug/L	0.195	0	5714	24209	1
[	Mo	98	51.667	ug/L	0.245	0	24	300360	1
	Y	89		ug/L			232566	268798	1
	Kr	83		ug/L			173	212	4
[>	In	115		ug/L			278279	320241	1
	Ag	107	52.536	ug/L	0.080	0	41	499072	1
	Cd	111	52.066	ug/L	0.025	0	154	133237	1
	Cd	114	52.305	ug/L	0.353	0	8	310406	1
	Sb	121	50.050	ug/L	0.362	0	152	432794	0
	Sb	123	50.220	ug/L	0.433	0	120	324968	0
	Ba	135	47.703	ug/L	0.291	0	17	90777	0
[	Ba	137	47.732	ug/L	0.324	0	22	155259	1
[>	Tb	159		ug/L			307498	341525	1
	Tl	205	53.702	ug/L	0.238	0	54	1470104	0
	Pb	208	54.648	ug/L	0.303	0	227	2026392	0
	Bi	209		ug/L			307353	350716	0
	Th	232	55.364	ug/L	0.365	0	490	2601189	0
[	U	238	54.868	ug/L	0.238	0	32	2943858	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB10
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 20:42:54
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			286436	278782	2
[	Be	9	0.007	ug/L	0.004	51	4	6	21
	C	13		mg/L			4514	3748	1
	Cl	37		mg/L			1945798	1887200	1
[>	Sc	45		ug/L			206181	238316	1
	V	51	-0.044	ug/L	0.009	21	1248	1014	10
	V-1	51	0.094	ug/L	0.008	8	1187	2305	3
	Cr	52	-0.048	ug/L	0.011	22	3779	3958	1
	Cr	53	0.381	ug/L	0.037	9	407	860	3
	Mn	55	-0.022	ug/L	0.002	9	1176	1037	3
[	Co	59	-0.001	ug/L	0.000	32	71	76	1
[>	Ge	72		ug/L			204867	235028	1
	Ni	60	0.002	ug/L	0.001	30	19	26	5
	Ni	62	0.803	ug/L	0.047	5	54	300	3
	Cu	63	0.055	ug/L	0.004	8	232	511	2
	Cu	65	0.008	ug/L	0.008	102	73	100	16
	Zn	66	-0.083	ug/L	0.016	19	287	218	9
	Zn	67	0.011	ug/L	0.039	343	76	90	9
	Zn	68	-1.125	ug/L	0.049	4	4109	3688	1
	As	75	0.021	ug/L	0.024	115	331	408	8
	As-1	75	-0.943	ug/L	0.060	6	5650	5295	0
	Se	82	0.059	ug/L	0.054	92	-9	-1	575
	Se	78	-3.301	ug/L	0.217	6	5714	5365	0
[	Mo	98	0.008	ug/L	0.005	59	24	77	38
	Y	89		ug/L			232566	272746	1
	Kr	83		ug/L			173	197	4
[>	In	115		ug/L			278279	329440	1
	Ag	107	0.001	ug/L	0.001	60	41	63	15
	Cd	111	0.016	ug/L	0.003	16	154	223	4
	Cd	114	0.000	ug/L	0.000	91	8	13	20
	Sb	121	0.020	ug/L	0.011	55	152	362	29
	Sb	123	0.018	ug/L	0.011	59	120	264	28
	Ba	135	0.000	ug/L	0.003	977	17	20	27
[	Ba	137	0.004	ug/L	0.001	31	22	40	9
[>	Tb	159		ug/L			307498	343459	1
	Tl	205	0.002	ug/L	0.001	55	54	124	29
	Pb	208	0.003	ug/L	0.001	52	227	357	16
	Bi	209		ug/L			307353	368689	0
	Th	232	0.016	ug/L	0.007	43	490	1327	27
[	U	238	0.002	ug/L	0.001	46	32	135	35

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-22-13 **Analyst:** EL **Page:** 1 **of** 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			3006-3
		1			3006-15
		2			↓ -16
		3			3007-3
		↓ 4			↓ -1
		Rinse Sample			
		ICV			29155-2
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			
		LR200			
		LR300			
		CCV2			
		CCB2			
	✓	VZ75 MB2	REN	2	As, Cd, Sb RR (CCV)
	✓	F		5	RR Sb x2
	✓	G		2	
	✓	H			
	✓	I			
	✓	J			
	✓	K			

VZ75 00372

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-22-13 **Analyst:** RC **Page:** 2 of 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	VZ75 L	REN	2	As, Cd, Sb Ge, In ↑ RR
	✓	M			
	✓	MB2Spk			
		CCV3			Sc, Ge, In, Tb ↑ Be?
		CCB3			
		STD 0			
		CCV4			Be?
		CCB4			
	✓	VZ75 N	REN	2	
	✓	O			
	✓	P		20	
	✓	Q		2	
	✓	R			
	✓	S			
	✓	T			
	✓	V			
	✓	W			
	✓	X			
		CCV5			All IS ↑ Ni, Zn67 ↑
		CCB5			All IS ↑ Ni62, As2, Se78 ↓
		STD 0			
		CCV6			
		CCB6			
		VZ75C	REN	2	

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-22-13 **Analyst:** EL **Page:** 3 **of** 4

All corrections made by analyst unless otherwise noted. 1-22-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		V275 D	REN	2	
		Z			V275AJ REN x20
		AJ			
		F			
		P			
		L			RE AS x5
		M			
		MB2SPK			
		CCV 7			Se^{78} ↑
		CCB7			AS2, Se^{78} ↑
	✓	V275 N	REN	2	wrong A/S pos
	✓	O			
	✓	P		20	
	✓	Q		2	
	✓	R			
	✓	S			
	✓	T			
	✓	V			
	✓	W			
	✓	X			
		CCV8			
		CCB8			
	✓	V275 MB2	REN	2	wrong A/S pos
	✓	F		X5	

1/31/13

V275 00374

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ~~ICP-MS~~ GFA CVA **Analysis Date:** 1-22-13

M1	Analyst 1-23-13	Peer 1-23	Comment
Logbook			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	See log
Samples			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	See log
Carry-over	✓	✓	
Method QC			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Metals			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Names [illegible]	—	—	

Instrument Tuning Report

File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	8.925	2023	2160	0.669	
Mg	23.985	23.979	5654	2265	0.675	
Co	58.933	58.929	14148	2530	0.677	
In	114.904	114.928	27795	2977	0.671	
Pb	207.977	207.976	50444	3725	0.683	

VZ75 00376

Instrument Tuning Report

2

File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	8.925	2023	2160	0.650	
Mg	23.985	23.979	5654	2265	0.676	
Co	58.933	58.929	14148	2530	0.676	
In	114.904	114.928	27795	2977	0.666	
Pb	207.977	207.976	50444	3725	0.683	

VZ75 00377

3

Instrument Tuning Report

File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	8.925	2023	2155	0.682	
Mg	23.985	23.979	5654	2265	0.679	
Co	58.933	58.929	14148	2530	0.676	
In	114.904	114.928	27795	2977	0.666	
Pb	207.977	207.976	50444	3725	0.684	

VZ75 00378

Instrument Tuning Report

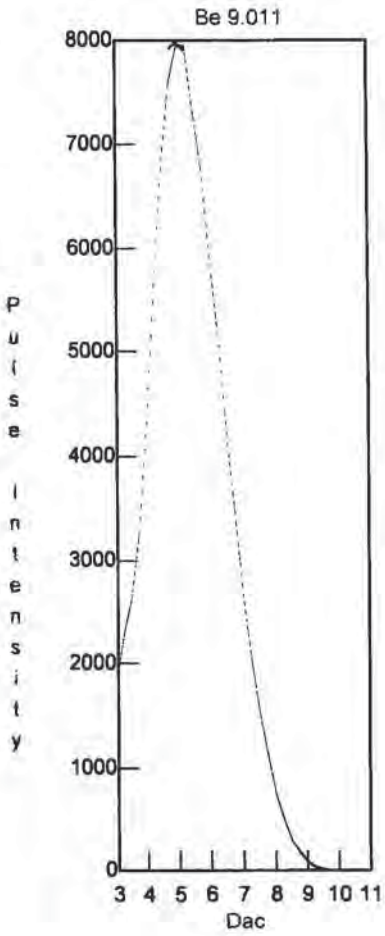
4

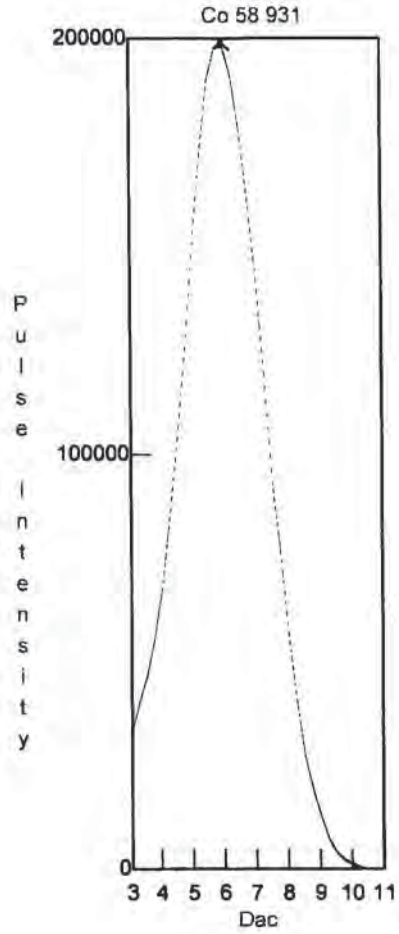
File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

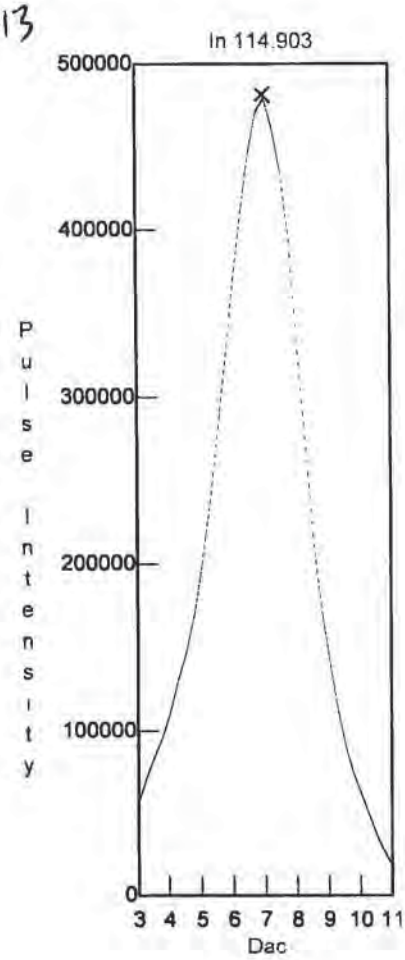
Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	8.925	2023	2155	0.674	
Mg	23.985	23.979	5654	2265	0.678	
Co	58.933	58.929	14148	2530	0.677	
In	114.904	114.928	27795	2970	0.704	
Pb	207.977	207.976	50444	3725	0.684	

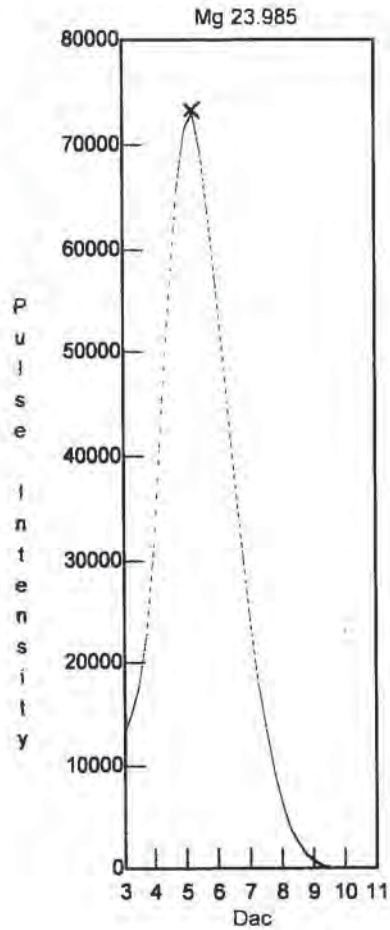
VZ75 00379

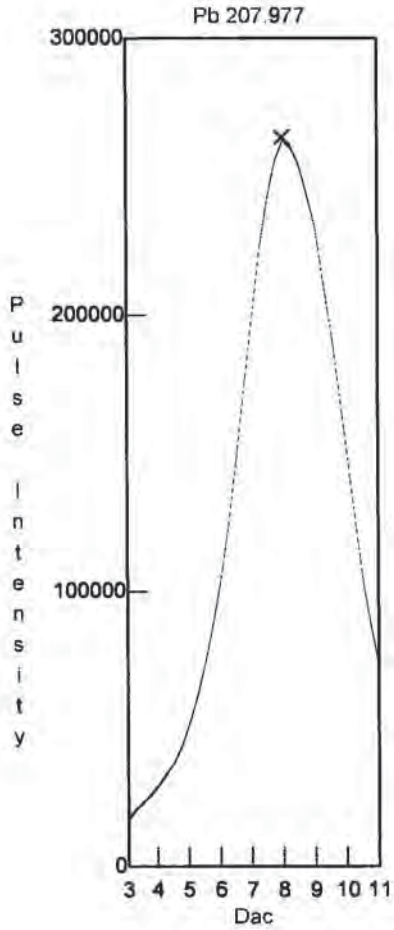
1-22-13

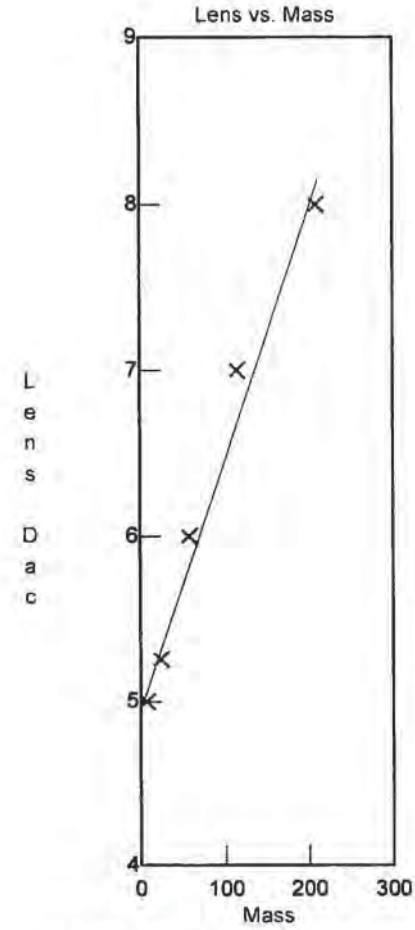












VZ75 00380

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Tuesday, January 22, 2013 09:54:12
Sample Description:
Sample File: 1119.sam
Method File: C:\Elandata\Method\aridailyperf.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.1345
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\Default.dac
Number of Replicates: 5
Dual Detector Mode: Dual

2.95

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24	42055.272	763.744	1.816
	In	115	294849.652	2659.669	0.902
	Pb	208	191844.002	2035.533	1.061
⌈>	Ba	138	204082.123	1276.257	0.625
⌊	Ba++	69	0.013	0.001	4.049
⌈>	Ce	140	248226.933	3173.665	1.279
⌊	CeO	156	0.030	0.001	3.699
	Bkgd	220	4.500	1.118	24.845

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 10:20:04
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L				360921	1
[	Be	9		ug/L				10	35
	C	13		mg/L				5419	1
	Cl	37		mg/L				1648942	0
[>	Sc	45		ug/L				214091	1
|	V	51		ug/L				1747	1
|	V-1	51		ug/L				2425	4
|	Cr	52		ug/L				5571	1
|	Cr	53		ug/L				846	5
|	Mn	55		ug/L				336	8
[	Co	59		ug/L				27	30
[>	Ge	72		ug/L				237468	0
|	Ni	60		ug/L				24	24
|	Ni	62		ug/L				36	14
|	Cu	63		ug/L				255	8
|	Cu	65		ug/L				79	14
|	Zn	66		ug/L				170	10
|	Zn	67		ug/L				82	20
|	Zn	68		ug/L				6471	2
|	As	75		ug/L				354	12
|	As-1	75		ug/L				8372	0
|	Se	82		ug/L				-15	105
|	Se	78		ug/L				8505	0
[	Mo	98		ug/L				422	17
	Y	89		ug/L				251853	0
	Kr	83		ug/L				219	2
[>	In	115		ug/L				282218	1
|	Ag	107		ug/L				18	19
|	Cd	111		ug/L				115	5
|	Cd	114		ug/L				9	7
|	Sb	121		ug/L				17	35
|	Sb	123		ug/L				12	61
|	Ba	135		ug/L				17	43
[	Ba	137		ug/L				15	30
[>	Tb	159		ug/L				333317	0
|	Tl	205		ug/L				17	37
|	Pb	208		ug/L				230	11
|	Bi	209		ug/L				298426	0
|	Th	232		ug/L				41	10
[	U	238		ug/L				13	32

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 10:26:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			360921	363565	2
[	Be	9	9.920	ug/L	0.296	2	10	4171	2
	C	13		mg/L			5419	5219	2
	Cl	37		mg/L			1648942	1661086	0
[>	Sc	45		ug/L			214091	214008	1
	V	51	10.008	ug/L	0.200	1	1747	95827	1
	V-1	51	9.972	ug/L	0.224	2	2425	97737	1
	Cr	52	10.141	ug/L	0.108	1	5571	88874	0
	Cr	53	10.022	ug/L	0.171	1	846	10653	0
	Mn	55	10.196	ug/L	0.186	1	336	137216	0
[	Co	59	10.236	ug/L	0.109	1	27	106213	0
[>	Ge	72		ug/L			237468	235786	0
	Ni	60	10.325	ug/L	0.134	1	24	22229	0
	Ni	62	10.369	ug/L	0.183	1	36	3331	1
	Cu	63	10.453	ug/L	0.080	0	255	49082	0
	Cu	65	10.460	ug/L	0.183	1	79	22879	1
	Zn	66	10.486	ug/L	0.118	1	170	14616	1
	Zn	67	10.337	ug/L	0.182	1	82	2431	1
	Zn	68	10.567	ug/L	0.293	2	6471	16486	1
	As	75	10.277	ug/L	0.105	1	354	14180	0
	As-1	75	10.299	ug/L	0.122	1	8372	21762	0
	Se	82	10.706	ug/L	0.170	1	-15	1685	1
	Se	78	10.770	ug/L	0.166	1	8505	12372	0
[	Mo	98	10.032	ug/L	0.090	0	422	55949	0
	Y	89		ug/L			251853	249960	1
	Kr	83		ug/L			219	211	1
[>	In	115		ug/L			282218	279272	0
	Ag	107	10.385	ug/L	0.125	1	18	93431	1
	Cd	111	10.375	ug/L	0.124	1	115	23681	0
	Cd	114	10.447	ug/L	0.201	1	9	54718	1
	Sb	121	10.253	ug/L	0.072	0	17	74865	0
	Sb	123	10.306	ug/L	0.048	0	12	56585	0
	Ba	135	10.365	ug/L	0.057	0	17	18253	0
[	Ba	137	10.428	ug/L	0.213	2	15	31795	1
[>	Tb	159		ug/L			333317	331712	0
	Tl	205	10.013	ug/L	0.080	0	17	250954	0
	Pb	208	10.411	ug/L	0.163	1	230	349274	0
	Bi	209		ug/L			298426	294080	0
	Th	232	9.742	ug/L	0.097	0	41	410858	0
[	U	238	9.874	ug/L	0.092	0	13	455866	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 10:32:21
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			360921	362737	0
[	Be	9	20.262	ug/L	0.445	2	10	8491	2
	C	13		mg/L			5419	5129	2
	Cl	37		mg/L			1648942	1673101	0
[>	Sc	45		ug/L			214091	214470	1
	V	51	20.038	ug/L	0.271	1	1747	190535	0
	V-1	51	20.073	ug/L	0.285	1	2425	194714	0
	Cr	52	20.251	ug/L	0.382	1	5571	172285	0
	Cr	53	20.350	ug/L	0.455	2	846	20804	1
	Mn	55	20.527	ug/L	0.261	1	336	276511	0
[	Co	59	20.259	ug/L	0.482	2	27	210622	1
[>	Ge	72		ug/L			237468	236001	0
	Ni	60	20.598	ug/L	0.135	0	24	44367	0
	Ni	62	20.282	ug/L	0.341	1	36	6487	0
	Cu	63	20.751	ug/L	0.218	1	255	97279	1
	Cu	65	20.821	ug/L	0.382	1	79	45505	1
	Zn	66	20.805	ug/L	0.055	0	170	28859	0
	Zn	67	21.091	ug/L	0.190	0	82	4881	0
	Zn	68	20.718	ug/L	0.190	0	6471	26177	1
	As	75	20.628	ug/L	0.176	0	354	28132	0
	As-1	75	20.536	ug/L	0.260	1	8372	35162	0
	Se	82	20.969	ug/L	0.242	1	-15	3318	0
	Se	78	20.740	ug/L	0.446	2	8505	16021	0
[	Mo	98	20.188	ug/L	0.253	1	422	112265	0
	Y	89		ug/L			251853	251945	0
	Kr	83		ug/L			219	232	5
[>	In	115		ug/L			282218	283475	1
	Ag	107	20.647	ug/L	0.193	0	18	188508	0
	Cd	111	20.545	ug/L	0.348	1	115	47482	1
	Cd	114	20.533	ug/L	0.193	0	9	109159	0
	Sb	121	20.293	ug/L	0.088	0	17	150380	0
	Sb	123	20.325	ug/L	0.113	0	12	113257	0
	Ba	135	20.441	ug/L	0.220	1	17	36522	1
[	Ba	137	20.339	ug/L	0.159	0	15	62937	0
[>	Tb	159		ug/L			333317	332323	0
	Tl	205	19.963	ug/L	0.071	0	17	501225	0
	Pb	208	20.426	ug/L	0.086	0	230	686381	0
	Bi	209		ug/L			298426	292749	0
	Th	232	19.327	ug/L	0.033	0	41	816594	0
[	U	238	19.578	ug/L	0.349	1	13	905517	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 10:38:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			360921	368006	1
⌊	Be	9	49.938	ug/L	0.803	1	10	21218	2
	C	13		mg/L			5419	4934	1
	Cl	37		mg/L			1648942	1691825	1
⌈>	Sc	45		ug/L			214091	218931	2
|	V	51	50.188	ug/L	0.637	1	1747	484425	1
|	V-1	51	50.249	ug/L	0.575	1	2425	493822	1
|	Cr	52	50.336	ug/L	0.935	1	5571	428620	0
|	Cr	53	50.520	ug/L	0.714	1	846	51439	0
|	Mn	55	50.544	ug/L	0.986	1	336	694413	0
⌊	Co	59	50.399	ug/L	1.129	2	27	534750	0
⌈>	Ge	72		ug/L			237468	242015	0
|	Ni	60	50.466	ug/L	0.312	0	24	111433	0
|	Ni	62	50.121	ug/L	0.234	0	36	16385	0
|	Cu	63	50.581	ug/L	0.074	0	255	242792	0
|	Cu	65	50.530	ug/L	0.554	1	79	113138	1
|	Zn	66	50.713	ug/L	0.432	0	170	71889	0
|	Zn	67	50.721	ug/L	0.568	1	82	11921	1
|	Zn	68	50.492	ug/L	0.040	0	6471	55943	0
|	As	75	50.521	ug/L	0.457	0	354	70135	0
|	As-1	75	50.388	ug/L	0.526	1	8372	76076	0
|	Se	82	51.217	ug/L	0.075	0	-15	8334	0
|	Se	78	50.736	ug/L	0.417	0	8505	27657	0
⌊	Mo	98	50.020	ug/L	0.625	1	422	284626	1
	Y	89		ug/L			251853	257124	0
	Kr	83		ug/L			219	224	2
⌈>	In	115		ug/L			282218	289295	1
|	Ag	107	50.811	ug/L	1.335	2	18	473327	1
|	Cd	111	51.071	ug/L	1.464	2	115	120256	1
|	Cd	114	50.607	ug/L	0.838	1	9	274528	1
|	Sb	121	50.113	ug/L	0.383	0	17	378945	0
|	Sb	123	50.134	ug/L	0.731	1	12	285044	0
|	Ba	135	50.628	ug/L	0.320	0	17	92283	1
⌊	Ba	137	50.664	ug/L	1.216	2	15	159934	0
⌈>	Tb	159		ug/L			333317	337619	1
|	Tl	205	49.322	ug/L	0.231	0	17	1258047	0
|	Pb	208	50.774	ug/L	0.927	1	230	1732809	0
|	Bi	209		ug/L			298426	295816	1
|	Th	232	50.257	ug/L	0.558	1	41	2157051	0
⌊	U	238	50.765	ug/L	0.759	1	13	2385079	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 10:44:37
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			360921	356032	0
⌊	Be	9	99.987	ug/L	0.584	0	10	41085	0
	C	13		mg/L			5419	5475	0
	Cl	37		mg/L			1648942	1719548	0
⌈>	Sc	45		ug/L			214091	216135	0
|	V	51	99.898	ug/L	1.294	1	1747	950292	1
|	V-1	51	99.863	ug/L	1.348	1	2425	966553	1
|	Cr	52	99.768	ug/L	1.498	1	5571	833318	0
|	Cr	53	99.668	ug/L	1.496	1	846	99364	0
|	Mn	55	99.603	ug/L	1.415	1	336	1350876	0
⌊	Co	59	99.725	ug/L	1.935	1	27	1044806	1
⌈>	Ge	72		ug/L			237468	239358	0
|	Ni	60	99.615	ug/L	1.675	1	24	217512	1
|	Ni	62	99.846	ug/L	1.458	1	36	32246	1
|	Cu	63	99.514	ug/L	0.239	0	255	472181	0
|	Cu	65	99.525	ug/L	0.691	0	79	220314	0
|	Zn	66	99.434	ug/L	0.339	0	170	139240	0
|	Zn	67	99.387	ug/L	1.197	1	82	23022	0
|	Zn	68	99.553	ug/L	1.187	1	6471	102753	1
|	As	75	99.586	ug/L	0.773	0	354	136385	0
|	As-1	75	99.669	ug/L	0.649	0	8372	140576	0
|	Se	82	99.127	ug/L	1.421	1	-15	15968	1
|	Se	78	99.407	ug/L	0.787	0	8505	45369	0
⌊	Mo	98	99.949	ug/L	0.184	0	422	562066	0
	Y	89		ug/L			251853	252364	1
	Kr	83		ug/L			219	251	4
⌈>	In	115		ug/L			282218	284405	1
|	Ag	107	99.427	ug/L	1.471	1	18	910641	0
|	Cd	111	99.318	ug/L	0.727	0	115	229857	0
|	Cd	114	99.545	ug/L	2.000	2	9	530881	1
|	Sb	121	99.860	ug/L	1.761	1	17	742287	0
|	Sb	123	99.837	ug/L	2.249	2	12	558004	1
|	Ba	135	99.561	ug/L	1.756	1	17	178376	0
⌊	Ba	137	99.557	ug/L	2.110	2	15	308972	0
⌈>	Tb	159		ug/L			333317	331412	0
|	Tl	205	100.345	ug/L	0.602	0	17	2512465	0
|	Pb	208	99.487	ug/L	1.139	1	230	3332988	0
|	Bi	209		ug/L			298426	287653	1
|	Th	232	100.032	ug/L	0.893	0	41	4214638	0
⌊	U	238	99.715	ug/L	1.307	1	13	4599085	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 10:51:16
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			360921	355916	0
[	Be	9	-0.014	ug/L	0.005	37	10	5	43
	C	13		mg/L			5419	5464	0
	Cl	37		mg/L			1648942	1722732	0
[>	Sc	45		ug/L			214091	214709	1
	V	51	0.007	ug/L	0.021	310	1747	1815	11
	V-1	51	-0.030	ug/L	0.008	25	2425	2146	2
	Cr	52	0.009	ug/L	0.015	168	5571	5663	3
	Cr	53	-0.105	ug/L	0.052	50	846	745	6
	Mn	55	0.001	ug/L	0.003	476	336	344	9
[	Co	59	0.004	ug/L	0.001	30	27	64	16
[>	Ge	72		ug/L			237468	236354	0
	Ni	60	0.004	ug/L	0.003	71	24	32	17
	Ni	62	0.005	ug/L	0.018	402	36	37	14
	Cu	63	-0.007	ug/L	0.003	48	255	221	7
	Cu	65	-0.002	ug/L	0.004	168	79	73	11
	Zn	66	0.009	ug/L	0.002	25	170	182	2
	Zn	67	0.036	ug/L	0.075	208	82	90	19
	Zn	68	0.100	ug/L	0.016	15	6471	6537	0
	As	75	0.053	ug/L	0.007	13	354	424	1
	As-1	75	0.103	ug/L	0.045	43	8372	8468	1
	Se	82	0.081	ug/L	0.077	95	-15	-2	484
	Se	78	0.358	ug/L	0.168	46	8505	8597	1
[	Mo	98	-0.036	ug/L	0.006	16	422	222	14
	Y	89		ug/L			251853	251590	1
	Kr	83		ug/L			219	231	4
[>	In	115		ug/L			282218	281292	0
	Ag	107	0.015	ug/L	0.005	34	18	153	31
	Cd	111	0.005	ug/L	0.003	66	115	126	6
	Cd	114	0.001	ug/L	0.001	127	9	14	41
	Sb	121	0.091	ug/L	0.024	26	17	685	26
	Sb	123	0.087	ug/L	0.024	27	12	495	27
	Ba	135	0.001	ug/L	0.003	220	17	20	28
[	Ba	137	0.006	ug/L	0.002	26	15	32	15
[>	Tb	159		ug/L			333317	329984	0
	Tl	205	0.013	ug/L	0.003	24	17	353	23
	Pb	208	0.007	ug/L	0.003	36	230	457	17
	Bi	209		ug/L			298426	292767	1
	Th	232	0.060	ug/L	0.013	21	41	2553	21
[	U	238	0.004	ug/L	0.002	39	13	206	36

Quantitative Analysis - Calibration Report

Sample Date/Time: Tuesday, January 22, 2013 10:51:16
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	1.0000	0.0012	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	1.0000	0.0439	10	20	50	100	
V-1	51	1.0000	0.0447	10	20	50	100	
Cr	52	1.0000	0.0384	10	20	50	100	
Cr	53	1.0000	0.0046	10	20	50	100	
Mn	55	1.0000	0.0627	10	20	50	100	
Co	59	1.0000	0.0485	10	20	50	100	
Ge	72							
Ni	60	1.0000	0.0091	10	20	50	100	
Ni	62	1.0000	0.0013	10	20	50	100	
Cu	63	0.9999	0.0198	10	20	50	100	
Cu	65	0.9999	0.0092	10	20	50	100	
Zn	66	0.9999	0.0058	10	20	50	100	
Zn	67	0.9999	0.0010	10	20	50	100	
Zn	68	1.0000	0.0040	10	20	50	100	
As	75	1.0000	0.0057	10	20	50	100	
As-1	75	1.0000	0.0055	10	20	50	100	
Se	82	0.9999	0.0007	10	20	50	100	
Se	78	0.9999	0.0015	10	20	50	100	
Mo	98	1.0000	0.0235	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	0.9999	0.0322	10	20	50	100	
Cd	111	0.9999	0.0081	10	20	50	100	
Cd	114	1.0000	0.0188	10	20	50	100	
Sb	121	1.0000	0.0261	10	20	50	100	
Sb	123	1.0000	0.0197	10	20	50	100	
Ba	135	1.0000	0.0063	10	20	50	100	
Ba	137	1.0000	0.0109	10	20	50	100	
Tb	159							
Tl	205	1.0000	0.0756	10	20	50	100	
Pb	208	1.0000	0.1011	10	20	50	100	
Bi	209							
Th	232	1.0000	0.1271	10	20	50	100	
U	238	1.0000	0.1392	10	20	50	100	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 11:00:47
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			360921	373759	1
[	Be	9	49.837	ug/L	0.766	1	10	21500	0
	C	13		mg/L			5419	13435	4
	Cl	37		mg/L			1648942	1722996	0
[>	Sc	45		ug/L			214091	219341	0
[	V	51	51.467	ug/L	0.255	0	1747	497721	0
[	V-1	51	51.476	ug/L	0.050	0	2425	506836	0
[	Cr	52	50.774	ug/L	0.430	0	5571	433201	0
[	Cr	53	50.839	ug/L	0.274	0	846	51866	1
[	Mn	55	51.201	ug/L	0.444	0	336	704971	1
[	Co	59	51.164	ug/L	0.386	0	27	544032	0
[>	Ge	72		ug/L			237468	241761	0
[	Ni	60	51.335	ug/L	0.251	0	24	113232	0
[	Ni	62	50.978	ug/L	0.640	1	36	16647	0
[	Cu	63	51.775	ug/L	0.700	1	255	248258	1
[	Cu	65	51.807	ug/L	0.157	0	79	115874	0
[	Zn	66	50.873	ug/L	0.461	0	170	72038	0
[	Zn	67	50.805	ug/L	0.353	0	82	11928	0
[	Zn	68	50.899	ug/L	0.378	0	6471	56281	0
[	As	75	52.412	ug/L	0.219	0	354	72671	0
[	As-1	75	51.605	ug/L	0.184	0	8372	77626	0
[	Se	82	81.963	ug/L	0.498	0	-15	13333	0
[	Se	78	82.282	ug/L	0.392	0	8505	39422	0
[	Mo	98	49.681	ug/L	0.518	1	422	282395	0
	Y	89		ug/L			251853	253808	0
	Kr	83		ug/L			219	245	4
[>	In	115		ug/L			282218	289599	0
[	Ag	107	51.433	ug/L	0.694	1	18	479712	0
[	Cd	111	50.699	ug/L	0.631	1	115	119533	0
[	Cd	114	50.715	ug/L	1.055	2	9	275409	1
[	Sb	121	50.093	ug/L	0.792	1	17	379201	1
[	Sb	123	49.900	ug/L	0.784	1	12	284032	1
[	Ba	135	50.912	ug/L	0.120	0	17	92902	0
[	Ba	137	51.073	ug/L	0.703	1	15	161422	0
[>	Tb	159		ug/L			333317	338343	0
[	Tl	205	49.635	ug/L	0.625	1	17	1268820	1
[	Pb	208	51.475	ug/L	0.213	0	230	1760700	0
[	Bi	209		ug/L			298426	297018	0
[	Th	232	52.029	ug/L	0.094	0	41	2238031	0
[	U	238	52.236	ug/L	0.205	0	13	2459699	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 11:07:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			360921	360979	0
⌊	Be	9	-0.007	ug/L	0.002	22	10	7	9
	C	13		mg/L			5419	5668	0
	Cl	37		mg/L			1648942	1730500	0
⌈>	Sc	45		ug/L			214091	212848	0
|	V	51	0.024	ug/L	0.003	14	1747	1961	1
|	V-1	51	-0.029	ug/L	0.004	11	2425	2130	2
|	Cr	52	0.011	ug/L	0.010	94	5571	5628	1
|	Cr	53	-0.156	ug/L	0.013	8	846	690	2
|	Mn	55	-0.002	ug/L	0.002	82	336	307	6
⌊	Co	59	0.002	ug/L	0.001	30	27	47	13
⌈>	Ge	72		ug/L			237468	236521	1
|	Ni	60	-0.000	ug/L	0.005	4333	24	23	44
|	Ni	62	0.020	ug/L	0.004	20	36	42	3
|	Cu	63	-0.013	ug/L	0.005	39	255	191	13
|	Cu	65	0.000	ug/L	0.001	406	79	79	1
|	Zn	66	0.008	ug/L	0.013	165	170	181	9
|	Zn	67	0.011	ug/L	0.014	133	82	84	4
|	Zn	68	0.098	ug/L	0.125	126	6471	6539	1
|	As	75	0.059	ug/L	0.012	19	354	432	3
|	As-1	75	0.109	ug/L	0.068	62	8372	8480	0
|	Se	82	0.137	ug/L	0.043	31	-15	6	107
|	Se	78	0.379	ug/L	0.249	65	8505	8609	0
⌊	Mo	98	-0.053	ug/L	0.005	9	422	126	22
	Y	89		ug/L			251853	250040	1
	Kr	83		ug/L			219	226	0
⌈>	In	115		ug/L			282218	283823	1
|	Ag	107	0.012	ug/L	0.001	11	18	127	10
|	Cd	111	0.003	ug/L	0.004	140	115	123	8
|	Cd	114	0.001	ug/L	0.002	142	9	16	60
|	Sb	121	0.033	ug/L	0.005	16	17	260	15
|	Sb	123	0.030	ug/L	0.009	30	12	177	29
|	Ba	135	0.002	ug/L	0.002	111	17	20	18
⌊	Ba	137	0.003	ug/L	0.004	112	15	25	47
⌈>	Tb	159		ug/L			333317	328807	0
|	Tl	205	0.006	ug/L	0.002	28	17	156	26
|	Pb	208	0.004	ug/L	0.001	34	230	355	13
|	Bi	209		ug/L			298426	293285	0
|	Th	232	0.036	ug/L	0.006	16	41	1539	17
⌊	U	238	0.003	ug/L	0.001	57	13	128	52

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 11:13:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			360921	362066	0
Be	9	50.051	ug/L	0.414	0	10	20920	0
C	13		mg/L			5419	5057	1
Cl	37		mg/L			1648942	1733337	0
Sc	45		ug/L			214091	217414	0
V	51	49.484	ug/L	0.356	0	1747	474423	0
V-1	51	49.612	ug/L	0.287	0	2425	484280	0
Cr	52	50.174	ug/L	0.610	1	5571	424396	0
Cr	53	50.538	ug/L	0.382	0	846	51109	0
Mn	55	50.656	ug/L	0.693	1	336	691295	1
Co	59	50.247	ug/L	0.369	0	27	529603	0
Ge	72		ug/L			237468	241435	0
Ni	60	50.335	ug/L	1.033	2	24	110868	1
Ni	62	50.644	ug/L	1.217	2	36	16515	1
Cu	63	51.266	ug/L	0.029	0	255	245488	0
Cu	65	50.935	ug/L	0.126	0	79	113772	0
Zn	66	50.953	ug/L	0.513	1	170	72054	0
Zn	67	51.469	ug/L	1.176	2	82	12067	2
Zn	68	50.867	ug/L	0.403	0	6471	56176	1
As	75	50.551	ug/L	0.427	0	354	70007	0
As-1	75	50.402	ug/L	0.531	1	8372	75910	0
Se	82	50.845	ug/L	0.733	1	-15	8253	0
Se	78	50.382	ug/L	1.558	3	8505	27456	1
Mo	98	50.023	ug/L	0.758	1	422	283956	1
Y	89		ug/L			251853	252898	0
Kr	83		ug/L			219	241	0
In	115		ug/L			282218	285023	0
Ag	107	50.923	ug/L	0.707	1	18	467456	0
Cd	111	51.443	ug/L	0.475	0	115	119376	0
Cd	114	51.241	ug/L	0.425	0	9	273895	0
Sb	121	50.434	ug/L	0.306	0	17	375762	0
Sb	123	50.264	ug/L	0.357	0	12	281597	0
Ba	135	50.608	ug/L	0.373	0	17	90890	1
Ba	137	50.239	ug/L	0.888	1	15	156279	1
Tb	159		ug/L			333317	332416	0
Tl	205	49.245	ug/L	0.345	0	17	1236746	0
Pb	208	50.793	ug/L	0.239	0	230	1706950	0
Bi	209		ug/L			298426	292201	0
Th	232	51.143	ug/L	0.572	1	41	2161373	1
U	238	51.357	ug/L	0.869	1	13	2375826	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 11:19:52
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			360921	359344	1
[	Be	9	-0.013	ug/L	0.006	47	10	5	48
	C	13		mg/L			5419	5355	2
	Cl	37		mg/L			1648942	1736254	0
[>	Sc	45		ug/L			214091	213770	1
	V	51	0.001	ug/L	0.019	2554	1747	1750	9
	V-1	51	-0.043	ug/L	0.002	3	2425	2011	0
	Cr	52	0.016	ug/L	0.019	116	5571	5697	1
	Cr	53	-0.121	ug/L	0.051	42	846	727	7
	Mn	55	-0.002	ug/L	0.003	109	336	302	11
[	Co	59	0.002	ug/L	0.000	19	27	52	8
[>	Ge	72		ug/L			237468	237106	0
	Ni	60	0.003	ug/L	0.003	124	24	29	23
	Ni	62	0.025	ug/L	0.017	66	36	44	11
	Cu	63	-0.015	ug/L	0.003	16	255	182	5
	Cu	65	-0.004	ug/L	0.003	67	79	70	8
	Zn	66	0.006	ug/L	0.011	191	170	178	9
	Zn	67	-0.030	ug/L	0.030	98	82	75	8
	Zn	68	0.178	ug/L	0.123	69	6471	6631	1
	As	75	0.069	ug/L	0.020	28	354	447	5
	As-1	75	0.079	ug/L	0.039	48	8372	8463	0
	Se	82	0.104	ug/L	0.055	53	-15	1	752
	Se	78	0.262	ug/L	0.154	58	8505	8588	0
[	Mo	98	-0.052	ug/L	0.002	4	422	129	10
	Y	89		ug/L			251853	251824	0
	Kr	83		ug/L			219	235	6
[>	In	115		ug/L			282218	281441	0
	Ag	107	0.012	ug/L	0.003	24	18	126	22
	Cd	111	0.002	ug/L	0.002	94	115	119	4
	Cd	114	0.000	ug/L	0.001	198	9	11	41
	Sb	121	0.040	ug/L	0.010	24	17	315	24
	Sb	123	0.042	ug/L	0.009	21	12	246	20
	Ba	135	0.000	ug/L	0.004	793	17	18	37
[	Ba	137	0.004	ug/L	0.001	22	15	27	11
[>	Tb	159		ug/L			333317	324751	1
	Tl	205	0.007	ug/L	0.002	24	17	176	21
	Pb	208	0.005	ug/L	0.002	43	230	372	16
	Bi	209		ug/L			298426	291769	0
	Th	232	0.044	ug/L	0.012	27	41	1873	26
[	U	238	0.003	ug/L	0.002	58	13	141	52

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 11:25:40
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			360921	350919	0
[	Be	9	0.180	ug/L	0.006	3	10	83	3
	C	13		mg/L			5419	5013	1
	Cl	37		mg/L			1648942	1726771	1
[>	Sc	45		ug/L			214091	210224	1
[	V	51	0.218	ug/L	0.021	9	1747	3728	4
[	V-1	51	0.175	ug/L	0.002	1	2425	4023	2
[	Cr	52	0.531	ug/L	0.017	3	5571	9752	0
[	Cr	53	0.380	ug/L	0.067	17	846	1196	6
[	Mn	55	0.548	ug/L	0.013	2	336	7550	2
[	Co	59	0.212	ug/L	0.011	5	27	2189	4
[>	Ge	72		ug/L			237468	233320	0
[	Ni	60	0.528	ug/L	0.024	4	24	1147	5
[	Ni	62	0.510	ug/L	0.052	10	36	196	7
[	Cu	63	0.523	ug/L	0.026	5	255	2668	5
[	Cu	65	0.548	ug/L	0.012	2	79	1258	2
[	Zn	66	4.407	ug/L	0.062	1	170	6176	0
[	Zn	67	3.972	ug/L	0.154	3	82	974	3
[	Zn	68	4.549	ug/L	0.266	5	6471	10644	2
[	As	75	0.275	ug/L	0.041	14	354	713	7
[	As-1	75	0.418	ug/L	0.078	18	8372	8765	0
[	Se	82	0.599	ug/L	0.053	8	-15	78	10
[	Se	78	1.308	ug/L	0.307	23	8505	8828	0
[	Mo	98	0.144	ug/L	0.008	5	422	1201	4
	Y	89		ug/L			251853	243751	1
	Kr	83		ug/L			219	238	6
[>	In	115		ug/L			282218	275378	0
[	Ag	107	0.205	ug/L	0.002	1	18	1837	0
[	Cd	111	0.111	ug/L	0.013	11	115	360	7
[	Cd	114	0.112	ug/L	0.003	2	9	588	2
[	Sb	121	0.219	ug/L	0.007	3	17	1593	3
[	Sb	123	0.220	ug/L	0.006	2	12	1200	2
[	Ba	135	0.497	ug/L	0.012	2	17	878	2
[	Ba	137	0.506	ug/L	0.018	3	15	1534	2
[>	Tb	159		ug/L			333317	322617	1
[	Tl	205	0.211	ug/L	0.005	2	17	5159	2
[	Pb	208	0.117	ug/L	0.002	1	230	4023	2
[	Bi	209		ug/L			298426	286936	0
[	Th	232	0.218	ug/L	0.003	1	41	8987	1
[	U	238	0.195	ug/L	0.003	1	13	8758	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 11:31:28
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			360921	365460	0
	Be	9	-0.002	ug/L	0.008	353	10	10	33
	C	13		mg/L			5419	15396	0
	Cl	37		mg/L			1648942	2951630	0
>	Sc	45		ug/L			214091	202617	1
	V	51	0.074	ug/L	0.014	19	1747	2316	6
	V-1	51	0.399	ug/L	0.018	4	2425	5901	1
	Cr	52	0.508	ug/L	0.045	8	5571	9223	3
	Cr	53	1.498	ug/L	0.130	8	846	2188	4
	Mn	55	0.050	ug/L	0.004	7	336	953	3
	Co	59	0.023	ug/L	0.001	5	27	252	5
>	Ge	72		ug/L			237468	228317	0
	Ni	60	0.487	ug/L	0.026	5	24	1036	4
	Ni	62	3.462	ug/L	0.075	2	36	1100	2
	Cu	63	0.427	ug/L	0.022	5	255	2175	5
	Cu	65	0.534	ug/L	0.021	3	79	1203	3
	Zn	66	1.563	ug/L	0.012	0	170	2249	0
	Zn	67	1.989	ug/L	0.048	2	82	516	1
	Zn	68	0.957	ug/L	0.084	8	6471	7105	1
	As	75	0.152	ug/L	0.036	23	354	539	9
	As-1	75	0.158	ug/L	0.077	48	8372	8249	1
	Se	82	-0.002	ug/L	0.059	3481	-15	-15	59
	Se	78	0.358	ug/L	0.260	72	8505	8304	0
	Mo	98	413.928	ug/L	3.409	0	422	2219044	0
	Y	89		ug/L			251853	236908	0
	Kr	83		ug/L			219	260	3
>	In	115		ug/L			282218	263228	1
	Ag	107	0.028	ug/L	0.002	6	18	252	6
	Cd	111	0.058	ug/L	0.021	35	115	232	19
	Cd	114	0.632	ug/L	0.019	3	9	3126	2
	Sb	121	0.074	ug/L	0.004	4	17	527	6
	Sb	123	0.076	ug/L	0.001	1	12	403	0
	Ba	135	0.046	ug/L	0.001	2	17	92	1
	Ba	137	0.049	ug/L	0.006	12	15	154	9
>	Tb	159		ug/L			333317	320089	1
	Tl	205	0.032	ug/L	0.001	2	17	782	3
	Pb	208	0.031	ug/L	0.001	2	230	1224	2
	Bi	209		ug/L			298426	275626	1
	Th	232	0.068	ug/L	0.005	6	41	2795	6
	U	238	0.001	ug/L	0.000	32	13	43	22

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 11:37:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			360921	357235	0
⌊	Be	9	-0.003	ug/L	0.012	448	10	9	52
	C	13		mg/L			5419	15166	1
	Cl	37		mg/L			1648942	2857212	0
⌈>	Sc	45		ug/L			214091	195485	0
|	V	51	-0.251	ug/L	0.068	27	1747	-557	105
|	V-1	51	0.423	ug/L	0.038	9	2425	5909	5
|	Cr	52	20.949	ug/L	0.339	1	5571	162289	1
|	Cr	53	21.961	ug/L	0.173	0	846	20406	0
|	Mn	55	20.474	ug/L	0.306	1	336	251403	1
⌊	Co	59	20.201	ug/L	0.155	0	27	191454	0
⌈>	Ge	72		ug/L			237468	222470	0
|	Ni	60	20.136	ug/L	0.207	1	24	40882	0
|	Ni	62	22.821	ug/L	0.202	0	36	6876	0
|	Cu	63	20.015	ug/L	0.128	0	255	88454	0
|	Cu	65	20.269	ug/L	0.225	1	79	41760	1
|	Zn	66	20.281	ug/L	0.370	1	170	26522	1
|	Zn	67	18.837	ug/L	0.189	1	82	4118	1
|	Zn	68	19.581	ug/L	0.210	1	6471	23655	1
|	As	75	19.756	ug/L	0.143	0	354	25411	0
|	As-1	75	20.384	ug/L	0.227	1	8372	32959	0
|	Se	82	0.032	ug/L	0.024	76	-15	-9	37
|	Se	78	0.546	ug/L	0.334	61	8505	8155	0
⌊	Mo	98	411.975	ug/L	1.038	0	422	2152029	0
	Y	89		ug/L			251853	231844	0
	Kr	83		ug/L			219	260	3
⌈>	In	115		ug/L			282218	258923	0
|	Ag	107	20.042	ug/L	0.190	0	18	167148	1
|	Cd	111	20.197	ug/L	0.063	0	115	42642	0
|	Cd	114	20.758	ug/L	0.198	0	9	100801	0
|	Sb	121	0.069	ug/L	0.004	6	17	481	6
|	Sb	123	0.075	ug/L	0.004	5	12	392	4
|	Ba	135	0.038	ug/L	0.009	23	17	77	19
⌊	Ba	137	0.047	ug/L	0.002	5	15	145	4
⌈>	Tb	159		ug/L			333317	313889	0
|	Tl	205	0.032	ug/L	0.001	4	17	783	3
|	Pb	208	0.033	ug/L	0.001	2	230	1263	2
|	Bi	209		ug/L			298426	266978	1
|	Th	232	0.038	ug/L	0.001	2	41	1540	1
⌊	U	238	0.001	ug/L	0.000	37	13	46	28

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 11:44:02
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			360921	352930	1
Be	9	189.143	ug/L	1.650	0	10	77030	1
C	13		mg/L			5419	4888	1
Cl	37		mg/L			1648942	1625661	0
Sc	45		ug/L			214091	199252	1
V	51	205.311	ug/L	0.180	0	1747	1798841	1
V-1	51	205.049	ug/L	1.222	0	2425	1827287	1
Cr	52	204.184	ug/L	3.952	1	5571	1566641	0
Cr	53	203.424	ug/L	4.843	2	846	186127	1
Mn	55	211.714	ug/L	2.882	1	336	2646596	0
Co	59	201.735	ug/L	1.607	0	27	1948577	1
Ge	72		ug/L			237468	224689	0
Ni	60	196.695	ug/L	1.495	0	24	403179	1
Ni	62	196.275	ug/L	1.557	0	36	59472	1
Cu	63	195.308	ug/L	1.445	0	255	869656	0
Cu	65	196.791	ug/L	0.619	0	79	408868	1
Zn	66	195.326	ug/L	1.236	0	170	256613	1
Zn	67	198.829	ug/L	1.200	0	82	43158	0
Zn	68	197.459	ug/L	0.014	0	6471	185292	0
As	75	203.365	ug/L	0.122	0	354	261095	0
As-1	75	203.846	ug/L	0.324	0	8372	261610	0
Se	82	201.176	ug/L	1.277	0	-15	30436	0
Se	78	202.790	ug/L	2.066	1	8505	78509	0
Mo	98	206.652	ug/L	1.725	0	422	1090424	0
Y	89		ug/L			251853	237313	0
Kr	83		ug/L			219	274	4
In	115		ug/L			282218	264402	1
Ag	107	199.959	ug/L	1.795	0	18	1702676	0
Cd	111	201.604	ug/L	2.133	1	115	433689	1
Cd	114	204.870	ug/L	0.544	0	9	1015828	0
Sb	121	207.701	ug/L	1.306	0	17	1435445	0
Sb	123	207.645	ug/L	1.667	0	12	1079051	0
Ba	135	208.587	ug/L	2.987	1	17	347417	0
Ba	137	207.529	ug/L	1.469	0	15	598825	0
Tb	159		ug/L			333317	318797	1
Tl	205	204.100	ug/L	3.339	1	17	4914990	0
Pb	208	206.823	ug/L	2.217	1	230	6664490	0
Bi	209		ug/L			298426	267539	0
Th	232	205.858	ug/L	2.397	1	41	8342369	0
U	238	205.367	ug/L	3.899	1	13	9109570	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 11:50:39
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			360921	344438	1
Be	9	289.138	ug/L	4.610	1	10	114902	0
C	13		mg/L			5419	5187	1
Cl	37		mg/L			1648942	1713575	1
Sc	45		ug/L			214091	204830	0
V	51	320.384	ug/L	5.206	1	1747	2884728	1
V-1	51	317.788	ug/L	4.385	1	2425	2909946	1
Cr	52	316.053	ug/L	3.721	1	5571	2490511	1
Cr	53	308.168	ug/L	0.802	0	846	289492	0
Mn	55	315.635	ug/L	3.482	1	336	4056686	1
Co	59	311.575	ug/L	4.716	1	27	3094023	2
Ge	72		ug/L			237468	231892	0
Ni	60	291.364	ug/L	3.211	1	24	616308	0
Ni	62	291.357	ug/L	3.154	1	36	91095	0
Cu	63	292.262	ug/L	1.052	0	255	1343030	0
Cu	65	291.590	ug/L	0.591	0	79	625208	0
Zn	66	287.756	ug/L	0.268	0	170	390072	0
Zn	67	290.108	ug/L	1.795	0	82	64952	0
Zn	68	289.670	ug/L	1.844	0	6471	277578	0
As	75	298.896	ug/L	1.640	0	354	395878	0
As-1	75	299.949	ug/L	2.467	0	8372	393421	0
Se	82	289.750	ug/L	1.031	0	-15	45249	0
Se	78	292.602	ug/L	2.349	0	8505	113233	0
Mo	98	306.599	ug/L	1.360	0	422	1669560	0
Y	89		ug/L			251853	242170	0
Kr	83		ug/L			219	299	4
In	115		ug/L			282218	270372	0
Ag	107	312.820	ug/L	2.720	0	18	2723972	0
Cd	111	300.488	ug/L	2.069	0	115	660922	0
Cd	114	298.799	ug/L	1.757	0	9	1515016	0
Sb	121	324.082	ug/L	3.815	1	17	2290463	1
Sb	123	308.106	ug/L	1.433	0	12	1637373	0
Ba	135	310.323	ug/L	1.855	0	17	528585	0
Ba	137	307.709	ug/L	3.248	1	15	907945	0
Tb	159		ug/L			333317	319844	0
Tl	205	303.317	ug/L	1.848	0	17	7329351	0
Pb	208	315.260	ug/L	0.205	0	230	10192922	0
Bi	209		ug/L			298426	261374	1
Th	232	308.233	ug/L	3.586	1	41	12533071	0
U	238	304.696	ug/L	3.169	1	13	13563068	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 11:57:16
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			360921	360826	2
Be	9	48.411	ug/L	1.190	2	10	20158	1
C	13		mg/L			5419	5083	0
Cl	37		mg/L			1648942	1754554	0
Sc	45		ug/L			214091	214253	0
V	51	50.299	ug/L	0.195	0	1747	475189	0
V-1	51	50.314	ug/L	0.238	0	2425	483948	0
Cr	52	50.538	ug/L	0.869	1	5571	421196	0
Cr	53	50.573	ug/L	1.039	2	846	50396	1
Mn	55	51.365	ug/L	0.345	0	336	690767	0
Co	59	50.276	ug/L	0.808	1	27	522176	1
Ge	72		ug/L			237468	241949	0
Ni	60	49.544	ug/L	0.545	1	24	109374	1
Ni	62	50.098	ug/L	0.663	1	36	16373	1
Cu	63	50.540	ug/L	0.330	0	255	242528	1
Cu	65	50.548	ug/L	0.101	0	79	113148	0
Zn	66	50.934	ug/L	0.350	0	170	72182	1
Zn	67	51.241	ug/L	0.842	1	82	12038	1
Zn	68	51.412	ug/L	0.763	1	6471	56822	0
As	75	50.565	ug/L	0.512	1	354	70173	0
As-1	75	50.646	ug/L	0.519	1	8372	76397	0
Se	82	50.749	ug/L	0.408	0	-15	8255	0
Se	78	51.179	ug/L	0.558	1	8505	27815	0
Mo	98	49.403	ug/L	0.337	0	422	281034	0
Y	89		ug/L			251853	252850	0
Kr	83		ug/L			219	254	4
In	115		ug/L			282218	285624	1
Ag	107	50.606	ug/L	0.944	1	18	465486	0
Cd	111	50.788	ug/L	0.896	1	115	118094	0
Cd	114	50.443	ug/L	0.520	1	9	270186	0
Sb	121	51.420	ug/L	0.863	1	17	383886	1
Sb	123	51.158	ug/L	0.369	0	12	287213	1
Ba	135	50.854	ug/L	0.172	0	17	91524	1
Ba	137	50.517	ug/L	0.057	0	15	157486	1
Tb	159		ug/L			333317	331717	0
Tl	205	48.920	ug/L	0.308	0	17	1226043	1
Pb	208	50.241	ug/L	0.412	0	230	1684898	1
Bi	209		ug/L			298426	287581	1
Th	232	49.827	ug/L	2.075	4	41	2101626	4
U	238	50.870	ug/L	0.968	1	13	2348438	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 12:03:55
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			360921	351356	1
[	Be	9	-0.009	ug/L	0.002	19	10	7	10
	C	13		mg/L			5419	5791	0
	Cl	37		mg/L			1648942	1772322	0
[>	Sc	45		ug/L			214091	209982	1
	V	51	0.027	ug/L	0.006	21	1747	1966	3
	V-1	51	0.005	ug/L	0.004	83	2425	2426	2
	Cr	52	0.022	ug/L	0.011	48	5571	5640	0
	Cr	53	-0.048	ug/L	0.007	13	846	784	0
	Mn	55	0.005	ug/L	0.003	75	336	390	12
[	Co	59	0.003	ug/L	0.001	27	27	61	15
[>	Ge	72		ug/L			237468	238676	0
	Ni	60	-0.002	ug/L	0.001	73	24	20	14
	Ni	62	0.020	ug/L	0.019	95	36	43	14
	Cu	63	-0.006	ug/L	0.003	41	255	226	5
	Cu	65	-0.002	ug/L	0.002	110	79	75	5
	Zn	66	-0.021	ug/L	0.004	21	170	142	4
	Zn	67	-0.018	ug/L	0.002	11	82	78	0
	Zn	68	0.308	ug/L	0.062	20	6471	6801	0
	As	75	0.058	ug/L	0.009	16	354	435	3
	As-1	75	0.111	ug/L	0.016	14	8372	8561	0
	Se	82	-0.036	ug/L	0.006	16	-15	-21	4
	Se	78	0.390	ug/L	0.019	4	8505	8693	0
[	Mo	98	-0.041	ug/L	0.005	13	422	195	15
	Y	89		ug/L			251853	247573	0
	Kr	83		ug/L			219	256	1
[>	In	115		ug/L			282218	278839	0
	Ag	107	0.021	ug/L	0.004	19	18	207	18
	Cd	111	0.008	ug/L	0.006	78	115	132	11
	Cd	114	0.002	ug/L	0.000	21	9	17	10
	Sb	121	0.110	ug/L	0.021	19	17	816	19
	Sb	123	0.110	ug/L	0.019	17	12	617	17
	Ba	135	0.002	ug/L	0.004	289	17	20	39
[	Ba	137	0.005	ug/L	0.001	24	15	29	12
[>	Tb	159		ug/L			333317	324180	0
	Tl	205	0.011	ug/L	0.002	18	17	287	17
	Pb	208	0.005	ug/L	0.002	33	230	404	15
	Bi	209		ug/L			298426	287005	0
	Th	232	0.063	ug/L	0.013	20	41	2622	20
[	U	238	0.003	ug/L	0.001	33	13	163	30

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 MB2 REN
Sample Dil Factor: 2 Del
Comments:
Sample Date/Time: Tuesday, January 22, 2013 12:09:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			360921	355664	2
[	Be	9	-0.006	ug/L	0.007	123	10	8	37
	C	13		mg/L			5419	6711	0
	Cl	37		mg/L			1648942	1761205	0
[>	Sc	45		ug/L			214091	213894	3
	V	51	0.016	ug/L	0.006	36	1747	1892	0
	V-1	51	-0.008	ug/L	0.017	202	2425	2340	4
	Cr	52	0.076	ug/L	0.029	37	5571	6190	1
	Cr	53	-0.002	ug/L	0.057	3041	846	842	3
	Mn	55	0.038	ug/L	0.004	11	336	850	4
[	Co	59	0.004	ug/L	0.001	28	27	68	13
[>	Ge	72		ug/L			237468	241274	1
	Ni	60	0.005	ug/L	0.002	38	24	36	14
	Ni	62	0.028	ug/L	0.015	54	36	46	9
	Cu	63	0.120	ug/L	0.005	4	255	834	1
	Cu	65	0.128	ug/L	0.001	0	79	366	1
	Zn	66	0.905	ug/L	0.017	1	170	1449	0
	Zn	67	0.804	ug/L	0.047	5	82	270	3
	Zn	68	1.306	ug/L	0.127	9	6471	7847	0
	As	75	U 0.066	ug/L	0.011	16	354	450	4
	As-1	75	0.183	ug/L	0.067	36	8372	8751	1
	Se	82	-0.003	ug/L	0.049	1600	-15	-16	49
	Se	78	0.636	ug/L	0.276	43	8505	8878	1
[	Mo	98	-0.029	ug/L	0.010	34	422	265	19
	Y	89		ug/L			251853	252558	1
	Kr	83		ug/L			219	255	2
[>	In	115		ug/L			282218	282314	2
	Ag	107	0.011	ug/L	0.002	13	18	120	10
	Cd	111	U 0.012	ug/L	0.004	33	115	142	4
	Cd	114	0.000	ug/L	0.001	218	9	10	28
	Sb	121	U 0.062	ug/L	0.006	10	17	476	7
	Sb	123	0.061	ug/L	0.003	4	12	349	3
	Ba	135	0.017	ug/L	0.006	37	17	47	21
[	Ba	137	0.020	ug/L	0.004	20	15	76	15
[>	Tb	159		ug/L			333317	329058	1
	Tl	205	0.010	ug/L	0.003	28	17	275	24
	Pb	208	0.022	ug/L	0.014	63	230	969	49
	Bi	209		ug/L			298426	291363	3
	Th	232	0.051	ug/L	0.007	13	41	2177	11
[	U	238	0.002	ug/L	0.000	4	13	88	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 F REN
Sample Dil Factor: 5 Del
Comments: As, Cd
Sample Date/Time: Tuesday, January 22, 2013 12:15:59
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			360921	359178	3
[	Be	9	0.016	ug/L	0.009	55	10	17	18
	C	13		mg/L			5419	5706	0
	Cl	37		mg/L			1648942	1760085	0
[>	Sc	45		ug/L			214091	227437	0
	V	51	4.707	ug/L	0.109	2	1747	48883	1
	V-1	51	4.636	ug/L	0.100	2	2425	49669	1
	Cr	52	2.482	ug/L	0.085	3	5571	27588	1
	Cr	53	2.375	ug/L	0.095	4	846	3368	2
	Mn	55	22.435	ug/L	0.256	1	336	320491	1
[	Co	59	0.271	ug/L	0.004	1	27	3022	1
[>	Ge	72		ug/L			237468	243119	0
	Ni	60	0.885	ug/L	0.014	1	24	1987	0
	Ni	62	1.290	ug/L	0.161	12	36	460	10
	Cu	63	1.473	ug/L	0.036	2	255	7357	2
	Cu	65	1.261	ug/L	0.059	4	79	2914	3
	Zn	66	2.097	ug/L	0.088	4	170	3153	3
	Zn	67	2.329	ug/L	0.090	3	82	630	3
	Zn	68	2.712	ug/L	0.166	6	6471	9287	1
	As	75	114.139	ug/L	2.754	2	354	158705	1
	As-1	75	117.585	ug/L	2.854	2	8372	166898	1
	Se	82	0.201	ug/L	0.083	41	-15	17	79
	Se	78	0.416	ug/L	0.110	26	8505	8864	0
[	Mo	98	0.468	ug/L	0.016	3	422	3100	2
	Y	89		ug/L			251853	266489	0
	Kr	83		ug/L			219	259	2
[>	In	115		ug/L			282218	280038	1
	Ag	107	0.012	ug/L	0.002	13	18	122	10
	Cd	111	0.166	ug/L	0.017	10	115	493	7
	Cd	114	0.190	ug/L	0.004	2	9	1005	2
	Sb	121	0.089	ug/L	0.010	11	17	665	9
	Sb	123	0.092	ug/L	0.004	4	12	519	4
	Ba	135	3.943	ug/L	0.084	2	17	6971	0
[	Ba	137	3.982	ug/L	0.086	2	15	12182	1
[>	Tb	159		ug/L			333317	329577	1
	Tl	205	0.006	ug/L	0.002	42	17	162	36
	Pb	208	0.248	ug/L	0.009	3	230	8487	2
	Bi	209		ug/L			298426	279386	0
	Th	232	0.121	ug/L	0.005	4	41	5113	3
[	U	238	0.114	ug/L	0.004	3	13	5228	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 G REN
Sample Dil Factor: 2 Del
Comments:
Sample Date/Time: Tuesday, January 22, 2013 12:22:16
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			360921	358096	1
	Be	9	-0.004	ug/L	0.011	298	10	9	51
	C	13		mg/L			5419	8099	1
	Cl	37		mg/L			1648942	1895656	1
>	Sc	45		ug/L			214091	245310	2
	V	51	1.047	ug/L	0.039	3	1747	13279	2
	V-1	51	1.007	ug/L	0.032	3	2425	13814	2
	Cr	52	0.374	ug/L	0.019	5	5571	9909	2
	Cr	53	0.286	ug/L	0.033	11	846	1291	4
	Mn	55	539.649	ug/L	4.384	0	336	8304927	1
	Co	59	0.628	ug/L	0.008	1	27	7493	0
>	Ge	72		ug/L			237468	252053	1
	Ni	60	1.737	ug/L	0.035	2	24	4018	2
	Ni	62	0.854	ug/L	0.072	8	36	329	9
	Cu	63	0.592	ug/L	0.013	2	255	3224	1
	Cu	65	0.430	ug/L	0.009	2	79	1086	3
	Zn	66	3.157	ug/L	0.083	2	170	4828	1
	Zn	67	3.783	ug/L	0.221	5	82	1005	3
	Zn	68	4.702	ug/L	0.129	2	6471	11654	1
	As	75	4.425	ug/L	0.070	1	354	6739	0
	As-1	75	4.643	ug/L	0.115	2	8372	15366	0
	Se	82	0.268	ug/L	0.088	32	-15	29	52
	Se	78	0.836	ug/L	0.125	14	8505	9353	1
	Mo	98	0.734	ug/L	0.002	0	422	4792	1
	Y	89		ug/L			251853	267175	2
	Kr	83		ug/L			219	269	3
>	In	115		ug/L			282218	287566	3
	Ag	107	0.008	ug/L	0.002	21	18	90	14
	Cd	111	0.063	ug/L	0.003	4	115	264	4
	Cd	114	0.050	ug/L	0.005	9	9	278	6
	Sb	121	0.139	ug/L	0.007	4	17	1059	1
	Sb	123	0.135	ug/L	0.009	7	12	773	3
	Ba	135	35.502	ug/L	0.813	2	17	64305	0
	Ba	137	35.433	ug/L	1.343	3	15	111134	1
>	Tb	159		ug/L			333317	336249	1
	Tl	205	0.002	ug/L	0.000	13	17	73	8
	Pb	208	0.278	ug/L	0.005	1	230	9690	1
	Bi	209		ug/L			298426	282776	1
	Th	232	0.075	ug/L	0.001	0	41	3244	1
	U	238	0.428	ug/L	0.008	1	13	20021	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 H REN
Sample Dil Factor: 2 Dil
Comments:
Sample Date/Time: Tuesday, January 22, 2013 12:28:33
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			360921	373460	2
[	Be	9	0.020	ug/L	0.010	50	10	20	21
	C	13		mg/L			5419	7994	0
	Cl	37		mg/L			1648942	2316120	0
[>	Sc	45		ug/L			214091	277395	0
	V	51	3.911	ug/L	0.020	0	1747	49930	0
	V-1	51	3.986	ug/L	0.033	0	2425	52531	0
	Cr	52	2.256	ug/L	0.041	1	5571	31240	1
	Cr	53	2.574	ug/L	0.084	3	846	4361	2
	Mn	55	43.245	ug/L	0.677	1	336	753017	1
[	Co	59	0.373	ug/L	0.008	2	27	5047	1
[>	Ge	72		ug/L			237468	255078	0
	Ni	60	1.598	ug/L	0.080	5	24	3743	4
	Ni	62	1.820	ug/L	0.107	5	36	665	4
	Cu	63	1.806	ug/L	0.015	0	255	9402	0
	Cu	65	1.294	ug/L	0.027	2	79	3135	2
	Zn	66	3.365	ug/L	0.020	0	170	5198	0
	Zn	67	3.518	ug/L	0.103	2	82	953	2
	Zn	68	4.180	ug/L	0.225	5	6471	11257	1
	As	75	0.860	ug/L	0.028	3	354	1631	1
	As-1	75	0.703	ug/L	0.074	10	8372	9986	0
	Se	82	0.555	ug/L	0.072	12	-15	78	15
	Se	78	0.289	ug/L	0.234	80	8505	9250	0
[	Mo	98	-0.001	ug/L	0.005	857	422	449	6
	Y	89		ug/L			251853	282135	1
	Kr	83		ug/L			219	286	2
[>	In	115		ug/L			282218	289518	0
	Ag	107	0.007	ug/L	0.001	18	18	86	15
	Cd	111	0.309	ug/L	0.020	6	115	846	6
	Cd	114	0.337	ug/L	0.005	1	9	1840	2
	Sb	121	0.098	ug/L	0.005	5	17	759	4
	Sb	123	0.099	ug/L	0.005	4	12	574	4
	Ba	135	7.152	ug/L	0.117	1	17	13061	0
[	Ba	137	7.130	ug/L	0.108	1	15	22546	2
[>	Tb	159		ug/L			333317	342749	0
	Tl	205	0.003	ug/L	0.001	22	17	92	17
	Pb	208	0.202	ug/L	0.002	1	230	7250	1
	Bi	209		ug/L			298426	281026	2
	Th	232	0.084	ug/L	0.000	0	41	3707	0
[	U	238	0.057	ug/L	0.002	3	13	2726	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 I REN
Sample Dil Factor: 2 Dal
Comments:
Sample Date/Time: Tuesday, January 22, 2013 12:34:52
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			360921	383996	2
[	Be	9	-0.008	ug/L	0.010	119	10	7	50
	C	13		mg/L			5419	7139	1
	Cl	37		mg/L			1648942	1746487	0
[>	Sc	45		ug/L			214091	253677	2
	V	51	0.944	ug/L	0.045	4	1747	12578	1
	V-1	51	0.892	ug/L	0.042	4	2425	12971	1
	Cr	52	0.163	ug/L	0.031	19	5571	8188	1
	Cr	53	0.042	ug/L	0.022	52	846	1050	0
	Mn	55	2.905	ug/L	0.087	2	336	46617	0
[	Co	59	0.123	ug/L	0.003	2	27	1540	1
[>	Ge	72		ug/L			237468	251460	2
	Ni	60	2.592	ug/L	0.135	5	24	5965	3
	Ni	62	1.464	ug/L	0.084	5	36	534	3
	Cu	63	1.615	ug/L	0.027	1	255	8313	0
	Cu	65	1.741	ug/L	0.092	5	79	4127	3
	Zn	66	2.064	ug/L	0.094	4	170	3211	2
	Zn	67	2.660	ug/L	0.076	2	82	732	4
	Zn	68	2.907	ug/L	0.356	12	6471	9799	1
	As	75	2.722	ug/L	0.094	3	354	4279	1
	As-1	75	2.418	ug/L	0.240	9	8372	12228	0
	Se	82	0.325	ug/L	0.115	35	-15	38	49
	Se	78	-0.923	ug/L	0.577	62	8505	8644	0
[	Mo	98	1.099	ug/L	0.058	5	422	6927	2
	Y	89		ug/L			251853	271851	2
	Kr	83		ug/L			219	246	5
[>	In	115		ug/L			282218	296966	2
	Ag	107	0.004	ug/L	0.000	5	18	57	2
	Cd	111	u 0.094	ug/L	0.015	16	115	347	9
	Cd	114	0.081	ug/L	0.004	5	9	462	3
	Sb	121	1.904	ug/L	0.052	2	17	14796	0
	Sb	123	1.895	ug/L	0.084	4	12	11066	2
	Ba	135	30.606	ug/L	0.825	2	17	57255	0
[	Ba	137	30.704	ug/L	0.592	1	15	99504	1
[>	Tb	159		ug/L			333317	351081	3
	Tl	205	0.004	ug/L	0.000	8	17	137	5
	Pb	208	0.225	ug/L	0.007	2	230	8209	0
	Bi	209		ug/L			298426	292713	3
	Th	232	0.028	ug/L	0.001	2	41	1292	5
[	U	238	0.245	ug/L	0.007	2	13	11968	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 J REN
Sample Dil Factor: 2 Dil
Comments:
Sample Date/Time: Tuesday, January 22, 2013 12:41:11
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			360921	409594	1
	Be	9	0.000	ug/L	0.012	3851	10	12	45
	C	13		mg/L			5419	6872	0
	Cl	37		mg/L			1648942	1775247	1
>	Sc	45		ug/L			214091	270111	2
	V	51	2.403	ug/L	0.054	2	1747	30703	1
	V-1	51	2.349	ug/L	0.038	1	2425	31391	1
	Cr	52	1.301	ug/L	0.048	3	5571	20513	1
	Cr	53	1.190	ug/L	0.101	8	846	2538	5
	Mn	55	75.747	ug/L	0.236	0	336	1284127	3
	Co	59	0.450	ug/L	0.011	2	27	5919	2
>	Ge	72		ug/L			237468	265160	1
	Ni	60	2.478	ug/L	0.041	1	24	6020	2
	Ni	62	1.999	ug/L	0.080	3	36	755	4
	Cu	63	1.764	ug/L	0.016	0	255	9553	2
	Cu	65	1.885	ug/L	0.065	3	79	4711	5
	Zn	66	3.862	ug/L	0.067	1	170	6174	2
	Zn	67	3.822	ug/L	0.107	2	82	1068	3
	Zn	68	3.783	ug/L	0.151	3	6471	11275	0
	As	75	15.301	ug/L	0.069	0	354	23548	1
	As-1	75	15.079	ug/L	0.210	1	8372	31492	1
	Se	82	0.155	ug/L	0.056	35	-15	10	96
	Se	78	-2.213	ug/L	0.536	24	8505	8587	1
	Mo	98	1.603	ug/L	0.015	0	422	10450	2
	Y	89		ug/L			251853	297172	1
	Kr	83		ug/L			219	254	2
>	In	115		ug/L			282218	314332	2
	Ag	107	0.006	ug/L	0.001	17	18	85	14
	Cd	111	u 0.042	ug/L	0.009	20	115	236	7
	Cd	114	0.025	ug/L	0.004	16	9	158	17
	Sb	121	u 0.146	ug/L	0.005	3	17	1215	2
	Sb	123	0.146	ug/L	0.002	1	12	914	4
	Ba	135	12.578	ug/L	0.065	0	17	24925	2
	Ba	137	12.830	ug/L	0.510	3	15	44040	5
>	Tb	159		ug/L			333317	375202	2
	Tl	205	0.004	ug/L	0.000	7	17	124	8
	Pb	208	0.450	ug/L	0.002	0	230	17321	2
	Bi	209		ug/L			298426	316160	2
	Th	232	0.083	ug/L	0.003	3	41	4011	5
	U	238	0.118	ug/L	0.002	1	13	6175	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 K REN
Sample Dil Factor: 2 Del
Comments:
Sample Date/Time: Tuesday, January 22, 2013 12:47:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			360921	408271	2
⌊	Be	9	0.044	ug/L	0.013	30	10	32	20
	C	13		mg/L			5419	8008	2
	Cl	37		mg/L			1648942	2186871	1
⌈>	Sc	45		ug/L			214091	340602	2
|	V	51	7.613	ug/L	0.172	2	1747	116665	1
|	V-1	51	7.508	ug/L	0.175	2	2425	118054	1
|	Cr	52	3.154	ug/L	0.064	2	5571	50093	0
|	Cr	53	3.055	ug/L	0.097	3	846	6104	2
|	Mn	55	4785.619	ug/L	48.012	1	336	102250381	1
⌊	Co	59	1.569	ug/L	0.029	1	27	25944	0
⌈>	Ge	72		ug/L			237468	275856	1
|	Ni	60	9.279	ug/L	0.264	2	24	23370	1
|	Ni	62	8.024	ug/L	0.399	4	36	3025	5
|	Cu	63	4.111	ug/L	0.058	1	255	22765	1
|	Cu	65	2.505	ug/L	0.063	2	79	6480	2
|	Zn	66	5.660	ug/L	0.064	1	170	9322	2
|	Zn	67	6.272	ug/L	0.150	2	82	1764	3
|	Zn	68	6.123	ug/L	0.089	1	6471	14337	1
|	As	75	8.826	ug/L	0.079	0	354	14304	1
|	As-1	75	8.218	ug/L	0.143	1	8372	22280	0
|	Se	82	1.275	ug/L	0.129	10	-15	218	10
|	Se	78	-1.480	ug/L	0.423	28	8505	9247	0
⌊	Mo	98	2.597	ug/L	0.007	0	422	17310	1
	Y	89		ug/L			251853	345181	1
	Kr	83		ug/L			219	293	0
⌈>	In	115		ug/L			282218	324704	1
|	Ag	107	0.024	ug/L	0.003	13	18	272	12
|	Cd	111	0.205	ug/L	0.006	3	115	673	3
|	Cd	114	0.240	ug/L	0.012	5	9	1471	3
|	Sb	121	0.272	ug/L	0.004	1	17	2325	2
|	Sb	123	0.274	ug/L	0.003	1	12	1762	2
|	Ba	135	13.259	ug/L	0.151	1	17	27142	2
⌊	Ba	137	13.130	ug/L	0.398	3	15	46535	2
⌈>	Tb	159		ug/L			333317	380387	1
|	Tl	205	0.006	ug/L	0.000	5	17	192	5
|	Pb	208	1.179	ug/L	0.016	1	230	45594	2
|	Bi	209		ug/L			298426	298731	2
|	Th	232	0.223	ug/L	0.004	1	41	10848	1
⌊	U	238	1.319	ug/L	0.002	0	13	69863	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 L REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 22, 2013 12:53:48
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			360921	386954	8
Be	9	0.211	ug/L	0.013	5	10	105	6
C	13		mg/L			5419	19030	4
Cl	37		mg/L			1648942	2926004	2
Sc	45		ug/L			214091	380890	9
V	51	79.754	ug/L	1.945	2	1747	1335667	7
V-1	51	79.060	ug/L	1.830	2	2425	1347511	7
Cr	52	29.475	ug/L	0.911	3	5571	440046	6
Cr	53	29.897	ug/L	0.705	2	846	53512	7
Mn	55	227.442	ug/L	8.349	3	336	5423152	5
Co	59	0.782	ug/L	0.021	2	27	14465	6
Ge	72		ug/L			237468	291421	5
Ni	60	21.174	ug/L	0.140	0	24	56328	6
Ni	62	30.904	ug/L	1.227	3	36	12199	9
Cu	63	10.076	ug/L	0.139	1	255	58515	7
Cu	65	5.462	ug/L	0.056	1	79	14816	6
Zn	66	7.782	ug/L	0.059	0	170	13464	6
Zn	67	17.904	ug/L	0.327	1	82	5135	7
Zn	68	6.536	ug/L	0.460	7	6471	15613	2
As	75	33.437	ug/L	0.214	0	354	56027	5
As-1	75	32.828	ug/L	0.593	1	8372	63225	4
Se	82	2.962	ug/L	0.080	2	-15	563	8
Se	78	-2.208	ug/L	1.380	62	8505	9418	0
Mo	98	7.249	ug/L	0.127	1	422	50118	6
Y	89		ug/L			251853	551175	7
Kr	83		ug/L			219	321	4
In	115		ug/L			282218	346073	7
Ag	107	0.107	ug/L	0.007	6	18	1214	13
Cd	111	-0.219	ug/L	0.333	152	115	-479	193
Cd	114	0.166	ug/L	0.008	4	9	1086	10
Sb	121	0.340	ug/L	0.008	2	17	3095	5
Sb	123	0.339	ug/L	0.007	1	12	2318	5
Ba	135	9.507	ug/L	0.304	3	17	20715	4
Ba	137	9.221	ug/L	0.237	2	15	34802	4
Tb	159		ug/L			333317	393431	6
Tl	205	0.004	ug/L	0.000	5	17	140	6
Pb	208	1.096	ug/L	0.005	0	230	43849	5
Bi	209		ug/L			298426	308661	6
Th	232	1.166	ug/L	0.015	1	41	58362	6
U	238	4.209	ug/L	0.023	0	13	230486	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 M REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 22, 2013 13:00:05
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			360921	378720	1
[	Be	9	-0.000	ug/L	0.006	2331	10	11	22
	C	13		mg/L			5419	8687	1
	Cl	37		mg/L			1648942	3434929	1
[>	Sc	45		ug/L			214091	319353	0
	V	51	1.619	ug/L	0.038	2	1747	25321	2
	V-1	51	1.852	ug/L	0.041	2	2425	30042	1
	Cr	52	0.781	ug/L	0.035	4	5571	17890	2
	Cr	53	1.554	ug/L	0.039	2	846	3531	1
	Mn	55	329.370	ug/L	6.425	1	336	6599887	2
[	Co	59	0.728	ug/L	0.005	0	27	11304	1
[>	Ge	72		ug/L			237468	298137	1
	Ni	60	1.097	ug/L	0.038	3	24	3013	2
	Ni	62	1.790	ug/L	0.102	5	36	765	3
	Cu	63	1.937	ug/L	0.039	2	255	11757	1
	Cu	65	0.654	ug/L	0.004	0	79	1902	0
	Zn	66	2.283	ug/L	0.021	0	170	4190	1
	Zn	67	2.906	ug/L	0.029	1	82	938	2
	Zn	68	2.595	ug/L	0.153	5	6471	11247	0
	As	75	7.879	ug/L	0.082	1	354	13848	0
	As-1	75	6.946	ug/L	0.181	2	8372	21980	0
	Se	82	1.482	ug/L	0.129	8	-15	278	8
	Se	78	-2.537	ug/L	0.396	15	8505	9507	0
[	Mo	98	0.990	ug/L	0.011	1	422	7461	1
	Y	89		ug/L			251853	329869	1
	Kr	83		ug/L			219	275	1
[>	In	115		ug/L			282218	357942	1
	Ag	107	0.008	ug/L	0.000	1	18	115	1
	Cd	111	-0.128	ug/L	0.045	34	115	-227	57
	Cd	114	0.026	ug/L	0.003	9	9	186	9
	Sb	121	0.215	ug/L	0.004	1	17	2033	3
	Sb	123	0.217	ug/L	0.005	2	12	1540	2
	Ba	135	18.473	ug/L	0.236	1	17	41682	2
[	Ba	137	18.572	ug/L	0.158	0	15	72568	1
[>	Tb	159		ug/L			333317	395435	1
	Tl	205	0.001	ug/L	0.000	4	17	62	4
	Pb	208	0.142	ug/L	0.003	2	230	5938	2
	Bi	209		ug/L			298426	334535	1
	Th	232	0.035	ug/L	0.001	2	41	1803	2
[	U	238	0.071	ug/L	0.002	2	13	3899	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 22, 2013 13:06:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			360921	381134	1
	Be	9	28.641	ug/L	0.684	2	10	12602	0
	C	13		mg/L			5419	7629	1
	Cl	37		mg/L			1648942	2309284	0
>	Sc	45		ug/L			214091	300126	0
	V	51	26.069	ug/L	0.100	0	1747	346177	0
	V-1	51	26.102	ug/L	0.112	0	2425	353336	0
	Cr	52	26.379	ug/L	0.156	0	5571	311728	0
	Cr	53	26.467	ug/L	0.237	0	846	37514	0
	Mn	55	27.559	ug/L	0.245	0	336	519398	0
	Co	59	27.761	ug/L	0.207	0	27	403944	0
>	Ge	72		ug/L			237468	324549	0
	Ni	60	29.299	ug/L	0.177	0	24	86770	0
	Ni	62	29.598	ug/L	0.260	0	36	12996	0
	Cu	63	30.279	ug/L	0.073	0	255	195048	0
	Cu	65	30.109	ug/L	0.215	0	79	90450	0
	Zn	66	89.988	ug/L	0.978	1	170	170887	1
	Zn	67	84.109	ug/L	0.138	0	82	26436	0
	Zn	68	87.096	ug/L	0.371	0	6471	122996	0
	As	75	27.977	ug/L	0.256	0	354	52300	0
	As-1	75	25.439	ug/L	0.215	0	8372	57171	0
	Se	82	82.462	ug/L	0.632	0	-15	18008	0
	Se	78	79.049	ug/L	0.417	0	8505	51299	0
	Mo	98	25.985	ug/L	0.051	0	422	198564	0
	Y	89		ug/L			251853	346416	0
	Kr	83		ug/L			219	279	7
>	In	115		ug/L			282218	399844	1
	Ag	107	27.486	ug/L	0.628	2	18	353894	1
	Cd	111	25.805	ug/L	0.693	2	115	84059	0
	Cd	114	25.917	ug/L	0.465	1	9	194310	0
	Sb	121	24.359	ug/L	0.380	1	17	254571	0
	Sb	123	24.408	ug/L	0.546	2	12	191787	0
	Ba	135	25.128	ug/L	0.566	2	17	63303	0
	Ba	137	24.918	ug/L	0.535	2	15	108725	0
>	Tb	159		ug/L			333317	427327	0
	Tl	205	27.407	ug/L	0.133	0	17	884865	0
	Pb	208	28.067	ug/L	0.372	1	230	1212652	1
	Bi	209		ug/L			298426	395196	0
	Th	232	25.435	ug/L	0.099	0	41	1381887	0
	U	238	25.020	ug/L	0.370	1	13	1488034	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 13:12:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			360921	356916	1
[	Be	9	58.135	ug/L	0.996	1	10	23949	1
	C	13		mg/L			5419	5779	1
	Cl	37		mg/L			1648942	2348446	0
[>	Sc	45		ug/L			214091	299364	1
	V	51	50.799	ug/L	0.716	1	1747	670486	0
	V-1	51	50.958	ug/L	0.608	1	2425	684767	0
	Cr	52	51.684	ug/L	0.743	1	5571	601673	0
	Cr	53	52.133	ug/L	0.404	0	846	72556	0
	Mn	55	52.000	ug/L	0.185	0	336	977123	1
[	Co	59	53.479	ug/L	0.512	0	27	776081	0
[>	Ge	72		ug/L			237468	329877	0
	Ni	60	54.139	ug/L	0.397	0	24	162939	1
	Ni	62	54.840	ug/L	0.680	1	36	24432	1
	Cu	63	54.941	ug/L	0.420	0	255	359430	1
	Cu	65	54.376	ug/L	0.784	1	79	165934	1
	Zn	66	53.452	ug/L	0.346	0	170	103265	0
	Zn	67	55.161	ug/L	1.472	2	82	17659	2
	Zn	68	52.737	ug/L	0.546	1	6471	79244	1
	As	75	50.772	ug/L	0.430	0	354	96067	0
	As-1	75	49.704	ug/L	0.440	0	8372	102442	0
	Se	82	50.412	ug/L	0.193	0	-15	11181	0
	Se	78	46.367	ug/L	0.356	0	8505	35468	0
[	Mo	98	51.970	ug/L	0.141	0	422	403064	1
	Y	89		ug/L			251853	345087	0
	Kr	83		ug/L			219	283	2
[>	In	115		ug/L			282218	402547	1
	Ag	107	52.206	ug/L	0.767	1	18	676783	1
	Cd	111	51.069	ug/L	0.694	1	115	167350	0
	Cd	114	50.786	ug/L	0.777	1	9	383361	1
	Sb	121	49.095	ug/L	1.054	2	17	516498	0
	Sb	123	48.739	ug/L	0.709	1	12	385583	0
	Ba	135	47.139	ug/L	0.338	0	17	119557	1
[	Ba	137	46.881	ug/L	0.684	1	15	205944	0
[>	Tb	159		ug/L			333317	420429	1
	Tl	205	51.455	ug/L	0.910	1	17	1634190	0
	Pb	208	52.454	ug/L	0.877	1	230	2229249	1
	Bi	209		ug/L			298426	382224	2
	Th	232	51.773	ug/L	1.753	3	41	2766657	2
[	U	238	51.388	ug/L	1.282	2	13	3006461	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 13:19:20
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			360921	326205	1
	Be	9	-0.009	ug/L	0.009	96	10	6	52
	C	13		mg/L			5419	6319	0
	Cl	37		mg/L			1648942	2372510	0
>	Sc	45		ug/L			214091	287226	0
	V	51	0.008	ug/L	0.007	88	1747	2444	3
	V-1	51	-0.072	ug/L	0.003	4	2425	2334	0
	Cr	52	0.002	ug/L	0.010	585	5571	7493	1
	Cr	53	-0.247	ug/L	0.015	6	846	811	2
	Mn	55	0.019	ug/L	0.002	12	336	793	4
	Co	59	0.002	ug/L	0.002	78	27	67	34
>	Ge	72		ug/L			237468	320563	0
	Ni	60	-0.001	ug/L	0.003	235	24	29	27
	Ni	62	0.255	ug/L	0.020	7	36	159	4
	Cu	63	0.011	ug/L	0.009	85	255	411	14
	Cu	65	0.000	ug/L	0.004	1109	79	107	10
	Zn	66	-0.024	ug/L	0.006	26	170	185	7
	Zn	67	-0.048	ug/L	0.025	52	82	95	7
	Zn	68	-0.739	ug/L	0.078	10	6471	7779	1
	As	75	0.016	ug/L	0.012	74	354	506	4
	As-1	75	-0.912	ug/L	0.075	8	8372	9682	0
	Se	82	0.119	ug/L	0.048	40	-15	4	210
	Se	78	-3.308	ug/L	0.281	8	8505	9841	0
	Mo	98	-0.061	ug/L	0.004	7	422	111	30
	Y	89		ug/L			251853	337643	0
	Kr	83		ug/L			219	270	2
>	In	115		ug/L			282218	396333	0
	Ag	107	0.009	ug/L	0.003	28	18	137	23
	Cd	111	0.023	ug/L	0.002	8	115	236	2
	Cd	114	0.001	ug/L	0.001	108	9	19	33
	Sb	121	0.044	ug/L	0.013	29	17	477	28
	Sb	123	0.039	ug/L	0.010	26	12	322	25
	Ba	135	0.001	ug/L	0.004	566	17	26	35
	Ba	137	0.003	ug/L	0.002	75	15	32	25
>	Tb	159		ug/L			333317	407644	0
	Tl	205	0.006	ug/L	0.002	29	17	218	26
	Pb	208	0.003	ug/L	0.002	61	230	425	20
	Bi	209		ug/L			298426	377323	0
	Th	232	0.039	ug/L	0.011	27	41	2087	26
	U	238	0.002	ug/L	0.001	42	13	150	37

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 13:28:44
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L				319170	1
[	Be	9		ug/L				6	54
	C	13		mg/L				6158	0
	Cl	37		mg/L				2384601	0
[>	Sc	45		ug/L				285977	1
	V	51		ug/L				2422	2
	V-1	51		ug/L				2317	2
	Cr	52		ug/L				7549	1
	Cr	53		ug/L				819	1
	Mn	55		ug/L				788	2
[	Co	59		ug/L				41	10
[>	Ge	72		ug/L				319833	0
	Ni	60		ug/L				22	5
	Ni	62		ug/L				158	7
	Cu	63		ug/L				366	3
	Cu	65		ug/L				85	26
	Zn	66		ug/L				202	11
	Zn	67		ug/L				98	7
	Zn	68		ug/L				7900	0
	As	75		ug/L				494	3
	As-1	75		ug/L				9698	0
	Se	82		ug/L				-2	410
	Se	78		ug/L				9884	0
[	Mo	98		ug/L				46	15
	Y	89		ug/L				337364	1
	Kr	83		ug/L				283	3
[>	In	115		ug/L				393202	1
	Ag	107		ug/L				77	10
	Cd	111		ug/L				252	6
	Cd	114		ug/L				12	30
	Sb	121		ug/L				122	22
	Sb	123		ug/L				102	18
	Ba	135		ug/L				10	60
[	Ba	137		ug/L				19	47
[>	Tb	159		ug/L				405846	0
	Tl	205		ug/L				51	15
	Pb	208		ug/L				262	0
	Bi	209		ug/L				377540	1
	Th	232		ug/L				569	5
[	U	238		ug/L				40	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 14:06:31
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			319170	320177	2
[	Be	9	50.096	ug/L	1.133	1	6	22201	0
	C	13		mg/L			6158	5485	0
	Cl	37		mg/L			2384601	2306020	0
[>	Sc	45		ug/L			285977	292769	0
[	V	51	51.104	ug/L	0.648	1	2422	659737	0
[	V-1	51	51.399	ug/L	0.490	0	2317	674521	0
[	Cr	52	51.465	ug/L	0.421	0	7549	586098	0
[	Cr	53	52.369	ug/L	0.490	0	819	70957	1
[	Mn	55	51.948	ug/L	0.606	1	788	954975	1
[	Co	59	53.463	ug/L	0.080	0	41	758807	0
[>	Ge	72		ug/L			319833	329032	1
[	Ni	60	53.907	ug/L	0.676	1	22	161804	1
[	Ni	62	53.854	ug/L	1.202	2	158	24041	1
[	Cu	63	54.221	ug/L	0.365	0	366	353817	0
[	Cu	65	54.683	ug/L	1.104	2	85	166417	1
[	Zn	66	53.322	ug/L	0.906	1	202	102714	1
[	Zn	67	54.022	ug/L	0.058	0	98	17242	1
[	Zn	68	52.593	ug/L	0.177	0	7900	78008	1
[	As	75	50.498	ug/L	0.457	0	494	95321	0
[	As-1	75	50.579	ug/L	0.380	0	9698	102149	0
[	Se	82	48.653	ug/L	0.869	1	-2	10779	0
[	Se	78	48.702	ug/L	0.747	1	9884	34946	0
[	Mo	98	51.727	ug/L	0.544	1	46	399588	0
	Y	89		ug/L			337364	339604	1
	Kr	83		ug/L			283	301	2
[>	In	115		ug/L			393202	397272	0
[	Ag	107	52.293	ug/L	0.590	1	77	669175	1
[	Cd	111	50.932	ug/L	0.208	0	252	164830	0
[	Cd	114	50.705	ug/L	0.342	0	12	377769	0
[	Sb	121	49.095	ug/L	0.542	1	122	509950	1
[	Sb	123	48.391	ug/L	0.075	0	102	377966	0
[	Ba	135	47.232	ug/L	0.309	0	10	118217	0
[	Ba	137	46.604	ug/L	0.208	0	19	202081	1
[>	Tb	159		ug/L			405846	411366	0
[	Tl	205	50.707	ug/L	0.174	0	51	1575962	0
[	Pb	208	51.325	ug/L	0.338	0	262	2134481	0
[	Bi	209		ug/L			377540	369228	0
[	Th	232	50.163	ug/L	0.186	0	569	2624033	0
[	U	238	50.660	ug/L	0.167	0	40	2900436	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 14:13:10
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			319170	320153	2
[	Be	9	-0.001	ug/L	0.000	32	6	6	0
	C	13		mg/L			6158	6017	2
	Cl	37		mg/L			2384601	2378169	0
[>	Sc	45		ug/L			285977	288530	0
	V	51	-0.010	ug/L	0.003	33	2422	2319	1
	V-1	51	0.008	ug/L	0.003	37	2317	2441	2
	Cr	52	-0.017	ug/L	0.011	64	7549	7431	0
	Cr	53	0.039	ug/L	0.009	22	819	878	1
	Mn	55	-0.008	ug/L	0.002	27	788	645	6
[	Co	59	0.001	ug/L	0.001	80	41	62	26
[>	Ge	72		ug/L			319833	323829	0
	Ni	60	0.002	ug/L	0.002	103	22	27	18
	Ni	62	-0.134	ug/L	0.036	27	158	102	15
	Cu	63	-0.016	ug/L	0.001	3	366	267	1
	Cu	65	0.003	ug/L	0.003	87	85	95	7
	Zn	66	0.004	ug/L	0.011	282	202	212	9
	Zn	67	0.020	ug/L	0.013	62	98	106	4
	Zn	68	0.155	ug/L	0.034	21	7900	8202	0
	As	75	0.006	ug/L	0.010	166	494	511	4
	As-1	75	0.029	ug/L	0.044	148	9698	9872	0
	Se	82	0.006	ug/L	0.044	784	-2	-1	620
	Se	78	0.085	ug/L	0.150	177	9884	10050	0
[	Mo	98	0.010	ug/L	0.006	58	46	123	36
	Y	89		ug/L			337364	336869	0
	Kr	83		ug/L			283	286	1
[>	In	115		ug/L			393202	393973	0
	Ag	107	0.007	ug/L	0.003	40	77	167	21
	Cd	111	-0.003	ug/L	0.003	74	252	241	3
	Cd	114	0.001	ug/L	0.001	42	12	23	19
	Sb	121	0.032	ug/L	0.008	26	122	454	19
	Sb	123	0.026	ug/L	0.010	40	102	300	26
	Ba	135	0.006	ug/L	0.001	24	10	25	14
[	Ba	137	0.004	ug/L	0.001	30	19	36	13
[>	Tb	159		ug/L			405846	405668	0
	Tl	205	0.006	ug/L	0.002	29	51	227	22
	Pb	208	0.004	ug/L	0.002	39	262	430	15
	Bi	209		ug/L			377540	370329	0
	Th	232	0.033	ug/L	0.010	29	569	2269	21
[	U	238	0.003	ug/L	0.001	47	40	185	36

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 N REN
Sample Dil Factor: 2 Del
Comments:
Sample Date/Time: Tuesday, January 22, 2013 14:18:58
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			319170	401849	5
[	Be	9	0.028	ug/L	0.014	50	6	21	26
	C	13		mg/L			6158	9636	3
	Cl	37		mg/L			2384601	4327337	1
[>	Sc	45		ug/L			285977	348790	3
	V	51	4.848	ug/L	0.031	0	2422	77231	3
	V-1	51	5.410	ug/L	0.027	0	2317	87127	3
	Cr	52	2.048	ug/L	0.018	0	7549	36631	3
	Cr	53	3.950	ug/L	0.103	2	819	7304	5
	Mn	55	302.166	ug/L	4.817	1	788	6612408	3
[	Co	59	0.388	ug/L	0.009	2	41	6608	4
[>	Ge	72		ug/L			319833	313798	3
	Ni	60	1.483	ug/L	0.033	2	22	4269	5
	Ni	62	1.900	ug/L	0.198	10	158	960	12
	Cu	63	2.834	ug/L	0.059	2	366	17986	4
	Cu	65	1.053	ug/L	0.012	1	85	3137	3
	Zn	66	2.160	ug/L	0.023	1	202	4159	3
	Zn	67	3.384	ug/L	0.074	2	98	1120	3
	Zn	68	3.170	ug/L	0.230	7	7900	11762	0
	As	75	2.427	ug/L	0.011	0	494	4832	3
	As-1	75	1.972	ug/L	0.205	10	9698	12934	0
	Se	82	1.711	ug/L	0.183	10	-2	359	14
	Se	78	0.137	ug/L	0.609	444	9884	9758	0
[	Mo	98	0.388	ug/L	0.009	2	46	2902	5
	Y	89		ug/L			337364	359991	4
	Kr	83		ug/L			283	303	4
[>	In	115		ug/L			393202	363312	3
	Ag	107	0.013	ug/L	0.002	18	77	224	9
	Cd	111	-0.208	ug/L	0.051	24	252	-377	37
	Cd	114	0.027	ug/L	0.002	6	12	191	3
	Sb	121	0.140	ug/L	0.009	6	122	1442	6
	Sb	123	0.125	ug/L	0.001	0	102	989	3
	Ba	135	26.866	ug/L	0.319	1	10	61492	3
[	Ba	137	26.831	ug/L	0.289	1	19	106396	3
[>	Tb	159		ug/L			405846	407203	5
	Tl	205	0.002	ug/L	0.001	42	51	122	22
	Pb	208	0.309	ug/L	0.005	1	262	12982	4
	Bi	209		ug/L			377540	336759	4
	Th	232	0.128	ug/L	0.015	11	569	7170	6
[	U	238	0.100	ug/L	0.001	1	40	5689	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 O REN
Sample Dil Factor: 2 Del
Comments:
Sample Date/Time: Tuesday, January 22, 2013 14:25:15
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			319170	446482	1
L	Be	9	0.009	ug/L	0.007	84	6	13	27
	C	13		mg/L			6158	8752	1
	Cl	37		mg/L			2384601	4990016	1
⌈>	Sc	45		ug/L			285977	337187	2
|	V	51	1.524	ug/L	0.041	2	2422	25436	3
|	V-1	51	2.397	ug/L	0.077	3	2317	38825	3
|	Cr	52	0.672	ug/L	0.028	4	7549	17597	0
|	Cr	53	3.441	ug/L	0.146	4	819	6270	2
|	Mn	55	57.539	ug/L	1.501	2	788	1217986	2
L	Co	59	0.995	ug/L	0.037	3	41	16302	2
⌈>	Ge	72		ug/L			319833	304463	1
|	Ni	60	3.967	ug/L	0.125	3	22	11037	3
|	Ni	62	6.474	ug/L	0.487	7	158	2809	8
|	Cu	63	4.959	ug/L	0.154	3	366	30261	3
|	Cu	65	2.223	ug/L	0.069	3	85	6339	3
|	Zn	66	4.038	ug/L	0.058	1	202	7376	1
|	Zn	67	4.678	ug/L	0.165	3	98	1467	4
|	Zn	68	4.043	ug/L	0.083	2	7900	12490	0
|	As	75	18.041	ug/L	0.374	2	494	31816	2
|	As-1	75	17.937	ug/L	0.366	2	9698	39478	1
|	Se	82	1.679	ug/L	0.134	7	-2	341	9
|	Se	78	-0.320	ug/L	0.254	79	9884	9257	0
L	Mo	98	10.944	ug/L	0.204	1	46	78272	2
	Y	89		ug/L			337364	363299	1
	Kr	83		ug/L			283	297	6
⌈>	In	115		ug/L			393202	367428	2
|	Ag	107	0.015	ug/L	0.002	10	77	247	9
|	Cd	111	0.615	ug/L	0.059	9	252	2070	6
|	Cd	114	0.921	ug/L	0.003	0	12	6355	2
|	Sb	121	1.453	ug/L	0.006	0	122	14072	2
|	Sb	123	1.428	ug/L	0.006	0	102	10410	1
|	Ba	135	27.939	ug/L	0.289	1	10	64685	2
L	Ba	137	27.885	ug/L	0.454	1	19	111838	2
⌈>	Tb	159		ug/L			405846	418645	0
|	Tl	205	0.007	ug/L	0.000	1	51	269	1
|	Pb	208	0.286	ug/L	0.007	2	262	12363	2
|	Bi	209		ug/L			377540	333105	1
|	Th	232	0.053	ug/L	0.003	6	569	3399	5
L	U	238	0.626	ug/L	0.016	2	40	36503	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 P REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, January 22, 2013 14:31:32
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			319170	385447	2
[	Be	9	0.005	ug/L	0.005	84	6	10	18
	C	13		mg/L			6158	6182	1
	Cl	37		mg/L			2384601	2423116	0
[>	Sc	45		ug/L			285977	306858	1
	V	51	0.289	ug/L	0.019	6	2422	6494	3
	V-1	51	0.348	ug/L	0.011	3	2317	7258	1
	Cr	52	0.130	ug/L	0.019	14	7549	9635	1
	Cr	53	0.323	ug/L	0.005	1	819	1333	2
	Mn	55	348.267	ug/L	6.675	1	788	6704128	0
[	Co	59	0.164	ug/L	0.004	2	41	2490	2
[>	Ge	72		ug/L			319833	331672	1
	Ni	60	0.527	ug/L	0.007	1	22	1616	2
	Ni	62	0.535	ug/L	0.102	19	158	403	11
	Cu	63	0.301	ug/L	0.009	2	366	2358	3
	Cu	65	0.269	ug/L	0.009	3	85	912	1
	Zn	66	24.051	ug/L	0.098	0	202	46819	0
	Zn	67	21.843	ug/L	0.747	3	98	7089	4
	Zn	68	23.324	ug/L	0.311	1	7900	39429	0
	As	75	172.364	ug/L	1.365	0	494	326738	0
	As-1	75	177.274	ug/L	1.466	0	9698	335708	0
	Se	82	0.064	ug/L	0.073	113	-2	11	143
	Se	78	-1.133	ug/L	0.275	24	9884	9668	0
[	Mo	98	0.248	ug/L	0.003	1	46	1977	0
	Y	89		ug/L			337364	347336	0
	Kr	83		ug/L			283	276	2
[>	In	115		ug/L			393202	400365	0
	Ag	107	0.000	ug/L	0.001	309	77	82	13
	Cd	111	0.023	ug/L	0.007	31	252	333	7
	Cd	114	0.012	ug/L	0.002	17	12	105	15
	Sb	121	0.020	ug/L	0.001	4	122	337	2
	Sb	123	0.014	ug/L	0.002	11	102	210	6
	Ba	135	9.262	ug/L	0.100	1	10	23370	0
[	Ba	137	9.109	ug/L	0.085	0	19	39819	0
[>	Tb	159		ug/L			405846	420949	0
	Tl	205	0.000	ug/L	0.000	39	51	61	5
	Pb	208	0.118	ug/L	0.002	2	262	5273	2
	Bi	209		ug/L			377540	381076	1
	Th	232	0.003	ug/L	0.000	6	569	732	1
[	U	238	0.095	ug/L	0.002	2	40	5610	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 Q REN
Sample Dil Factor: 2 Del
Comments:
Sample Date/Time: Tuesday, January 22, 2013 14:37:48
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			319170	458629	4
[	Be	9	0.105	ug/L	0.031	30	6	65	27
	C	13		mg/L			6158	10474	1
	Cl	37		mg/L			2384601	3451003	0
[>	Sc	45		ug/L			285977	455310	3
|	V	51	23.965	ug/L	0.220	0	2422	483308	4
|	V-1	51	24.137	ug/L	0.180	0	2317	494674	3
|	Cr	52	14.027	ug/L	0.176	1	7549	257254	4
|	Cr	53	15.078	ug/L	0.044	0	819	32704	3
|	Mn	55	191.640	ug/L	2.071	1	788	5476839	4
[	Co	59	1.307	ug/L	0.013	0	41	28918	4
[>	Ge	72		ug/L			319833	336817	3
|	Ni	60	6.585	ug/L	0.056	0	22	20251	2
|	Ni	62	9.958	ug/L	0.076	0	158	4686	2
|	Cu	63	10.257	ug/L	0.024	0	366	68833	3
|	Cu	65	7.981	ug/L	0.069	0	85	24937	2
|	Zn	66	9.699	ug/L	0.123	1	202	19302	3
|	Zn	67	13.013	ug/L	0.344	2	98	4328	2
|	Zn	68	9.722	ug/L	0.317	3	7900	21534	1
|	As	75	2.825	ug/L	0.023	0	494	5949	3
|	As-1	75	1.828	ug/L	0.179	9	9698	13615	1
|	Se	82	2.216	ug/L	0.117	5	-2	500	8
|	Se	78	-1.416	ug/L	0.537	37	9884	9665	0
[	Mo	98	0.406	ug/L	0.019	4	46	3256	3
	Y	89		ug/L			337364	477644	2
	Kr	83		ug/L			283	298	1
[>	In	115		ug/L			393202	405088	3
|	Ag	107	0.024	ug/L	0.001	5	77	392	7
|	Cd	111	-0.263	ug/L	0.047	17	252	-604	22
|	Cd	114	0.050	ug/L	0.004	7	12	393	8
|	Sb	121	0.189	ug/L	0.005	2	122	2130	3
|	Sb	123	0.184	ug/L	0.008	4	102	1567	5
|	Ba	135	24.748	ug/L	0.524	2	10	63165	4
[	Ba	137	24.493	ug/L	0.432	1	19	108269	2
[>	Tb	159		ug/L			405846	447493	3
|	Tl	205	0.007	ug/L	0.000	6	51	307	7
|	Pb	208	1.181	ug/L	0.009	0	262	53678	3
|	Bi	209		ug/L			377540	371993	3
|	Th	232	0.785	ug/L	0.002	0	569	45275	3
[	U	238	0.566	ug/L	0.009	1	40	35258	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 R REN
Sample Dil Factor: 2 DDL
Comments:
Sample Date/Time: Tuesday, January 22, 2013 14:44:05
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			319170	543196	4
[	Be	9	-0.002	ug/L	0.003	179	6	10	18
	C	13		mg/L			6158	7786	0
	Cl	37		mg/L			2384601	12845740	1
[>	Sc	45		ug/L			285977	393623	2
	V	51	0.508	ug/L	0.043	8	2422	12113	6
	V-1	51	4.406	ug/L	0.077	1	2317	80679	4
	Cr	52	0.415	ug/L	0.010	2	7549	16664	2
	Cr	53	12.595	ug/L	0.257	2	819	23810	4
	Mn	55	193.236	ug/L	1.800	0	788	4773988	3
[	Co	59	4.158	ug/L	0.012	0	41	79405	3
[>	Ge	72		ug/L			319833	315649	1
	Ni	60	12.272	ug/L	0.262	2	22	35362	3
	Ni	62	18.406	ug/L	0.409	2	158	7988	3
	Cu	63	8.787	ug/L	0.179	2	366	55322	3
	Cu	65	2.828	ug/L	0.097	3	85	8338	4
	Zn	66	17.758	ug/L	0.208	1	202	32955	2
	Zn	67	19.162	ug/L	0.024	0	98	5930	1
	Zn	68	18.321	ug/L	0.125	0	7900	31151	1
	As	75	11.197	ug/L	0.253	2	494	20660	3
	As-1	75	8.951	ug/L	0.151	1	9698	25222	1
	Se	82	5.404	ug/L	0.294	5	-2	1146	6
	Se	78	-2.630	ug/L	0.271	10	9884	8470	0
[	Mo	98	0.818	ug/L	0.034	4	46	6111	5
	Y	89		ug/L			337364	399613	3
	Kr	83		ug/L			283	399	3
[>	In	115		ug/L			393202	388543	2
	Ag	107	0.013	ug/L	0.001	11	77	233	9
	Cd	111	-0.562	ug/L	0.089	15	252	-1529	21
	Cd	114	0.513	ug/L	0.007	1	12	3749	1
	Sb	121	0.949	ug/L	0.006	0	122	9764	3
	Sb	123	0.928	ug/L	0.015	1	102	7190	3
	Ba	135	114.516	ug/L	1.871	1	10	280394	4
[	Ba	137	113.865	ug/L	1.903	1	19	482963	4
[>	Tb	159		ug/L			405846	453951	2
	Tl	205	0.006	ug/L	0.000	7	51	270	3
	Pb	208	0.063	ug/L	0.001	2	262	3180	3
	Bi	209		ug/L			377540	331165	0
	Th	232	0.010	ug/L	0.001	6	569	1185	0
[	U	238	0.037	ug/L	0.000	0	40	2376	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 S REN
Sample Dil Factor: 2 Dil
Comments:
Sample Date/Time: Tuesday, January 22, 2013 14:50:22
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			319170	474456	1
⌊	Be	9	0.054	ug/L	0.017	31	6	39	22
	C	13		mg/L			6158	9188	0
	Cl	37		mg/L			2384601	2636864	0
⌈>	Sc	45		ug/L			285977	436402	3
|	V	51	8.673	ug/L	0.216	2	2422	169889	1
|	V-1	51	8.838	ug/L	0.208	2	2317	175739	2
|	Cr	52	4.768	ug/L	0.137	2	7549	91348	2
|	Cr	53	5.483	ug/L	0.181	3	819	12193	4
|	Mn	55	137.829	ug/L	2.921	2	788	3773239	2
⌊	Co	59	0.835	ug/L	0.018	2	41	17729	3
⌈>	Ge	72		ug/L			319833	352974	2
|	Ni	60	4.227	ug/L	0.011	0	22	13635	1
|	Ni	62	7.483	ug/L	0.080	1	158	3734	2
|	Cu	63	4.511	ug/L	0.035	0	366	31953	2
|	Cu	65	3.788	ug/L	0.063	1	85	12455	2
|	Zn	66	6.782	ug/L	0.109	1	202	14215	3
|	Zn	67	7.971	ug/L	0.106	1	98	2822	3
|	Zn	68	6.221	ug/L	0.113	1	7900	17584	1
|	As	75	8.407	ug/L	0.060	0	494	17481	2
|	As-1	75	7.703	ug/L	0.060	0	9698	25761	1
|	Se	82	0.749	ug/L	0.019	2	-2	175	4
|	Se	78	-2.740	ug/L	0.345	12	9884	9410	0
⌊	Mo	98	0.511	ug/L	0.009	1	46	4285	3
	Y	89		ug/L			337364	433336	2
	Kr	83		ug/L			283	282	0
⌈>	In	115		ug/L			393202	435637	1
|	Ag	107	0.010	ug/L	0.000	1	77	222	3
|	Cd	111	1.704	ug/L	0.062	3	252	6319	5
|	Cd	114	1.735	ug/L	0.029	1	12	14194	3
|	Sb	121	0.221	ug/L	0.006	2	122	2646	3
|	Sb	123	0.216	ug/L	0.006	2	102	1961	4
|	Ba	135	16.813	ug/L	0.039	0	10	46152	1
⌊	Ba	137	16.566	ug/L	0.298	1	19	78786	2
⌈>	Tb	159		ug/L			405846	478158	2
|	Tl	205	0.005	ug/L	0.000	4	51	242	4
|	Pb	208	0.855	ug/L	0.006	0	262	41641	2
|	Bi	209		ug/L			377540	406886	1
|	Th	232	0.274	ug/L	0.001	0	569	17338	2
⌊	U	238	0.194	ug/L	0.002	1	40	12931	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 T REN
Sample Dil Factor: 2 Dil
Comments:
Sample Date/Time: Tuesday, January 22, 2013 14:56:41
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			319170	480467	9
Be	9	0.006	ug/L	0.003	47	6	13	14
C	13		mg/L			6158	7742	2
Cl	37		mg/L			2384601	11602197	5
Sc	45		ug/L			285977	357044	9
V	51	0.608	ug/L	0.126	20	2422	12439	7
V-1	51	4.032	ug/L	0.157	3	2317	67347	12
Cr	52	0.441	ug/L	0.093	21	7549	15393	1
Cr	53	11.145	ug/L	0.773	6	819	19298	15
Mn	55	197.014	ug/L	3.172	1	788	4410018	7
Co	59	4.101	ug/L	0.068	1	41	70961	7
Ge	72		ug/L			319833	302341	4
Ni	60	11.077	ug/L	0.390	3	22	30604	8
Ni	62	17.938	ug/L	0.876	4	158	7470	9
Cu	63	8.257	ug/L	0.301	3	366	49865	8
Cu	65	2.633	ug/L	0.051	1	85	7445	6
Zn	66	17.413	ug/L	0.036	0	202	30956	4
Zn	67	18.865	ug/L	0.138	0	98	5592	4
Zn	68	18.180	ug/L	0.560	3	7900	29643	2
As	75	10.887	ug/L	0.194	1	494	19262	6
As-1	75	9.120	ug/L	0.272	2	9698	24425	2
Se	82	4.814	ug/L	0.374	7	-2	980	12
Se	78	-1.595	ug/L	1.218	76	9884	8579	1
Mo	98	0.764	ug/L	0.027	3	46	5470	8
Y	89		ug/L			337364	367622	6
Kr	83		ug/L			283	373	7
In	115		ug/L			393202	365643	6
Ag	107	0.011	ug/L	0.001	13	77	195	5
Cd	111	-0.337	ug/L	0.137	40	252	-784	58
Cd	114	0.325	ug/L	0.011	3	12	2235	5
Sb	121	0.929	ug/L	0.027	2	122	8977	3
Sb	123	0.927	ug/L	0.008	0	102	6755	5
Ba	135	110.770	ug/L	0.606	0	10	255133	6
Ba	137	109.115	ug/L	0.613	0	19	435372	6
Tb	159		ug/L			405846	422402	7
Tl	205	0.006	ug/L	0.000	3	51	230	8
Pb	208	0.044	ug/L	0.001	1	262	2138	5
Bi	209		ug/L			377540	318730	5
Th	232	0.006	ug/L	0.001	16	569	933	8
U	238	0.035	ug/L	0.001	2	40	2118	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 V REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 22, 2013 15:03:00
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			319170	518939	4
⌊	Be	9	0.009	ug/L	0.002	20	6	16	7
	C	13		mg/L			6158	9706	0
	Cl	37		mg/L			2384601	4619901	1
⌈>	Sc	45		ug/L			285977	451841	4
|	V	51	3.699	ug/L	0.065	1	2422	77242	3
|	V-1	51	4.561	ug/L	0.042	0	2317	95704	3
|	Cr	52	1.750	ug/L	0.038	2	7549	42276	3
|	Cr	53	4.542	ug/L	0.036	0	819	10681	4
|	Mn	55	59.109	ug/L	0.526	0	788	1676510	3
⌊	Co	59	0.336	ug/L	0.005	1	41	7424	5
⌈>	Ge	72		ug/L			319833	349971	1
|	Ni	60	0.605	ug/L	0.034	5	22	1956	7
|	Ni	62	6.059	ug/L	0.188	3	158	3032	4
|	Cu	63	2.944	ug/L	0.018	0	366	20816	2
|	Cu	65	0.965	ug/L	0.005	0	85	3216	2
|	Zn	66	1.649	ug/L	0.022	1	202	3593	2
|	Zn	67	3.352	ug/L	0.017	0	98	1239	1
|	Zn	68	1.851	ug/L	0.109	5	7900	11260	2
|	As	75	5.767	ug/L	0.089	1	494	12060	3
|	As-1	75	4.422	ug/L	0.064	1	9698	19182	1
|	Se	82	2.188	ug/L	0.127	5	-2	513	7
|	Se	78	-3.132	ug/L	0.415	13	9884	9117	0
⌊	Mo	98	0.948	ug/L	0.008	0	46	7838	2
	Y	89		ug/L			337364	414121	3
	Kr	83		ug/L			283	283	1
⌈>	In	115		ug/L			393202	435204	2
|	Ag	107	0.003	ug/L	0.001	54	77	120	16
|	Cd	111	-0.283	ug/L	0.058	20	252	-724	30
|	Cd	114	0.011	ug/L	0.001	12	12	102	8
|	Sb	121	0.054	ug/L	0.003	5	122	746	6
|	Sb	123	0.052	ug/L	0.002	3	102	555	2
|	Ba	135	38.062	ug/L	0.490	1	10	104354	2
⌊	Ba	137	37.529	ug/L	0.271	0	19	178255	2
⌈>	Tb	159		ug/L			405846	488736	2
|	Tl	205	-0.000	ug/L	0.000	77	51	48	24
|	Pb	208	0.130	ug/L	0.002	1	262	6722	3
|	Bi	209		ug/L			377540	405107	1
|	Th	232	0.068	ug/L	0.000	0	569	4910	2
⌊	U	238	0.092	ug/L	0.002	1	40	6331	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 W REN
Sample Dil Factor: 2 Dil
Comments:
Sample Date/Time: Tuesday, January 22, 2013 15:09:19
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			319170	598349	9
[	Be	9	0.014	ug/L	0.002	15	6	22	11
	C	13		mg/L			6158	8572	0
	Cl	37		mg/L			2384601	2262237	0
[>	Sc	45		ug/L			285977	488144	6
	V	51	0.179	ug/L	0.021	11	2422	7944	1
	V-1	51	0.282	ug/L	0.036	12	2317	10069	1
	Cr	52	0.032	ug/L	0.028	86	7549	13466	2
	Cr	53	0.363	ug/L	0.075	20	819	2201	1
	Mn	55	544.295	ug/L	10.482	1	788	16656380	4
[	Co	59	2.539	ug/L	0.056	2	41	60093	4
[>	Ge	72		ug/L			319833	376619	3
	Ni	60	13.581	ug/L	0.422	3	22	46701	5
	Ni	62	15.775	ug/L	0.316	2	158	8189	1
	Cu	63	1.764	ug/L	0.031	1	366	13591	3
	Cu	65	2.168	ug/L	0.038	1	85	7648	3
	Zn	66	5.811	ug/L	0.089	1	202	13028	4
	Zn	67	6.847	ug/L	0.082	1	98	2603	4
	Zn	68	5.337	ug/L	0.247	4	7900	17411	1
	As	75	1.057	ug/L	0.029	2	494	2852	3
	As-1	75	-0.148	ug/L	0.206	138	9698	11100	0
	Se	82	0.402	ug/L	0.063	15	-2	98	14
	Se	78	-4.271	ug/L	0.737	17	9884	9141	1
[	Mo	98	0.150	ug/L	0.002	1	46	1384	4
	Y	89		ug/L			337364	442867	6
	Kr	83		ug/L			283	265	3
[>	In	115		ug/L			393202	495926	4
	Ag	107	-0.001	ug/L	0.000	35	77	82	8
	Cd	111	0.093	ug/L	0.003	3	252	694	5
	Cd	114	0.085	ug/L	0.005	6	12	810	10
	Sb	121	0.208	ug/L	0.006	2	122	2844	1
	Sb	123	0.205	ug/L	0.006	3	102	2122	2
	Ba	135	55.345	ug/L	0.565	1	10	172977	5
[	Ba	137	54.699	ug/L	0.747	1	19	296135	5
[>	Tb	159		ug/L			405846	546566	5
	Tl	205	0.016	ug/L	0.001	5	51	748	1
	Pb	208	0.031	ug/L	0.002	6	262	2068	10
	Bi	209		ug/L			377540	471218	6
	Th	232	0.003	ug/L	0.001	23	569	940	4
[	U	238	0.046	ug/L	0.001	2	40	3579	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 X REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 22, 2013 15:15:03
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			319170	594116	3
⌊	Be	9	0.003	ug/L	0.003	125	6	14	13
	C	13		mg/L			6158	9152	1
	Cl	37		mg/L			2384601	2721973	0
⌈>	Sc	45		ug/L			285977	460986	1
|	V	51	0.794	ug/L	0.012	1	2422	19980	0
|	V-1	51	1.024	ug/L	0.029	2	2317	24819	1
|	Cr	52	0.252	ug/L	0.010	4	7549	16624	0
|	Cr	53	0.999	ug/L	0.064	6	819	3425	2
|	Mn	55	815.183	ug/L	10.364	1	788	23574931	0
⌊	Co	59	1.308	ug/L	0.026	2	41	29301	1
⌈>	Ge	72		ug/L			319833	371979	0
|	Ni	60	3.139	ug/L	0.061	1	22	10677	2
|	Ni	62	4.755	ug/L	0.194	4	158	2568	3
|	Cu	63	1.203	ug/L	0.019	1	366	9291	1
|	Cu	65	0.847	ug/L	0.030	3	85	3013	3
|	Zn	66	4.069	ug/L	0.028	0	202	9079	0
|	Zn	67	4.508	ug/L	0.095	2	98	1732	2
|	Zn	68	3.150	ug/L	0.047	1	7900	13920	0
|	As	75	1.576	ug/L	0.018	1	494	3920	1
|	As-1	75	0.244	ug/L	0.031	12	9698	11782	0
|	Se	82	0.683	ug/L	0.040	5	-2	168	6
|	Se	78	-4.470	ug/L	0.156	3	9884	8924	0
⌊	Mo	98	0.451	ug/L	0.002	0	46	3993	0
	Y	89		ug/L			337364	432977	0
	Kr	83		ug/L			283	261	2
⌈>	In	115		ug/L			393202	483469	0
|	Ag	107	-0.001	ug/L	0.000	2	77	80	0
|	Cd	111	-0.029	ug/L	0.012	40	252	196	23
|	Cd	114	0.014	ug/L	0.002	14	12	140	13
|	Sb	121	0.161	ug/L	0.001	0	122	2188	0
|	Sb	123	0.159	ug/L	0.001	0	102	1632	0
|	Ba	135	26.538	ug/L	0.341	1	10	80838	1
⌊	Ba	137	26.101	ug/L	0.238	0	19	137739	0
⌈>	Tb	159		ug/L			405846	544944	2
|	Tl	205	0.000	ug/L	0.000	85	51	81	14
|	Pb	208	0.059	ug/L	0.001	2	262	3588	2
|	Bi	209		ug/L			377540	455607	1
|	Th	232	0.006	ug/L	0.002	25	569	1181	10
⌊	U	238	0.077	ug/L	0.003	3	40	5865	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 15:21:22
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			319170	624784	5
	Be	9	52.020	ug/L	0.994	1	6	37494	4
	C	13		mg/L			6158	6085	0
	Cl	37		mg/L			2384601	2391965	0
>	Sc	45		ug/L			285977	415175	4
	V	51	49.954	ug/L	0.351	0	2422	914487	4
	V-1	51	50.176	ug/L	0.395	0	2317	933678	4
	Cr	52	50.219	ug/L	0.721	1	7549	811129	4
	Cr	53	50.898	ug/L	0.717	1	819	97795	3
	Mn	55	51.062	ug/L	0.468	0	788	1330825	3
	Co	59	51.392	ug/L	0.634	1	41	1033999	3
>	Ge	72		ug/L			319833	422849	3
	Ni	60	56.205	ug/L	0.310	0	22	216795	3
	Ni	62	57.093	ug/L	1.167	2	158	32737	3
	Cu	63	55.103	ug/L	0.372	0	366	462040	3
	Cu	65	54.346	ug/L	0.038	0	85	212570	4
	Zn	66	53.491	ug/L	0.600	1	202	132418	3
	Zn	67	55.803	ug/L	0.238	0	98	22884	3
	Zn	68	51.592	ug/L	1.244	2	7900	98498	2
	As	75	50.922	ug/L	0.453	0	494	123504	3
	As-1	75	49.463	ug/L	0.591	1	9698	128633	2
	Se	82	53.357	ug/L	0.677	1	-2	15191	3
	Se	78	47.982	ug/L	1.285	2	9884	44422	2
	Mo	98	53.474	ug/L	0.324	0	46	530894	4
	Y	89		ug/L			337364	467073	3
	Kr	83		ug/L			283	287	6
>	In	115		ug/L			393202	547482	4
	Ag	107	50.865	ug/L	1.030	2	77	896680	3
	Cd	111	50.555	ug/L	1.015	2	252	225414	3
	Cd	114	50.881	ug/L	0.976	1	12	522164	2
	Sb	121	47.239	ug/L	0.374	0	122	676070	3
	Sb	123	46.957	ug/L	0.488	1	102	505326	3
	Ba	135	47.204	ug/L	0.618	1	10	162776	3
	Ba	137	46.599	ug/L	0.912	1	19	278402	3
>	Tb	159		ug/L			405846	591966	3
	Tl	205	53.877	ug/L	1.598	2	51	2410291	5
	Pb	208	52.164	ug/L	0.609	1	262	3122390	4
	Bi	209		ug/L			377540	531882	4
	Th	232	50.366	ug/L	0.880	1	569	3791024	3
	U	238	51.092	ug/L	0.400	0	40	4209757	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 15:28:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			319170	570496	0
[	Be	9	-0.005	ug/L	0.007	142	6	8	51
	C	13		mg/L			6158	6359	1
	Cl	37		mg/L			2384601	2420448	0
[>	Sc	45		ug/L			285977	393269	0
|	V	51	-0.033	ug/L	0.009	25	2422	2763	5
|	V-1	51	0.016	ug/L	0.005	32	2317	3469	2
|	Cr	52	-0.112	ug/L	0.008	7	7549	8696	1
|	Cr	53	0.045	ug/L	0.022	47	819	1208	2
|	Mn	55	-0.021	ug/L	0.002	10	788	555	9
[	Co	59	0.001	ug/L	0.001	166	41	66	24
[>	Ge	72		ug/L			319833	402682	0
|	Ni	60	0.003	ug/L	0.004	156	22	37	39
|	Ni	62	0.986	ug/L	0.028	2	158	734	2
|	Cu	63	0.027	ug/L	0.002	8	366	680	3
|	Cu	65	0.018	ug/L	0.004	20	85	174	7
|	Zn	66	0.038	ug/L	0.017	44	202	345	11
|	Zn	67	0.071	ug/L	0.062	87	98	152	16
|	Zn	68	-1.560	ug/L	0.132	8	7900	7408	2
|	As	75	-0.065	ug/L	0.007	11	494	473	3
|	As-1	75	-1.244	ug/L	0.026	2	9698	9437	1
|	Se	82	0.004	ug/L	0.021	515	-2	-2	231
|	Se	78	-4.464	ug/L	0.072	1	9884	9664	0
[	Mo	98	0.008	ug/L	0.005	60	46	137	35
	Y	89		ug/L			337364	443882	0
	Kr	83		ug/L			283	291	2
[>	In	115		ug/L			393202	516413	0
|	Ag	107	0.008	ug/L	0.003	39	77	229	22
|	Cd	111	0.013	ug/L	0.001	4	252	387	0
|	Cd	114	0.001	ug/L	0.001	74	12	26	29
|	Sb	121	0.024	ug/L	0.011	46	122	480	31
|	Sb	123	0.021	ug/L	0.007	30	102	350	19
|	Ba	135	0.006	ug/L	0.002	39	10	34	23
[	Ba	137	0.005	ug/L	0.000	8	19	54	4
[>	Tb	159		ug/L			405846	555367	0
|	Tl	205	0.006	ug/L	0.003	40	51	337	31
|	Pb	208	0.006	ug/L	0.003	45	262	680	21
|	Bi	209		ug/L			377540	512381	1
|	Th	232	0.035	ug/L	0.009	26	569	3218	19
[	U	238	0.002	ug/L	0.001	53	40	239	40

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 15:34:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L				571131	1
Be	9		ug/L				6	87
C	13		mg/L				6961	1
Cl	37		mg/L				2433757	0
Sc	45		ug/L				388637	0
V	51		ug/L				2773	5
V-1	51		ug/L				3305	3
Cr	52		ug/L				8883	1
Cr	53		ug/L				1173	0
Mn	55		ug/L				427	2
Co	59		ug/L				37	12
Ge	72		ug/L				403900	1
Ni	60		ug/L				20	17
Ni	62		ug/L				598	8
Cu	63		ug/L				552	7
Cu	65		ug/L				136	9
Zn	66		ug/L				259	8
Zn	67		ug/L				149	6
Zn	68		ug/L				7344	1
As	75		ug/L				454	5
As-1	75		ug/L				9426	0
Se	82		ug/L				-2	984
Se	78		ug/L				9670	0
Mo	98		ug/L				51	20
Y	89		ug/L				448536	0
Kr	83		ug/L				290	4
In	115		ug/L				512848	0
Ag	107		ug/L				106	4
Cd	111		ug/L				373	3
Cd	114		ug/L				15	51
Sb	121		ug/L				152	3
Sb	123		ug/L				123	19
Ba	135		ug/L				19	37
Ba	137		ug/L				36	15
Tb	159		ug/L				558208	0
Tl	205		ug/L				114	13
Pb	208		ug/L				385	6
Bi	209		ug/L				516724	0
Th	232		ug/L				1081	4
U	238		ug/L				60	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 15:40:54
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			571131	560670	0
[	Be	9	54.024	ug/L	0.435	0	6	34953	0
	C	13		mg/L			6961	5926	0
	Cl	37		mg/L			2433757	2362881	0
[>	Sc	45		ug/L			388637	376203	1
	V	51	49.849	ug/L	0.907	1	2773	826487	1
	V-1	51	49.984	ug/L	1.072	2	3305	843073	1
	Cr	52	50.724	ug/L	0.585	1	8883	741067	0
	Cr	53	51.103	ug/L	1.251	2	1173	89044	1
	Mn	55	51.237	ug/L	0.413	0	427	1209680	0
[	Co	59	51.350	ug/L	1.049	2	37	936376	1
[>	Ge	72		ug/L			403900	390371	0
	Ni	60	54.854	ug/L	0.598	1	20	195349	1
	Ni	62	54.473	ug/L	1.251	2	598	29239	2
	Cu	63	54.134	ug/L	0.661	1	552	419220	1
	Cu	65	53.583	ug/L	0.370	0	136	193518	0
	Zn	66	53.409	ug/L	0.293	0	259	122078	0
	Zn	67	54.739	ug/L	0.646	1	149	20750	0
	Zn	68	53.236	ug/L	0.198	0	7344	91022	0
	As	75	50.795	ug/L	0.292	0	454	113596	0
	As-1	75	50.971	ug/L	0.187	0	9426	119319	0
	Se	82	52.218	ug/L	0.320	0	-2	13730	0
	Se	78	53.002	ug/L	0.365	0	9670	41342	0
[	Mo	98	52.598	ug/L	0.221	0	51	482086	0
	Y	89		ug/L			448536	424275	0
	Kr	83		ug/L			290	303	2
[>	In	115		ug/L			512848	491774	0
	Ag	107	51.478	ug/L	0.262	0	106	815469	1
	Cd	111	51.463	ug/L	0.143	0	373	206208	0
	Cd	114	51.293	ug/L	0.327	0	15	473083	1
	Sb	121	48.012	ug/L	0.250	0	152	617305	0
	Sb	123	47.947	ug/L	0.194	0	123	463561	0
	Ba	135	47.328	ug/L	0.551	1	19	146636	0
[	Ba	137	47.120	ug/L	0.316	0	36	252935	1
[>	Tb	159		ug/L			558208	529963	0
	Tl	205	54.029	ug/L	0.237	0	114	2163349	0
	Pb	208	52.620	ug/L	0.289	0	385	2819241	0
	Bi	209		ug/L			516724	484936	0
	Th	232	51.380	ug/L	0.494	0	1081	3462770	0
[	U	238	51.962	ug/L	0.656	1	60	3832547	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 15:47:33
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			571131	557871	1
[	Be	9	-0.001	ug/L	0.006	493	6	5	66
	C	13		mg/L			6961	6756	0
	Cl	37		mg/L			2433757	2383882	0
[>	Sc	45		ug/L			388637	372603	0
	V	51	-0.004	ug/L	0.014	323	2773	2589	8
	V-1	51	0.002	ug/L	0.005	234	3305	3206	2
	Cr	52	-0.021	ug/L	0.011	53	8883	8214	1
	Cr	53	-0.000	ug/L	0.034	218212	1173	1125	5
	Mn	55	-0.000	ug/L	0.002	1346	427	407	9
[	Co	59	0.002	ug/L	0.001	65	37	72	33
[>	Ge	72		ug/L			403900	383951	0
	Ni	60	0.003	ug/L	0.002	65	20	29	21
	Ni	62	-0.254	ug/L	0.009	3	598	437	1
	Cu	63	-0.003	ug/L	0.004	118	552	501	5
	Cu	65	-0.003	ug/L	0.005	193	136	120	14
	Zn	66	0.002	ug/L	0.005	246	259	251	4
	Zn	67	-0.032	ug/L	0.005	15	149	130	1
	Zn	68	0.148	ug/L	0.013	8	7344	7211	0
	As	75	0.006	ug/L	0.010	164	454	444	4
	As-1	75	0.146	ug/L	0.038	25	9426	9271	0
	Se	82	-0.011	ug/L	0.027	244	-2	-4	140
	Se	78	0.514	ug/L	0.120	23	9670	9497	0
[	Mo	98	0.012	ug/L	0.005	43	51	158	30
	Y	89		ug/L			448536	425688	0
	Kr	83		ug/L			290	281	3
[>	In	115		ug/L			512848	487651	1
	Ag	107	0.006	ug/L	0.003	46	106	203	24
	Cd	111	-0.005	ug/L	0.005	92	373	334	6
	Cd	114	0.001	ug/L	0.001	115	15	23	43
	Sb	121	0.025	ug/L	0.009	35	152	464	24
	Sb	123	0.024	ug/L	0.013	52	123	347	36
	Ba	135	0.004	ug/L	0.002	49	19	30	18
[	Ba	137	0.004	ug/L	0.003	74	36	56	30
[>	Tb	159		ug/L			558208	526969	0
	Tl	205	0.005	ug/L	0.002	48	114	311	31
	Pb	208	0.004	ug/L	0.003	70	385	574	25
	Bi	209		ug/L			516724	485384	0
	Th	232	0.035	ug/L	0.010	29	1081	3367	20
[	U	238	0.002	ug/L	0.001	51	60	230	39

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 22, 2013 15:53:20
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			571131	594705	4
⌊	Be	9	0.020	ug/L	0.001	4	6	20	6
	C	13		mg/L			6961	7427	1
	Cl	37		mg/L			2433757	2027640	4
⌈>	Sc	45		ug/L			388637	429424	1
|	V	51	0.232	ug/L	0.016	7	2773	7433	3
|	V-1	51	0.245	ug/L	0.008	3	3305	8345	0
|	Cr	52	0.142	ug/L	0.027	19	8883	12154	2
|	Cr	53	0.188	ug/L	0.047	24	1173	1665	5
|	Mn	55	537.457	ug/L	5.731	1	427	14478849	0
⌊	Co	59	1.934	ug/L	0.045	2	37	40286	0
⌈>	Ge	72		ug/L			403900	346164	0
|	Ni	60	13.152	ug/L	0.190	1	20	41544	1
|	Ni	62	12.364	ug/L	0.083	0	598	6281	0
|	Cu	63	2.078	ug/L	0.017	0	552	14725	1
|	Cu	65	2.522	ug/L	0.022	0	136	8187	1
|	Zn	66	5.901	ug/L	0.067	1	259	12157	0
|	Zn	67	6.558	ug/L	0.144	2	149	2317	1
|	Zn	68	7.331	ug/L	0.180	2	7344	16542	1
|	As	75	1.114	ug/L	0.021	1	454	2589	2
|	As-1	75	1.298	ug/L	0.094	7	9426	10567	1
|	Se	82	0.287	ug/L	0.081	28	-2	65	29
|	Se	78	0.960	ug/L	0.359	37	9670	8801	2
⌊	Mo	98	0.137	ug/L	0.001	1	51	1160	1
	Y	89		ug/L			448536	413680	1
	Kr	83		ug/L			290	271	5
⌈>	In	115		ug/L			512848	452846	0
|	Ag	107	0.016	ug/L	0.001	3	106	331	2
|	Cd	111	0.209	ug/L	0.016	7	373	1099	4
|	Cd	114	0.229	ug/L	0.005	2	15	1962	2
|	Sb	121	0.203	ug/L	0.002	0	152	2540	1
|	Sb	123	0.199	ug/L	0.006	3	123	1878	3
|	Ba	135	56.103	ug/L	0.353	0	19	160068	0
⌊	Ba	137	55.386	ug/L	0.661	1	36	273753	1
⌈>	Tb	159		ug/L			558208	514644	0
|	Tl	205	0.018	ug/L	0.001	4	114	815	3
|	Pb	208	0.289	ug/L	0.005	1	385	15387	1
|	Bi	209		ug/L			516724	440227	1
|	Th	232	0.065	ug/L	0.020	30	1081	5217	24
⌊	U	238	0.053	ug/L	0.001	1	60	3852	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 22, 2013 15:59:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			571131	587518	1
[	Be	9	0.010	ug/L	0.008	76	6	13	39
	C	13		mg/L			6961	8342	1
	Cl	37		mg/L			2433757	2444587	0
[>	Sc	45		ug/L			388637	408964	1
	V	51	1.056	ug/L	0.028	2	2773	21901	4
	V-1	51	1.178	ug/L	0.024	2	3305	25007	3
	Cr	52	0.436	ug/L	0.003	0	8883	16180	2
	Cr	53	0.848	ug/L	0.037	4	1173	2821	1
	Mn	55	811.067	ug/L	4.782	0	427	20810489	1
[	Co	59	0.683	ug/L	0.008	1	37	13573	2
[>	Ge	72		ug/L			403900	340307	1
	Ni	60	3.029	ug/L	0.028	0	20	9419	0
	Ni	62	2.530	ug/L	0.108	4	598	1664	1
	Cu	63	2.064	ug/L	0.016	0	552	14385	1
	Cu	65	1.765	ug/L	0.026	1	136	5667	1
	Zn	66	5.756	ug/L	0.006	0	259	11664	1
	Zn	67	5.823	ug/L	0.051	0	149	2037	1
	Zn	68	6.723	ug/L	0.063	0	7344	15427	1
	As	75	1.754	ug/L	0.013	0	454	3789	0
	As-1	75	1.849	ug/L	0.034	1	9426	11426	0
	Se	82	0.498	ug/L	0.052	10	-2	112	11
	Se	78	0.796	ug/L	0.072	9	9670	8566	0
[	Mo	98	0.458	ug/L	0.003	0	51	3699	1
	Y	89		ug/L			448536	400582	1
	Kr	83		ug/L			290	264	2
[>	In	115		ug/L			512848	430621	2
	Ag	107	0.015	ug/L	0.001	3	106	302	4
	Cd	111	0.480	ug/L	0.031	6	373	1993	5
	Cd	114	0.548	ug/L	0.012	2	15	4441	3
	Sb	121	0.143	ug/L	0.001	0	152	1736	1
	Sb	123	0.143	ug/L	0.006	4	123	1311	2
	Ba	135	27.574	ug/L	0.007	0	19	74821	2
[	Ba	137	27.493	ug/L	0.281	1	36	129217	1
[>	Tb	159		ug/L			558208	513182	0
	Tl	205	0.000	ug/L	0.001	169	114	122	23
	Pb	208	0.274	ug/L	0.002	0	385	14583	1
	Bi	209		ug/L			516724	421116	0
	Th	232	0.037	ug/L	0.003	6	1081	3432	5
[	U	238	0.089	ug/L	0.004	4	60	6410	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 Z REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 22, 2013 16:05:59
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			571131	570090	1
[	Be	9	0.037	ug/L	0.013	33	6	30	26
	C	13		mg/L			6961	8806	1
	Cl	37		mg/L			2433757	2165513	0
[>	Sc	45		ug/L			388637	404657	0
|	V	51	7.502	ug/L	0.158	2	2773	136239	1
|	V-1	51	7.534	ug/L	0.130	1	3305	139615	1
|	Cr	52	3.609	ug/L	0.067	1	8883	65310	1
|	Cr	53	3.911	ug/L	0.051	1	1173	8459	0
|	Mn	55	38.492	ug/L	0.734	1	427	977633	1
[	Co	59	0.772	ug/L	0.007	0	37	15182	1
[>	Ge	72		ug/L			403900	325517	0
|	Ni	60	1.044	ug/L	0.004	0	20	3116	0
|	Ni	62	1.852	ug/L	0.189	10	598	1295	6
|	Cu	63	2.116	ug/L	0.033	1	552	14089	1
|	Cu	65	1.529	ug/L	0.039	2	136	4710	2
|	Zn	66	1.408	ug/L	0.016	1	259	2887	0
|	Zn	67	2.494	ug/L	0.093	3	149	903	3
|	Zn	68	2.671	ug/L	0.067	2	7344	9429	0
|	As	75	302.447	ug/L	0.865	0	454	562202	0
|	As-1	75	311.847	ug/L	0.880	0	9426	569854	0
|	Se	82	0.566	ug/L	0.047	8	-2	122	7
|	Se	78	1.598	ug/L	0.066	4	9670	8597	0
[	Mo	98	1.363	ug/L	0.015	1	51	10459	1
	Y	89		ug/L			448536	404291	1
	Kr	83		ug/L			290	260	1
[>	In	115		ug/L			512848	411313	0
|	Ag	107	0.005	ug/L	0.002	39	106	157	18
|	Cd	111	a-0.031	ug/L	0.010	33	373	194	17
|	Cd	114	0.008	ug/L	0.002	18	15	77	15
|	Sb	121	0.127	ug/L	0.005	3	152	1488	3
|	Sb	123	0.128	ug/L	0.003	2	123	1136	1
|	Ba	135	7.997	ug/L	0.159	1	19	20737	1
[	Ba	137	7.890	ug/L	0.094	1	36	35445	1
[>	Tb	159		ug/L			558208	484991	0
|	Tl	205	a0.001	ug/L	0.000	28	114	69	12
|	Pb	208	0.236	ug/L	0.003	1	385	11928	0
|	Bi	209		ug/L			516724	401443	0
|	Th	232	0.154	ug/L	0.004	2	1081	10420	2
[	U	238	0.235	ug/L	0.005	2	60	15895	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AJ REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, January 22, 2013 16:12:15
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			571131	524029	10
⌊	Be	9	0.007	ug/L	0.004	48	6	10	12
	C	13		mg/L			6961	5238	1
	Cl	37		mg/L			2433757	1986192	0
⌈>	Sc	45		ug/L			388637	297023	8
|	V	51	0.193	ug/L	0.011	5	2773	4630	5
|	V-1	51	0.189	ug/L	0.022	11	3305	5012	2
|	Cr	52	0.089	ug/L	0.011	12	8883	7797	6
|	Cr	53	0.081	ug/L	0.049	60	1173	1003	1
|	Mn	55	338.300	ug/L	4.606	1	427	6300695	7
⌊	Co	59	0.168	ug/L	0.009	5	37	2455	12
⌈>	Ge	72		ug/L			403900	316555	6
|	Ni	60	0.825	ug/L	0.048	5	20	2405	12
|	Ni	62	0.840	ug/L	0.087	10	598	825	1
|	Cu	63	0.064	ug/L	0.002	2	552	833	5
|	Cu	65	0.057	ug/L	0.002	3	136	274	7
|	Zn	66	0.812	ug/L	0.012	1	259	1706	7
|	Zn	67	0.883	ug/L	0.034	3	149	387	8
|	Zn	68	1.809	ug/L	0.338	18	7344	8051	2
|	As	75	169.585	ug/L	1.007	0	454	306782	6
|	As-1	75	175.355	ug/L	0.757	0	9426	314897	6
|	Se	82	0.115	ug/L	0.062	53	-2	23	64
|	Se	78	2.514	ug/L	1.102	43	9670	8786	0
⌊	Mo	98	0.239	ug/L	0.008	3	51	1819	9
	Y	89		ug/L			448536	346995	7
	Kr	83		ug/L			290	253	1
⌈>	In	115		ug/L			512848	394197	8
|	Ag	107	-0.003	ug/L	0.001	36	106	47	34
|	Cd	111	-0.011	ug/L	0.012	111	373	253	19
|	Cd	114	0.000	ug/L	0.000	49	15	15	9
|	Sb	121	0.011	ug/L	0.002	20	152	233	17
|	Sb	123	0.010	ug/L	0.001	10	123	174	4
|	Ba	135	9.040	ug/L	0.100	1	19	22455	7
⌊	Ba	137	8.997	ug/L	0.085	0	36	38721	7
⌈>	Tb	159		ug/L			558208	449655	8
|	Tl	205	-0.002	ug/L	0.000	14	114	32	23
|	Pb	208	0.015	ug/L	0.001	3	385	992	10
|	Bi	209		ug/L			516724	401950	7
|	Th	232	-0.010	ug/L	0.000	4	1081	290	14
⌊	U	238	0.084	ug/L	0.002	1	60	5320	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AJ REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 22, 2013 16:18:32
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			571131	464225	0
[	Be	9	0.017	ug/L	0.004	22	6	14	13
	C	13		mg/L			6961	7791	1
	Cl	37		mg/L			2433757	2159656	0
[>	Sc	45		ug/L			388637	342859	0
	V	51	1.451	ug/L	0.008	0	2773	24302	0
	V-1	51	1.440	ug/L	0.010	0	3305	24972	0
	Cr	52	0.529	ug/L	0.009	1	8883	14798	0
	Cr	53	0.543	ug/L	0.019	3	1173	1886	1
	Mn	55	2746.052	ug/L	27.595	1	427	59068892	0
[	Co	59	1.231	ug/L	0.008	0	37	20493	0
[>	Ge	72		ug/L			403900	303056	0
	Ni	60	3.058	ug/L	0.034	1	20	8468	0
	Ni	62	1.142	ug/L	0.028	2	598	915	0
	Cu	63	0.419	ug/L	0.007	1	552	2929	1
	Cu	65	0.268	ug/L	0.006	2	136	853	1
	Zn	66	2.267	ug/L	0.048	2	259	4208	1
	Zn	67	4.617	ug/L	0.011	0	149	1461	0
	Zn	68	5.775	ug/L	0.083	1	7344	12578	0
	As	75	1677.915	ug/L	4.842	0	454	2902180	0
	As-1	75	1729.613	ug/L	5.000	0	9426	2910340	0
	Se	82	0.395	ug/L	0.069	17	-2	79	17
	Se	78	3.819	ug/L	0.246	6	9670	9045	0
[	Mo	98	2.376	ug/L	0.030	1	51	16942	0
	Y	89		ug/L			448536	330584	0
	Kr	83		ug/L			290	281	4
[>	In	115		ug/L			512848	358602	1
	Ag	107	0.002	ug/L	0.001	64	106	94	14
	Cd	111	u 0.023	ug/L	0.010	42	373	327	8
	Cd	114	0.008	ug/L	0.001	15	15	65	12
	Sb	121	u 0.166	ug/L	0.004	2	152	1661	2
	Sb	123	0.154	ug/L	0.005	3	123	1172	3
	Ba	135	88.668	ug/L	0.940	1	19	200098	1
[	Ba	137	87.775	ug/L	0.291	0	36	343533	0
[>	Tb	159		ug/L			558208	413766	1
	Tl	205	u -0.001	ug/L	0.000	26	114	59	12
	Pb	208	u 0.030	ug/L	0.002	6	385	1550	4
	Bi	209		ug/L			516724	345446	0
	Th	232	0.009	ug/L	0.001	9	1081	1268	2
[	U	238	0.803	ug/L	0.020	2	60	46280	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 22, 2013 16:24:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			571131	505758	1
[	Be	9	0.051	ug/L	0.021	41	6	35	34
	C	13		mg/L			6961	7437	1
	Cl	37		mg/L			2433757	2170352	0
[>	Sc	45		ug/L			388637	373400	1
[	V	51	9.140	ug/L	0.140	1	2773	152583	0
[	V-1	51	9.121	ug/L	0.139	1	3305	155293	0
[	Cr	52	4.643	ug/L	0.068	1	8883	75072	0
[	Cr	53	4.815	ug/L	0.063	1	1173	9349	0
[	Mn	55	43.762	ug/L	0.735	1	427	1025483	0
[	Co	59	0.512	ug/L	0.013	2	37	9302	1
[>	Ge	72		ug/L			403900	297238	0
[	Ni	60	2.554	ug/L	0.063	2	20	6940	2
[	Ni	62	3.771	ug/L	0.275	7	598	1951	5
[	Cu	63	3.600	ug/L	0.038	1	552	21608	0
[	Cu	65	3.030	ug/L	0.049	1	136	8427	1
[	Zn	66	4.739	ug/L	0.032	0	259	8420	1
[	Zn	67	5.640	ug/L	0.099	1	149	1726	1
[	Zn	68	6.655	ug/L	0.175	2	7344	13394	2
[	As	75	274.455	ug/L	1.365	0	454	465866	0
[	As-1	75	283.673	ug/L	1.386	0	9426	473952	0
[	Se	82	0.416	ug/L	0.036	8	-2	81	8
[	Se	78	3.961	ug/L	0.091	2	9670	8937	1
[	Mo	98	1.369	ug/L	0.038	2	51	9587	2
	Y	89		ug/L			448536	372410	1
	Kr	83		ug/L			290	265	4
[>	In	115		ug/L			512848	363684	1
[	Ag	107	0.006	ug/L	0.001	22	106	149	11
[	Cd	111	0.425	ug/L	0.015	3	373	1522	3
[	Cd	114	0.462	ug/L	0.015	3	15	3160	1
[	Sb	121	u 0.127	ug/L	0.006	4	152	1318	3
[	Sb	123	0.123	ug/L	0.008	6	123	966	4
[	Ba	135	9.628	ug/L	0.241	2	19	22067	1
[	Ba	137	9.482	ug/L	0.225	2	36	37651	1
[>	Tb	159		ug/L			558208	438752	1
[	Tl	205	u 0.001	ug/L	0.000	55	114	116	13
[	Pb	208	0.571	ug/L	0.007	1	385	25634	1
[	Bi	209		ug/L			516724	362841	1
[	Th	232	0.203	ug/L	0.005	2	1081	12172	0
[	U	238	0.278	ug/L	0.006	2	60	17016	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 P REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 22, 2013 16:29:54
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			571131	477906	1
Be	9	0.028	ug/L	0.004	15	6	20	12
C	13		mg/L			6961	8265	3
Cl	37		mg/L			2433757	2176843	0
Sc	45		ug/L			388637	346288	2
V	51	2.469	ug/L	0.009	0	2773	40036	2
V-1	51	2.458	ug/L	0.004	0	3305	40966	2
Cr	52	1.345	ug/L	0.008	0	8883	25788	2
Cr	53	1.368	ug/L	0.027	1	1173	3211	1
Mn	55	2811.596	ug/L	34.967	1	427	61077138	2
Co	59	1.139	ug/L	0.018	1	37	19150	1
Ge	72		ug/L			403900	305057	2
Ni	60	4.089	ug/L	0.171	4	20	11389	2
Ni	62	2.180	ug/L	0.182	8	598	1347	3
Cu	63	2.109	ug/L	0.059	2	552	13162	3
Cu	65	1.952	ug/L	0.029	1	136	5608	3
Zn	66	8.699	ug/L	0.052	0	259	15703	2
Zn	67	10.644	ug/L	0.144	1	149	3244	2
Zn	68	12.292	ug/L	0.223	1	7344	20686	1
As	75	1668.896	ug/L	4.654	0	454	2905755	2
As-1	75	1720.269	ug/L	4.699	0	9426	2913880	2
Se	82	0.606	ug/L	0.005	0	-2	122	2
Se	78	3.787	ug/L	0.513	13	9670	9086	0
Mo	98	2.467	ug/L	0.018	0	51	17708	2
Y	89		ug/L			448536	338484	2
Kr	83		ug/L			290	267	2
In	115		ug/L			512848	358447	1
Ag	107	0.003	ug/L	0.001	27	106	114	11
Cd	111	0.126	ug/L	0.011	8	373	628	6
Cd	114	0.124	ug/L	0.010	8	15	843	8
Sb	121	0.182	ug/L	0.006	3	152	1807	1
Sb	123	0.179	ug/L	0.003	1	123	1348	2
Ba	135	92.498	ug/L	0.543	0	19	208879	1
Ba	137	91.545	ug/L	0.955	1	36	358098	0
Tb	159		ug/L			558208	414761	1
Tl	205	0.001	ug/L	0.000	31	114	102	6
Pb	208	0.836	ug/L	0.003	0	385	35358	2
Bi	209		ug/L			516724	345420	2
Th	232	0.049	ug/L	0.003	7	1081	3404	6
U	238	0.896	ug/L	0.011	1	60	51783	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 L REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 22, 2013 16:35:36
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			571131	435938	0
[	Be	9	0.220	ug/L	0.006	2	6	115	2
	C	13		mg/L			6961	17043	1
	Cl	37		mg/L			2433757	2752241	0
[>	Sc	45		ug/L			388637	370941	1
[	V	51	76.942	ug/L	0.945	1	2773	1256412	0
[	V-1	51	76.378	ug/L	1.067	1	3305	1268592	0
[	Cr	52	28.261	ug/L	0.421	1	8883	410866	1
[	Cr	53	29.008	ug/L	0.723	2	1173	50322	1
[	Mn	55	225.020	ug/L	3.083	1	427	5236697	0
[	Co	59	0.734	ug/L	0.007	0	37	13224	0
[>	Ge	72		ug/L			403900	281272	1
[	Ni	60	20.405	ug/L	0.480	2	20	52361	1
[	Ni	62	29.789	ug/L	1.118	3	598	11707	2
[	Cu	63	9.898	ug/L	0.112	1	552	55538	1
[	Cu	65	5.251	ug/L	0.076	1	136	13748	0
[	Zn	66	7.576	ug/L	0.020	0	259	12631	1
[	Zn	67	17.753	ug/L	0.615	3	149	4920	4
[	Zn	68	8.888	ug/L	0.163	1	7344	15208	0
[	As	75	32.817	ug/L	0.370	1	454	52987	0
[	As-1	75	34.560	ug/L	0.344	0	9426	60402	0
[	Se	82	2.681	ug/L	0.164	6	-2	506	5
[	Se	78	6.335	ug/L	0.082	1	9670	9489	0
[	Mo	98	7.114	ug/L	0.110	1	51	47003	0
	Y	89		ug/L			448536	540797	0
	Kr	83		ug/L			290	321	2
[>	In	115		ug/L			512848	325232	0
[	Ag	107	0.101	ug/L	0.006	6	106	1120	5
[	Cd	111	u -0.081	ug/L	0.121	148	373	21	1517
[	Cd	114	0.154	ug/L	0.006	3	15	946	3
[	Sb	121	0.330	ug/L	0.007	2	152	2899	1
[	Sb	123	0.323	ug/L	0.004	1	123	2144	1
[	Ba	135	9.782	ug/L	0.022	0	19	20055	0
[	Ba	137	9.684	ug/L	0.037	0	36	34395	0
[>	Tb	159		ug/L			558208	395633	0
[	Tl	205	0.002	ug/L	0.001	32	114	127	12
[	Pb	208	1.056	ug/L	0.007	0	385	42513	0
[	Bi	209		ug/L			516724	300621	0
[	Th	232	1.093	ug/L	0.006	0	1081	55761	0
[	U	238	4.075	ug/L	0.033	0	60	224440	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 M REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 22, 2013 16:41:21
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			571131	549015	4
[	Be	9	0.015	ug/L	0.004	27	6	15	12
	C	13		mg/L			6961	8024	1
	Cl	37		mg/L			2433757	3333332	2
[>	Sc	45		ug/L			388637	369313	5
	V	51	1.527	ug/L	0.064	4	2773	27393	4
	V-1	51	1.861	ug/L	0.032	1	3305	33841	4
	Cr	52	0.752	ug/L	0.021	2	8883	19095	4
	Cr	53	1.836	ug/L	0.083	4	1173	4219	8
	Mn	55	321.132	ug/L	6.684	2	427	7436979	3
[	Co	59	0.678	ug/L	0.010	1	37	12166	3
[>	Ge	72		ug/L			403900	321679	2
	Ni	60	1.466	ug/L	0.022	1	20	4320	3
	Ni	62	1.847	ug/L	0.072	3	598	1276	0
	Cu	63	1.992	ug/L	0.039	1	552	13142	4
	Cu	65	0.651	ug/L	0.015	2	136	2043	2
	Zn	66	2.300	ug/L	0.026	1	259	4528	1
	Zn	67	2.737	ug/L	0.141	5	149	968	6
	Zn	68	3.970	ug/L	0.265	6	7344	11000	1
	As	75	7.912	ug/L	0.062	0	454	14888	3
	As-1	75	8.462	ug/L	0.109	1	9426	22581	1
	Se	82	1.579	ug/L	0.062	3	-2	340	6
	Se	78	3.093	ug/L	0.580	18	9670	9235	0
[	Mo	98	1.093	ug/L	0.011	0	51	8295	3
	Y	89		ug/L			448536	378975	4
	Kr	83		ug/L			290	277	2
[>	In	115		ug/L			512848	397993	4
	Ag	107	0.002	ug/L	0.000	14	106	113	4
	Cd	111	-0.149	ug/L	0.014	9	373	-191	21
	Cd	114	0.027	ug/L	0.001	5	15	214	5
	Sb	121	0.202	ug/L	0.014	6	152	2217	1
	Sb	123	0.198	ug/L	0.003	1	123	1647	6
	Ba	135	19.025	ug/L	0.293	1	19	47700	4
[	Ba	137	18.833	ug/L	0.117	0	36	81823	4
[>	Tb	159		ug/L			558208	471499	5
	Tl	205	-0.001	ug/L	0.000	17	114	64	13
	Pb	208	0.140	ug/L	0.002	1	385	7000	3
	Bi	209		ug/L			516724	380626	4
	Th	232	0.011	ug/L	0.002	14	1081	1560	8
[	U	238	0.068	ug/L	0.002	2	60	4504	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 22, 2013 16:47:05
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			571131	519157	3
⌊	Be	9	23.875	ug/L	0.620	2	6	14298	0
	C	13		mg/L			6961	7369	4
	Cl	37		mg/L			2433757	2161030	0
⌈>	Sc	45		ug/L			388637	293551	1
|	V	51	25.383	ug/L	0.424	1	2773	329440	1
|	V-1	51	25.452	ug/L	0.346	1	3305	336237	1
|	Cr	52	25.750	ug/L	0.307	1	8883	296876	1
|	Cr	53	25.946	ug/L	0.131	0	1173	35720	1
|	Mn	55	27.067	ug/L	0.451	1	427	498877	2
⌊	Co	59	26.068	ug/L	0.330	1	37	370960	0
⌈>	Ge	72		ug/L			403900	311186	1
|	Ni	60	28.169	ug/L	0.245	0	20	79969	0
|	Ni	62	28.259	ug/L	0.309	1	598	12312	1
|	Cu	63	28.744	ug/L	0.193	0	552	177632	0
|	Cu	65	28.509	ug/L	0.108	0	136	82123	1
|	Zn	66	86.748	ug/L	0.661	0	259	157925	0
|	Zn	67	80.966	ug/L	1.067	1	149	24413	2
|	Zn	68	86.289	ug/L	1.222	1	7344	114081	0
|	As	75	27.916	ug/L	0.065	0	454	49926	1
|	As-1	75	27.155	ug/L	0.042	0	9426	54066	1
|	Se	82	86.230	ug/L	0.463	0	-2	18074	0
|	Se	78	89.913	ug/L	0.799	0	9670	50716	0
⌊	Mo	98	25.712	ug/L	0.462	1	51	187846	0
	Y	89		ug/L			448536	349701	2
	Kr	83		ug/L			290	271	3
⌈>	In	115		ug/L			512848	387226	2
|	Ag	107	26.588	ug/L	0.415	1	106	331605	1
|	Cd	111	25.572	ug/L	0.406	1	373	80804	0
|	Cd	114	25.295	ug/L	0.173	0	15	183682	1
|	Sb	121	23.943	ug/L	0.236	0	152	242431	1
|	Sb	123	24.107	ug/L	0.499	2	123	183519	1
|	Ba	135	24.997	ug/L	0.170	0	19	60986	1
⌊	Ba	137	25.039	ug/L	0.292	1	36	105825	1
⌈>	Tb	159		ug/L			558208	436628	2
|	Tl	205	26.535	ug/L	0.363	1	114	875293	1
|	Pb	208	27.500	ug/L	0.297	1	385	1213884	1
|	Bi	209		ug/L			516724	394972	1
|	Th	232	24.583	ug/L	0.130	0	1081	1365451	2
⌊	U	238	24.378	ug/L	0.171	0	60	1481361	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 16:53:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			571131	489169	0
	Be	9	49.319	ug/L	0.861	1	6	27841	1
	C	13		mg/L			6961	5565	0
	Cl	37		mg/L			2433757	1977529	0
>	Sc	45		ug/L			388637	286903	0
	V	51	49.575	ug/L	0.531	1	2773	626927	1
	V-1	51	49.618	ug/L	0.336	0	3305	638337	1
	Cr	52	50.252	ug/L	0.534	1	8883	560022	1
	Cr	53	50.350	ug/L	0.108	0	1173	66931	0
	Mn	55	51.743	ug/L	0.844	1	427	931713	1
	Co	59	50.234	ug/L	0.610	1	37	698714	1
>	Ge	72		ug/L			403900	307711	0
	Ni	60	52.068	ug/L	0.199	0	20	146164	1
	Ni	62	51.688	ug/L	0.374	0	598	21891	0
	Cu	63	52.167	ug/L	0.186	0	552	318460	1
	Cu	65	51.601	ug/L	0.422	0	136	146903	1
	Zn	66	51.950	ug/L	0.242	0	259	93606	1
	Zn	67	53.721	ug/L	0.700	1	149	16053	0
	Zn	68	53.584	ug/L	0.294	0	7344	72178	0
	As	75	50.842	ug/L	0.379	0	454	89621	0
	As-1	75	51.872	ug/L	0.458	0	9426	95586	0
	Se	82	53.126	ug/L	0.338	0	-2	11010	0
	Se	78	57.229	ug/L	0.593	1	9670	34599	0
	Mo	98	51.780	ug/L	0.342	0	51	374082	0
	Y	89		ug/L			448536	335489	1
	Kr	83		ug/L			290	272	2
>	In	115		ug/L			512848	375496	0
	Ag	107	50.935	ug/L	0.105	0	106	616074	0
	Cd	111	51.163	ug/L	0.316	0	373	156538	1
	Cd	114	51.426	ug/L	0.018	0	15	362147	0
	Sb	121	49.445	ug/L	0.417	0	152	485417	0
	Sb	123	49.175	ug/L	0.643	1	123	363015	1
	Ba	135	48.817	ug/L	1.136	2	19	115488	2
	Ba	137	48.622	ug/L	0.253	0	36	199275	0
>	Tb	159		ug/L			558208	428067	1
	Tl	205	50.308	ug/L	0.658	1	114	1627041	1
	Pb	208	51.705	ug/L	0.701	1	385	2237298	0
	Bi	209		ug/L			516724	384338	0
	Th	232	51.083	ug/L	1.137	2	1081	2780212	0
	U	238	51.297	ug/L	1.016	1	60	3055449	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 22, 2013 17:00:03
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012213.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			571131	468813	1
	Be	9	0.004	ug/L	0.005	108	6	7	33
	C	13		mg/L			6961	6206	1
	Cl	37		mg/L			2433757	2175948	0
>	Sc	45		ug/L			388637	276292	1
	V	51	0.032	ug/L	0.020	63	2773	2361	9
	V-1	51	0.014	ug/L	0.008	55	3305	2518	3
	Cr	52	0.086	ug/L	0.006	7	8883	7224	0
	Cr	53	0.025	ug/L	0.035	139	1173	866	5
	Mn	55	0.008	ug/L	0.001	13	427	438	4
	Co	59	0.002	ug/L	0.001	34	37	48	16
>	Ge	72		ug/L			403900	299306	2
	Ni	60	0.004	ug/L	0.003	69	20	26	28
	Ni	62	-0.196	ug/L	0.060	30	598	364	7
	Cu	63	-0.001	ug/L	0.002	195	552	404	4
	Cu	65	-0.002	ug/L	0.003	138	136	96	9
	Zn	66	-0.017	ug/L	0.004	24	259	161	6
	Zn	67	-0.031	ug/L	0.022	70	149	102	7
	Zn	68	1.553	ug/L	0.113	7	7344	7317	0
	As	75	0.058	ug/L	0.037	62	454	435	13
	As-1	75	1.414	ug/L	0.161	11	9426	9325	1
	Se	82	-0.120	ug/L	0.044	36	-2	-25	35
	Se	78	5.052	ug/L	0.563	11	9670	9500	0
	Mo	98	0.008	ug/L	0.004	57	51	92	35
	Y	89		ug/L			448536	324430	0
	Kr	83		ug/L			290	279	1
>	In	115		ug/L			512848	366102	1
	Ag	107	0.003	ug/L	0.001	36	106	115	13
	Cd	111	-0.014	ug/L	0.004	30	373	225	6
	Cd	114	0.001	ug/L	0.000	47	15	16	15
	Sb	121	0.024	ug/L	0.010	39	152	342	27
	Sb	123	0.022	ug/L	0.009	38	123	249	25
	Ba	135	0.003	ug/L	0.003	113	19	20	36
	Ba	137	0.003	ug/L	0.000	15	36	36	3
>	Tb	159		ug/L			558208	416348	1
	Tl	205	0.003	ug/L	0.001	43	114	179	23
	Pb	208	0.002	ug/L	0.001	40	385	368	9
	Bi	209		ug/L			516724	379349	1
	Th	232	0.017	ug/L	0.007	40	1081	1720	22
	U	238	0.002	ug/L	0.000	26	60	136	18

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-23-13 **Analyst:** EL **Page:** 1 **of** 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			3006-3
		1			3006-15
		2			↓ -16
		3			3007-3
		↓ 4			↓ -1
		Rinse Sample			
		ICV			29552-7
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			
		LR200			
		LR300			
		CCV2			
		CCB2			
		V275 N	REN	2	
		O		↓	
	✓	P		20	Ge, In, Tb RR
	✓	Q		2	↓
		R			
	✓	S			Ge, In, Tb RR
		↓ T	↓	↓	

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-23-13 **Analyst:** EL **Page:** 2 **of** 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	VZ75 V	REN	2	All IS↑ RR
	✓	W			↓
		X			
		CCV 3			Be↑
		CCB 3			
	✓	VZ75MB2	REN	2	Sc, Ge, In↑ RR-CCV
		G			
		H			
		I			
		J			
		K			
		L		10	
		M		5	
		AF			AS
	✓	AG			AS
		CCV4			All IS↑
		CCB4			↓
		STD 0			
		CCV5			
		CCB5			
		VZ75 AH	REN	5	AS
		AI		5	
		AK		2	
		AL		2	

VZ75 : 00443

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-23-13 **Analyst:** gc **Page:** 3 **of** 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VZ75 AN	REN	2	AS
		P		20	AS
		Q		2	
	✓	S			All ES ↑ RR x5
	✓	V			↓ ↓
		W			
		CCV6			Be ↑
		CCB6			Ni62 ↑
		VZ75 MB2	REN	2	
		AF		5	
		AG		5	
		L		10	
		M		5	
		G			
		H			
		I			
		J			
		K			
		CCV7			
		CCB7			
✓WA		WA39 MB	REN	2	
		VZ75 S		5	
		↓ V		↓	
✓WA	✓	WA39 ADup		5	

VZ75 : 00444

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Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-23-13 **Analyst:** EL **Page:** 4 **of** 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
✓WA	✓	WA 39 A	REN	5	
	✓	ASpk		↓	
		MBSpk		2	✓
		ADup			✓
		A			
↓		↓ ASpk		↓	✓
		CCV8			Li, Sc, In, Tb ↑
		CCB8			Li↑ Ni^{62}↓ As, Se^{78}↓
		Rinse/DI			
		EL 1-24-13			

VZ75 : 00445

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ~~ICP-MS~~ GFA CVA **Analysis Date:** 1-23-13

M1	Analyst 1-24-13	Peer 1-24-13	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration/Verification:			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	See log
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	See log
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Review:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysis Notes and CAF:	—	—	

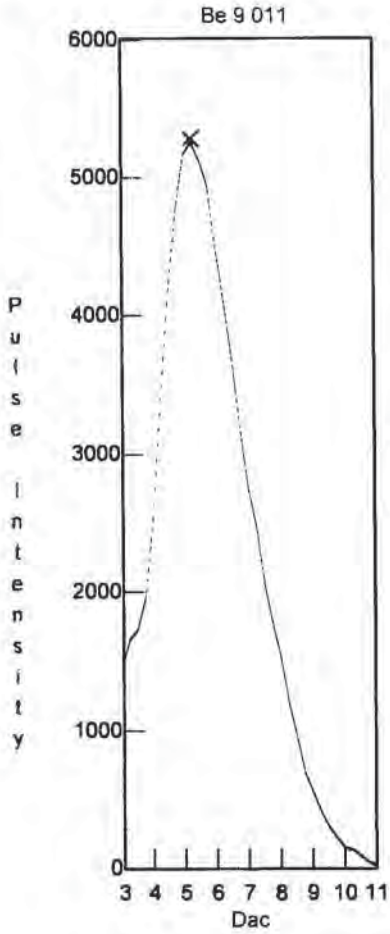
Instrument Tuning Report

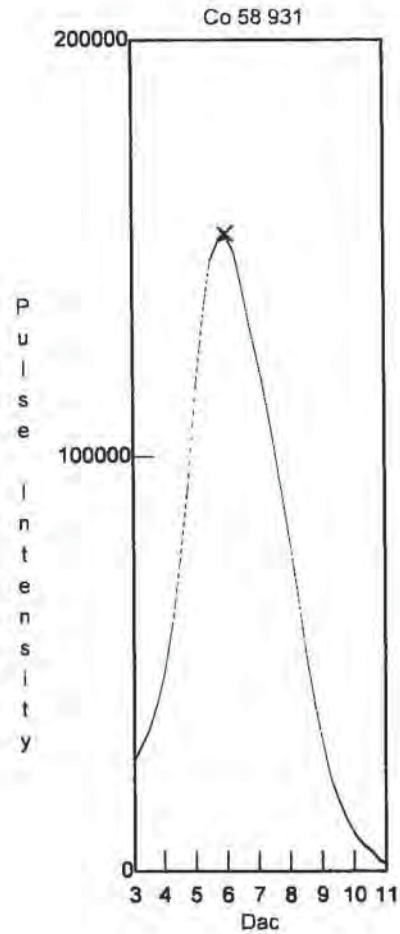
File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

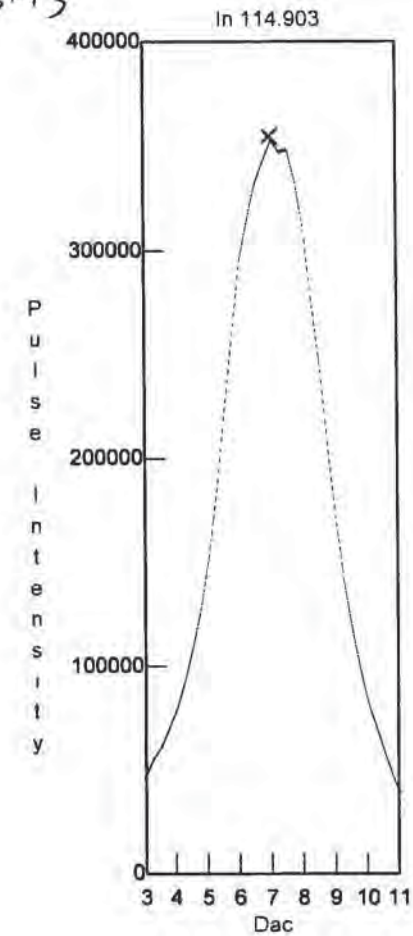
Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	8.976	2014	2155	0.692	
Mg	23.985	23.979	5652	2265	0.690	
Co	58.933	58.979	14158	2530	0.684	
In	114.904	114.878	27788	2970	0.712	
Pb	207.977	207.976	50443	3725	0.683	

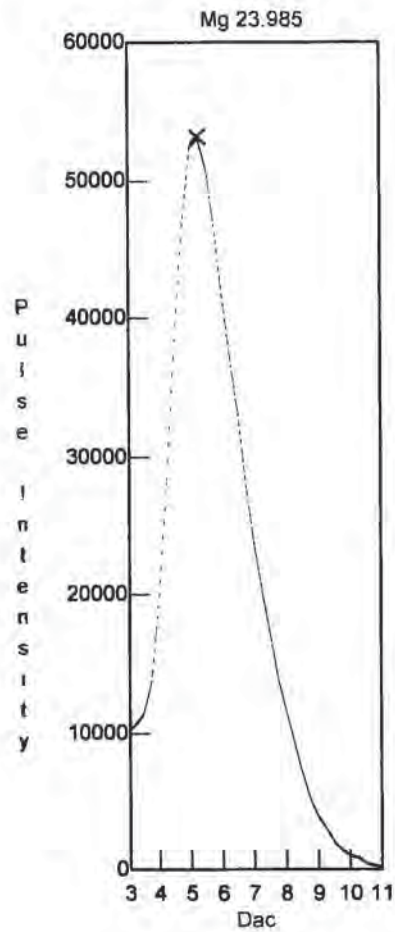
VZ75 : 00447

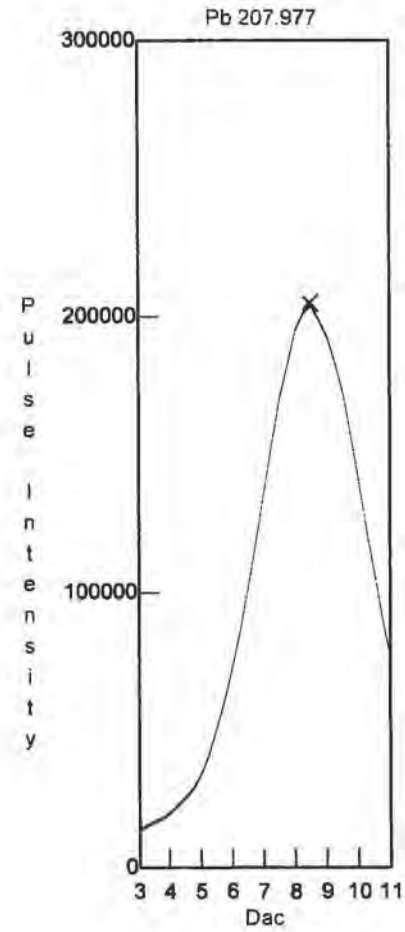
1-23-13

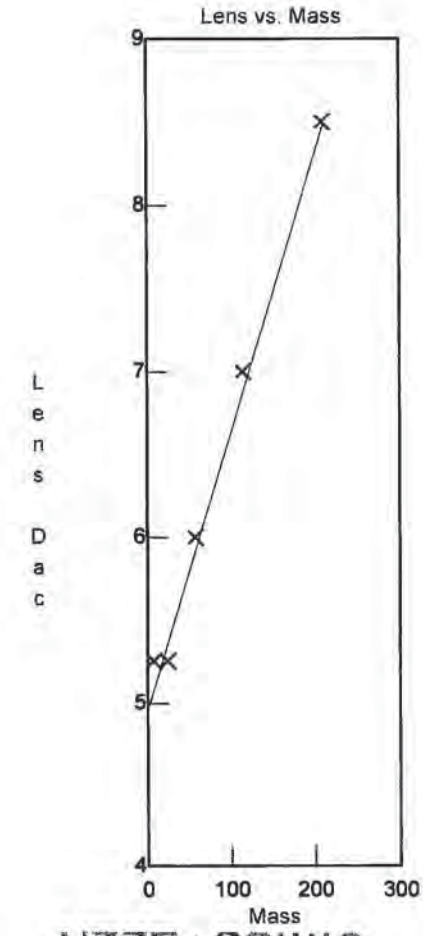












0275 00408

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, January 23, 2013 09:18:35
Sample Description:
Sample File: 1119.sam
Method File: C:\Elandata\Method\aridailyperf.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.1348
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\Default.dac
Number of Replicates: 5
Dual Detector Mode: Dual

0.92

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24	41236.439	532.018	1.290
	In	115	295482.478	2442.726	0.827
	Pb	208	186481.106	2048.966	1.099
⌈>	Ba	138	200702.817	1940.282	0.967
⌊	Ba++	69	0.013	0.000	1.999
⌈>	Ce	140	243909.335	2587.311	1.061
⌊	CeO	156	0.029	0.001	3.031
	Bkgd	220	11.751	5.047	42.950

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 09:44:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				381465	1
	Be	9		ug/L				7	53
	C	13		mg/L				6172	2
	Cl	37		mg/L				1891522	0
>	Sc	45		ug/L				216440	1
	V	51		ug/L				1658	3
	V-1	51		ug/L				2490	5
	Cr	52		ug/L				5397	0
	Cr	53		ug/L				875	6
	Mn	55		ug/L				538	4
	Co	59		ug/L				36	34
>	Ge	72		ug/L				245554	0
	Ni	60		ug/L				28	28
	Ni	62		ug/L				54	11
	Cu	63		ug/L				274	6
	Cu	65		ug/L				78	4
	Zn	66		ug/L				157	8
	Zn	67		ug/L				106	4
	Zn	68		ug/L				6573	0
	As	75		ug/L				360	4
	As-1	75		ug/L				7598	0
	Se	82		ug/L				-4	125
	Se	78		ug/L				7721	0
	Mo	98		ug/L				535	17
	Y	89		ug/L				251217	0
	Kr	83		ug/L				205	3
>	In	115		ug/L				289086	1
	Ag	107		ug/L				18	23
	Cd	111		ug/L				140	5
	Cd	114		ug/L				10	39
	Sb	121		ug/L				20	19
	Sb	123		ug/L				14	14
	Ba	135		ug/L				15	16
	Ba	137		ug/L				25	23
>	Tb	159		ug/L				322959	0
	Tl	205		ug/L				79	17
	Pb	208		ug/L				474	1
	Bi	209		ug/L				289860	0
	Th	232		ug/L				304	5
	U	238		ug/L				406	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 09:50:08
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			381465	382168	0
⌊	Be	9	10.000	ug/L	0.158	1	7	4519	1
	C	13		mg/L			6172	5518	0
	Cl	37		mg/L			1891522	1889794	0
⌈>	Sc	45		ug/L			216440	217011	1
|	V	51	10.000	ug/L	0.146	1	1658	97474	0
|	V-1	51	10.000	ug/L	0.148	1	2490	99795	0
|	Cr	52	10.000	ug/L	0.079	0	5397	90770	0
|	Cr	53	10.000	ug/L	0.127	1	875	10999	1
|	Mn	55	10.000	ug/L	0.051	0	538	140546	0
⌊	Co	59	10.000	ug/L	0.114	1	36	108330	0
⌈>	Ge	72		ug/L			245554	246949	0
|	Ni	60	10.000	ug/L	0.024	0	28	22563	0
|	Ni	62	10.000	ug/L	0.212	2	54	3378	1
|	Cu	63	10.000	ug/L	0.104	1	274	50172	1
|	Cu	65	10.000	ug/L	0.114	1	78	23521	0
|	Zn	66	10.000	ug/L	0.075	0	157	15252	0
|	Zn	67	10.000	ug/L	0.093	0	106	2544	0
|	Zn	68	10.000	ug/L	0.185	1	6573	17129	1
|	As	75	10.000	ug/L	0.079	0	360	14594	0
|	As-1	75	10.000	ug/L	0.116	1	7598	21569	0
|	Se	82	10.000	ug/L	0.185	1	-4	1650	1
|	Se	78	10.000	ug/L	0.007	0	7721	11668	0
⌊	Mo	98	10.000	ug/L	0.065	0	535	56953	0
	Y	89		ug/L			251217	251205	1
	Kr	83		ug/L			205	207	1
⌈>	In	115		ug/L			289086	287212	1
|	Ag	107	10.000	ug/L	0.037	0	18	94471	1
|	Cd	111	10.000	ug/L	0.178	1	140	24090	1
|	Cd	114	10.000	ug/L	0.093	0	10	55517	1
|	Sb	121	10.000	ug/L	0.126	1	20	77769	0
|	Sb	123	10.000	ug/L	0.172	1	14	58405	0
|	Ba	135	10.000	ug/L	0.151	1	15	18207	0
⌊	Ba	137	10.000	ug/L	0.164	1	25	30984	2
⌈>	Tb	159		ug/L			322959	322555	0
|	Tl	205	10.000	ug/L	0.105	1	79	241318	0
|	Pb	208	10.000	ug/L	0.038	0	474	338808	0
|	Bi	209		ug/L			289860	291860	1
|	Th	232	10.000	ug/L	0.013	0	304	410490	0
⌊	U	238	10.000	ug/L	0.054	0	406	456245	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 09:56:17
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	388836	2
[	Be	9	19.940	ug/L	0.504	2	7	9049	0
	C	13		mg/L			6172	5473	2
	Cl	37		mg/L			1891522	1879029	0
[>	Sc	45		ug/L			216440	216537	0
	V	51	20.001	ug/L	0.365	1	1658	192915	1
	V-1	51	20.023	ug/L	0.297	1	2490	197799	0
	Cr	52	19.955	ug/L	0.486	2	5397	173842	2
	Cr	53	20.026	ug/L	0.130	0	875	21205	1
	Mn	55	20.030	ug/L	0.165	0	538	282083	0
[	Co	59	19.969	ug/L	0.039	0	36	214520	0
[>	Ge	72		ug/L			245554	249444	1
	Ni	60	19.984	ug/L	0.274	1	28	45372	0
	Ni	62	20.012	ug/L	0.154	0	54	6789	1
	Cu	63	19.992	ug/L	0.250	1	274	100858	1
	Cu	65	19.928	ug/L	0.325	1	78	46594	1
	Zn	66	19.912	ug/L	0.044	0	157	29989	1
	Zn	67	19.957	ug/L	0.477	2	106	4980	3
	Zn	68	19.906	ug/L	0.295	1	6573	27439	1
	As	75	19.953	ug/L	0.219	1	360	28782	0
	As-1	75	19.917	ug/L	0.379	1	7598	35274	0
	Se	82	19.958	ug/L	0.117	0	-4	3303	0
	Se	78	19.829	ug/L	0.662	3	7721	15400	0
[	Mo	98	19.936	ug/L	0.082	0	535	112722	1
	Y	89		ug/L			251217	250084	1
	Kr	83		ug/L			205	213	3
[>	In	115		ug/L			289086	290253	0
	Ag	107	19.893	ug/L	0.104	0	18	185907	0
	Cd	111	19.991	ug/L	0.466	2	140	48442	1
	Cd	114	19.991	ug/L	0.286	1	10	111940	0
	Sb	121	20.003	ug/L	0.166	0	20	157306	0
	Sb	123	20.000	ug/L	0.274	1	14	118037	0
	Ba	135	19.957	ug/L	0.293	1	15	36394	0
[	Ba	137	20.013	ug/L	0.155	0	25	62804	1
[>	Tb	159		ug/L			322959	323716	2
	Tl	205	20.071	ug/L	0.583	2	79	492753	0
	Pb	208	19.988	ug/L	0.271	1	474	677410	1
	Bi	209		ug/L			289860	287670	0
	Th	232	20.001	ug/L	0.489	2	304	823482	0
[	U	238	19.990	ug/L	0.420	2	406	912699	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 10:02:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			381465	385280	1
	Be	9	49.783	ug/L	1.431	2	7	21902	1
	C	13		mg/L			6172	5512	1
	Cl	37		mg/L			1891522	1885337	1
>	Sc	45		ug/L			216440	217472	1
	V	51	49.804	ug/L	0.967	1	1658	470741	1
	V-1	51	49.806	ug/L	0.632	1	2490	481135	1
	Cr	52	49.828	ug/L	0.998	2	5397	420862	0
	Cr	53	49.834	ug/L	0.454	0	875	50859	1
	Mn	55	49.800	ug/L	1.245	2	538	689645	1
	Co	59	49.879	ug/L	0.966	1	36	531572	0
>	Ge	72		ug/L			245554	244827	1
	Ni	60	49.938	ug/L	0.687	1	28	110553	0
	Ni	62	49.952	ug/L	0.874	1	54	16473	1
	Cu	63	49.871	ug/L	0.228	0	274	243409	0
	Cu	65	49.982	ug/L	0.474	0	78	114369	0
	Zn	66	49.971	ug/L	0.313	0	157	73423	1
	Zn	67	50.048	ug/L	0.491	0	106	12154	0
	Zn	68	49.797	ug/L	0.279	0	6573	56512	0
	As	75	50.094	ug/L	0.585	1	360	71045	0
	As-1	75	50.111	ug/L	0.425	0	7598	76399	0
	Se	82	49.986	ug/L	0.903	1	-4	8115	0
	Se	78	50.039	ug/L	0.301	0	7721	26493	0
	Mo	98	50.083	ug/L	0.258	0	535	279431	0
	Y	89		ug/L			251217	248768	0
	Kr	83		ug/L			205	215	6
>	In	115		ug/L			289086	285456	0
	Ag	107	49.937	ug/L	0.474	0	18	456060	0
	Cd	111	50.026	ug/L	0.687	1	140	119326	0
	Cd	114	49.971	ug/L	0.493	0	10	274386	1
	Sb	121	50.068	ug/L	0.195	0	20	389872	0
	Sb	123	50.113	ug/L	0.386	0	14	294187	0
	Ba	135	49.986	ug/L	0.301	0	15	89505	0
	Ba	137	50.055	ug/L	0.599	1	25	155291	1
>	Tb	159		ug/L			322959	324896	0
	Tl	205	49.779	ug/L	0.314	0	79	1200553	0
	Pb	208	49.824	ug/L	0.490	0	474	1665005	0
	Bi	209		ug/L			289860	285344	1
	Th	232	50.083	ug/L	0.113	0	304	2087133	0
	U	238	49.947	ug/L	0.592	1	406	2276975	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 10:08:34
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	382252	1
[	Be	9	100.183	ug/L	1.205	1	7	43998	1
	C	13		mg/L			6172	5453	2
	Cl	37		mg/L			1891522	1909685	1
[>	Sc	45		ug/L			216440	216146	0
|	V	51	100.415	ug/L	0.585	0	1658	954921	0
|	V-1	51	100.379	ug/L	0.943	0	2490	973546	0
|	Cr	52	100.043	ug/L	1.094	1	5397	835316	0
|	Cr	53	99.954	ug/L	2.129	2	875	100347	1
|	Mn	55	100.023	ug/L	1.104	1	538	1377402	0
[	Co	59	99.563	ug/L	0.999	1	36	1039548	0
[>	Ge	72		ug/L			245554	247167	0
|	Ni	60	99.224	ug/L	1.961	1	28	216144	1
|	Ni	62	99.139	ug/L	1.077	1	54	32037	1
|	Cu	63	99.326	ug/L	0.615	0	274	478419	0
|	Cu	65	99.332	ug/L	0.111	0	78	224404	0
|	Zn	66	99.183	ug/L	0.671	0	157	143070	1
|	Zn	67	99.512	ug/L	1.218	1	106	23906	1
|	Zn	68	99.355	ug/L	0.468	0	6573	105131	0
|	As	75	99.527	ug/L	0.511	0	360	139956	0
|	As-1	75	99.568	ug/L	0.812	0	7598	143750	0
|	Se	82	99.218	ug/L	0.844	0	-4	15855	0
|	Se	78	99.336	ug/L	1.852	1	7721	44622	0
[	Mo	98	99.737	ug/L	0.831	0	535	556386	0
	Y	89		ug/L			251217	247317	0
	Kr	83		ug/L			205	226	1
[>	In	115		ug/L			289086	285515	1
|	Ag	107	99.869	ug/L	2.638	2	18	908117	1
|	Cd	111	99.508	ug/L	1.668	1	140	233423	0
|	Cd	114	99.645	ug/L	1.561	1	10	540803	1
|	Sb	121	99.791	ug/L	0.984	0	20	771764	0
|	Sb	123	99.639	ug/L	0.998	1	14	578039	0
|	Ba	135	99.742	ug/L	2.233	2	15	177066	0
[	Ba	137	99.657	ug/L	1.461	1	25	305682	0
[>	Tb	159		ug/L			322959	323019	1
|	Tl	205	99.931	ug/L	0.821	0	79	2390387	0
|	Pb	208	99.819	ug/L	0.878	0	474	3295961	0
|	Bi	209		ug/L			289860	284890	0
|	Th	232	99.946	ug/L	0.447	0	304	4133133	0
[	U	238	100.379	ug/L	1.327	1	406	4606918	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 10:15:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			381465	382890	0
⌊	Be	9	0.010	ug/L	0.004	42	7	11	16
	C	13		mg/L			6172	5975	0
	Cl	37		mg/L			1891522	1952530	1
⌈>	Sc	45		ug/L			216440	215990	0
|	V	51	0.006	ug/L	0.011	185	1658	1710	5
|	V-1	51	-0.025	ug/L	0.007	28	2490	2241	3
|	Cr	52	0.006	ug/L	0.005	91	5397	5435	1
|	Cr	53	-0.091	ug/L	0.039	43	875	783	5
|	Mn	55	-0.004	ug/L	0.004	90	538	484	10
⌊	Co	59	0.004	ug/L	0.003	68	36	80	38
⌈>	Ge	72		ug/L			245554	246250	1
|	Ni	60	0.000	ug/L	0.003	838	28	29	21
|	Ni	62	0.028	ug/L	0.028	100	54	63	15
|	Cu	63	0.001	ug/L	0.004	441	274	279	7
|	Cu	65	0.012	ug/L	0.003	22	78	105	6
|	Zn	66	0.025	ug/L	0.013	52	157	193	11
|	Zn	67	-0.101	ug/L	0.056	55	106	82	17
|	Zn	68	-0.255	ug/L	0.136	53	6573	6339	2
|	As	75	-0.012	ug/L	0.019	156	360	344	6
|	As-1	75	-0.042	ug/L	0.081	191	7598	7561	0
|	Se	82	-0.118	ug/L	0.027	23	-4	-23	19
|	Se	78	-0.180	ug/L	0.283	156	7721	7675	0
⌊	Mo	98	-0.040	ug/L	0.005	12	535	312	10
	Y	89		ug/L			251217	247617	0
	Kr	83		ug/L			205	214	1
⌈>	In	115		ug/L			289086	290072	0
|	Ag	107	0.020	ug/L	0.005	27	18	202	24
|	Cd	111	0.009	ug/L	0.012	128	140	163	18
|	Cd	114	0.004	ug/L	0.003	59	10	35	41
|	Sb	121	0.097	ug/L	0.024	24	20	780	24
|	Sb	123	0.097	ug/L	0.030	30	14	585	30
|	Ba	135	0.011	ug/L	0.002	23	15	35	12
⌊	Ba	137	0.008	ug/L	0.004	45	25	50	22
⌈>	Tb	159		ug/L			322959	320634	1
|	Tl	205	0.015	ug/L	0.006	41	79	428	34
|	Pb	208	0.015	ug/L	0.011	73	474	953	38
|	Bi	209		ug/L			289860	287790	1
|	Th	232	0.075	ug/L	0.023	30	304	3408	28
⌊	U	238	0.010	ug/L	0.010	102	406	859	55

Quantitative Analysis - Calibration Report

Sample Date/Time: Wednesday, January 23, 2013 10:08:34
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	1.0000	0.0011	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	1.0000	0.0439	10	20	50	100	
V-1	51	1.0000	0.0448	10	20	50	100	
Cr	52	1.0000	0.0384	10	20	50	100	
Cr	53	1.0000	0.0046	10	20	50	100	
Mn	55	1.0000	0.0637	10	20	50	100	
Co	59	1.0000	0.0483	10	20	50	100	
Ge	72							
Ni	60	0.9999	0.0088	10	20	50	100	
Ni	62	0.9999	0.0013	10	20	50	100	
Cu	63	0.9999	0.0195	10	20	50	100	
Cu	65	0.9999	0.0091	10	20	50	100	
Zn	66	0.9999	0.0058	10	20	50	100	
Zn	67	1.0000	0.0010	10	20	50	100	
Zn	68	0.9999	0.0040	10	20	50	100	
As	75	1.0000	0.0057	10	20	50	100	
As-1	75	1.0000	0.0055	10	20	50	100	
Se	82	0.9999	0.0006	10	20	50	100	
Se	78	0.9999	0.0015	10	20	50	100	
Mo	98	1.0000	0.0225	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	1.0000	0.0319	10	20	50	100	
Cd	111	1.0000	0.0082	10	20	50	100	
Cd	114	1.0000	0.0190	10	20	50	100	
Sb	121	1.0000	0.0271	10	20	50	100	
Sb	123	1.0000	0.0203	10	20	50	100	
Ba	135	1.0000	0.0062	10	20	50	100	
Ba	137	1.0000	0.0107	10	20	50	100	
Tb	159							
Tl	205	1.0000	0.0741	10	20	50	100	
Pb	208	1.0000	0.1022	10	20	50	100	
Bi	209							
Th	232	1.0000	0.1280	10	20	50	100	
U	238	1.0000	0.1421	10	20	50	100	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 10:22:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			381465	386336	2
	Be	9	51.020	ug/L	0.906	1	7	22647	0
	C	13		mg/L			6172	14272	3
	Cl	37		mg/L			1891522	1937638	0
>	Sc	45		ug/L			216440	220007	2
	V	51	50.824	ug/L	0.841	1	1658	492695	0
	V-1	51	50.680	ug/L	0.785	1	2490	501487	0
	Cr	52	50.891	ug/L	0.860	1	5397	435128	0
	Cr	53	50.440	ug/L	0.678	1	875	51981	0
	Mn	55	50.388	ug/L	1.350	2	538	706348	0
	Co	59	50.284	ug/L	0.591	1	36	534361	0
>	Ge	72		ug/L			245554	249607	1
	Ni	60	51.019	ug/L	0.739	1	28	112244	0
	Ni	62	51.386	ug/L	0.699	1	54	16793	0
	Cu	63	51.600	ug/L	0.832	1	274	251092	0
	Cu	65	51.323	ug/L	1.027	2	78	117104	0
	Zn	66	50.368	ug/L	0.287	0	157	73446	1
	Zn	67	51.207	ug/L	0.734	1	106	12473	0
	Zn	68	50.772	ug/L	0.756	1	6573	57517	1
	As	75	52.493	ug/L	0.356	0	360	74713	1
	As-1	75	51.724	ug/L	0.506	0	7598	79117	0
	Se	82	81.010	ug/L	1.181	1	-4	13071	0
	Se	78	80.901	ug/L	2.052	2	7721	38151	0
	Mo	98	50.003	ug/L	0.487	0	535	281947	0
	Y	89		ug/L			251217	252011	1
	Kr	83		ug/L			205	223	0
>	In	115		ug/L			289086	292383	1
	Ag	107	51.435	ug/L	0.941	1	18	478989	0
	Cd	111	50.257	ug/L	1.351	2	140	120786	1
	Cd	114	50.081	ug/L	0.630	1	10	278344	0
	Sb	121	49.597	ug/L	0.565	1	20	392799	0
	Sb	123	49.792	ug/L	0.736	1	14	295806	0
	Ba	135	50.109	ug/L	0.918	1	15	91105	0
	Ba	137	49.762	ug/L	0.867	1	25	156315	0
>	Tb	159		ug/L			322959	327218	1
	Tl	205	50.972	ug/L	0.894	1	79	1234999	0
	Pb	208	51.005	ug/L	1.124	2	474	1705962	0
	Bi	209		ug/L			289860	291205	0
	Th	232	51.868	ug/L	1.139	2	304	2172549	1
	U	238	52.447	ug/L	0.601	1	406	2438529	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 10:29:08
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	380482	1
[	Be	9	-0.002	ug/L	0.008	434	7	6	52
	C	13		mg/L			6172	6163	0
	Cl	37		mg/L			1891522	1921614	0
[>	Sc	45		ug/L			216440	212508	1
	V	51	0.006	ug/L	0.011	175	1658	1687	5
	V-1	51	-0.037	ug/L	0.006	16	2490	2089	3
	Cr	52	0.008	ug/L	0.011	137	5397	5363	0
	Cr	53	-0.128	ug/L	0.015	11	875	734	3
	Mn	55	-0.010	ug/L	0.003	29	538	395	8
[	Co	59	0.003	ug/L	0.000	17	36	61	7
[>	Ge	72		ug/L			245554	243323	0
	Ni	60	-0.001	ug/L	0.002	195	28	26	12
	Ni	62	0.021	ug/L	0.016	76	54	60	8
	Cu	63	-0.012	ug/L	0.001	9	274	215	3
	Cu	65	0.005	ug/L	0.002	30	78	90	3
	Zn	66	0.001	ug/L	0.008	602	157	158	6
	Zn	67	-0.111	ug/L	0.019	17	106	79	6
	Zn	68	-0.144	ug/L	0.087	60	6573	6373	1
	As	75	0.016	ug/L	0.020	123	360	379	8
	As-1	75	0.022	ug/L	0.096	428	7598	7558	0
	Se	82	0.043	ug/L	0.071	163	-4	2	464
	Se	78	0.071	ug/L	0.400	564	7721	7676	1
[	Mo	98	-0.067	ug/L	0.008	11	535	161	25
	Y	89		ug/L			251217	246228	1
	Kr	83		ug/L			205	203	5
[>	In	115		ug/L			289086	284968	0
	Ag	107	0.012	ug/L	0.003	24	18	126	21
	Cd	111	0.008	ug/L	0.009	120	140	156	13
	Cd	114	0.003	ug/L	0.003	100	10	26	59
	Sb	121	0.038	ug/L	0.008	20	20	315	19
	Sb	123	0.037	ug/L	0.006	16	14	225	16
	Ba	135	0.006	ug/L	0.003	42	15	27	18
[	Ba	137	0.005	ug/L	0.001	13	25	40	5
[>	Tb	159		ug/L			322959	317345	1
	Tl	205	0.007	ug/L	0.003	44	79	247	31
	Pb	208	0.008	ug/L	0.004	52	474	727	20
	Bi	209		ug/L			289860	287081	0
	Th	232	0.050	ug/L	0.012	24	304	2345	22
[	U	238	0.008	ug/L	0.007	83	406	766	41

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 10:34:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			381465	386556	1
	Be	9	51.782	ug/L	0.911	1	7	23002	1
	C	13		mg/L			6172	3873	1
	Cl	37		mg/L			1891522	1908138	0
>	Sc	45		ug/L			216440	215246	0
	V	51	51.044	ug/L	0.071	0	1658	484219	0
	V-1	51	50.813	ug/L	0.165	0	2490	492017	0
	Cr	52	51.584	ug/L	0.674	1	5397	431527	1
	Cr	53	50.835	ug/L	0.271	0	875	51256	0
	Mn	55	50.891	ug/L	0.874	1	538	698193	1
	Co	59	51.424	ug/L	0.581	1	36	534731	1
>	Ge	72		ug/L			245554	245961	0
	Ni	60	51.659	ug/L	0.354	0	28	112004	0
	Ni	62	51.354	ug/L	0.563	1	54	16540	1
	Cu	63	51.414	ug/L	0.784	1	274	246559	1
	Cu	65	51.477	ug/L	0.242	0	78	115763	0
	Zn	66	51.080	ug/L	0.764	1	157	73395	1
	Zn	67	51.279	ug/L	1.196	2	106	12309	2
	Zn	68	51.949	ug/L	0.745	1	6573	57842	1
	As	75	50.923	ug/L	0.295	0	360	71434	0
	As-1	75	50.924	ug/L	0.299	0	7598	76880	0
	Se	82	51.437	ug/L	0.448	0	-4	8177	0
	Se	78	51.493	ug/L	0.551	1	7721	26744	0
	Mo	98	51.453	ug/L	0.407	0	535	285891	0
	Y	89		ug/L			251217	247950	0
	Kr	83		ug/L			205	216	2
>	In	115		ug/L			289086	287790	0
	Ag	107	51.522	ug/L	0.461	0	18	472337	0
	Cd	111	50.697	ug/L	0.645	1	140	119955	1
	Cd	114	51.383	ug/L	0.628	1	10	281129	1
	Sb	121	50.626	ug/L	0.730	1	20	394697	1
	Sb	123	50.515	ug/L	0.060	0	14	295420	0
	Ba	135	50.142	ug/L	0.509	1	15	89746	0
	Ba	137	50.754	ug/L	0.577	1	25	156950	1
>	Tb	159		ug/L			322959	321203	0
	Tl	205	51.034	ug/L	0.494	0	79	1213953	0
	Pb	208	51.954	ug/L	0.631	1	474	1706088	0
	Bi	209		ug/L			289860	289766	0
	Th	232	52.946	ug/L	0.795	1	304	2177334	1
	U	238	52.338	ug/L	0.714	1	406	2388850	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 10:41:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			381465	385949	0
	Be	9	-0.002	ug/L	0.003	137	7	6	20
	C	13		mg/L			6172	6016	1
	Cl	37		mg/L			1891522	1907139	0
>	Sc	45		ug/L			216440	214417	0
	V	51	0.003	ug/L	0.007	240	1658	1669	3
	V-1	51	-0.048	ug/L	0.012	24	2490	2011	5
	Cr	52	-0.005	ug/L	0.015	296	5397	5304	2
	Cr	53	-0.161	ug/L	0.026	16	875	708	3
	Mn	55	-0.011	ug/L	0.002	16	538	377	7
	Co	59	0.004	ug/L	0.002	43	36	73	22
>	Ge	72		ug/L			245554	243848	0
	Ni	60	-0.001	ug/L	0.003	213	28	25	27
	Ni	62	0.043	ug/L	0.025	58	54	67	12
	Cu	63	-0.009	ug/L	0.002	24	274	229	5
	Cu	65	0.001	ug/L	0.003	299	78	80	10
	Zn	66	0.003	ug/L	0.010	321	157	161	8
	Zn	67	-0.099	ug/L	0.031	30	106	82	9
	Zn	68	-0.119	ug/L	0.059	49	6573	6411	1
	As	75	0.002	ug/L	0.018	967	360	360	6
	As-1	75	-0.019	ug/L	0.075	402	7598	7519	0
	Se	82	-0.001	ug/L	0.024	1635	-4	-4	81
	Se	78	-0.060	ug/L	0.274	459	7721	7645	0
	Mo	98	-0.069	ug/L	0.006	8	535	154	21
	Y	89		ug/L			251217	246430	0
	Kr	83		ug/L			205	206	5
>	In	115		ug/L			289086	283086	1
	Ag	107	0.013	ug/L	0.003	24	18	137	22
	Cd	111	0.003	ug/L	0.003	93	140	144	5
	Cd	114	0.002	ug/L	0.002	78	10	23	44
	Sb	121	0.053	ug/L	0.015	28	20	425	28
	Sb	123	0.056	ug/L	0.014	25	14	338	25
	Ba	135	0.005	ug/L	0.004	70	15	25	26
	Ba	137	0.003	ug/L	0.001	16	25	35	3
>	Tb	159		ug/L			322959	317732	1
	Tl	205	0.006	ug/L	0.003	56	79	213	37
	Pb	208	0.002	ug/L	0.001	96	474	516	10
	Bi	209		ug/L			289860	287779	0
	Th	232	0.044	ug/L	0.009	21	304	2080	20
	U	238	-0.003	ug/L	0.002	51	406	255	31

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 10:47:23
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	369019	1
[	Be	9	0.216	ug/L	0.018	8	7	98	7
	C	13		mg/L			6172	5418	1
	Cl	37		mg/L			1891522	1908730	0
[>	Sc	45		ug/L			216440	208008	0
	V	51	0.206	ug/L	0.007	3	1658	3463	1
	V-1	51	0.180	ug/L	0.005	2	2490	4066	1
	Cr	52	0.524	ug/L	0.015	2	5397	9374	1
	Cr	53	0.428	ug/L	0.019	4	875	1252	2
	Mn	55	0.533	ug/L	0.008	1	538	7574	1
[	Co	59	0.219	ug/L	0.002	0	36	2230	0
[>	Ge	72		ug/L			245554	239941	0
	Ni	60	0.515	ug/L	0.014	2	28	1117	3
	Ni	62	0.518	ug/L	0.046	8	54	215	6
	Cu	63	0.523	ug/L	0.008	1	274	2714	1
	Cu	65	0.525	ug/L	0.021	4	78	1228	4
	Zn	66	4.313	ug/L	0.010	0	157	6187	0
	Zn	67	3.692	ug/L	0.198	5	106	961	4
	Zn	68	4.227	ug/L	0.065	1	6573	10492	0
	As	75	0.230	ug/L	0.018	7	360	665	3
	As-1	75	0.270	ug/L	0.023	8	7598	7783	0
	Se	82	0.502	ug/L	0.012	2	-4	73	2
	Se	78	0.772	ug/L	0.036	4	7721	7822	0
[	Mo	98	0.115	ug/L	0.006	5	535	1145	3
	Y	89		ug/L			251217	238997	0
	Kr	83		ug/L			205	214	3
[>	In	115		ug/L			289086	275499	1
	Ag	107	0.198	ug/L	0.003	1	18	1754	1
	Cd	111	0.116	ug/L	0.014	12	140	397	7
	Cd	114	0.106	ug/L	0.002	1	10	565	1
	Sb	121	0.219	ug/L	0.009	4	20	1651	2
	Sb	123	0.216	ug/L	0.001	0	14	1222	0
	Ba	135	0.525	ug/L	0.016	3	15	914	2
[	Ba	137	0.500	ug/L	0.008	1	25	1503	2
[>	Tb	159		ug/L			322959	308899	0
	Tl	205	0.217	ug/L	0.005	2	79	5038	2
	Pb	208	0.110	ug/L	0.001	1	474	3937	1
	Bi	209		ug/L			289860	280621	0
	Th	232	0.224	ug/L	0.002	0	304	9146	1
[	U	238	0.201	ug/L	0.003	1	406	9194	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 10:53:11
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			381465	372365	1
	Be	9	0.013	ug/L	0.011	87	7	12	40
	C	13		mg/L			6172	16651	0
	Cl	37		mg/L			1891522	3157840	0
>	Sc	45		ug/L			216440	200818	2
	V	51	0.059	ug/L	0.048	81	1658	2051	18
	V-1	51	0.474	ug/L	0.045	9	2490	6563	4
	Cr	52	0.494	ug/L	0.029	5	5397	8814	1
	Cr	53	1.759	ug/L	0.057	3	875	2438	2
	Mn	55	0.037	ug/L	0.003	8	538	976	2
	Co	59	0.021	ug/L	0.002	10	36	234	10
>	Ge	72		ug/L			245554	233032	1
	Ni	60	0.532	ug/L	0.030	5	28	1121	7
	Ni	62	3.952	ug/L	0.105	2	54	1253	1
	Cu	63	0.445	ug/L	0.005	1	274	2277	1
	Cu	65	0.613	ug/L	0.024	3	78	1379	4
	Zn	66	1.865	ug/L	0.049	2	157	2684	4
	Zn	67	1.974	ug/L	0.079	3	106	546	3
	Zn	68	0.952	ug/L	0.068	7	6573	7128	1
	As	75	0.132	ug/L	0.016	12	360	516	4
	As-1	75	0.142	ug/L	0.098	69	7598	7391	0
	Se	82	-0.128	ug/L	0.043	33	-4	-23	25
	Se	78	0.201	ug/L	0.380	189	7721	7396	0
	Mo	98	411.706	ug/L	4.916	1	535	2163673	1
	Y	89		ug/L			251217	232756	2
	Kr	83		ug/L			205	238	0
>	In	115		ug/L			289086	267172	2
	Ag	107	0.028	ug/L	0.002	5	18	255	4
	Cd	111	0.093	ug/L	0.037	39	140	333	22
	Cd	114	0.641	ug/L	0.013	1	10	3263	1
	Sb	121	0.076	ug/L	0.002	2	20	571	0
	Sb	123	0.075	ug/L	0.003	3	14	422	1
	Ba	135	0.044	ug/L	0.004	10	15	87	6
	Ba	137	0.044	ug/L	0.005	10	25	149	7
>	Tb	159		ug/L			322959	301097	1
	Tl	205	0.034	ug/L	0.001	1	79	828	2
	Pb	208	0.035	ug/L	0.001	3	474	1506	3
	Bi	209		ug/L			289860	265081	1
	Th	232	0.074	ug/L	0.012	15	304	3150	15
	U	238	-0.005	ug/L	0.001	12	406	153	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 10:59:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			381465	370190	1
	Be	9	0.001	ug/L	0.005	343	7	7	28
	C	13		mg/L			6172	16118	1
	Cl	37		mg/L			1891522	3040572	0
>	Sc	45		ug/L			216440	194532	0
	V	51	-0.412	ug/L	0.042	10	1658	-2030	17
	V-1	51	0.477	ug/L	0.013	2	2490	6392	2
	Cr	52	20.645	ug/L	0.242	1	5397	158996	1
	Cr	53	22.185	ug/L	0.136	0	875	20660	0
	Mn	55	20.428	ug/L	0.084	0	538	253575	0
	Co	59	20.174	ug/L	0.271	1	36	189597	0
>	Ge	72		ug/L			245554	227739	0
	Ni	60	20.301	ug/L	0.301	1	28	40771	1
	Ni	62	23.530	ug/L	0.273	1	54	7044	1
	Cu	63	20.001	ug/L	0.264	1	274	88968	1
	Cu	65	20.302	ug/L	0.274	1	78	42318	1
	Zn	66	20.293	ug/L	0.170	0	157	27087	0
	Zn	67	18.958	ug/L	0.193	1	106	4276	0
	Zn	68	19.526	ug/L	0.218	1	6573	23935	0
	As	75	19.533	ug/L	0.210	1	360	25576	1
	As-1	75	20.064	ug/L	0.224	1	7598	32316	0
	Se	82	-0.169	ug/L	0.182	107	-4	-29	91
	Se	78	0.222	ug/L	0.088	39	7721	7236	0
	Mo	98	407.366	ug/L	6.703	1	535	2092379	1
	Y	89		ug/L			251217	227425	0
	Kr	83		ug/L			205	234	7
>	In	115		ug/L			289086	256480	2
	Ag	107	20.152	ug/L	0.431	2	18	164623	1
	Cd	111	19.946	ug/L	0.342	1	140	42124	0
	Cd	114	20.719	ug/L	0.369	1	10	101014	2
	Sb	121	0.071	ug/L	0.005	7	20	512	6
	Sb	123	0.073	ug/L	0.001	1	14	395	4
	Ba	135	0.039	ug/L	0.004	10	15	77	10
	Ba	137	0.044	ug/L	0.003	5	25	144	5
>	Tb	159		ug/L			322959	299543	0
	Tl	205	0.030	ug/L	0.001	4	79	749	3
	Pb	208	0.027	ug/L	0.001	3	474	1252	1
	Bi	209		ug/L			289860	260616	0
	Th	232	0.038	ug/L	0.002	5	304	1749	3
	U	238	-0.006	ug/L	0.000	0	406	123	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:05:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			381465	368950	2
Be	9	198.247	ug/L	3.335	1	7	84021	0
C	13		mg/L			6172	5669	0
Cl	37		mg/L			1891522	1777569	1
Sc	45		ug/L			216440	200517	0
V	51	204.187	ug/L	0.800	0	1658	1799844	0
V-1	51	203.672	ug/L	0.392	0	2490	1830239	0
Cr	52	204.121	ug/L	0.469	0	5397	1575949	0
Cr	53	202.521	ug/L	3.126	1	875	187802	1
Mn	55	205.830	ug/L	2.603	1	538	2629190	1
Co	59	201.921	ug/L	1.812	0	36	1955869	0
Ge	72		ug/L			245554	231277	1
Ni	60	196.519	ug/L	3.061	1	28	400535	1
Ni	62	198.862	ug/L	3.086	1	54	60068	0
Cu	63	194.654	ug/L	2.292	1	274	876986	0
Cu	65	196.862	ug/L	0.816	0	78	416060	1
Zn	66	195.733	ug/L	1.515	0	157	264027	0
Zn	67	197.243	ug/L	4.292	2	106	44230	1
Zn	68	197.896	ug/L	1.339	0	6573	189788	0
As	75	201.276	ug/L	2.059	1	360	264471	0
As-1	75	201.714	ug/L	2.206	1	7598	265138	0
Se	82	197.023	ug/L	2.842	1	-4	29462	0
Se	78	198.390	ug/L	3.404	1	7721	76132	0
Mo	98	205.798	ug/L	3.268	1	535	1073571	0
Y	89		ug/L			251217	231042	0
Kr	83		ug/L			205	253	1
In	115		ug/L			289086	266516	0
Ag	107	199.527	ug/L	1.754	0	18	1693873	0
Cd	111	200.162	ug/L	1.725	0	140	438202	0
Cd	114	201.370	ug/L	1.115	0	10	1020234	0
Sb	121	204.390	ug/L	1.505	0	20	1475597	0
Sb	123	205.615	ug/L	0.206	0	14	1113542	0
Ba	135	204.316	ug/L	3.578	1	15	338597	1
Ba	137	205.362	ug/L	3.297	1	25	588006	0
Tb	159		ug/L			322959	299574	0
Tl	205	212.292	ug/L	0.708	0	79	4709872	1
Pb	208	210.318	ug/L	2.469	1	474	6440054	0
Bi	209		ug/L			289860	261966	0
Th	232	214.306	ug/L	1.807	0	304	8218792	0
U	238	215.246	ug/L	1.971	0	406	9161909	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:12:23
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	363023	1
[	Be	9	299.381	ug/L	5.313	1	7	124853	0
	C	13		mg/L			6172	5869	2
	Cl	37		mg/L			1891522	1816740	1
[>	Sc	45		ug/L			216440	203659	1
	V	51	314.416	ug/L	3.706	1	1658	2814001	1
	V-1	51	312.483	ug/L	2.329	0	2490	2850759	1
	Cr	52	310.411	ug/L	3.597	1	5397	2431444	1
	Cr	53	304.634	ug/L	0.846	0	875	286508	1
	Mn	55	311.899	ug/L	3.747	1	538	4045934	0
[	Co	59	311.804	ug/L	3.089	0	36	3067361	0
[>	Ge	72		ug/L			245554	236570	1
	Ni	60	295.425	ug/L	5.481	1	28	615866	0
	Ni	62	294.399	ug/L	3.694	1	54	90941	0
	Cu	63	288.242	ug/L	7.077	2	274	1328091	1
	Cu	65	288.030	ug/L	3.413	1	78	622604	0
	Zn	66	286.806	ug/L	3.702	1	157	395643	0
	Zn	67	286.833	ug/L	2.362	0	106	65754	0
	Zn	68	288.334	ug/L	4.496	1	6573	279950	1
	As	75	295.651	ug/L	0.898	0	360	397229	0
	As-1	75	296.467	ug/L	1.199	0	7598	395186	0
	Se	82	285.820	ug/L	2.766	0	-4	43723	0
	Se	78	288.010	ug/L	4.059	1	7721	109699	0
[	Mo	98	305.080	ug/L	4.080	1	535	1627730	0
	Y	89		ug/L			251217	232425	0
	Kr	83		ug/L			205	272	1
[>	In	115		ug/L			289086	268020	1
	Ag	107	304.983	ug/L	4.948	1	18	2603580	1
	Cd	111	299.332	ug/L	4.011	1	140	658924	1
	Cd	114	297.298	ug/L	2.769	0	10	1514699	0
	Sb	121	318.524	ug/L	4.179	1	20	2312480	1
	Sb	123	306.906	ug/L	2.386	0	14	1671399	0
	Ba	135	304.310	ug/L	3.684	1	15	507157	1
[	Ba	137	303.475	ug/L	4.288	1	25	873794	0
[>	Tb	159		ug/L			322959	304814	1
	Tl	205	314.732	ug/L	5.817	1	79	7103551	0
	Pb	208	315.954	ug/L	4.099	1	474	9843270	0
	Bi	209		ug/L			289860	257027	0
	Th	232	315.914	ug/L	3.652	1	304	12326713	0
[	U	238	315.063	ug/L	3.425	1	406	13645234	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:19:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			381465	380592	0
	Be	9	50.903	ug/L	0.548	1	7	22265	1
	C	13		mg/L			6172	4058	3
	Cl	37		mg/L			1891522	1851349	0
>	Sc	45		ug/L			216440	209368	0
	V	51	50.172	ug/L	0.262	0	1658	462965	0
	V-1	51	50.210	ug/L	0.429	0	2490	472914	0
	Cr	52	50.948	ug/L	0.269	0	5397	414646	1
	Cr	53	51.023	ug/L	0.556	1	875	50036	0
	Mn	55	50.942	ug/L	0.756	1	538	679769	0
	Co	59	50.692	ug/L	0.458	0	36	512720	0
>	Ge	72		ug/L			245554	239431	0
	Ni	60	51.074	ug/L	0.690	1	28	107802	1
	Ni	62	51.012	ug/L	0.778	1	54	15992	0
	Cu	63	51.048	ug/L	0.744	1	274	238300	0
	Cu	65	50.801	ug/L	0.790	1	78	111203	0
	Zn	66	51.246	ug/L	0.919	1	157	71674	1
	Zn	67	51.389	ug/L	0.448	0	106	12008	0
	Zn	68	51.852	ug/L	0.480	0	6573	56213	1
	As	75	50.832	ug/L	0.661	1	360	69410	0
	As-1	75	50.738	ug/L	0.552	1	7598	74590	0
	Se	82	51.472	ug/L	0.961	1	-4	7965	1
	Se	78	51.230	ug/L	0.554	1	7721	25939	0
	Mo	98	50.830	ug/L	0.638	1	535	274936	1
	Y	89		ug/L			251217	241430	1
	Kr	83		ug/L			205	216	4
>	In	115		ug/L			289086	279277	0
	Ag	107	51.246	ug/L	0.324	0	18	455894	0
	Cd	111	51.051	ug/L	0.415	0	140	117214	0
	Cd	114	50.996	ug/L	0.726	1	10	270734	0
	Sb	121	51.421	ug/L	0.515	1	20	389012	0
	Sb	123	51.544	ug/L	0.359	0	14	292514	0
	Ba	135	51.367	ug/L	0.696	1	15	89217	1
	Ba	137	51.023	ug/L	0.975	1	25	153111	1
>	Tb	159		ug/L			322959	314597	0
	Tl	205	51.615	ug/L	1.036	2	79	1202520	1
	Pb	208	52.012	ug/L	0.444	0	474	1672929	0
	Bi	209		ug/L			289860	282925	0
	Th	232	53.789	ug/L	0.627	1	304	2166527	0
	U	238	54.129	ug/L	0.672	1	406	2420015	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:25:39
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			381465	382577	0
	Be	9	-0.000	ug/L	0.013	20852	7	7	83
	C	13		mg/L			6172	5720	2
	Cl	37		mg/L			1891522	1876282	1
>	Sc	45		ug/L			216440	210755	0
	V	51	-0.005	ug/L	0.012	231	1658	1566	6
	V-1	51	-0.013	ug/L	0.009	70	2490	2302	3
	Cr	52	-0.028	ug/L	0.008	28	5397	5027	1
	Cr	53	-0.051	ug/L	0.009	18	875	803	1
	Mn	55	-0.007	ug/L	0.002	27	538	429	5
	Co	59	0.004	ug/L	0.001	27	36	78	15
>	Ge	72		ug/L			245554	240021	0
	Ni	60	0.002	ug/L	0.005	219	28	32	35
	Ni	62	-0.013	ug/L	0.036	269	54	49	23
	Cu	63	0.001	ug/L	0.002	167	274	275	5
	Cu	65	0.015	ug/L	0.004	25	78	110	8
	Zn	66	0.016	ug/L	0.016	102	157	176	12
	Zn	67	-0.086	ug/L	0.055	63	106	84	14
	Zn	68	-0.172	ug/L	0.216	125	6573	6258	2
	As	75	0.032	ug/L	0.020	60	360	396	7
	As-1	75	0.007	ug/L	0.050	667	7598	7436	0
	Se	82	-0.098	ug/L	0.021	21	-4	-19	17
	Se	78	-0.034	ug/L	0.227	675	7721	7534	0
	Mo	98	-0.056	ug/L	0.007	11	535	217	17
	Y	89		ug/L			251217	242285	0
	Kr	83		ug/L			205	224	3
>	In	115		ug/L			289086	280903	1
	Ag	107	0.024	ug/L	0.003	14	18	230	13
	Cd	111	0.002	ug/L	0.005	306	140	140	7
	Cd	114	0.003	ug/L	0.000	7	10	26	4
	Sb	121	0.126	ug/L	0.023	18	20	980	18
	Sb	123	0.125	ug/L	0.023	18	14	727	18
	Ba	135	0.009	ug/L	0.003	31	15	31	17
	Ba	137	0.008	ug/L	0.003	33	25	47	15
>	Tb	159		ug/L			322959	313935	2
	Tl	205	0.010	ug/L	0.003	29	79	322	24
	Pb	208	0.004	ug/L	0.003	64	474	598	16
	Bi	209		ug/L			289860	285869	1
	Th	232	0.067	ug/L	0.011	16	304	3003	16
	U	238	-0.003	ug/L	0.001	55	406	275	26

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 N REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:35:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			381465	435439	5
	Be	9	0.021	ug/L	0.008	35	7	18	23
	C	13		mg/L			6172	9283	3
	Cl	37		mg/L			1891522	4034989	4
>	Sc	45		ug/L			216440	313789	8
	V	51	4.765	ug/L	0.105	2	1658	68000	6
	V-1	51	5.190	ug/L	0.087	1	2490	76451	6
	Cr	52	2.010	ug/L	0.073	3	5397	32003	6
	Cr	53	3.492	ug/L	0.123	3	875	6319	9
	Mn	55	297.872	ug/L	7.398	2	538	5946134	5
	Co	59	0.382	ug/L	0.005	1	36	5834	6
>	Ge	72		ug/L			245554	282009	6
	Ni	60	1.569	ug/L	0.054	3	28	3937	9
	Ni	62	1.683	ug/L	0.062	3	54	681	5
	Cu	63	2.639	ug/L	0.071	2	274	14808	6
	Cu	65	1.039	ug/L	0.044	4	78	2763	4
	Zn	66	2.191	ug/L	0.088	4	157	3776	2
	Zn	67	3.315	ug/L	0.022	0	106	1027	6
	Zn	68	2.106	ug/L	0.310	14	6573	9917	3
	As	75	2.439	ug/L	0.100	4	360	4313	5
	As-1	75	1.386	ug/L	0.374	27	7598	10864	2
	Se	82	1.921	ug/L	0.151	7	-4	346	13
	Se	78	-1.961	ug/L	1.024	52	7721	8019	1
	Mo	98	0.323	ug/L	0.003	0	535	2669	7
	Y	89		ug/L			251217	316124	6
	Kr	83		ug/L			205	241	2
>	In	115		ug/L			289086	330770	7
	Ag	107	0.020	ug/L	0.002	10	18	233	4
	Cd	111	-0.172	ug/L	0.043	25	140	-301	34
	Cd	114	U 0.028	ug/L	0.002	6	10	185	3
	Sb	121	U 0.175	ug/L	0.015	8	20	1583	4
	Sb	123	0.178	ug/L	0.016	8	14	1206	3
	Ba	135	28.245	ug/L	0.707	2	15	58068	6
	Ba	137	28.040	ug/L	0.552	1	25	99613	6
>	Tb	159		ug/L			322959	378889	6
	Tl	205	U 0.002	ug/L	0.002	84	79	147	24
	Pb	208	0.305	ug/L	0.009	3	474	12356	5
	Bi	209		ug/L			289860	317260	6
	Th	232	0.169	ug/L	0.023	13	304	8525	7
	U	238	0.098	ug/L	0.002	2	406	5729	4

VZ75 00468

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 O REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:42:04
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			381465	428346	1
	Be	9	0.010	ug/L	0.008	81	7	12	31
	C	13		mg/L			6172	9462	1
	Cl	37		mg/L			1891522	4768164	2
>	Sc	45		ug/L			216440	294320	2
	V	51	1.545	ug/L	0.085	5	1658	22237	6
	V-1	51	2.283	ug/L	0.060	2	2490	33477	4
	Cr	52	0.722	ug/L	0.004	0	5397	15492	2
	Cr	53	3.064	ug/L	0.230	7	875	5345	6
	Mn	55	55.874	ug/L	0.504	0	538	1048196	2
	Co	59	0.964	ug/L	0.007	0	36	13748	1
>	Ge	72		ug/L			245554	277327	1
	Ni	60	5.860	ug/L	0.103	1	28	14357	3
	Ni	62	8.507	ug/L	0.455	5	54	3142	6
	Cu	63	4.691	ug/L	0.144	3	274	25651	4
	Cu	65	2.100	ug/L	0.086	4	78	5411	5
	Zn	66	3.809	ug/L	0.101	2	157	6338	3
	Zn	67	4.102	ug/L	0.085	2	106	1221	2
	Zn	68	3.385	ug/L	0.094	2	6573	11190	1
	As	75	17.691	ug/L	0.287	1	360	28250	2
	As-1	75	17.220	ug/L	0.258	1	7598	34995	2
	Se	82	1.719	ug/L	0.029	1	-4	303	1
	Se	78	-1.398	ug/L	0.266	18	7721	8137	0
	Mo	98	10.470	ug/L	0.209	1	535	66085	3
	Y	89		ug/L			251217	309960	0
	Kr	83		ug/L			205	254	2
>	In	115		ug/L			289086	327047	0
	Ag	107	0.045	ug/L	0.046	100	18	496	96
	Cd	111	0.554	ug/L	0.078	14	140	1644	12
	Cd	114	0.914	ug/L	0.026	2	10	5694	3
	Sb	121	1.498	ug/L	0.053	3	20	13293	4
	Sb	123	1.510	ug/L	0.039	2	14	10052	3
	Ba	135	28.029	ug/L	0.735	2	15	57027	3
	Ba	137	27.850	ug/L	0.502	1	25	97892	2
>	Tb	159		ug/L			322959	367140	1
	Tl	205	u0.006	ug/L	0.000	6	79	247	4
	Pb	208	0.283	ug/L	0.001	0	474	11146	2
	Bi	209		ug/L			289860	304518	1
	Th	232	0.082	ug/L	0.005	6	304	4193	6
	U	238	0.637	ug/L	0.009	1	406	33676	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 P REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:48:21
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			381465	458911	0
Be	9	-0.002	ug/L	0.005	239	7	7	33
C	13		mg/L			6172	6247	1
Cl	37		mg/L			1891522	2415701	0
Sc	45		ug/L			216440	309305	0
V	51	0.299	ug/L	0.026	8	1658	6431	5
V-1	51	0.262	ug/L	0.019	7	2490	7186	3
Cr	52	0.119	ug/L	0.009	7	5397	9122	1
Cr	53	0.014	ug/L	0.021	143	875	1272	2
Mn	55	334.753	ug/L	5.228	1	538	6595316	1
Co	59	0.159	ug/L	0.002	1	36	2430	1
Ge	72		ug/L			245554	328228	1
Ni	60	0.721	ug/L	0.021	2	28	2122	2
Ni	62	0.694	ug/L	0.028	4	54	370	2
Cu	63	0.270	ug/L	0.009	3	274	2092	1
Cu	65	0.243	ug/L	0.002	0	78	832	1
Zn	66	1.238	ug/L	0.015	1	157	2580	0
Zn	67	1.316	ug/L	0.077	5	106	560	4
Zn	68	-0.016	ug/L	0.115	717	6573	8764	0
As	75	172.848	ug/L	5.926	3	360	322332	2
As-1	75	176.341	ug/L	6.110	3	7598	330170	2
Se	82	0.099	ug/L	0.035	35	-4	15	50
Se	78	-3.804	ug/L	0.152	4	7721	8445	0
Mo	98	0.165	ug/L	0.008	4	535	1935	3
Y	89		ug/L			251217	342050	0
Kr	83		ug/L			205	235	3
In	115		ug/L			289086	399507	0
Ag	107	0.002	ug/L	0.001	47	18	51	23
Cd	111	0.036	ug/L	0.010	27	140	312	10
Cd	114	0.012	ug/L	0.000	3	10	104	3
Sb	121	0.037	ug/L	0.003	7	20	432	7
Sb	123	0.038	ug/L	0.003	9	14	327	8
Ba	135	9.455	ug/L	0.163	1	15	23512	2
Ba	137	9.497	ug/L	0.164	1	25	40801	2
Tb	159		ug/L			322959	429930	1
Tl	205	-0.001	ug/L	0.000	10	79	73	5
Pb	208	0.087	ug/L	0.005	5	474	4472	4
Bi	209		ug/L			289860	394899	1
Th	232	0.008	ug/L	0.001	13	304	837	5
U	238	0.091	ug/L	0.006	6	406	6091	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 Q REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:54:38
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			381465	483609	3
Be	9	0.106	ug/L	0.024	22	7	67	18
C	13		mg/L			6172	10944	1
Cl	37		mg/L			1891522	3509947	1
Sc	45		ug/L			216440	442750	4
V	51	22.964	ug/L	0.626	2	1658	449597	2
V-1	51	23.069	ug/L	0.648	2	2490	461883	2
Cr	52	13.426	ug/L	0.382	2	5397	239000	1
Cr	53	14.308	ug/L	0.463	3	875	30936	2
Mn	55	181.001	ug/L	4.059	2	538	5101709	2
Co	59	1.252	ug/L	0.027	2	36	26836	2
Ge	72		ug/L			245554	323210	1
Ni	60	6.560	ug/L	0.101	1	28	18725	2
Ni	62	10.452	ug/L	0.214	2	54	4481	3
Cu	63	10.086	ug/L	0.154	1	274	63861	2
Cu	65	7.912	ug/L	0.144	1	78	23473	3
Zn	66	9.380	ug/L	0.103	1	157	17882	2
Zn	67	12.597	ug/L	0.199	1	106	4080	2
Zn	68	8.584	ug/L	0.080	0	6573	19783	1
As	75	2.857	ug/L	0.052	1	360	5715	2
As-1	75	1.328	ug/L	0.075	5	7598	12373	0
Se	82	2.313	ug/L	0.122	5	-4	477	6
Se	78	-3.370	ug/L	0.256	7	7721	8527	0
Mo	98	0.318	ug/L	0.024	7	535	3025	7
Y	89		ug/L			251217	446490	3
Kr	83		ug/L			205	267	2
In	115		ug/L			289086	394286	2
Ag	107	0.030	ug/L	0.002	7	18	402	8
Cd	111	-0.390	ug/L	0.027	7	140	-1073	10
Cd	114	0.050	ug/L	0.002	3	10	387	2
Sb	121	0.212	ug/L	0.002	0	20	2288	1
Sb	123	0.207	ug/L	0.006	2	14	1676	5
Ba	135	24.945	ug/L	0.201	0	15	61187	3
Ba	137	24.469	ug/L	0.062	0	25	103688	2
Tb	159		ug/L			322959	429442	2
Tl	205	0.006	ug/L	0.001	13	79	307	11
Pb	208	1.159	ug/L	0.008	0	474	51520	2
Bi	209		ug/L			289860	360563	2
Th	232	0.809	ug/L	0.007	0	304	44864	3
U	238	0.570	ug/L	0.003	0	406	35351	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 R REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:00:57
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	471099	12
[	Be	9	0.014	ug/L	0.007	50	7	16	13
	C	13		mg/L			6172	8493	1
	Cl	37		mg/L			1891522	11687972	4
[>	Sc	45		ug/L			216440	324556	9
[	V	51	0.756	ug/L	0.119	15	1658	13168	5
[	V-1	51	3.862	ug/L	0.193	4	2490	60019	14
[	Cr	52	0.435	ug/L	0.050	11	5397	13475	6
[	Cr	53	10.107	ug/L	0.897	8	875	16505	17
[	Mn	55	191.505	ug/L	9.105	4	538	3948945	6
[	Co	59	4.195	ug/L	0.194	4	36	65652	6
[>	Ge	72		ug/L			245554	283957	7
[	Ni	60	11.131	ug/L	0.414	3	28	27905	8
[	Ni	62	15.081	ug/L	1.026	6	54	5655	10
[	Cu	63	7.844	ug/L	0.151	1	274	43680	6
[	Cu	65	2.693	ug/L	0.054	1	78	7075	6
[	Zn	66	17.657	ug/L	0.730	4	157	29359	3
[	Zn	67	19.124	ug/L	0.399	2	106	5372	5
[	Zn	68	18.148	ug/L	1.186	6	6573	28213	2
[	As	75	10.975	ug/L	0.329	2	360	18080	4
[	As-1	75	8.906	ug/L	0.841	9	7598	22710	1
[	Se	82	4.852	ug/L	0.326	6	-4	888	13
[	Se	78	-2.929	ug/L	1.807	61	7721	7644	2
[	Mo	98	0.705	ug/L	0.021	3	535	5124	5
	Y	89		ug/L			251217	328954	10
	Kr	83		ug/L			205	305	1
[>	In	115		ug/L			289086	335392	8
[	Ag	107	0.019	ug/L	0.001	4	18	225	4
[	Cd	111	-0.120	ug/L	0.061	50	140	-177	99
[	Cd	114	0.517	ug/L	0.029	5	10	3297	3
[	Sb	121	0.994	ug/L	0.034	3	20	9032	5
[	Sb	123	0.991	ug/L	0.045	4	14	6753	4
[	Ba	135	115.662	ug/L	3.898	3	15	240802	6
[	Ba	137	114.824	ug/L	4.629	4	25	412951	6
[>	Tb	159		ug/L			322959	383503	10
[	Tl	205	U 0.004	ug/L	0.000	9	79	214	14
[	Pb	208	U 0.054	ug/L	0.003	5	474	2671	5
[	Bi	209		ug/L			289860	302869	8
[	Th	232	0.033	ug/L	0.005	16	304	1977	22
[	U	238	0.032	ug/L	0.003	8	406	2205	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 S REN
Sample Dil Factor: 2 Del
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:07:15
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	456969	5
[	Be	9	0.061	ug/L	0.007	11	7	40	11
	C	13		mg/L			6172	9482	1
	Cl	37		mg/L			1891522	2712845	0
[>	Sc	45		ug/L			216440	395283	7
	V	51	8.550	ug/L	0.226	2	1658	151291	4
	V-1	51	8.639	ug/L	0.240	2	2490	157194	4
	Cr	52	4.632	ug/L	0.192	4	5397	79997	3
	Cr	53	5.136	ug/L	0.238	4	875	10927	3
	Mn	55	132.726	ug/L	4.353	3	538	3337994	4
[	Co	59	0.816	ug/L	0.033	4	36	15627	4
[>	Ge	72		ug/L			245554	321071	5
	Ni	60	4.384	ug/L	0.059	1	28	12436	4
	Ni	62	6.620	ug/L	0.316	4	54	2840	2
	Cu	63	4.386	ug/L	0.116	2	274	27765	4
	Cu	65	3.765	ug/L	0.102	2	78	11138	3
	Zn	66	6.589	ug/L	0.177	2	157	12528	3
	Zn	67	7.591	ug/L	0.369	4	106	2495	4
	Zn	68	5.675	ug/L	0.465	8	6573	15881	2
	As	75	8.618	ug/L	0.232	2	360	16155	3
	As-1	75	7.554	ug/L	0.492	6	7598	23314	1
	Se	82	0.774	ug/L	0.048	6	-4	154	8
	Se	78	-3.956	ug/L	0.977	24	7721	8170	0
[	Mo	98	0.441	ug/L	0.014	3	535	3886	4
	Y	89		ug/L			251217	375940	5
	Kr	83		ug/L			205	254	3
[>	In	115		ug/L			289086	392090	5
	Ag	107	0.013	ug/L	0.001	9	18	185	11
	Cd	111	1.710	ug/L	0.041	2	140	5697	7
	Cd	114	1.759	ug/L	0.032	1	10	13120	3
	Sb	121	0.240	ug/L	0.008	3	20	2576	2
	Sb	123	0.241	ug/L	0.002	0	14	1937	5
	Ba	135	17.463	ug/L	0.255	1	15	42583	4
[	Ba	137	17.103	ug/L	0.629	3	25	72000	3
[>	Tb	159		ug/L			322959	421472	8
	Tl	205	0.003	ug/L	0.000	2	79	210	9
	Pb	208	0.865	ug/L	0.042	4	474	37797	3
	Bi	209		ug/L			289860	373787	6
	Th	232	0.291	ug/L	0.012	4	304	16050	4
[	U	238	0.193	ug/L	0.007	3	406	12060	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 T REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:13:34
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	416243	1
[	Be	9	0.012	ug/L	0.003	24	7	13	10
	C	13		mg/L			6172	8273	1
	Cl	37		mg/L			1891522	10564243	1
[>	Sc	45		ug/L			216440	287577	0
	V	51	0.697	ug/L	0.075	10	1658	11006	9
	V-1	51	3.593	ug/L	0.128	3	2490	49563	3
	Cr	52	0.453	ug/L	0.024	5	5397	12171	2
	Cr	53	9.471	ug/L	0.381	4	875	13705	3
	Mn	55	196.985	ug/L	5.189	2	538	3608718	2
[	Co	59	4.189	ug/L	0.069	1	36	58242	1
[>	Ge	72		ug/L			245554	266338	1
	Ni	60	10.495	ug/L	0.404	3	28	24662	3
	Ni	62	16.160	ug/L	0.676	4	54	5676	4
	Cu	63	7.560	ug/L	0.195	2	274	39509	2
	Cu	65	2.606	ug/L	0.094	3	78	6426	3
	Zn	66	17.103	ug/L	0.339	1	157	26723	1
	Zn	67	18.672	ug/L	0.294	1	106	4927	2
	Zn	68	17.956	ug/L	0.580	3	6573	26310	1
	As	75	10.807	ug/L	0.322	2	360	16721	2
	As-1	75	9.169	ug/L	0.277	3	7598	21744	0
	Se	82	4.545	ug/L	0.228	5	-4	777	4
	Se	78	-1.557	ug/L	0.148	9	7721	7751	0
[	Mo	98	0.670	ug/L	0.029	4	535	4602	2
	Y	89		ug/L			251217	299107	0
	Kr	83		ug/L			205	304	4
[>	In	115		ug/L			289086	310269	0
	Ag	107	0.014	ug/L	0.002	17	18	155	14
	Cd	111	-0.318	ug/L	0.126	39	140	-660	48
	Cd	114	0.322	ug/L	0.011	3	10	1912	3
	Sb	121	0.961	ug/L	0.031	3	20	8098	2
	Sb	123	0.962	ug/L	0.026	2	14	6080	2
	Ba	135	112.022	ug/L	3.127	2	15	216124	2
[	Ba	137	110.051	ug/L	2.604	2	25	366845	1
[>	Tb	159		ug/L			322959	348528	0
	Tl	205	0.004	ug/L	0.001	22	79	198	13
	Pb	208	0.032	ug/L	0.002	5	474	1670	4
	Bi	209		ug/L			289860	283824	1
	Th	232	0.009	ug/L	0.003	37	304	719	19
[	U	238	0.031	ug/L	0.001	2	406	1991	1

VZ75 · 00074

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 V REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:19:52
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	622492	8
[	Be	9	0.005	ug/L	0.010	210	7	14	40
	C	13		mg/L			6172	10487	0
	Cl	37		mg/L			1891522	4928841	1
[>	Sc	45		ug/L			216440	500111	8
	V	51	3.563	ug/L	0.139	3	1658	81942	4
	V-1	51	4.287	ug/L	0.160	3	2490	101553	5
	Cr	52	1.636	ug/L	0.132	8	5397	43734	2
	Cr	53	3.998	ug/L	0.192	4	875	11213	5
	Mn	55	55.722	ug/L	2.884	5	538	1771140	3
[	Co	59	0.333	ug/L	0.015	4	36	8119	3
[>	Ge	72		ug/L			245554	386442	3
	Ni	60	0.779	ug/L	0.018	2	28	2559	4
	Ni	62	4.708	ug/L	0.191	4	54	2331	1
	Cu	63	2.955	ug/L	0.075	2	274	21499	4
	Cu	65	0.975	ug/L	0.026	2	78	3382	2
	Zn	66	1.539	ug/L	0.023	1	157	3524	4
	Zn	67	3.147	ug/L	0.313	9	106	1275	9
	Zn	68	0.357	ug/L	0.170	47	6573	10329	1
	As	75	5.908	ug/L	0.114	1	360	12821	2
	As-1	75	3.593	ug/L	0.273	7	7598	18609	1
	Se	82	2.502	ug/L	0.147	5	-4	586	9
	Se	78	-6.594	ug/L	0.647	9	7721	7887	1
[	Mo	98	0.893	ug/L	0.022	2	535	8173	1
	Y	89		ug/L			251217	428906	5
	Kr	83		ug/L			205	248	5
[>	In	115		ug/L			289086	468928	5
	Ag	107	0.007	ug/L	0.001	9	18	132	10
	Cd	111	-0.349	ug/L	0.066	18	140	-1119	26
	Cd	114	0.009	ug/L	0.001	10	10	97	3
	Sb	121	0.067	ug/L	0.002	2	20	877	3
	Sb	123	0.065	ug/L	0.005	7	14	644	6
	Ba	135	38.090	ug/L	1.608	4	15	110949	3
[	Ba	137	37.772	ug/L	1.242	3	25	190107	3
[>	Tb	159		ug/L			322959	511220	7
	Tl	205	-0.002	ug/L	0.000	4	79	57	9
	Pb	208	0.118	ug/L	0.008	6	474	6888	1
	Bi	209		ug/L			289860	421978	5
	Th	232	0.069	ug/L	0.009	12	304	4973	9
[	U	238	0.086	ug/L	0.007	7	406	6894	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 W REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:26:10
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	468535	2
[	Be	9	0.020	ug/L	0.022	109	7	19	62
	C	13		mg/L			6172	9073	1
	Cl	37		mg/L			1891522	2339359	1
[>	Sc	45		ug/L			216440	378741	4
	V	51	0.207	ug/L	0.011	5	1658	6342	1
	V-1	51	0.298	ug/L	0.018	6	2490	9397	0
	Cr	52	0.094	ug/L	0.009	9	5397	10813	2
	Cr	53	0.383	ug/L	0.039	10	875	2198	2
	Mn	55	530.313	ug/L	1.504	0	538	12793419	4
[	Co	59	2.552	ug/L	0.006	0	36	46756	4
[>	Ge	72		ug/L			245554	318446	2
	Ni	60	12.933	ug/L	0.260	2	28	36337	3
	Ni	62	14.812	ug/L	0.351	2	54	6228	4
	Cu	63	1.679	ug/L	0.025	1	274	10773	4
	Cu	65	2.121	ug/L	0.032	1	78	6275	3
	Zn	66	5.568	ug/L	0.171	3	157	10545	5
	Zn	67	6.427	ug/L	0.103	1	106	2119	4
	Zn	68	4.976	ug/L	0.260	5	6573	14876	1
	As	75	1.142	ug/L	0.022	1	360	2530	1
	As-1	75	0.050	ug/L	0.151	301	7598	9936	0
	Se	82	0.431	ug/L	0.059	13	-4	82	12
	Se	78	-3.761	ug/L	0.540	14	7721	8210	0
[	Mo	98	0.036	ug/L	0.003	7	535	954	3
	Y	89		ug/L			251217	347416	3
	Kr	83		ug/L			205	244	1
[>	In	115		ug/L			289086	392948	3
	Ag	107	0.003	ug/L	0.001	39	18	63	19
	Cd	111	0.111	ug/L	0.008	6	140	549	7
	Cd	114	0.087	ug/L	0.001	1	10	661	4
	Sb	121	0.226	ug/L	0.005	2	20	2435	2
	Sb	123	0.227	ug/L	0.007	2	14	1830	4
	Ba	135	56.566	ug/L	0.948	1	15	138180	2
[	Ba	137	55.932	ug/L	0.476	0	25	236120	3
[>	Tb	159		ug/L			322959	426259	2
	Tl	205	0.015	ug/L	0.001	8	79	565	9
	Pb	208	0.020	ug/L	0.001	4	474	1502	4
	Bi	209		ug/L			289860	378010	3
	Th	232	0.007	ug/L	0.002	30	304	784	12
[	U	238	0.041	ug/L	0.001	1	406	3002	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 X REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:32:28
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	354900	3
[	Be	9	0.006	ug/L	0.006	96	7	9	28
	C	13		mg/L			6172	9156	2
	Cl	37		mg/L			1891522	2595081	1
[>	Sc	45		ug/L			216440	284955	4
[	V	51	0.867	ug/L	0.024	2	1658	13041	5
[	V-1	51	1.101	ug/L	0.022	1	2490	17310	3
[	Cr	52	0.387	ug/L	0.018	4	5397	11341	6
[	Cr	53	1.139	ug/L	0.039	3	875	2646	2
[	Mn	55	827.402	ug/L	22.434	2	538	15018634	5
[	Co	59	1.359	ug/L	0.047	3	36	18763	5
[>	Ge	72		ug/L			245554	263099	2
[	Ni	60	2.643	ug/L	0.110	4	28	6162	6
[	Ni	62	5.261	ug/L	0.088	1	54	1865	3
[	Cu	63	1.112	ug/L	0.053	4	274	5990	5
[	Cu	65	0.790	ug/L	0.008	1	78	1982	2
[	Zn	66	3.840	ug/L	0.111	2	157	6059	4
[	Zn	67	4.428	ug/L	0.139	3	106	1241	3
[	Zn	68	4.042	ug/L	0.085	2	6573	11308	1
[	As	75	1.677	ug/L	0.052	3	360	2891	4
[	As-1	75	1.383	ug/L	0.066	4	7598	10152	1
[	Se	82	0.580	ug/L	0.081	14	-4	94	16
[	Se	78	-0.435	ug/L	0.347	79	7721	8099	0
[	Mo	98	0.337	ug/L	0.022	6	535	2571	6
	Y	89		ug/L			251217	274211	3
	Kr	83		ug/L			205	246	0
[>	In	115		ug/L			289086	307880	2
[	Ag	107	0.003	ug/L	0.002	65	18	46	34
[	Cd	111	u -0.011	ug/L	0.008	74	140	122	13
[	Cd	114	0.012	ug/L	0.001	10	10	81	6
[	Sb	121	u 0.191	ug/L	0.005	2	20	1619	5
[	Sb	123	0.186	ug/L	0.009	4	14	1182	7
[	Ba	135	27.489	ug/L	0.761	2	15	52667	5
[	Ba	137	27.133	ug/L	0.909	3	25	89824	5
[>	Tb	159		ug/L			322959	337507	3
[	Tl	205	u -0.001	ug/L	0.000	18	79	55	12
[	Pb	208	u 0.048	ug/L	0.002	4	474	2143	4
[	Bi	209		ug/L			289860	300568	1
[	Th	232	0.013	ug/L	0.003	25	304	896	16
[	U	238	0.073	ug/L	0.003	3	406	3930	6

VZ75 00477

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:38:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			381465	342199	0
Be	9	57.989	ug/L	0.646	1	7	22804	0
C	13		mg/L			6172	5083	1
Cl	37		mg/L			1891522	2401123	0
Sc	45		ug/L			216440	243761	2
V	51	50.716	ug/L	0.705	1	1658	544757	0
V-1	51	50.850	ug/L	0.850	1	2490	557472	0
Cr	52	51.639	ug/L	0.614	1	5397	489133	0
Cr	53	51.999	ug/L	1.087	2	875	59338	0
Mn	55	51.666	ug/L	1.177	2	538	802522	1
Co	59	52.579	ug/L	0.879	1	36	619041	0
Ge	72		ug/L			245554	276767	0
Ni	60	53.368	ug/L	0.358	0	28	130202	0
Ni	62	54.901	ug/L	0.276	0	54	19892	0
Cu	63	53.485	ug/L	0.151	0	274	288620	0
Cu	65	52.731	ug/L	0.752	1	78	133439	1
Zn	66	53.035	ug/L	0.119	0	157	85746	0
Zn	67	53.014	ug/L	0.481	0	106	14317	1
Zn	68	52.347	ug/L	0.320	0	6573	65528	0
As	75	50.837	ug/L	0.072	0	360	80246	0
As-1	75	50.741	ug/L	0.189	0	7598	86229	0
Se	82	50.118	ug/L	0.256	0	-4	8966	0
Se	78	49.901	ug/L	0.398	0	7721	29433	0
Mo	98	51.815	ug/L	0.371	0	535	323971	1
Y	89		ug/L			251217	275265	1
Kr	83		ug/L			205	276	2
In	115		ug/L			289086	322659	0
Ag	107	51.836	ug/L	0.271	0	18	532808	1
Cd	111	51.332	ug/L	0.097	0	140	136174	1
Cd	114	51.460	ug/L	0.696	1	10	315658	1
Sb	121	50.549	ug/L	0.157	0	20	441835	0
Sb	123	50.381	ug/L	0.304	0	14	330326	0
Ba	135	49.143	ug/L	0.362	0	15	98613	0
Ba	137	48.842	ug/L	0.622	1	25	169327	0
Tb	159		ug/L			322959	336934	0
Tl	205	53.071	ug/L	0.367	0	79	1324286	0
Pb	208	53.615	ug/L	0.072	0	474	1846951	0
Bi	209		ug/L			289860	315952	0
Th	232	54.434	ug/L	0.310	0	304	2348273	0
U	238	54.457	ug/L	0.417	0	406	2607447	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:45:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			381465	352838	0
	Be	9	0.003	ug/L	0.009	279	7	7	48
	C	13		mg/L			6172	6690	1
	Cl	37		mg/L			1891522	2447192	1
>	Sc	45		ug/L			216440	251586	0
	V	51	0.016	ug/L	0.025	156	1658	2106	12
	V-1	51	0.114	ug/L	0.014	11	2490	4179	3
	Cr	52	0.018	ug/L	0.014	79	5397	6446	1
	Cr	53	0.322	ug/L	0.049	15	875	1391	4
	Mn	55	0.001	ug/L	0.001	149	538	640	3
	Co	59	0.000	ug/L	0.000	187	36	44	10
>	Ge	72		ug/L			245554	282218	0
	Ni	60	-0.003	ug/L	0.004	122	28	24	38
	Ni	62	1.624	ug/L	0.164	10	54	660	9
	Cu	63	0.058	ug/L	0.007	11	274	635	4
	Cu	65	0.011	ug/L	0.008	72	78	120	18
	Zn	66	0.001	ug/L	0.002	325	157	182	2
	Zn	67	0.024	ug/L	0.048	197	106	129	9
	Zn	68	-0.383	ug/L	0.005	1	6573	7121	0
	As	75	0.043	ug/L	0.015	35	360	482	4
	As-1	75	-0.129	ug/L	0.068	52	7598	8531	0
	Se	82	-0.065	ug/L	0.064	97	-4	-17	68
	Se	78	-0.506	ug/L	0.254	50	7721	8659	0
	Mo	98	-0.082	ug/L	0.005	6	535	91	35
	Y	89		ug/L			251217	284382	0
	Kr	83		ug/L			205	269	3
>	In	115		ug/L			289086	328165	0
	Ag	107	0.004	ug/L	0.001	22	18	62	14
	Cd	111	0.018	ug/L	0.006	34	140	207	7
	Cd	114	0.000	ug/L	0.000	960	10	12	13
	Sb	121	0.041	ug/L	0.016	38	20	387	36
	Sb	123	0.040	ug/L	0.007	17	14	285	16
	Ba	135	0.001	ug/L	0.004	375	15	20	38
	Ba	137	-0.001	ug/L	0.002	381	25	26	31
>	Tb	159		ug/L			322959	349330	0
	Tl	205	0.002	ug/L	0.001	61	79	132	21
	Pb	208	-0.005	ug/L	0.001	16	474	343	8
	Bi	209		ug/L			289860	328688	1
	Th	232	0.016	ug/L	0.006	36	304	1049	25
	U	238	-0.007	ug/L	0.000	3	406	113	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:51:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	396029	2
[	Be	9	0.000	ug/L	0.008	1827	7	7	44
	C	13		mg/L			6172	7488	0
	Cl	37		mg/L			1891522	2480741	0
[>	Sc	45		ug/L			216440	268798	1
	V	51	0.015	ug/L	0.009	61	1658	2236	5
	V-1	51	0.067	ug/L	0.014	20	2490	3902	4
	Cr	52	0.043	ug/L	0.034	77	5397	7144	3
	Cr	53	0.204	ug/L	0.037	18	875	1340	1
	Mn	55	0.068	ug/L	0.005	7	538	1837	2
[	Co	59	0.000	ug/L	0.000	82	36	47	5
[>	Ge	72		ug/L			245554	299455	2
	Ni	60	0.134	ug/L	0.011	8	28	387	6
	Ni	62	1.446	ug/L	0.068	4	54	631	4
	Cu	63	0.164	ug/L	0.012	7	274	1290	3
	Cu	65	0.137	ug/L	0.012	8	78	471	5
	Zn	66	0.771	ug/L	0.057	7	157	1537	4
	Zn	67	0.671	ug/L	0.051	7	106	324	2
	Zn	68	0.010	ug/L	0.220	2265	6573	8025	2
	As	75	0.020	ug/L	0.006	29	360	473	4
	As-1	75	-0.438	ug/L	0.100	22	7598	8538	0
	Se	82	-0.038	ug/L	0.079	206	-4	-12	119
	Se	78	-1.654	ug/L	0.381	23	7721	8670	0
[	Mo	98	-0.082	ug/L	0.006	7	535	101	42
	Y	89		ug/L			251217	308745	0
	Kr	83		ug/L			205	263	3
[>	In	115		ug/L			289086	355933	1
	Ag	107	0.003	ug/L	0.001	44	18	55	25
	Cd	111	0.013	ug/L	0.003	21	140	211	4
	Cd	114	0.001	ug/L	0.001	77	10	18	20
	Sb	121	0.017	ug/L	0.002	10	20	193	6
	Sb	123	0.016	ug/L	0.004	25	14	136	20
	Ba	135	0.011	ug/L	0.002	14	15	42	9
[	Ba	137	0.010	ug/L	0.002	20	25	69	10
[>	Tb	159		ug/L			322959	379307	1
	Tl	205	0.001	ug/L	0.002	174	79	117	35
	Pb	208	-0.000	ug/L	0.001	1587	474	555	2
	Bi	209		ug/L			289860	352644	1
	Th	232	0.007	ug/L	0.002	36	304	689	16
[	U	238	-0.007	ug/L	0.000	4	406	89	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:57:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	408312	1
[	Be	9	0.009	ug/L	0.014	151	7	12	56
	C	13		mg/L			6172	8680	0
	Cl	37		mg/L			1891522	2408714	0
[>	Sc	45		ug/L			216440	300571	1
	V	51	0.993	ug/L	0.033	3	1658	15414	2
	V-1	51	1.022	ug/L	0.029	2	2490	17207	1
	Cr	52	0.256	ug/L	0.008	3	5397	10455	2
	Cr	53	0.389	ug/L	0.035	9	875	1754	2
	Mn	55	512.110	ug/L	8.097	1	538	9802835	0
[	Co	59	0.629	ug/L	0.016	2	36	9186	1
[>	Ge	72		ug/L			245554	290115	0
	Ni	60	2.169	ug/L	0.108	4	28	5579	4
	Ni	62	2.307	ug/L	0.018	0	54	938	0
	Cu	63	0.670	ug/L	0.003	0	274	4109	0
	Cu	65	0.443	ug/L	0.005	1	78	1266	1
	Zn	66	3.135	ug/L	0.060	1	157	5488	1
	Zn	67	3.925	ug/L	0.107	2	106	1227	2
	Zn	68	3.262	ug/L	0.218	6	6573	11562	1
	As	75	4.436	ug/L	0.051	1	360	7729	1
	As-1	75	3.965	ug/L	0.048	1	7598	15338	0
	Se	82	0.270	ug/L	0.059	21	-4	45	24
	Se	78	-1.733	ug/L	0.129	7	7721	8367	0
[	Mo	98	0.744	ug/L	0.016	2	535	5496	1
	Y	89		ug/L			251217	303994	0
	Kr	83		ug/L			205	264	3
[>	In	115		ug/L			289086	342844	0
	Ag	107	0.003	ug/L	0.000	6	18	57	3
	Cd	111	0.061	ug/L	0.009	15	140	337	8
	Cd	114	0.051	ug/L	0.001	2	10	342	2
	Sb	121	0.119	ug/L	0.005	4	20	1130	4
	Sb	123	0.120	ug/L	0.003	2	14	856	2
	Ba	135	33.763	ug/L	0.403	1	15	71996	0
[	Ba	137	33.587	ug/L	0.449	1	25	123738	0
[>	Tb	159		ug/L			322959	370703	0
	Tl	205	-0.001	ug/L	0.000	49	79	71	13
	Pb	208	0.280	ug/L	0.003	0	474	11156	0
	Bi	209		ug/L			289860	334058	1
	Th	232	0.022	ug/L	0.001	6	304	1385	3
[	U	238	0.457	ug/L	0.007	1	406	24527	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:03:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	445952	5
[	Be	9	0.014	ug/L	0.009	61	7	15	26
	C	13		mg/L			6172	9273	0
	Cl	37		mg/L			1891522	2689344	1
[>	Sc	45		ug/L			216440	340709	6
	V	51	3.629	ug/L	0.025	0	1658	56932	6
	V-1	51	3.748	ug/L	0.023	0	2490	61059	5
	Cr	52	2.026	ug/L	0.038	1	5397	34979	5
	Cr	53	2.487	ug/L	0.160	6	875	5272	3
	Mn	55	39.644	ug/L	0.560	1	538	860992	6
[	Co	59	0.345	ug/L	0.007	2	36	5731	4
[>	Ge	72		ug/L			245554	287173	3
	Ni	60	1.854	ug/L	0.048	2	28	4727	6
	Ni	62	3.556	ug/L	0.157	4	54	1396	6
	Cu	63	1.864	ug/L	0.055	2	274	10752	5
	Cu	65	1.360	ug/L	0.010	0	78	3659	4
	Zn	66	4.697	ug/L	0.087	1	157	8045	3
	Zn	67	4.580	ug/L	0.284	6	106	1399	9
	Zn	68	3.783	ug/L	0.248	6	6573	12038	1
	As	75	0.883	ug/L	0.051	5	360	1857	1
	As-1	75	-0.071	ug/L	0.183	257	7598	8766	1
	Se	82	0.751	ug/L	0.035	4	-4	134	7
	Se	78	-2.673	ug/L	0.636	23	7721	7871	1
[	Mo	98	-0.026	ug/L	0.006	22	535	456	11
	Y	89		ug/L			251217	319444	4
	Kr	83		ug/L			205	255	3
[>	In	115		ug/L			289086	339555	5
	Ag	107	0.006	ug/L	0.001	15	18	84	17
	Cd	111	0.305	ug/L	0.011	3	140	1017	8
	Cd	114	0.333	ug/L	0.001	0	10	2162	5
	Sb	121	0.085	ug/L	0.001	0	20	809	5
	Sb	123	0.085	ug/L	0.005	5	14	605	10
	Ba	135	6.965	ug/L	0.278	3	15	14708	3
[	Ba	137	6.944	ug/L	0.058	0	25	25355	4
[>	Tb	159		ug/L			322959	380365	4
	Tl	205	-0.000	ug/L	0.000	154	79	85	17
	Pb	208	0.219	ug/L	0.003	1	474	9086	5
	Bi	209		ug/L			289860	328284	4
	Th	232	0.059	ug/L	0.004	7	304	3213	9
[	U	238	0.053	ug/L	0.001	1	406	3355	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 I REN
Sample Dil Factor: 2 Del
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:10:03
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			381465	453918	7
	Be	9	-0.001	ug/L	0.009	696	7	7	65
	C	13		mg/L			6172	8181	2
	Cl	37		mg/L			1891522	2086730	4
>	Sc	45		ug/L			216440	309728	9
	V	51	0.863	ug/L	0.039	4	1658	14079	5
	V-1	51	0.856	ug/L	0.065	7	2490	15376	3
	Cr	52	0.065	ug/L	0.042	65	5397	8466	4
	Cr	53	0.090	ug/L	0.121	134	875	1371	3
	Mn	55	2.605	ug/L	0.115	4	538	52025	4
	Co	59	0.120	ug/L	0.000	0	36	1848	9
>	Ge	72		ug/L			245554	279701	5
	Ni	60	2.978	ug/L	0.104	3	28	7379	8
	Ni	62	3.321	ug/L	0.299	8	54	1271	6
	Cu	63	1.686	ug/L	0.055	3	274	9487	3
	Cu	65	1.867	ug/L	0.042	2	78	4858	4
	Zn	66	1.995	ug/L	0.029	1	157	3431	4
	Zn	67	2.572	ug/L	0.079	3	106	816	3
	Zn	68	1.572	ug/L	0.502	31	6573	9230	0
	As	75	2.718	ug/L	0.076	2	360	4720	3
	As-1	75	1.926	ug/L	0.331	17	7598	11613	1
	Se	82	0.270	ug/L	0.022	8	-4	43	13
	Se	78	-2.858	ug/L	1.057	36	7721	7577	0
	Mo	98	1.099	ug/L	0.018	1	535	7534	4
	Y	89		ug/L			251217	293686	6
	Kr	83		ug/L			205	235	3
>	In	115		ug/L			289086	337519	7
	Ag	107	0.002	ug/L	0.001	38	18	38	17
	Cd	111	0.099	ug/L	0.010	10	140	437	12
	Cd	114	0.080	ug/L	0.003	4	10	524	4
	Sb	121	1.837	ug/L	0.065	3	20	16795	5
	Sb	123	1.835	ug/L	0.058	3	14	12582	4
	Ba	135	30.117	ug/L	0.992	3	15	63134	5
	Ba	137	29.905	ug/L	1.012	3	25	108275	4
>	Tb	159		ug/L			322959	378287	6
	Tl	205	0.003	ug/L	0.001	29	79	166	9
	Pb	208	0.222	ug/L	0.001	0	474	9119	6
	Bi	209		ug/L			289860	335863	6
	Th	232	0.011	ug/L	0.002	14	304	887	9
	U	238	0.248	ug/L	0.004	1	406	13816	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 J REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:16:19
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			381465	492856	4
Be	9	0.016	ug/L	0.012	72	7	18	34
C	13		mg/L			6172	8077	1
Cl	37		mg/L			1891522	2092015	3
Sc	45		ug/L			216440	324662	3
V	51	2.439	ug/L	0.028	1	1658	37269	4
V-1	51	2.383	ug/L	0.011	0	2490	38363	3
Cr	52	1.253	ug/L	0.021	1	5397	23717	3
Cr	53	1.149	ug/L	0.069	5	875	3029	3
Mn	55	71.023	ug/L	1.408	1	538	1469757	4
Co	59	0.447	ug/L	0.006	1	36	7061	4
Ge	72		ug/L			245554	296189	4
Ni	60	2.962	ug/L	0.030	0	28	7763	3
Ni	62	3.601	ug/L	0.031	0	54	1457	4
Cu	63	1.893	ug/L	0.019	0	274	11245	3
Cu	65	2.060	ug/L	0.009	0	78	5671	4
Zn	66	3.928	ug/L	0.015	0	157	6972	4
Zn	67	4.067	ug/L	0.214	5	106	1294	6
Zn	68	2.718	ug/L	0.250	9	6573	11150	1
As	75	15.649	ug/L	0.077	0	360	26734	3
As-1	75	15.062	ug/L	0.270	1	7598	33824	2
Se	82	0.103	ug/L	0.057	55	-4	14	78
Se	78	-3.533	ug/L	0.729	20	7721	7733	0
Mo	98	1.665	ug/L	0.018	1	535	11766	3
Y	89		ug/L			251217	326016	4
Kr	83		ug/L			205	249	2
In	115		ug/L			289086	361540	3
Ag	107	0.005	ug/L	0.001	24	18	79	21
Cd	111	0.050	ug/L	0.009	17	140	323	11
Cd	114	0.025	ug/L	0.002	6	10	183	8
Sb	121	0.136	ug/L	0.002	1	20	1353	5
Sb	123	0.138	ug/L	0.005	3	14	1029	0
Ba	135	12.922	ug/L	0.324	2	15	29087	6
Ba	137	12.719	ug/L	0.144	1	25	49428	3
Tb	159		ug/L			322959	410471	4
Tl	205	0.001	ug/L	0.000	17	79	136	5
Pb	208	0.464	ug/L	0.007	1	474	20083	5
Bi	209		ug/L			289860	359273	3
Th	232	0.063	ug/L	0.004	5	304	3709	5
U	238	0.118	ug/L	0.003	2	406	7371	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 K REN
Sample Dil Factor: 2 Dil
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:22:36
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			381465	465883	3
	Be	9	0.042	ug/L	0.022	52	7	30	34
	C	13		mg/L			6172	9251	1
	Cl	37		mg/L			1891522	2390020	1
>	Sc	45		ug/L			216440	372981	4
	V	51	7.314	ug/L	0.162	2	1658	122595	3
	V-1	51	7.228	ug/L	0.138	1	2490	124890	3
	Cr	52	2.946	ug/L	0.095	3	5397	51439	3
	Cr	53	2.934	ug/L	0.047	1	875	6546	4
	Mn	55	4549.851	ug/L	69.139	1	538	108042504	3
	Co	59	1.548	ug/L	0.002	0	36	27945	4
>	Ge	72		ug/L			245554	293524	2
	Ni	60	9.704	ug/L	0.259	2	28	25144	5
	Ni	62	9.957	ug/L	0.306	3	54	3881	5
	Cu	63	4.146	ug/L	0.044	1	274	24036	4
	Cu	65	2.531	ug/L	0.031	1	78	6883	4
	Zn	66	5.614	ug/L	0.065	1	157	9793	1
	Zn	67	6.079	ug/L	0.313	5	106	1854	6
	Zn	68	5.002	ug/L	0.251	5	6573	13741	0
	As	75	8.948	ug/L	0.068	0	360	15337	3
	As-1	75	8.016	ug/L	0.076	0	7598	22093	2
	Se	82	1.216	ug/L	0.097	7	-4	225	5
	Se	78	-2.713	ug/L	0.503	18	7721	8030	1
	Mo	98	2.583	ug/L	0.062	2	535	17745	5
	Y	89		ug/L			251217	354124	4
	Kr	83		ug/L			205	286	5
>	In	115		ug/L			289086	338417	3
	Ag	107	0.029	ug/L	0.012	40	18	337	36
	Cd	111	0.212	ug/L	0.035	16	140	750	10
	Cd	114	0.246	ug/L	0.010	4	10	1590	1
	Sb	121	0.261	ug/L	0.002	0	20	2419	3
	Sb	123	0.260	ug/L	0.004	1	14	1804	4
	Ba	135	12.989	ug/L	0.065	0	15	27348	3
	Ba	137	13.040	ug/L	0.158	1	25	47427	2
>	Tb	159		ug/L			322959	381414	4
	Tl	205	0.003	ug/L	0.001	24	79	185	14
	Pb	208	1.236	ug/L	0.015	1	474	48721	3
	Bi	209		ug/L			289860	322136	3
	Th	232	0.208	ug/L	0.006	3	304	10501	3
	U	238	1.390	ug/L	0.025	1	406	75771	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 L REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:28:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	521179	2
[	Be	9	0.042	ug/L	0.015	35	7	35	26
	C	13		mg/L			6172	8610	1
	Cl	37		mg/L			1891522	2474872	0
[>	Sc	45		ug/L			216440	323159	0
	V	51	19.224	ug/L	0.264	1	1658	275330	1
	V-1	51	18.990	ug/L	0.243	1	2490	278392	1
	Cr	52	7.148	ug/L	0.213	2	5397	96716	2
	Cr	53	7.124	ug/L	0.173	2	875	11908	2
	Mn	55	53.759	ug/L	1.053	1	538	1107263	1
[	Co	59	0.194	ug/L	0.001	0	36	3076	0
[>	Ge	72		ug/L			245554	322843	0
	Ni	60	4.475	ug/L	0.091	2	28	12768	1
	Ni	62	7.398	ug/L	0.114	1	54	3188	1
	Cu	63	2.065	ug/L	0.038	1	274	13346	0
	Cu	65	1.130	ug/L	0.019	1	78	3436	2
	Zn	66	1.973	ug/L	0.030	1	157	3920	0
	Zn	67	3.791	ug/L	0.101	2	106	1324	1
	Zn	68	0.273	ug/L	0.092	33	6573	8996	1
	As	75	6.960	ug/L	0.144	2	360	13222	1
	As-1	75	5.857	ug/L	0.228	3	7598	20443	1
	Se	82	0.625	ug/L	0.055	8	-4	124	9
	Se	78	-4.048	ug/L	0.339	8	7721	8188	1
[	Mo	98	1.317	ug/L	0.017	1	535	10288	0
	Y	89		ug/L			251217	389610	2
	Kr	83		ug/L			205	266	3
[>	In	115		ug/L			289086	384086	1
	Ag	107	0.022	ug/L	0.001	4	18	289	3
	Cd	111	0.041	ug/L	0.027	65	140	317	28
	Cd	114	0.031	ug/L	0.005	16	10	241	13
	Sb	121	0.071	ug/L	0.005	7	20	765	5
	Sb	123	0.070	ug/L	0.004	5	14	563	3
	Ba	135	1.950	ug/L	0.057	2	15	4677	1
[	Ba	137	1.957	ug/L	0.059	3	25	8108	1
[>	Tb	159		ug/L			322959	426619	1
	Tl	205	-0.001	ug/L	0.000	28	79	61	21
	Pb	208	0.234	ug/L	0.004	1	474	10841	0
	Bi	209		ug/L			289860	369699	1
	Th	232	0.239	ug/L	0.001	0	304	13474	1
[	U	238	0.894	ug/L	0.014	1	406	54699	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 M REM
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:35:15
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	505727	2
[	Be	9	0.003	ug/L	0.007	281	7	10	37
	C	13		mg/L			6172	6914	0
	Cl	37		mg/L			1891522	2786687	0
[>	Sc	45		ug/L			216440	303981	2
	V	51	0.672	ug/L	0.028	4	1658	11301	3
	V-1	51	0.768	ug/L	0.016	2	2490	13941	1
	Cr	52	0.282	ug/L	0.018	6	5397	10865	0
	Cr	53	0.602	ug/L	0.048	8	875	2072	3
	Mn	55	141.692	ug/L	1.337	0	538	2743611	1
[	Co	59	0.311	ug/L	0.008	2	36	4615	0
[>	Ge	72		ug/L			245554	311710	1
	Ni	60	0.639	ug/L	0.014	2	28	1792	3
	Ni	62	2.038	ug/L	0.038	1	54	898	1
	Cu	63	0.821	ug/L	0.006	0	274	5329	1
	Cu	65	0.286	ug/L	0.004	1	78	914	0
	Zn	66	1.171	ug/L	0.024	2	157	2328	2
	Zn	67	1.193	ug/L	0.088	7	106	495	4
	Zn	68	-0.044	ug/L	0.080	180	6573	8288	1
	As	75	3.203	ug/L	0.057	1	360	6122	2
	As-1	75	2.117	ug/L	0.115	5	7598	13292	0
	Se	82	0.608	ug/L	0.071	11	-4	116	12
	Se	78	-3.668	ug/L	0.348	9	7721	8083	0
[	Mo	98	0.336	ug/L	0.011	3	535	3040	1
	Y	89		ug/L			251217	327140	0
	Kr	83		ug/L			205	253	4
[>	In	115		ug/L			289086	367245	0
	Ag	107	0.002	ug/L	0.000	21	18	48	11
	Cd	111	-0.020	ug/L	0.005	25	140	119	12
	Cd	114	0.010	ug/L	0.002	17	10	85	14
	Sb	121	0.091	ug/L	0.002	2	20	931	1
	Sb	123	0.088	ug/L	0.004	5	14	671	4
	Ba	135	7.845	ug/L	0.193	2	15	17934	2
[	Ba	137	7.770	ug/L	0.162	2	25	30688	2
[>	Tb	159		ug/L			322959	414080	2
	Tl	205	-0.002	ug/L	0.000	11	79	45	16
	Pb	208	0.057	ug/L	0.001	1	474	3017	0
	Bi	209		ug/L			289860	362026	2
	Th	232	0.004	ug/L	0.001	27	304	597	8
[	U	238	0.021	ug/L	0.000	1	406	1784	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AF REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:41:34
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	453649	1
[	Be	9	0.091	ug/L	0.009	10	7	55	9
	C	13		mg/L			6172	10681	1
	Cl	37		mg/L			1891522	2515316	0
[>	Sc	45		ug/L			216440	299701	1
	V	51	33.186	ug/L	0.198	0	1658	439142	1
	V-1	51	32.813	ug/L	0.274	0	2490	443614	1
	Cr	52	12.088	ug/L	0.067	0	5397	146512	1
	Cr	53	12.154	ug/L	0.281	2	875	17985	2
	Mn	55	97.304	ug/L	0.470	0	538	1858120	1
[	Co	59	0.654	ug/L	0.001	0	36	9517	1
[>	Ge	72		ug/L			245554	289084	1
	Ni	60	7.250	ug/L	0.076	1	28	18505	2
	Ni	62	12.048	ug/L	0.350	2	54	4611	4
	Cu	63	2.992	ug/L	0.045	1	274	17171	2
	Cu	65	1.291	ug/L	0.016	1	78	3501	1
	Zn	66	2.397	ug/L	0.062	2	157	4225	4
	Zn	67	5.502	ug/L	0.110	2	106	1664	2
	Zn	68	1.206	ug/L	0.078	6	6573	9135	0
	As	75	12.547	ug/L	0.078	0	360	21006	1
	As-1	75	11.885	ug/L	0.128	1	7598	27943	0
	Se	82	1.147	ug/L	0.011	0	-4	209	0
	Se	78	-2.200	ug/L	0.323	14	7721	8133	0
[	Mo	98	2.440	ug/L	0.026	1	535	16533	2
	Y	89		ug/L			251217	377989	2
	Kr	83		ug/L			205	272	2
[>	In	115		ug/L			289086	331651	2
	Ag	107	0.033	ug/L	0.002	5	18	366	7
	Cd	111	-0.082	ug/L	0.038	46	140	-61	164
	Cd	114	0.011	ug/L	0.002	18	10	80	13
	Sb	121	0.136	ug/L	0.004	3	20	1247	3
	Sb	123	0.137	ug/L	0.002	1	14	940	1
	Ba	135	3.010	ug/L	0.065	2	15	6227	3
[	Ba	137	2.989	ug/L	0.010	0	25	10678	2
[>	Tb	159		ug/L			322959	381465	2
	Tl	205	-0.002	ug/L	0.000	12	79	41	17
	Pb	208	0.236	ug/L	0.004	1	474	9748	2
	Bi	209		ug/L			289860	318922	2
	Th	232	0.391	ug/L	0.005	1	304	19428	0
[	U	238	1.592	ug/L	0.018	1	406	86774	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AG REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:47:18
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	646942	8
[	Be	9	0.003	ug/L	0.011	342	7	14	51
	C	13		mg/L			6172	6681	0
	Cl	37		mg/L			1891522	2999675	2
[>	Sc	45		ug/L			216440	380675	7
	V	51	0.574	ug/L	0.027	4	1658	12496	5
	V-1	51	0.717	ug/L	0.020	2	2490	16594	7
	Cr	52	0.170	ug/L	0.025	14	5397	11963	4
	Cr	53	0.639	ug/L	0.016	2	875	2662	8
	Mn	55	140.077	ug/L	1.662	1	538	3395364	6
[	Co	59	0.334	ug/L	0.006	1	36	6214	7
[>	Ge	72		ug/L			245554	360642	5
	Ni	60	0.745	ug/L	0.031	4	28	2410	7
	Ni	62	2.087	ug/L	0.093	4	54	1061	2
	Cu	63	0.807	ug/L	0.019	2	274	6074	7
	Cu	65	0.197	ug/L	0.010	5	78	766	9
	Zn	66	1.100	ug/L	0.014	1	157	2543	3
	Zn	67	1.095	ug/L	0.034	3	106	538	3
	Zn	68	-0.818	ug/L	0.244	29	6573	8459	1
	As	75	3.336	ug/L	0.005	0	360	7357	5
	As-1	75	1.601	ug/L	0.200	12	7598	14338	2
	Se	82	0.813	ug/L	0.082	10	-4	183	15
	Se	78	-6.056	ug/L	0.755	12	7721	8048	0
[	Mo	98	0.350	ug/L	0.018	5	535	3636	9
	Y	89		ug/L			251217	396211	6
	Kr	83		ug/L			205	246	3
[>	In	115		ug/L			289086	449820	7
	Ag	107	0.002	ug/L	0.002	73	18	62	46
	Cd	111	-0.057	ug/L	0.019	33	140	10	661
	Cd	114	0.004	ug/L	0.001	33	10	51	22
	Sb	121	0.088	ug/L	0.002	2	20	1108	7
	Sb	123	0.085	ug/L	0.007	8	14	796	7
	Ba	135	7.827	ug/L	0.102	1	15	21905	6
[	Ba	137	7.835	ug/L	0.123	1	25	37888	6
[>	Tb	159		ug/L			322959	502425	6
	Tl	205	-0.002	ug/L	0.000	14	79	51	19
	Pb	208	0.030	ug/L	0.000	0	474	2274	6
	Bi	209		ug/L			289860	429105	6
	Th	232	0.007	ug/L	0.005	74	304	934	40
[	U	238	0.018	ug/L	0.000	2	406	1946	7

VZ75 00489

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:53:37
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			381465	533471	1
[	Be	9	51.852	ug/L	0.646	1	7	31789	2
	C	13		mg/L			6172	4514	1
	Cl	37		mg/L			1891522	2371489	0
[>	Sc	45		ug/L			216440	304353	1
	V	51	50.969	ug/L	0.477	0	1658	683616	0
	V-1	51	50.905	ug/L	0.542	1	2490	696893	0
	Cr	52	51.476	ug/L	0.313	0	5397	608878	1
	Cr	53	51.246	ug/L	0.883	1	875	73049	1
	Mn	55	51.804	ug/L	0.391	0	538	1004898	1
[	Co	59	51.627	ug/L	0.302	0	36	759114	1
[>	Ge	72		ug/L			245554	333611	1
	Ni	60	54.408	ug/L	0.728	1	28	159990	1
	Ni	62	55.306	ug/L	0.718	1	54	24151	0
	Cu	63	53.289	ug/L	0.451	0	274	346585	0
	Cu	65	52.351	ug/L	0.535	1	78	159661	0
	Zn	66	52.196	ug/L	0.298	0	157	101724	1
	Zn	67	54.069	ug/L	0.589	1	106	17595	0
	Zn	68	51.255	ug/L	0.262	0	6573	77522	1
	As	75	51.492	ug/L	0.498	0	360	97958	0
	As-1	75	50.198	ug/L	0.646	1	7598	102925	0
	Se	82	53.649	ug/L	0.398	0	-4	11568	1
	Se	78	49.047	ug/L	0.929	1	7721	35045	0
[	Mo	98	52.929	ug/L	0.748	1	535	398830	1
	Y	89		ug/L			251217	347126	1
	Kr	83		ug/L			205	282	2
[>	In	115		ug/L			289086	400590	2
	Ag	107	52.494	ug/L	0.318	0	18	669830	1
	Cd	111	51.941	ug/L	1.120	2	140	171078	3
	Cd	114	51.793	ug/L	0.615	1	10	394405	2
	Sb	121	49.975	ug/L	1.186	2	20	542177	1
	Sb	123	49.463	ug/L	1.086	2	14	402518	0
	Ba	135	50.024	ug/L	0.635	1	15	124609	1
[	Ba	137	49.341	ug/L	0.907	1	25	212340	1
[>	Tb	159		ug/L			322959	437685	2
	Tl	205	53.235	ug/L	0.745	1	79	1725288	1
	Pb	208	53.362	ug/L	0.576	1	474	2387739	2
	Bi	209		ug/L			289860	400855	1
	Th	232	52.852	ug/L	0.543	1	304	2961420	1
[	U	238	53.657	ug/L	0.726	1	406	3336996	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:00:15
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
[>	Li	6		ug/L			381465	508025	3
[	Be	9	0.002	ug/L	0.007	306	7	10	40
	C	13		mg/L			6172	6265	1
	Cl	37		mg/L			1891522	2448792	0
[>	Sc	45		ug/L			216440	298851	2
	V	51	0.004	ug/L	0.011	287	1658	2340	4
	V-1	51	-0.046	ug/L	0.006	14	2490	2825	1
	Cr	52	-0.052	ug/L	0.013	24	5397	6856	0
	Cr	53	-0.203	ug/L	0.011	5	875	929	2
	Mn	55	-0.002	ug/L	0.002	91	538	708	3
[	Co	59	0.000	ug/L	0.002	680	36	54	49
[>	Ge	72		ug/L			245554	325594	2
	Ni	60	-0.001	ug/L	0.002	238	28	35	16
	Ni	62	1.010	ug/L	0.055	5	54	501	4
	Cu	63	0.021	ug/L	0.005	26	274	495	4
	Cu	65	0.002	ug/L	0.003	152	78	109	8
	Zn	66	-0.001	ug/L	0.013	1542	157	207	10
	Zn	67	-0.062	ug/L	0.008	12	106	122	4
	Zn	68	-1.583	ug/L	0.190	12	6573	6645	1
	As	75	-0.006	ug/L	0.013	223	360	466	3
	As-1	75	-1.085	ug/L	0.105	9	7598	8118	0
	Se	82	0.035	ug/L	0.029	83	-4	1	412
	Se	78	-3.986	ug/L	0.381	9	7721	8287	0
[	Mo	98	-0.083	ug/L	0.003	3	535	103	21
	Y	89		ug/L			251217	344365	2
	Kr	83		ug/L			205	259	2
[>	In	115		ug/L			289086	389328	3
	Ag	107	0.008	ug/L	0.003	43	18	122	37
	Cd	111	0.023	ug/L	0.003	12	140	260	0
	Cd	114	0.001	ug/L	0.001	68	10	20	21
	Sb	121	0.047	ug/L	0.015	30	20	527	32
	Sb	123	0.051	ug/L	0.011	22	14	422	24
	Ba	135	0.002	ug/L	0.001	75	15	25	15
[	Ba	137	0.002	ug/L	0.002	115	25	41	23
[>	Tb	159		ug/L			322959	427258	3
	Tl	205	0.003	ug/L	0.002	51	79	207	28
	Pb	208	-0.003	ug/L	0.001	50	474	517	14
	Bi	209		ug/L			289860	399784	2
	Th	232	0.027	ug/L	0.011	40	304	1875	34
[	U	238	-0.006	ug/L	0.001	13	406	200	25

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:06:03
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L				393316	0
[	Be	9		ug/L				7	28
	C	13		mg/L				6387	2
	Cl	37		mg/L				2320156	0
[>	Sc	45		ug/L				234963	0
	V	51		ug/L				2151	9
	V-1	51		ug/L				2935	2
	Cr	52		ug/L				6256	3
	Cr	53		ug/L				957	5
	Mn	55		ug/L				568	7
[	Co	59		ug/L				39	19
[>	Ge	72		ug/L				267809	0
	Ni	60		ug/L				22	24
	Ni	62		ug/L				492	4
	Cu	63		ug/L				405	0
	Cu	65		ug/L				84	5
	Zn	66		ug/L				153	9
	Zn	67		ug/L				101	7
	Zn	68		ug/L				6809	0
	As	75		ug/L				545	2
	As-1	75		ug/L				8111	0
	Se	82		ug/L				3	217
	Se	78		ug/L				8243	0
[	Mo	98		ug/L				37	10
	Y	89		ug/L				272756	1
	Kr	83		ug/L				273	3
[>	In	115		ug/L				307062	1
	Ag	107		ug/L				32	31
	Cd	111		ug/L				192	7
	Cd	114		ug/L				9	14
	Sb	121		ug/L				132	8
	Sb	123		ug/L				115	11
	Ba	135		ug/L				13	30
[	Ba	137		ug/L				19	3
[>	Tb	159		ug/L				333608	0
	Tl	205		ug/L				65	11
	Pb	208		ug/L				262	3
	Bi	209		ug/L				310915	0
	Th	232		ug/L				397	4
[	U	238		ug/L				75	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:12:52
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	371888	0
[	Be	9	53.413	ug/L	1.185	2	7	22828	2
	C	13		mg/L			6387	4391	2
	Cl	37		mg/L			2320156	2234140	0
[>	Sc	45		ug/L			234963	224412	0
	V	51	51.085	ug/L	0.698	1	2151	505578	1
	V-1	51	50.983	ug/L	0.515	1	2935	514900	1
	Cr	52	51.720	ug/L	0.754	1	6256	451441	1
	Cr	53	51.368	ug/L	0.407	0	957	53994	0
	Mn	55	51.452	ug/L	0.565	1	568	735933	1
[	Co	59	51.775	ug/L	0.944	1	39	561291	1
[>	Ge	72		ug/L			267809	257786	1
	Ni	60	51.460	ug/L	0.454	0	22	116926	1
	Ni	62	50.949	ug/L	0.199	0	492	17614	0
	Cu	63	51.766	ug/L	0.445	0	405	260291	1
	Cu	65	51.689	ug/L	0.375	0	84	121833	1
	Zn	66	51.883	ug/L	0.381	0	153	78119	1
	Zn	67	52.199	ug/L	0.803	1	101	13119	2
	Zn	68	52.858	ug/L	0.126	0	6809	61219	1
	As	75	50.857	ug/L	0.071	0	545	74919	1
	As-1	75	51.114	ug/L	0.129	0	8111	80679	1
	Se	82	50.702	ug/L	0.927	1	3	8455	0
	Se	78	51.691	ug/L	1.083	2	8243	27933	0
[	Mo	98	50.694	ug/L	0.292	0	37	294704	1
	Y	89		ug/L			272756	254514	0
	Kr	83		ug/L			273	283	2
[>	In	115		ug/L			307062	292030	2
	Ag	107	51.842	ug/L	0.845	1	32	482203	1
	Cd	111	51.938	ug/L	0.524	1	192	124729	1
	Cd	114	51.704	ug/L	0.989	1	9	286977	0
	Sb	121	51.153	ug/L	1.345	2	132	404630	0
	Sb	123	51.134	ug/L	0.722	1	115	303484	0
	Ba	135	50.648	ug/L	1.085	2	13	91960	0
[	Ba	137	50.332	ug/L	1.034	2	19	157888	0
[>	Tb	159		ug/L			333608	322607	1
	Tl	205	52.826	ug/L	0.101	0	65	1262110	1
	Pb	208	52.654	ug/L	0.563	1	262	1736397	1
	Bi	209		ug/L			310915	296374	2
	Th	232	53.398	ug/L	0.950	1	397	2205586	1
[	U	238	53.904	ug/L	0.984	1	75	2470796	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:19:31
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			393316	377622	1
	Be	9	-0.001	ug/L	0.006	491	7	6	43
	C	13		mg/L			6387	6314	1
	Cl	37		mg/L			2320156	2288607	0
>	Sc	45		ug/L			234963	225302	0
	V	51	-0.018	ug/L	0.013	72	2151	1880	7
	V-1	51	-0.006	ug/L	0.007	118	2935	2754	2
	Cr	52	-0.025	ug/L	0.013	50	6256	5779	1
	Cr	53	0.014	ug/L	0.040	289	957	932	4
	Mn	55	-0.005	ug/L	0.001	16	568	467	2
	Co	59	0.001	ug/L	0.001	90	39	50	23
>	Ge	72		ug/L			267809	257587	0
	Ni	60	0.007	ug/L	0.003	41	22	37	17
	Ni	62	-0.345	ug/L	0.028	8	492	357	3
	Cu	63	-0.004	ug/L	0.001	18	405	371	1
	Cu	65	-0.002	ug/L	0.007	283	84	75	19
	Zn	66	-0.003	ug/L	0.009	280	153	142	9
	Zn	67	-0.021	ug/L	0.029	135	101	92	7
	Zn	68	0.229	ug/L	0.121	53	6809	6786	2
	As	75	-0.001	ug/L	0.023	1940	545	523	5
	As-1	75	0.172	ug/L	0.043	24	8111	8046	0
	Se	82	-0.019	ug/L	0.032	174	3	0	753
	Se	78	0.626	ug/L	0.153	24	8243	8170	0
	Mo	98	0.007	ug/L	0.004	63	37	74	32
	Y	89		ug/L			272756	257775	0
	Kr	83		ug/L			273	265	3
>	In	115		ug/L			307062	295287	0
	Ag	107	0.005	ug/L	0.001	26	32	80	16
	Cd	111	-0.008	ug/L	0.004	51	192	165	5
	Cd	114	0.001	ug/L	0.001	128	9	13	45
	Sb	121	0.032	ug/L	0.011	34	132	387	23
	Sb	123	0.029	ug/L	0.011	36	115	285	22
	Ba	135	0.005	ug/L	0.003	50	13	22	22
	Ba	137	0.001	ug/L	0.001	106	19	20	12
>	Tb	159		ug/L			333608	320068	0
	Tl	205	0.004	ug/L	0.001	14	65	152	9
	Pb	208	0.002	ug/L	0.001	74	262	310	14
	Bi	209		ug/L			310915	300366	1
	Th	232	0.020	ug/L	0.007	33	397	1187	23
	U	238	0.002	ug/L	0.000	13	75	171	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AH REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:25:18
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	414419	0
[	Be	9	0.015	ug/L	0.013	88	7	15	41
	C	13		mg/L			6387	6797	1
	Cl	37		mg/L			2320156	2942449	0
[>	Sc	45		ug/L			234963	260685	0
	V	51	1.760	ug/L	0.002	0	2151	22542	0
	V-1	51	1.973	ug/L	0.017	0	2935	26278	1
	Cr	52	0.677	ug/L	0.005	0	6256	13711	0
	Cr	53	1.401	ug/L	0.047	3	957	2744	2
	Mn	55	134.502	ug/L	1.069	0	568	2233814	1
[	Co	59	0.106	ug/L	0.004	3	39	1383	3
[>	Ge	72		ug/L			267809	273376	1
	Ni	60	0.519	ug/L	0.017	3	22	1272	2
	Ni	62	-0.004	ug/L	0.082	2217	492	500	5
	Cu	63	0.850	ug/L	0.016	1	405	4938	2
	Cu	65	0.172	ug/L	0.008	4	84	515	4
	Zn	66	0.773	ug/L	0.017	2	153	1387	1
	Zn	67	1.224	ug/L	0.031	2	101	427	2
	Zn	68	0.806	ug/L	0.161	19	6809	7833	1
	As	75	0.676	ug/L	0.017	2	545	1605	2
	As-1	75	0.326	ug/L	0.062	19	8111	8772	0
	Se	82	0.576	ug/L	0.091	15	3	105	14
	Se	78	-0.723	ug/L	0.266	36	8243	8117	0
[	Mo	98	0.133	ug/L	0.009	6	37	854	5
	Y	89		ug/L			272756	285613	1
	Kr	83		ug/L			273	278	4
[>	In	115		ug/L			307062	310628	1
	Ag	107	0.005	ug/L	0.001	23	32	80	14
	Cd	111	-0.097	ug/L	0.027	27	192	-53	130
	Cd	114	0.006	ug/L	0.002	35	9	47	27
	Sb	121	0.064	ug/L	0.003	5	132	673	4
	Sb	123	0.057	ug/L	0.007	12	115	476	9
	Ba	135	10.729	ug/L	0.102	0	13	20738	2
[	Ba	137	10.827	ug/L	0.066	0	19	36150	1
[>	Tb	159		ug/L			333608	349833	2
	Tl	205	-0.000	ug/L	0.000	538	65	67	11
	Pb	208	0.034	ug/L	0.001	1	262	1481	1
	Bi	209		ug/L			310915	308300	1
	Th	232	0.036	ug/L	0.005	14	397	2025	12
[	U	238	0.037	ug/L	0.000	0	75	1936	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AI REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:31:37
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	395260	4
[	Be	9	0.005	ug/L	0.004	84	7	9	15
	C	13		mg/L			6387	6307	1
	Cl	37		mg/L			2320156	3570753	1
[>	Sc	45		ug/L			234963	237633	3
	V	51	0.205	ug/L	0.041	20	2151	4321	13
	V-1	51	0.706	ug/L	0.011	1	2935	10475	3
	Cr	52	0.019	ug/L	0.021	107	6256	6498	1
	Cr	53	1.588	ug/L	0.133	8	957	2702	2
	Mn	55	21.554	ug/L	0.189	0	568	326812	4
[	Co	59	0.372	ug/L	0.011	2	39	4307	2
[>	Ge	72		ug/L			267809	254431	3
	Ni	60	1.257	ug/L	0.066	5	22	2837	3
	Ni	62	2.171	ug/L	0.304	14	492	1186	6
	Cu	63	1.696	ug/L	0.020	1	405	8790	3
	Cu	65	0.349	ug/L	0.021	5	84	891	6
	Zn	66	1.178	ug/L	0.042	3	153	1892	4
	Zn	67	1.369	ug/L	0.115	8	101	432	3
	Zn	68	1.360	ug/L	0.195	14	6809	7853	0
	As	75	6.228	ug/L	0.019	0	545	9510	3
	As-1	75	6.193	ug/L	0.143	2	8111	16417	2
	Se	82	0.741	ug/L	0.159	21	3	125	22
	Se	78	0.251	ug/L	0.491	195	8243	7923	0
[	Mo	98	3.441	ug/L	0.045	1	37	19771	2
	Y	89		ug/L			272756	261950	2
	Kr	83		ug/L			273	284	5
[>	In	115		ug/L			307062	284492	2
	Ag	107	0.004	ug/L	0.000	12	32	64	4
	Cd	111	-0.004	ug/L	0.043	1017	192	169	62
	Cd	114	0.140	ug/L	0.004	3	9	765	5
	Sb	121	0.545	ug/L	0.016	2	132	4321	1
	Sb	123	0.553	ug/L	0.015	2	115	3306	5
	Ba	135	13.871	ug/L	0.439	3	13	24546	3
[	Ba	137	13.770	ug/L	0.488	3	19	42112	5
[>	Tb	159		ug/L			333608	325737	3
	Tl	205	0.001	ug/L	0.000	36	65	80	10
	Pb	208	0.016	ug/L	0.002	10	262	778	10
	Bi	209		ug/L			310915	277651	2
	Th	232	0.006	ug/L	0.001	19	397	658	10
[	U	238	0.222	ug/L	0.003	1	75	10347	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:37:54
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	437279	11
[	Be	9	0.067	ug/L	0.003	5	7	42	7
	C	13		mg/L			6387	9304	4
	Cl	37		mg/L			2320156	3070694	4
[>	Sc	45		ug/L			234963	326734	12
	V	51	18.946	ug/L	0.439	2	2151	274455	11
	V-1	51	18.993	ug/L	0.377	1	2935	281497	11
	Cr	52	10.481	ug/L	0.201	1	6256	139923	11
	Cr	53	11.121	ug/L	0.070	0	957	18063	12
	Mn	55	160.797	ug/L	1.328	0	568	3344626	11
[	Co	59	0.708	ug/L	0.006	0	39	11225	12
[>	Ge	72		ug/L			267809	268999	8
	Ni	60	0.963	ug/L	0.046	4	22	2311	13
	Ni	62	2.546	ug/L	0.295	11	492	1391	14
	Cu	63	4.237	ug/L	0.158	3	405	22650	12
	Cu	65	2.122	ug/L	0.029	1	84	5301	9
	Zn	66	1.519	ug/L	0.027	1	153	2535	8
	Zn	67	4.164	ug/L	0.203	4	101	1188	12
	Zn	68	1.904	ug/L	0.601	31	6809	8857	1
	As	75	1.032	ug/L	0.048	4	545	2120	6
	As-1	75	0.318	ug/L	0.494	155	8111	8578	0
	Se	82	1.557	ug/L	0.213	13	3	276	20
	Se	78	-1.028	ug/L	1.670	162	8243	7825	0
[	Mo	98	0.251	ug/L	0.012	4	37	1562	13
	Y	89		ug/L			272756	339736	11
	Kr	83		ug/L			273	271	6
[>	In	115		ug/L			307062	311598	11
	Ag	107	0.014	ug/L	0.002	13	32	175	22
	Cd	111	-0.217	ug/L	0.050	23	192	-357	35
	Cd	114	0.011	ug/L	0.003	27	9	74	24
	Sb	121	0.138	ug/L	0.008	5	132	1295	7
	Sb	123	0.136	ug/L	0.004	3	115	973	8
	Ba	135	19.036	ug/L	0.456	2	13	36876	11
[	Ba	137	19.117	ug/L	0.514	2	19	63911	9
[>	Tb	159		ug/L			333608	358020	10
	Tl	205	-0.001	ug/L	0.000	27	65	40	10
	Pb	208	0.201	ug/L	0.002	1	262	7648	9
	Bi	209		ug/L			310915	301939	10
	Th	232	0.527	ug/L	0.006	1	397	24586	11
[	U	238	0.438	ug/L	0.004	0	75	22343	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AL REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:44:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			393316	465071	3
⌊	Be	9	0.004	ug/L	0.012	276	7	11	58
	C	13		mg/L			6387	7788	2
	Cl	37		mg/L			2320156	10756882	2
⌈>	Sc	45		ug/L			234963	301574	3
|	V	51	0.529	ug/L	0.164	30	2151	9709	18
|	V-1	51	3.490	ug/L	0.103	2	2935	50866	3
|	Cr	52	0.330	ug/L	0.022	6	6256	11850	3
|	Cr	53	9.548	ug/L	0.589	6	957	14500	8
|	Mn	55	191.155	ug/L	1.244	0	568	3671678	3
⌊	Co	59	4.041	ug/L	0.037	0	39	58910	3
⌈>	Ge	72		ug/L			267809	271233	3
|	Ni	60	10.328	ug/L	0.290	2	22	24716	4
|	Ni	62	15.419	ug/L	0.829	5	492	5952	4
|	Cu	63	7.365	ug/L	0.078	1	405	39326	4
|	Cu	65	2.478	ug/L	0.041	1	84	6229	4
|	Zn	66	16.598	ug/L	0.103	0	153	26399	3
|	Zn	67	17.676	ug/L	0.172	0	101	4742	3
|	Zn	68	17.346	ug/L	0.416	2	6809	25760	1
|	As	75	10.435	ug/L	0.096	0	545	16614	3
|	As-1	75	8.637	ug/L	0.230	2	8111	21165	2
|	Se	82	4.433	ug/L	0.161	3	3	782	6
|	Se	78	-2.303	ug/L	0.603	26	8243	7405	0
⌊	Mo	98	0.733	ug/L	0.018	2	37	4524	5
	Y	89		ug/L			272756	310570	4
	Kr	83		ug/L			273	349	3
⌈>	In	115		ug/L			307062	316493	3
|	Ag	107	0.009	ug/L	0.002	17	32	128	16
|	Cd	111	-0.474	ug/L	0.211	44	192	-1048	56
|	Cd	114	0.269	ug/L	0.009	3	9	1629	1
|	Sb	121	0.932	ug/L	0.026	2	132	8125	0
|	Sb	123	0.934	ug/L	0.013	1	115	6122	2
|	Ba	135	110.923	ug/L	0.893	0	13	218303	3
⌊	Ba	137	110.665	ug/L	1.797	1	19	376187	2
⌈>	Tb	159		ug/L			333608	368359	4
|	Tl	205	0.005	ug/L	0.001	14	65	199	6
|	Pb	208	0.027	ug/L	0.001	2	262	1298	4
|	Bi	209		ug/L			310915	293292	3
|	Th	232	0.017	ug/L	0.010	59	397	1267	42
⌊	U	238	0.033	ug/L	0.001	1	75	1804	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AN REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:50:28
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			393316	465823	5
⌊	Be	9	0.010	ug/L	0.005	51	7	14	13
	C	13		mg/L			6387	8027	1
	Cl	37		mg/L			2320156	10441838	4
⌈>	Sc	45		ug/L			234963	295299	6
|	V	51	0.529	ug/L	0.144	27	2151	9484	12
|	V-1	51	3.617	ug/L	0.098	2	2935	51557	9
|	Cr	52	0.365	ug/L	0.034	9	6256	11977	3
|	Cr	53	9.974	ug/L	0.698	6	957	14808	12
|	Mn	55	192.706	ug/L	1.870	0	568	3623529	5
⌊	Co	59	4.117	ug/L	0.084	2	39	58718	4
⌈>	Ge	72		ug/L			267809	267605	3
|	Ni	60	10.303	ug/L	0.329	3	22	24339	6
|	Ni	62	15.457	ug/L	0.379	2	492	5892	5
|	Cu	63	7.353	ug/L	0.129	1	405	38740	4
|	Cu	65	2.415	ug/L	0.064	2	84	5992	5
|	Zn	66	16.853	ug/L	0.057	0	153	26442	3
|	Zn	67	17.732	ug/L	0.634	3	101	4694	5
|	Zn	68	17.307	ug/L	0.275	1	6809	25377	2
|	As	75	10.768	ug/L	0.079	0	545	16899	4
|	As-1	75	8.742	ug/L	0.206	2	8111	21036	2
|	Se	82	5.128	ug/L	0.255	4	3	892	8
|	Se	78	-2.413	ug/L	0.746	30	8243	7261	0
⌊	Mo	98	0.733	ug/L	0.008	1	37	4460	3
	Y	89		ug/L			272756	302741	3
	Kr	83		ug/L			273	344	5
⌈>	In	115		ug/L			307062	309244	4
|	Ag	107	0.007	ug/L	0.002	25	32	103	15
|	Cd	111	-0.286	ug/L	0.010	3	192	-531	5
|	Cd	114	0.269	ug/L	0.012	4	9	1586	1
|	Sb	121	0.975	ug/L	0.002	0	132	8297	4
|	Sb	123	0.950	ug/L	0.001	0	115	6088	5
|	Ba	135	112.306	ug/L	1.303	1	13	215893	3
⌊	Ba	137	112.873	ug/L	0.654	0	19	374961	4
⌈>	Tb	159		ug/L			333608	365373	5
|	Tl	205	0.004	ug/L	0.000	7	65	189	1
|	Pb	208	0.030	ug/L	0.001	4	262	1410	3
|	Bi	209		ug/L			310915	288005	4
|	Th	232	0.007	ug/L	0.003	47	397	783	25
⌊	U	238	0.032	ug/L	0.001	3	75	1769	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 P REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:56:10
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			393316	502801	5
	Be	9	0.003	ug/L	0.005	154	7	11	19
	C	13		mg/L			6387	5816	2
	Cl	37		mg/L			2320156	2314220	0
>	Sc	45		ug/L			234963	268886	5
	V	51	0.258	ug/L	0.031	12	2151	5508	6
	V-1	51	0.458	ug/L	0.031	6	2935	8868	4
	Cr	52	0.061	ug/L	0.026	42	6256	7784	4
	Cr	53	0.694	ug/L	0.033	4	957	1954	3
	Mn	55	334.184	ug/L	5.890	1	568	5721268	4
	Co	59	0.140	ug/L	0.004	3	39	1868	7
>	Ge	72		ug/L			267809	293766	3
	Ni	60	0.679	ug/L	0.048	7	22	1784	9
	Ni	62	1.832	ug/L	0.205	11	492	1243	9
	Cu	63	0.315	ug/L	0.024	7	405	2248	6
	Cu	65	0.257	ug/L	0.023	8	84	780	7
	Zn	66	1.459	ug/L	0.024	1	153	2667	4
	Zn	67	1.761	ug/L	0.070	3	101	611	0
	Zn	68	0.410	ug/L	0.146	35	6809	7949	1
	As	75	170.406	ug/L	1.412	0	545	284693	4
	As-1	75	173.892	ug/L	1.343	0	8111	291433	3
	Se	82	0.119	ug/L	0.062	51	3	27	44
	Se	78	-3.641	ug/L	0.726	19	8243	7428	0
	Mo	98	0.237	ug/L	0.005	2	37	1612	4
	Y	89		ug/L			272756	301020	2
	Kr	83		ug/L			273	253	2
>	In	115		ug/L			307062	348304	4
	Ag	107	0.002	ug/L	0.001	56	32	56	24
	Cd	111	0.006	ug/L	0.004	59	192	236	6
	Cd	114	0.013	ug/L	0.000	1	9	97	5
	Sb	121	0.010	ug/L	0.003	32	132	248	17
	Sb	123	0.006	ug/L	0.001	24	115	172	8
	Ba	135	9.303	ug/L	0.096	1	13	20164	4
	Ba	137	9.367	ug/L	0.160	1	19	35061	3
>	Tb	159		ug/L			333608	389875	3
	Tl	205	-0.001	ug/L	0.000	17	65	61	6
	Pb	208	0.103	ug/L	0.002	1	262	4426	5
	Bi	209		ug/L			310915	358180	4
	Th	232	0.000	ug/L	0.000	112	397	471	5
	U	238	0.096	ug/L	0.001	1	75	5428	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 Q REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:01:51
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	439605	0
[	Be	9	0.129	ug/L	0.012	9	7	73	8
	C	13		mg/L			6387	10444	2
	Cl	37		mg/L			2320156	3248579	0
[>	Sc	45		ug/L			234963	367078	1
[	V	51	24.369	ug/L	0.407	1	2151	396212	0
[	V-1	51	24.514	ug/L	0.395	1	2935	407301	0
[	Cr	52	14.198	ug/L	0.253	1	6256	209779	0
[	Cr	53	15.238	ug/L	0.233	1	957	27251	0
[	Mn	55	189.789	ug/L	2.849	1	568	4437529	0
[	Co	59	1.293	ug/L	0.006	0	39	22980	1
[>	Ge	72		ug/L			267809	277197	3
[	Ni	60	6.689	ug/L	0.241	3	22	16351	0
[	Ni	62	11.735	ug/L	0.359	3	492	4752	0
[	Cu	63	10.273	ug/L	0.273	2	405	55849	1
[	Cu	65	8.039	ug/L	0.157	1	84	20439	1
[	Zn	66	10.285	ug/L	0.358	3	153	16765	0
[	Zn	67	13.363	ug/L	0.388	2	101	3687	1
[	Zn	68	9.957	ug/L	0.307	3	6809	18113	1
[	As	75	2.862	ug/L	0.114	3	545	5063	1
[	As-1	75	1.796	ug/L	0.213	11	8111	11142	1
[	Se	82	1.937	ug/L	0.075	3	3	351	5
[	Se	78	-1.900	ug/L	0.424	22	8243	7737	1
[	Mo	98	0.409	ug/L	0.006	1	37	2597	2
	Y	89		ug/L			272756	376399	2
	Kr	83		ug/L			273	310	3
[>	In	115		ug/L			307062	322994	1
[	Ag	107	0.027	ug/L	0.002	7	32	306	5
[	Cd	111	u 0.068	ug/L	0.268	391	192	379	186
[	Cd	114	0.053	ug/L	0.003	6	9	335	4
[	Sb	121	0.212	ug/L	0.005	2	132	1992	0
[	Sb	123	0.207	ug/L	0.007	3	115	1480	2
[	Ba	135	29.031	ug/L	1.270	4	13	58306	3
[	Ba	137	29.281	ug/L	0.803	2	19	101608	1
[>	Tb	159		ug/L			333608	369102	1
[	Tl	205	u 0.011	ug/L	0.002	14	65	366	10
[	Pb	208	1.217	ug/L	0.020	1	262	46211	1
[	Bi	209		ug/L			310915	310149	3
[	Th	232	0.819	ug/L	0.014	1	397	39153	0
[	U	238	0.602	ug/L	0.006	0	75	31642	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 S REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:07:32
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			393316	557311	9
⌊	Be	9	0.073	ug/L	0.011	15	7	56	3
	C	13		mg/L			6387	9360	0
	Cl	37		mg/L			2320156	2780860	2
⌈>	Sc	45		ug/L			234963	465546	8
|	V	51	8.477	ug/L	0.128	1	2151	177452	7
|	V-1	51	8.539	ug/L	0.157	1	2935	183557	6
|	Cr	52	4.542	ug/L	0.089	1	6256	93477	7
|	Cr	53	4.962	ug/L	0.170	3	957	12515	5
|	Mn	55	131.142	ug/L	3.749	2	568	3883499	5
⌊	Co	59	0.807	ug/L	0.008	1	39	18212	8
⌈>	Ge	72		ug/L			267809	362391	3
|	Ni	60	4.523	ug/L	0.216	4	22	14485	7
|	Ni	62	6.477	ug/L	0.035	0	492	3729	2
|	Cu	63	4.532	ug/L	0.137	3	405	32556	6
|	Cu	65	3.780	ug/L	0.143	3	84	12640	6
|	Zn	66	6.868	ug/L	0.075	1	153	14715	2
|	Zn	67	7.875	ug/L	0.242	3	101	2900	6
|	Zn	68	5.391	ug/L	0.080	1	6809	17049	2
|	As	75	8.521	ug/L	0.073	0	545	18261	3
|	As-1	75	7.093	ug/L	0.132	1	8111	25187	2
|	Se	82	0.772	ug/L	0.065	8	3	186	11
|	Se	78	-5.600	ug/L	0.503	8	8243	8102	0
⌊	Mo	98	0.524	ug/L	0.017	3	37	4333	5
	Y	89		ug/L			272756	433295	4
	Kr	83		ug/L			273	286	1
⌈>	In	115		ug/L			307062	451169	5
|	Ag	107	0.013	ug/L	0.003	20	32	235	22
|	Cd	111	1.712	ug/L	0.044	2	192	6620	3
|	Cd	114	1.755	ug/L	0.042	2	9	15080	7
|	Sb	121	0.213	ug/L	0.005	2	132	2797	3
|	Sb	123	0.216	ug/L	0.008	3	115	2143	3
|	Ba	135	17.591	ug/L	0.271	1	13	49352	4
⌊	Ba	137	17.348	ug/L	0.201	1	19	84107	5
⌈>	Tb	159		ug/L			333608	484956	4
|	Tl	205	0.005	ug/L	0.000	5	65	277	1
|	Pb	208	0.885	ug/L	0.005	0	262	44230	4
|	Bi	209		ug/L			310915	425363	4
|	Th	232	0.287	ug/L	0.001	0	397	18410	4
⌊	U	238	0.201	ug/L	0.004	1	75	13944	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 V REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:13:17
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	513880	6
[	Be	9	0.016	ug/L	0.002	11	7	19	3
	C	13		mg/L			6387	9359	1
	Cl	37		mg/L			2320156	4473906	0
[>	Sc	45		ug/L			234963	391893	4
	V	51	3.720	ug/L	0.087	2	2151	67593	3
	V-1	51	4.390	ug/L	0.108	2	2935	81874	3
	Cr	52	1.715	ug/L	0.062	3	6256	36198	1
	Cr	53	3.916	ug/L	0.131	3	957	8657	2
	Mn	55	57.378	ug/L	1.085	1	568	1432326	2
[	Co	59	0.333	ug/L	0.008	2	39	6357	2
[>	Ge	72		ug/L			267809	322889	2
	Ni	60	0.664	ug/L	0.024	3	22	1915	3
	Ni	62	3.722	ug/L	0.183	4	492	2162	5
	Cu	63	2.653	ug/L	0.026	0	405	17171	1
	Cu	65	0.891	ug/L	0.023	2	84	2731	4
	Zn	66	1.588	ug/L	0.032	2	153	3173	3
	Zn	67	3.133	ug/L	0.005	0	101	1101	2
	Zn	68	1.258	ug/L	0.303	24	6809	9833	1
	As	75	5.644	ug/L	0.101	1	545	11001	3
	As-1	75	4.031	ug/L	0.116	2	8111	16975	0
	Se	82	1.932	ug/L	0.265	13	3	408	15
	Se	78	-4.567	ug/L	0.439	9	8243	7722	0
[	Mo	98	0.910	ug/L	0.018	2	37	6675	3
	Y	89		ug/L			272756	358774	4
	Kr	83		ug/L			273	288	1
[>	In	115		ug/L			307062	388557	2
	Ag	107	0.004	ug/L	0.000	5	32	92	5
	Cd	111	-0.308	ug/L	0.047	15	192	-739	21
	Cd	114	0.010	ug/L	0.001	13	9	86	13
	Sb	121	0.048	ug/L	0.003	6	132	675	7
	Sb	123	0.050	ug/L	0.003	6	115	541	2
	Ba	135	37.908	ug/L	0.417	1	13	91623	3
[	Ba	137	37.568	ug/L	0.673	1	19	156842	2
[>	Tb	159		ug/L			333608	431211	3
	Tl	205	-0.001	ug/L	0.000	24	65	41	21
	Pb	208	0.128	ug/L	0.002	1	262	5989	2
	Bi	209		ug/L			310915	366135	2
	Th	232	0.066	ug/L	0.003	4	397	4139	6
[	U	238	0.094	ug/L	0.003	2	75	5865	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 W REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:19:02
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			393316	417678	2
	Be	9	0.015	ug/L	0.011	77	7	15	36
	C	13		mg/L			6387	8160	2
	Cl	37		mg/L			2320156	2192894	1
>	Sc	45		ug/L			234963	296972	2
	V	51	0.180	ug/L	0.012	6	2151	5067	2
	V-1	51	0.273	ug/L	0.017	6	2935	7336	2
	Cr	52	0.078	ug/L	0.025	31	6256	8794	1
	Cr	53	0.373	ug/L	0.058	15	957	1719	4
	Mn	55	546.951	ug/L	14.583	2	568	10341096	0
	Co	59	2.646	ug/L	0.061	2	39	37990	1
>	Ge	72		ug/L			267809	265495	1
	Ni	60	12.053	ug/L	0.131	1	22	28227	2
	Ni	62	13.747	ug/L	0.336	2	492	5251	3
	Cu	63	1.639	ug/L	0.015	0	405	8874	0
	Cu	65	2.062	ug/L	0.049	2	84	5084	2
	Zn	66	5.664	ug/L	0.087	1	153	8918	2
	Zn	67	6.283	ug/L	0.115	1	101	1714	0
	Zn	68	5.903	ug/L	0.088	1	6809	13037	1
	As	75	1.099	ug/L	0.034	3	545	2197	2
	As-1	75	0.741	ug/L	0.063	8	8111	9128	0
	Se	82	0.263	ug/L	0.087	33	3	49	31
	Se	78	-1.158	ug/L	0.188	16	8243	7710	0
	Mo	98	0.125	ug/L	0.005	4	37	784	4
	Y	89		ug/L			272756	281693	1
	Kr	83		ug/L			273	267	3
>	In	115		ug/L			307062	313704	0
	Ag	107	0.001	ug/L	0.000	12	32	47	4
	Cd	111	u 0.084	ug/L	0.006	7	192	412	4
	Cd	114	0.087	ug/L	0.004	4	9	526	3
	Sb	121	0.217	ug/L	0.005	2	132	1977	1
	Sb	123	0.219	ug/L	0.006	2	115	1516	2
	Ba	135	57.290	ug/L	0.212	0	13	111769	0
	Ba	137	57.362	ug/L	0.237	0	19	193349	0
>	Tb	159		ug/L			333608	354340	0
	Tl	205	u 0.016	ug/L	0.000	0	65	485	0
	Pb	208	u 0.032	ug/L	0.000	0	262	1430	0
	Bi	209		ug/L			310915	317071	0
	Th	232	0.000	ug/L	0.001	153	397	440	6
	U	238	0.048	ug/L	0.001	1	75	2488	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:25:21
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	343296	1
[	Be	9	56.244	ug/L	1.340	2	7	22184	1
	C	13		mg/L			6387	4884	0
	Cl	37		mg/L			2320156	2237408	1
[>	Sc	45		ug/L			234963	217224	1
[	V	51	51.319	ug/L	0.567	1	2151	491548	0
[	V-1	51	51.477	ug/L	0.577	1	2935	503142	1
[	Cr	52	51.851	ug/L	1.185	2	6256	437963	0
[	Cr	53	52.311	ug/L	1.031	1	957	53197	0
[	Mn	55	51.872	ug/L	0.920	1	568	718020	0
[	Co	59	52.151	ug/L	0.770	1	39	547177	0
[>	Ge	72		ug/L			267809	248986	0
[	Ni	60	52.652	ug/L	0.679	1	22	115554	1
[	Ni	62	54.134	ug/L	0.289	0	492	18048	0
[	Cu	63	53.055	ug/L	0.241	0	405	257660	0
[	Cu	65	52.596	ug/L	0.361	0	84	119733	0
[	Zn	66	52.802	ug/L	0.474	0	153	76781	0
[	Zn	67	53.247	ug/L	0.170	0	101	12922	0
[	Zn	68	53.372	ug/L	0.453	0	6809	59642	1
[	As	75	50.950	ug/L	0.443	0	545	72494	1
[	As-1	75	51.108	ug/L	0.322	0	8111	77918	0
[	Se	82	50.752	ug/L	0.564	1	3	8176	1
[	Se	78	51.410	ug/L	0.230	0	8243	26877	0
[	Mo	98	51.724	ug/L	0.371	0	37	290424	0
	Y	89		ug/L			272756	248497	0
	Kr	83		ug/L			273	278	0
[>	In	115		ug/L			307062	288882	0
[	Ag	107	51.433	ug/L	0.573	1	32	473312	0
[	Cd	111	51.366	ug/L	0.188	0	192	122039	0
[	Cd	114	51.191	ug/L	1.497	2	9	281112	2
[	Sb	121	51.357	ug/L	0.229	0	132	402010	0
[	Sb	123	51.139	ug/L	0.160	0	115	300297	0
[	Ba	135	49.832	ug/L	0.682	1	13	89529	1
[	Ba	137	49.572	ug/L	0.162	0	19	153869	0
[>	Tb	159		ug/L			333608	310774	1
[	Tl	205	53.381	ug/L	0.367	0	65	1228546	0
[	Pb	208	53.763	ug/L	0.241	0	262	1707978	0
[	Bi	209		ug/L			310915	289305	1
[	Th	232	54.586	ug/L	0.843	1	397	2171781	0
[	U	238	54.279	ug/L	0.433	0	75	2396792	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:32:00
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	347353	0
[	Be	9	0.012	ug/L	0.008	72	7	11	29
	C	13		mg/L			6387	6118	0
	Cl	37		mg/L			2320156	2324383	0
[>	Sc	45		ug/L			234963	223651	0
[	V	51	-0.015	ug/L	0.021	136	2151	1900	11
[	V-1	51	0.098	ug/L	0.009	8	2935	3774	2
[	Cr	52	-0.032	ug/L	0.010	31	6256	5684	1
[	Cr	53	0.321	ug/L	0.080	25	957	1241	6
[	Mn	55	-0.003	ug/L	0.001	42	568	498	4
[	Co	59	-0.001	ug/L	0.001	166	39	31	29
[>	Ge	72		ug/L			267809	253939	1
[	Ni	60	0.005	ug/L	0.001	22	22	32	7
[	Ni	62	0.588	ug/L	0.172	29	492	661	8
[	Cu	63	0.027	ug/L	0.004	14	405	515	2
[	Cu	65	0.012	ug/L	0.006	50	84	107	12
[	Zn	66	-0.000	ug/L	0.019	16842	153	145	20
[	Zn	67	0.109	ug/L	0.069	63	101	123	14
[	Zn	68	0.140	ug/L	0.096	68	6809	6599	1
[	As	75	0.023	ug/L	0.049	214	545	550	12
[	As-1	75	0.233	ug/L	0.097	41	8111	8018	0
[	Se	82	-0.152	ug/L	0.123	80	3	-21	94
[	Se	78	0.806	ug/L	0.305	37	8243	8122	0
[	Mo	98	0.008	ug/L	0.004	49	37	79	26
	Y	89		ug/L			272756	257187	1
	Kr	83		ug/L			273	290	2
[>	In	115		ug/L			307062	293027	0
[	Ag	107	0.004	ug/L	0.001	39	32	66	21
[	Cd	111	-0.005	ug/L	0.002	31	192	170	2
[	Cd	114	0.000	ug/L	0.001	2063	9	9	54
[	Sb	121	0.039	ug/L	0.014	36	132	435	26
[	Sb	123	0.035	ug/L	0.017	48	115	316	31
[	Ba	135	0.002	ug/L	0.004	221	13	16	48
[	Ba	137	0.004	ug/L	0.001	21	19	30	8
[>	Tb	159		ug/L			333608	321354	0
[	Tl	205	0.003	ug/L	0.001	40	65	140	22
[	Pb	208	0.002	ug/L	0.000	10	262	327	2
[	Bi	209		ug/L			310915	300816	1
[	Th	232	0.017	ug/L	0.005	28	397	1091	18
[	U	238	0.001	ug/L	0.001	50	75	134	23

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:43:32
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	351356	0
[	Be	9	0.014	ug/L	0.008	56	7	12	26
	C	13		mg/L			6387	6608	1
	Cl	37		mg/L			2320156	2303579	0
[>	Sc	45		ug/L			234963	225055	1
|	V	51	-0.013	ug/L	0.014	100	2151	1926	6
|	V-1	51	0.093	ug/L	0.007	7	2935	3744	0
|	Cr	52	0.007	ug/L	0.008	126	6256	6048	0
|	Cr	53	0.335	ug/L	0.030	9	957	1264	2
|	Mn	55	0.063	ug/L	0.003	5	568	1451	1
[	Co	59	-0.000	ug/L	0.001	238	39	35	15
[>	Ge	72		ug/L			267809	257325	0
|	Ni	60	0.046	ug/L	0.003	6	22	126	5
|	Ni	62	0.126	ug/L	0.103	81	492	515	7
|	Cu	63	0.136	ug/L	0.002	1	405	1070	1
|	Cu	65	0.128	ug/L	0.011	8	84	381	6
|	Zn	66	0.802	ug/L	0.008	1	153	1350	1
|	Zn	67	0.741	ug/L	0.061	8	101	282	5
|	Zn	68	0.913	ug/L	0.164	17	6809	7485	2
|	As	75	0.013	ug/L	0.029	230	545	542	7
|	As-1	75	0.205	ug/L	0.057	28	8111	8084	0
|	Se	82	-0.114	ug/L	0.103	90	3	-15	113
|	Se	78	0.699	ug/L	0.215	30	8243	8190	0
[	Mo	98	0.002	ug/L	0.003	113	37	49	31
	Y	89		ug/L			272756	259893	0
	Kr	83		ug/L			273	281	4
[>	In	115		ug/L			307062	296923	0
|	Ag	107	0.001	ug/L	0.001	63	32	39	12
|	Cd	111	-0.009	ug/L	0.007	80	192	164	9
|	Cd	114	0.002	ug/L	0.001	63	9	20	34
|	Sb	121	-0.004	ug/L	0.002	44	132	98	12
|	Sb	123	-0.005	ug/L	0.002	45	115	81	16
|	Ba	135	0.011	ug/L	0.004	38	13	33	22
[	Ba	137	0.012	ug/L	0.001	10	19	55	6
[>	Tb	159		ug/L			333608	323319	0
|	Tl	205	-0.000	ug/L	0.000	5	65	53	1
|	Pb	208	0.006	ug/L	0.001	10	262	460	5
|	Bi	209		ug/L			310915	296707	1
|	Th	232	0.002	ug/L	0.001	31	397	473	5
[	U	238	0.000	ug/L	0.000	22	75	88	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AF REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:49:51
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			393316	326339	3
	Be	9	0.091	ug/L	0.006	6	7	40	6
	C	13		mg/L			6387	9577	1
	Cl	37		mg/L			2320156	2385474	2
>	Sc	45		ug/L			234963	231780	4
	V	51	33.705	ug/L	0.375	1	2151	345279	5
	V-1	51	33.467	ug/L	0.315	0	2935	350096	5
	Cr	52	12.227	ug/L	0.086	0	6256	114923	4
	Cr	53	12.734	ug/L	0.263	2	957	14526	3
	Mn	55	99.057	ug/L	1.920	1	568	1462105	3
	Co	59	0.653	ug/L	0.007	1	39	7349	4
>	Ge	72		ug/L			267809	235052	3
	Ni	60	6.920	ug/L	0.148	2	22	14357	4
	Ni	62	9.827	ug/L	0.062	0	492	3446	4
	Cu	63	2.742	ug/L	0.073	2	405	12918	6
	Cu	65	1.205	ug/L	0.015	1	84	2663	4
	Zn	66	1.963	ug/L	0.067	3	153	2824	4
	Zn	67	4.714	ug/L	0.213	4	101	1162	7
	Zn	68	2.206	ug/L	0.166	7	6809	8053	1
	As	75	12.426	ug/L	0.154	1	545	17058	4
	As-1	75	12.939	ug/L	0.049	0	8111	23938	3
	Se	82	0.829	ug/L	0.094	11	3	129	14
	Se	78	1.981	ug/L	0.694	35	8243	7927	0
	Mo	98	2.417	ug/L	0.025	1	37	12847	4
	Y	89		ug/L			272756	293923	3
	Kr	83		ug/L			273	292	4
>	In	115		ug/L			307062	258914	4
	Ag	107	0.028	ug/L	0.003	9	32	260	12
	Cd	111	-0.168	ug/L	0.133	78	192	-195	142
	Cd	114	0.011	ug/L	0.002	22	9	63	22
	Sb	121	0.129	ug/L	0.007	5	132	1018	7
	Sb	123	0.136	ug/L	0.004	2	115	811	4
	Ba	135	3.127	ug/L	0.091	2	13	5049	6
	Ba	137	3.010	ug/L	0.007	0	19	8387	3
>	Tb	159		ug/L			333608	293852	3
	Tl	205	-0.000	ug/L	0.000	99	65	47	26
	Pb	208	0.245	ug/L	0.001	0	262	7590	3
	Bi	209		ug/L			310915	252571	4
	Th	232	0.404	ug/L	0.009	2	397	15544	4
	U	238	1.668	ug/L	0.036	2	75	69726	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 AG REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:56:10
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	364259	1
[	Be	9	0.008	ug/L	0.018	211	7	10	70
	C	13		mg/L			6387	5937	1
	Cl	37		mg/L			2320156	2601374	0
[>	Sc	45		ug/L			234963	230200	2
	V	51	0.584	ug/L	0.032	5	2151	8015	5
	V-1	51	0.826	ug/L	0.007	0	2935	11389	2
	Cr	52	0.241	ug/L	0.010	4	6256	8259	3
	Cr	53	1.014	ug/L	0.083	8	957	2012	4
	Mn	55	143.791	ug/L	2.927	2	568	2109503	4
[	Co	59	0.349	ug/L	0.011	3	39	3916	5
[>	Ge	72		ug/L			267809	249827	2
	Ni	60	0.432	ug/L	0.018	4	22	971	5
	Ni	62	1.200	ug/L	0.145	12	492	850	5
	Cu	63	0.675	ug/L	0.017	2	405	3662	1
	Cu	65	0.175	ug/L	0.013	7	84	477	5
	Zn	66	0.816	ug/L	0.004	0	153	1331	2
	Zn	67	1.018	ug/L	0.076	7	101	340	4
	Zn	68	1.062	ug/L	0.197	18	6809	7413	0
	As	75	3.338	ug/L	0.082	2	545	5240	2
	As-1	75	3.236	ug/L	0.133	4	8111	12035	1
	Se	82	0.490	ug/L	0.089	18	3	83	18
	Se	78	0.044	ug/L	0.444	1012	8243	7703	0
[	Mo	98	0.409	ug/L	0.004	0	37	2337	2
	Y	89		ug/L			272756	250362	0
	Kr	83		ug/L			273	284	4
[>	In	115		ug/L			307062	283434	1
	Ag	107	0.001	ug/L	0.000	24	32	42	7
	Cd	111	-0.064	ug/L	0.008	12	192	28	66
	Cd	114	0.004	ug/L	0.001	23	9	27	16
	Sb	121	0.078	ug/L	0.006	7	132	720	6
	Sb	123	0.075	ug/L	0.002	3	115	539	2
	Ba	135	7.883	ug/L	0.183	2	13	13906	2
[	Ba	137	7.707	ug/L	0.075	0	19	23489	2
[>	Tb	159		ug/L			333608	314040	2
	Tl	205	-0.001	ug/L	0.000	6	65	35	2
	Pb	208	0.030	ug/L	0.001	4	262	1202	0
	Bi	209		ug/L			310915	282841	1
	Th	232	0.002	ug/L	0.001	26	397	463	7
[	U	238	0.027	ug/L	0.001	3	75	1272	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 L REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:03:05
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	350398	3
[	Be	9	0.045	ug/L	0.006	12	7	24	7
	C	13		mg/L			6387	7383	2
	Cl	37		mg/L			2320156	2285460	1
[>	Sc	45		ug/L			234963	224656	2
[	V	51	19.756	ug/L	1.063	5	2151	197202	8
[	V-1	51	19.652	ug/L	1.028	5	2935	200618	8
[	Cr	52	7.352	ug/L	0.399	5	6256	69442	7
[	Cr	53	7.750	ug/L	0.345	4	957	8939	6
[	Mn	55	55.396	ug/L	3.041	5	568	793982	8
[	Co	59	0.201	ug/L	0.008	4	39	2216	6
[>	Ge	72		ug/L			267809	239784	2
[	Ni	60	4.127	ug/L	0.274	6	22	8750	8
[	Ni	62	6.477	ug/L	0.236	3	492	2468	4
[	Cu	63	1.924	ug/L	0.091	4	405	9352	6
[	Cu	65	1.077	ug/L	0.065	6	84	2437	8
[	Zn	66	1.781	ug/L	0.062	3	153	2627	5
[	Zn	67	3.292	ug/L	0.182	5	101	855	7
[	Zn	68	1.908	ug/L	0.167	8	6809	7930	1
[	As	75	7.058	ug/L	0.394	5	545	10100	7
[	As-1	75	7.317	ug/L	0.272	3	8111	16971	4
[	Se	82	0.335	ug/L	0.077	23	3	55	23
[	Se	78	1.028	ug/L	0.507	49	8243	7748	0
[	Mo	98	1.325	ug/L	0.063	4	37	7205	7
	Y	89		ug/L			272756	275603	3
	Kr	83		ug/L			273	300	1
[>	In	115		ug/L			307062	268503	3
[	Ag	107	0.016	ug/L	0.002	13	32	163	14
[	Cd	111	-0.016	ug/L	0.021	137	192	133	35
[	Cd	114	0.030	ug/L	0.003	10	9	162	6
[	Sb	121	0.063	ug/L	0.002	3	132	572	6
[	Sb	123	0.057	ug/L	0.006	9	115	412	10
[	Ba	135	2.170	ug/L	0.280	12	13	3644	15
[	Ba	137	2.104	ug/L	0.137	6	19	6094	9
[>	Tb	159		ug/L			333608	300402	2
[	Tl	205	-0.000	ug/L	0.000	54	65	49	8
[	Pb	208	0.241	ug/L	0.007	2	262	7648	5
[	Bi	209		ug/L			310915	265261	2
[	Th	232	0.245	ug/L	0.011	4	397	9805	7
[	U	238	0.935	ug/L	0.035	3	75	39989	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 M REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:09:22
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	394807	4
[	Be	9	0.003	ug/L	0.006	208	7	8	28
	C	13		mg/L			6387	6015	0
	Cl	37		mg/L			2320156	2563069	0
[>	Sc	45		ug/L			234963	237859	2
|	V	51	0.630	ug/L	0.019	3	2151	8753	0
|	V-1	51	0.846	ug/L	0.022	2	2935	11971	0
|	Cr	52	0.258	ug/L	0.011	4	6256	8690	3
|	Cr	53	0.951	ug/L	0.013	1	957	2011	2
|	Mn	55	140.654	ug/L	1.758	1	568	2131674	3
[	Co	59	0.300	ug/L	0.008	2	39	3488	2
[>	Ge	72		ug/L			267809	256725	1
|	Ni	60	0.444	ug/L	0.026	5	22	1025	7
|	Ni	62	1.124	ug/L	0.041	3	492	848	2
|	Cu	63	0.741	ug/L	0.013	1	405	4090	0
|	Cu	65	0.262	ug/L	0.010	3	84	695	2
|	Zn	66	1.008	ug/L	0.011	1	153	1655	2
|	Zn	67	1.188	ug/L	0.064	5	101	392	4
|	Zn	68	1.066	ug/L	0.087	8	6809	7626	2
|	As	75	3.182	ug/L	0.032	0	545	5158	2
|	As-1	75	2.924	ug/L	0.092	3	8111	11925	0
|	Se	82	0.379	ug/L	0.068	17	3	66	15
|	Se	78	-0.672	ug/L	0.413	61	8243	7641	0
[	Mo	98	0.395	ug/L	0.015	3	37	2321	5
	Y	89		ug/L			272756	261182	2
	Kr	83		ug/L			273	287	2
[>	In	115		ug/L			307062	290170	3
|	Ag	107	0.001	ug/L	0.001	86	32	41	23
|	Cd	111	u -0.057	ug/L	0.028	50	192	45	148
|	Cd	114	0.012	ug/L	0.000	3	9	75	4
|	Sb	121	h 0.075	ug/L	0.005	6	132	715	3
|	Sb	123	0.072	ug/L	0.001	1	115	531	4
|	Ba	135	7.707	ug/L	0.121	1	13	13914	2
[	Ba	137	7.801	ug/L	0.175	2	19	24327	2
[>	Tb	159		ug/L			333608	330008	3
|	Tl	205	-0.001	ug/L	0.000	12	65	42	10
|	Pb	208	0.060	ug/L	0.002	2	262	2280	5
|	Bi	209		ug/L			310915	292184	3
|	Th	232	0.003	ug/L	0.002	52	397	521	12
[	U	238	0.029	ug/L	0.001	2	75	1439	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 G REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:15:39
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			393316	373627	0
Be	9	0.009	ug/L	0.008	97	7	10	33
C	13		mg/L			6387	5786	0
Cl	37		mg/L			2320156	2188643	0
Sc	45		ug/L			234963	227839	1
V	51	0.407	ug/L	0.024	5	2151	6154	3
V-1	51	0.470	ug/L	0.007	1	2935	7642	2
Cr	52	0.044	ug/L	0.025	55	6256	6452	2
Cr	53	0.263	ug/L	0.060	22	957	1205	5
Mn	55	224.797	ug/L	4.427	1	568	3262112	0
Co	59	0.257	ug/L	0.001	0	39	2865	1
Ge	72		ug/L			267809	248390	1
Ni	60	0.759	ug/L	0.023	3	22	1682	1
Ni	62	0.862	ug/L	0.040	4	492	735	3
Cu	63	0.255	ug/L	0.002	0	405	1610	0
Cu	65	0.185	ug/L	0.008	4	84	497	3
Zn	66	1.444	ug/L	0.049	3	153	2232	2
Zn	67	1.819	ug/L	0.065	3	101	531	2
Zn	68	1.837	ug/L	0.192	10	6809	8144	1
As	75	1.798	ug/L	0.026	1	545	3040	0
As-1	75	1.860	ug/L	0.075	4	8111	10077	0
Se	82	0.053	ug/L	0.088	166	3	12	115
Se	78	0.293	ug/L	0.199	67	8243	7754	0
Mo	98	0.316	ug/L	0.009	2	37	1805	2
Y	89		ug/L			272756	253713	1
Kr	83		ug/L			273	280	2
In	115		ug/L			307062	286258	0
Ag	107	-0.001	ug/L	0.000	67	32	24	14
Cd	111	u 0.008	ug/L	0.010	127	192	196	11
Cd	114	0.017	ug/L	0.002	13	9	102	12
Sb	121	u 0.037	ug/L	0.004	11	132	407	8
Sb	123	0.033	ug/L	0.001	3	115	297	2
Ba	135	13.863	ug/L	0.194	1	13	24689	1
Ba	137	13.715	ug/L	0.055	0	19	42199	0
Tb	159		ug/L			333608	319757	1
Tl	205	-0.001	ug/L	0.000	11	65	38	8
Pb	208	0.117	ug/L	0.003	2	262	4065	3
Bi	209		ug/L			310915	290015	1
Th	232	-0.000	ug/L	0.000	103	397	365	2
U	238	0.183	ug/L	0.003	1	75	8365	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 H REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:21:55
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			393316	375996	2
⌊	Be	9	0.014	ug/L	0.002	14	7	13	5
	C	13		mg/L			6387	6102	2
	Cl	37		mg/L			2320156	2274277	0
⌈>	Sc	45		ug/L			234963	239454	1
|	V	51	1.700	ug/L	0.018	1	2151	20065	0
|	V-1	51	1.794	ug/L	0.021	1	2935	22214	0
|	Cr	52	0.914	ug/L	0.027	3	6256	14771	0
|	Cr	53	1.252	ug/L	0.034	2	957	2356	0
|	Mn	55	18.868	ug/L	0.337	1	568	288298	0
⌊	Co	59	0.164	ug/L	0.009	5	39	1932	4
⌈>	Ge	72		ug/L			267809	247699	1
|	Ni	60	0.673	ug/L	0.028	4	22	1490	3
|	Ni	62	0.921	ug/L	0.046	5	492	753	3
|	Cu	63	0.720	ug/L	0.022	3	405	3845	1
|	Cu	65	0.549	ug/L	0.013	2	84	1319	1
|	Zn	66	1.524	ug/L	0.047	3	153	2342	4
|	Zn	67	1.557	ug/L	0.176	11	101	467	8
|	Zn	68	1.432	ug/L	0.256	17	6809	7720	3
|	As	75	0.360	ug/L	0.010	2	545	1010	0
|	As-1	75	0.242	ug/L	0.140	57	8111	7833	1
|	Se	82	0.090	ug/L	0.027	30	3	18	24
|	Se	78	-0.153	ug/L	0.519	339	8243	7566	1
⌊	Mo	98	0.023	ug/L	0.001	4	37	162	3
	Y	89		ug/L			272756	255045	2
	Kr	83		ug/L			273	284	2
⌈>	In	115		ug/L			307062	282669	0
|	Ag	107	-0.000	ug/L	0.001	162	32	26	17
|	Cd	111	0.092	ug/L	0.015	15	192	390	9
|	Cd	114	0.137	ug/L	0.006	4	9	743	4
|	Sb	121	0.018	ug/L	0.003	19	132	259	10
|	Sb	123	0.016	ug/L	0.003	17	115	199	8
|	Ba	135	2.813	ug/L	0.057	2	13	4957	2
⌊	Ba	137	2.853	ug/L	0.058	2	19	8680	1
⌈>	Tb	159		ug/L			333608	315400	1
|	Tl	205	-0.001	ug/L	0.000	14	65	36	9
|	Pb	208	0.088	ug/L	0.000	0	262	3086	1
|	Bi	209		ug/L			310915	282576	1
|	Th	232	0.016	ug/L	0.000	1	397	1035	2
⌊	U	238	0.024	ug/L	0.001	4	75	1167	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 I REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:28:11
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			393316	377831	2
	Be	9	0.007	ug/L	0.002	28	7	10	6
	C	13		mg/L			6387	5769	1
	Cl	37		mg/L			2320156	1955098	1
>	Sc	45		ug/L			234963	224845	3
	V	51	0.362	ug/L	0.007	1	2151	5631	4
	V-1	51	0.410	ug/L	0.010	2	2935	6934	3
	Cr	52	-0.025	ug/L	0.011	43	6256	5774	2
	Cr	53	0.148	ug/L	0.028	18	957	1068	1
	Mn	55	1.180	ug/L	0.004	0	568	17436	3
	Co	59	0.053	ug/L	0.002	4	39	608	7
>	Ge	72		ug/L			267809	239788	2
	Ni	60	1.062	ug/L	0.031	2	22	2265	5
	Ni	62	0.758	ug/L	0.127	16	492	678	8
	Cu	63	0.685	ug/L	0.010	1	405	3562	2
	Cu	65	0.739	ug/L	0.027	3	84	1694	4
	Zn	66	0.919	ug/L	0.066	7	153	1421	5
	Zn	67	1.194	ug/L	0.099	8	101	368	8
	Zn	68	1.105	ug/L	0.138	12	6809	7157	0
	As	75	1.118	ug/L	0.016	1	545	2009	2
	As-1	75	1.103	ug/L	0.095	8	8111	8723	1
	Se	82	0.059	ug/L	0.071	119	3	12	85
	Se	78	0.047	ug/L	0.393	844	8243	7395	1
	Mo	98	0.460	ug/L	0.007	1	37	2519	2
	Y	89		ug/L			272756	240748	2
	Kr	83		ug/L			273	265	2
>	In	115		ug/L			307062	277916	3
	Ag	107	-0.001	ug/L	0 001	111	32	24	24
	Cd	111	0.021	ug/L	0.010	47	192	221	11
	Cd	114	0.033	ug/L	0.002	6	9	183	8
	Sb	121	0.737	ug/L	0.016	2	132	5669	4
	Sb	123	0.732	ug/L	0.025	3	115	4241	6
	Ba	135	12.015	ug/L	0.056	0	13	20773	2
	Ba	137	12.119	ug/L	0.101	0	19	36203	3
>	Tb	159		ug/L			333608	310115	2
	Tl	205	0.000	ug/L	0.000	106	65	67	8
	Pb	208	0.096	ug/L	0.003	2	262	3292	1
	Bi	209		ug/L			310915	283105	2
	Th	232	-0.003	ug/L	0.000	5	397	254	1
	U	238	0.102	ug/L	0.002	1	75	4570	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 J REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:34:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	369507	1
[	Be	9	0.019	ug/L	0.011	58	7	15	30
	C	13		mg/L			6387	5625	0
	Cl	37		mg/L			2320156	1964312	0
[>	Sc	45		ug/L			234963	222401	0
|	V	51	1.134	ug/L	0.106	9	2151	13109	7
|	V-1	51	1.176	ug/L	0.109	9	2935	14485	7
|	Cr	52	0.538	ug/L	0.008	1	6256	10513	0
|	Cr	53	0.705	ug/L	0.034	4	957	1628	2
|	Mn	55	32.062	ug/L	0.312	0	568	454681	0
[	Co	59	0.193	ug/L	0.002	1	39	2107	1
[>	Ge	72		ug/L			267809	236517	1
|	Ni	60	1.071	ug/L	0.047	4	22	2251	3
|	Ni	62	0.872	ug/L	0.117	13	492	703	5
|	Cu	63	0.773	ug/L	0.034	4	405	3916	3
|	Cu	65	0.837	ug/L	0.028	3	84	1882	3
|	Zn	66	1.750	ug/L	0.037	2	153	2547	1
|	Zn	67	1.794	ug/L	0.145	8	101	500	7
|	Zn	68	1.744	ug/L	0.105	6	6809	7668	1
|	As	75	6.332	ug/L	0.059	0	545	8979	0
|	As-1	75	6.502	ug/L	0.114	1	8111	15667	0
|	Se	82	-0.121	ug/L	0.049	40	3	-15	49
|	Se	78	0.145	ug/L	0.327	224	8243	7330	0
[	Mo	98	0.682	ug/L	0.014	2	37	3671	2
	Y	89		ug/L			272756	239708	0
	Kr	83		ug/L			273	278	1
[>	In	115		ug/L			307062	272010	1
|	Ag	107	0.001	ug/L	0.001	212	32	33	30
|	Cd	111	u -0.001	ug/L	0.006	880	192	168	8
|	Cd	114	0.011	ug/L	0.004	39	9	65	33
|	Sb	121	u 0.047	ug/L	0.004	7	132	464	5
|	Sb	123	0.041	ug/L	0.005	12	115	329	9
|	Ba	135	5.402	ug/L	0.088	1	13	9149	2
[	Ba	137	5.333	ug/L	0.115	2	19	15600	1
[>	Tb	159		ug/L			333608	306613	0
|	Tl	205	0.000	ug/L	0.001	1057	65	61	19
|	Pb	208	0.202	ug/L	0.007	3	262	6576	3
|	Bi	209		ug/L			310915	279358	1
|	Th	232	0.019	ug/L	0.000	2	397	1113	1
[	U	238	0.052	ug/L	0.001	1	75	2343	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 K REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:40:44
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	362763	3
[	Be	9	0.028	ug/L	0.008	29	7	18	15
	C	13		mg/L			6387	5963	1
	Cl	37		mg/L			2320156	2190142	0
[>	Sc	45		ug/L			234963	239759	2
	V	51	3.500	ug/L	0.044	1	2151	39063	3
	V-1	51	3.528	ug/L	0.046	1	2935	40850	2
	Cr	52	1.426	ug/L	0.016	1	6256	19509	2
	Cr	53	1.631	ug/L	0.101	6	957	2776	2
	Mn	55	2178.657	ug/L	25.467	1	568	33262692	1
[	Co	59	0.770	ug/L	0.008	1	39	8961	1
[>	Ge	72		ug/L			267809	237667	1
	Ni	60	3.584	ug/L	0.056	1	22	7527	2
	Ni	62	3.302	ug/L	0.085	2	492	1460	1
	Cu	63	1.600	ug/L	0.020	1	405	7764	1
	Cu	65	1.007	ug/L	0.016	1	84	2260	1
	Zn	66	2.448	ug/L	0.026	1	153	3527	1
	Zn	67	2.678	ug/L	0.150	5	101	706	6
	Zn	68	2.853	ug/L	0.116	4	6809	8762	0
	As	75	3.645	ug/L	0.047	1	545	5399	1
	As-1	75	3.738	ug/L	0.109	2	8111	12111	0
	Se	82	0.353	ug/L	0.029	8	3	57	7
	Se	78	0.679	ug/L	0.378	55	8243	7556	1
[	Mo	98	1.014	ug/L	0.024	2	37	5466	3
	Y	89		ug/L			272756	255470	2
	Kr	83		ug/L			273	285	0
[>	In	115		ug/L			307062	267872	2
	Ag	107	0.007	ug/L	0.001	18	32	85	14
	Cd	111	u 0.087	ug/L	0.006	7	192	358	6
	Cd	114	0.095	ug/L	0.003	3	9	492	1
	Sb	121	u 0.103	ug/L	0.004	3	132	863	5
	Sb	123	0.098	ug/L	0.006	5	115	632	6
	Ba	135	5.908	ug/L	0.472	7	13	9864	10
[	Ba	137	5.802	ug/L	0.168	2	19	16721	4
[>	Tb	159		ug/L			333608	309491	2
	Tl	205	0.002	ug/L	0.000	16	65	95	7
	Pb	208	0.505	ug/L	0.000	0	262	16212	2
	Bi	209		ug/L			310915	270371	2
	Th	232	0.081	ug/L	0.002	1	397	3578	1
[	U	238	0.569	ug/L	0.004	0	75	25067	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:47:04
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	391910	2
[	Be	9	53.091	ug/L	0.918	1	7	23907	1
	C	13		mg/L			6387	3738	1
	Cl	37		mg/L			2320156	2194990	0
[>	Sc	45		ug/L			234963	221462	1
[	V	51	50.288	ug/L	0.370	0	2151	491157	1
[	V-1	51	50.422	ug/L	0.466	0	2935	502529	0
[	Cr	52	51.248	ug/L	0.561	1	6256	441477	1
[	Cr	53	51.609	ug/L	0.934	1	957	53523	0
[	Mn	55	51.548	ug/L	0.492	0	568	727551	0
[	Co	59	50.995	ug/L	0.542	1	39	545536	0
[>	Ge	72		ug/L			267809	251920	1
[	Ni	60	52.031	ug/L	0.714	1	22	115525	0
[	Ni	62	51.552	ug/L	0.929	1	492	17410	0
[	Cu	63	51.845	ug/L	0.926	1	405	254724	0
[	Cu	65	51.770	ug/L	1.308	2	84	119218	1
[	Zn	66	52.484	ug/L	0.667	1	153	77212	0
[	Zn	67	52.060	ug/L	0.407	0	101	12784	0
[	Zn	68	52.133	ug/L	0.172	0	6809	59090	0
[	As	75	51.267	ug/L	0.575	1	545	73795	0
[	As-1	75	51.329	ug/L	0.533	1	8111	79137	0
[	Se	82	51.360	ug/L	1.019	1	3	8370	0
[	Se	78	51.754	ug/L	0.819	1	8243	27321	0
[	Mo	98	51.427	ug/L	0.332	0	37	292148	0
	Y	89		ug/L			272756	252416	0
	Kr	83		ug/L			273	292	0
[>	In	115		ug/L			307062	289171	1
[	Ag	107	51.842	ug/L	1.087	2	32	477470	0
[	Cd	111	51.817	ug/L	0.419	0	192	123223	0
[	Cd	114	51.727	ug/L	1.120	2	9	284300	0
[	Sb	121	51.026	ug/L	0.719	1	132	399773	0
[	Sb	123	51.102	ug/L	1.215	2	115	300315	1
[	Ba	135	50.473	ug/L	0.757	1	13	90759	0
[	Ba	137	50.224	ug/L	0.981	1	19	156024	1
[>	Tb	159		ug/L			333608	321761	0
[	Tl	205	53.345	ug/L	0.368	0	65	1271147	0
[	Pb	208	53.554	ug/L	0.567	1	262	1761432	0
[	Bi	209		ug/L			310915	295759	1
[	Th	232	54.177	ug/L	0.654	1	397	2231807	0
[	U	238	54.011	ug/L	0.877	1	75	2469066	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:53:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	384377	1
[	Be	9	0.007	ug/L	0.004	63	7	10	18
	C	13		mg/L			6387	5985	1
	Cl	37		mg/L			2320156	2254099	0
[>	Sc	45		ug/L			234963	220996	1
[	V	51	-0.006	ug/L	0.011	174	2151	1963	5
[	V-1	51	0.022	ug/L	0.010	46	2935	2974	3
[	Cr	52	-0.034	ug/L	0.012	34	6256	5595	0
[	Cr	53	0.054	ug/L	0.018	33	957	955	0
[	Mn	55	0.008	ug/L	0.001	16	568	649	3
[	Co	59	-0.001	ug/L	0.000	94	39	31	17
[>	Ge	72		ug/L			267809	253428	0
[	Ni	60	0.001	ug/L	0.004	304	22	24	36
[	Ni	62	-0.437	ug/L	0.069	15	492	321	7
[	Cu	63	-0.014	ug/L	0.003	18	405	315	4
[	Cu	65	-0.005	ug/L	0.002	31	84	67	5
[	Zn	66	-0.010	ug/L	0.017	170	153	130	18
[	Zn	67	0.002	ug/L	0.018	980	101	96	4
[	Zn	68	-0.167	ug/L	0.046	27	6809	6274	0
[	As	75	0.042	ug/L	0.017	41	545	576	3
[	As-1	75	-0.028	ug/L	0.023	84	8111	7636	0
[	Se	82	-0.036	ug/L	0.026	71	3	-2	199
[	Se	78	-0.158	ug/L	0.065	41	8243	7740	0
[	Mo	98	0.006	ug/L	0.004	64	37	67	31
	Y	89		ug/L			272756	252961	0
	Kr	83		ug/L			273	280	0
[>	In	115		ug/L			307062	283360	0
[	Ag	107	0.003	ug/L	0.002	60	32	58	30
[	Cd	111	-0.004	ug/L	0.001	21	192	166	0
[	Cd	114	0.000	ug/L	0.000	121	9	10	19
[	Sb	121	0.043	ug/L	0.016	37	132	448	27
[	Sb	123	0.039	ug/L	0.012	29	115	331	20
[	Ba	135	0.003	ug/L	0.002	65	13	18	21
[	Ba	137	0.003	ug/L	0.001	25	19	26	8
[>	Tb	159		ug/L			333608	316967	1
[	Tl	205	0.003	ug/L	0.002	51	65	132	27
[	Pb	208	0.001	ug/L	0.001	121	262	274	10
[	Bi	209		ug/L			310915	295944	1
[	Th	232	0.015	ug/L	0.006	40	397	1003	24
[	U	238	0.001	ug/L	0.001	59	75	125	25

WA EL 1-24-13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ39 MB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:59:31
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			393316	401511	1
	Be	9	0.002	ug/L	0.008	342	7	8	42
	C	13		mg/L			6387	6461	1
	Cl	37		mg/L			2320156	2223587	0
>	Sc	45		ug/L			234963	225209	1
	V	51	-0.010	ug/L	0.012	128	2151	1965	4
	V-1	51	0.009	ug/L	0.011	125	2935	2899	3
	Cr	52	-0.021	ug/L	0.009	41	6256	5816	0
	Cr	53	0.037	ug/L	0.036	98	957	955	4
	Mn	55	0.088	ug/L	0.003	3	568	1812	2
	Co	59	0.003	ug/L	0.000	7	39	70	2
>	Ge	72		ug/L			267809	259203	0
	Ni	60	0.043	ug/L	0.003	5	22	119	4
	Ni	62	-0.581	ug/L	0.026	4	492	279	3
	Cu	63	0.173	ug/L	0.004	2	405	1267	1
	Cu	65	0.185	ug/L	0.006	3	84	519	2
	Zn	66	0.750	ug/L	0.030	4	153	1281	3
	Zn	67	0.666	ug/L	0.119	17	101	265	11
	Zn	68	0.536	ug/L	0.064	11	6809	7147	0
	As	75	0.037	ug/L	0.006	15	545	582	1
	As-1	75	-0.096	ug/L	0.048	49	8111	7712	0
	Se	82	-0.052	ug/L	0.008	15	3	-4	26
	Se	78	-0.445	ug/L	0.150	33	8243	7805	0
	Mo	98	0.003	ug/L	0.002	83	37	52	25
	Y	89		ug/L			272756	259246	1
	Kr	83		ug/L			273	281	3
>	In	115		ug/L			307062	291988	1
	Ag	107	0.007	ug/L	0.001	13	32	98	8
	Cd	111	-0.008	ug/L	0.007	91	192	163	10
	Cd	114	0.001	ug/L	0.000	51	9	12	16
	Sb	121	0.009	ug/L	0.004	46	132	194	17
	Sb	123	0.006	ug/L	0.002	24	115	147	7
	Ba	135	0.024	ug/L	0.001	5	13	57	4
	Ba	137	0.023	ug/L	0.005	20	19	91	16
>	Tb	159		ug/L			333608	323497	0
	Tl	205	0.001	ug/L	0.001	58	65	94	19
	Pb	208	0.017	ug/L	0.000	1	262	811	0
	Bi	209		ug/L			310915	300059	0
	Th	232	0.007	ug/L	0.002	35	397	665	14
	U	238	0.001	ug/L	0.000	3	75	101	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 S REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 23, 2013 17:05:50
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			393316	385173	1
⌊	Be	9	0.037	ug/L	0.008	21	7	23	13
	C	13		mg/L			6387	6226	0
	Cl	37		mg/L			2320156	2228553	0
⌈>	Sc	45		ug/L			234963	241897	1
|	V	51	3.963	ug/L	0.141	3	2151	44307	1
|	V-1	51	4.032	ug/L	0.135	3	2935	46659	1
|	Cr	52	2.149	ug/L	0.051	2	6256	26386	0
|	Cr	53	2.467	ug/L	0.098	3	957	3734	3
|	Mn	55	61.214	ug/L	0.860	1	568	943557	0
⌊	Co	59	0.382	ug/L	0.009	2	39	4499	0
⌈>	Ge	72		ug/L			267809	252196	0
|	Ni	60	1.592	ug/L	0.016	0	22	3559	0
|	Ni	62	1.318	ug/L	0.064	4	492	897	2
|	Cu	63	1.678	ug/L	0.039	2	405	8624	2
|	Cu	65	1.458	ug/L	0.016	1	84	3438	1
|	Zn	66	2.794	ug/L	0.021	0	153	4251	0
|	Zn	67	3.213	ug/L	0.137	4	101	879	4
|	Zn	68	2.754	ug/L	0.181	6	6809	9198	1
|	As	75	3.475	ug/L	0.031	0	545	5487	1
|	As-1	75	3.327	ug/L	0.016	0	8111	12279	0
|	Se	82	0.143	ug/L	0.097	67	3	27	58
|	Se	78	-0.490	ug/L	0.153	31	8243	7577	0
⌊	Mo	98	0.189	ug/L	0.007	3	37	1112	3
	Y	89		ug/L			272756	263397	0
	Kr	83		ug/L			273	292	2
⌈>	In	115		ug/L			307062	282118	1
|	Ag	107	0.006	ug/L	0.001	21	32	82	12
|	Cd	111	0.702	ug/L	0.036	5	192	1802	5
|	Cd	114	0.697	ug/L	0.016	2	9	3745	2
|	Sb	121	0.091	ug/L	0.005	5	132	820	5
|	Sb	123	0.090	ug/L	0.011	12	115	623	9
|	Ba	135	7.477	ug/L	0.034	0	13	13129	1
⌊	Ba	137	7.647	ug/L	0.205	2	19	23199	3
⌈>	Tb	159		ug/L			333608	318656	1
|	Tl	205	0.002	ug/L	0.000	3	65	115	3
|	Pb	208	0.350	ug/L	0.007	1	262	11633	1
|	Bi	209		ug/L			310915	285255	0
|	Th	232	0.113	ug/L	0.003	2	397	4986	0
⌊	U	238	0.078	ug/L	0.003	3	75	3624	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 V REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 23, 2013 17:12:10
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			393316	419476	5
[	Be	9	0.006	ug/L	0.000	5	7	10	6
	C	13		mg/L			6387	6294	1
	Cl	37		mg/L			2320156	2820375	1
⌈>	Sc	45		ug/L			234963	258158	4
|	V	51	1.675	ug/L	0.055	3	2151	21345	2
|	V-1	51	1.930	ug/L	0.035	1	2935	25520	4
|	Cr	52	0.763	ug/L	0.063	8	6256	14417	0
|	Cr	53	1.608	ug/L	0.028	1	957	2964	5
|	Mn	55	27.338	ug/L	0.499	1	568	449943	3
[	Co	59	0.161	ug/L	0.001	0	39	2046	3
⌈>	Ge	72		ug/L			267809	264228	2
|	Ni	60	0.242	ug/L	0.018	7	22	587	8
|	Ni	62	0.258	ug/L	0.037	14	492	574	0
|	Cu	63	0.972	ug/L	0.015	1	405	5400	2
|	Cu	65	0.345	ug/L	0.004	1	84	915	0
|	Zn	66	0.720	ug/L	0.047	6	153	1261	7
|	Zn	67	1.204	ug/L	0.118	9	101	408	9
|	Zn	68	0.562	ug/L	0.154	27	6809	7311	0
|	As	75	2.372	ug/L	0.049	2	545	4095	2
|	As-1	75	1.753	ug/L	0.187	10	8111	10561	1
|	Se	82	0.661	ug/L	0.030	4	3	116	2
|	Se	78	-1.695	ug/L	0.598	35	8243	7457	1
[	Mo	98	0.341	ug/L	0.002	0	37	2066	2
	Y	89		ug/L			272756	274279	4
	Kr	83		ug/L			273	283	2
⌈>	In	115		ug/L			307062	297241	3
|	Ag	107	0.001	ug/L	0.000	24	32	41	9
|	Cd	111	-0.061	ug/L	0.013	21	192	36	84
|	Cd	114	0.005	ug/L	0.001	16	9	39	15
|	Sb	121	0.023	ug/L	0.002	9	132	310	9
|	Sb	123	0.017	ug/L	0.002	11	115	215	3
|	Ba	135	15.945	ug/L	0.174	1	13	29493	4
[	Ba	137	16.194	ug/L	0.281	1	19	51725	3
⌈>	Tb	159		ug/L			333608	341593	4
|	Tl	205	-0.001	ug/L	0.000	25	65	42	10
|	Pb	208	0.056	ug/L	0.001	2	262	2232	4
|	Bi	209		ug/L			310915	297611	3
|	Th	232	0.026	ug/L	0.001	4	397	1530	5
[	U	238	0.038	ug/L	0.002	5	75	1944	6

ICP-MS Quantitative Analysis - Summary Report

WA EL 1-24-13

Sample ID: V239 ADUP REN

Sample Dil Factor: 5

Del

Comments:

Sample Date/Time: Wednesday, January 23, 2013 17:18:29

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	432587	1
[	Be	9	0.079	ug/L	0.019	23	7	47	18
	C	13		mg/L			6387	6056	1
	Cl	37		mg/L			2320156	2553403	0
[>	Sc	45		ug/L			234963	277675	0
	V	51	11.521	ug/L	0.108	0	2151	143055	1
	V-1	51	11.575	ug/L	0.102	0	2935	147337	1
	Cr	52	9.180	ug/L	0.058	0	6256	105231	1
	Cr	53	9.486	ug/L	0.017	0	957	13260	0
	Mn	55	88.513	ug/L	2.130	2	568	1566215	3
[	Co	59	1.743	ug/L	0.008	0	39	23423	1
[>	Ge	72		ug/L			267809	275850	1
	Ni	60	11.501	ug/L	0.137	1	22	27986	2
	Ni	62	12.227	ug/L	0.200	1	492	4909	2
	Cu	63	14.617	ug/L	0.100	0	405	78952	1
	Cu	65	14.624	ug/L	0.140	0	84	36947	2
	Zn	66	36.358	ug/L	0.095	0	153	58623	0
	Zn	67	33.908	ug/L	0.566	1	101	9155	2
	Zn	68	35.472	ug/L	0.158	0	6809	46267	1
	As	75	4.058	ug/L	0.071	1	545	6915	2
	As-1	75	3.343	ug/L	0.124	3	8111	13455	2
	Se	82	1.513	ug/L	0.115	7	3	273	6
	Se	78	-1.345	ug/L	0.249	18	8243	7933	1
[	Mo	98	93.131	ug/L	1.196	1	37	579302	1
	Y	89		ug/L			272756	316860	0
	Kr	83		ug/L			273	284	2
[>	In	115		ug/L			307062	312026	2
	Ag	107	0.043	ug/L	0.002	4	32	459	5
	Cd	111	0.126	ug/L	0.021	16	192	516	7
	Cd	114	0.213	ug/L	0.005	2	9	1271	4
	Sb	121	0.413	ug/L	0.017	4	132	3621	3
	Sb	123	0.400	ug/L	0.007	1	115	2652	1
	Ba	135	27.719	ug/L	0.372	1	13	53787	2
[	Ba	137	27.541	ug/L	0.158	0	19	92339	2
[>	Tb	159		ug/L			333608	358580	1
	Tl	205	0.020	ug/L	0.001	4	65	593	4
	Pb	208	7.366	ug/L	0.042	0	262	270241	0
	Bi	209		ug/L			310915	322455	0
	Th	232	0.305	ug/L	0.007	2	397	14417	2
[	U	238	0.253	ug/L	0.003	1	75	12964	1

WA EL 1-24-13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ39 A REN

Sample Dil Factor: 5

Del

Comments:

Sample Date/Time: Wednesday, January 23, 2013 17:24:48

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	398408	2
[	Be	9	0.080	ug/L	0.012	15	7	44	14
	C	13		mg/L			6387	5922	0
	Cl	37		mg/L			2320156	2479494	0
[>	Sc	45		ug/L			234963	250265	0
	V	51	11.454	ug/L	0.055	0	2151	128194	1
	V-1	51	11.540	ug/L	0.040	0	2935	132386	0
	Cr	52	9.168	ug/L	0.060	0	6256	94728	0
	Cr	53	9.568	ug/L	0.195	2	957	12045	1
	Mn	55	88.941	ug/L	0.546	0	568	1418226	0
[	Co	59	1.739	ug/L	0.021	1	39	21065	1
[>	Ge	72		ug/L			267809	254245	0
	Ni	60	11.290	ug/L	0.198	1	22	25317	1
	Ni	62	11.942	ug/L	0.183	1	492	4429	0
	Cu	63	14.585	ug/L	0.102	0	405	72603	0
	Cu	65	14.479	ug/L	0.160	1	84	33712	1
	Zn	66	36.246	ug/L	0.371	1	153	53867	1
	Zn	67	34.230	ug/L	0.372	1	101	8516	0
	Zn	68	36.375	ug/L	0.643	1	6809	43561	0
	As	75	4.059	ug/L	0.029	0	545	6374	0
	As-1	75	3.764	ug/L	0.056	1	8111	12992	0
	Se	82	1.403	ug/L	0.106	7	3	234	6
	Se	78	0.232	ug/L	0.253	109	8243	7913	0
[	Mo	98	91.221	ug/L	1.383	1	37	522952	1
	Y	89		ug/L			272756	291511	1
	Kr	83		ug/L			273	285	1
[>	In	115		ug/L			307062	281466	1
	Ag	107	0.039	ug/L	0.004	9	32	378	9
	Cd	111	0.129	ug/L	0.027	20	192	474	12
	Cd	114	0.217	ug/L	0.006	2	9	1167	2
	Sb	121	0.421	ug/L	0.008	1	132	3333	0
	Sb	123	0.422	ug/L	0.013	3	115	2516	1
	Ba	135	27.652	ug/L	0.552	1	13	48400	0
[	Ba	137	27.411	ug/L	0.439	1	19	82895	0
[>	Tb	159		ug/L			333608	328295	0
	Tl	205	0.019	ug/L	0.000	0	65	520	0
	Pb	208	7.222	ug/L	0.035	0	262	242604	0
	Bi	209		ug/L			310915	289399	2
	Th	232	0.292	ug/L	0.001	0	397	12663	0
[	U	238	0.249	ug/L	0.003	1	75	11708	1

ICP-MS Quantitative Analysis - Summary Report

WA EL 1-24-13

Sample ID: VZ39 ASPK REN

Sample Dil Factor: 5

Comments:

Sample Date/Time: Wednesday, January 23, 2013 17:31:07

Number of Replicates: 3

Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth

Tuning File: C:\Elandata\Tuning\default.tun

Optimization File: C:\Elandata\Optimize\default.dac

Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			393316	402590	2
|	Be	9	11.176	ug/L	0.510	4	7	5172	2
	C	13		mg/L			6387	5933	1
	Cl	37		mg/L			2320156	2502616	0
⌈>	Sc	45		ug/L			234963	255039	2
|	V	51	20.900	ug/L	0.947	4	2151	236297	2
|	V-1	51	21.124	ug/L	0.938	4	2935	244171	2
|	Cr	52	18.727	ug/L	0.983	5	6256	189964	2
|	Cr	53	19.551	ug/L	0.943	4	957	23984	2
|	Mn	55	99.451	ug/L	3.963	3	568	1615126	1
|	Co	59	11.329	ug/L	0.364	3	39	139554	0
⌈>	Ge	72		ug/L			267809	256207	2
|	Ni	60	22.864	ug/L	0.960	4	22	51586	1
|	Ni	62	23.760	ug/L	1.880	7	492	8404	4
|	Cu	63	26.042	ug/L	1.290	4	405	130221	2
|	Cu	65	25.669	ug/L	0.717	2	84	60139	0
|	Zn	66	71.712	ug/L	3.020	4	153	107172	1
|	Zn	67	67.011	ug/L	3.111	4	101	16695	2
|	Zn	68	71.131	ug/L	3.559	5	6809	79559	2
|	As	75	15.915	ug/L	0.641	4	545	23644	1
|	As-1	75	15.112	ug/L	0.805	5	8111	29151	1
|	Se	82	36.186	ug/L	1.360	3	3	5995	1
|	Se	78	35.302	ug/L	2.167	6	8243	21446	1
|	Mo	98	95.736	ug/L	3.751	3	37	552714	1
	Y	89		ug/L			272756	294046	1
	Kr	83		ug/L			273	288	2
⌈>	In	115		ug/L			307062	286653	2
|	Ag	107	8.814	ug/L	0.382	4	32	80461	2
|	Cd	111	10.978	ug/L	0.411	3	192	26007	1
|	Cd	114	10.923	ug/L	0.340	3	9	59508	1
|	Sb	121	0.457	ug/L	0.028	6	132	3672	3
|	Sb	123	0.449	ug/L	0.015	3	115	2723	1
|	Ba	135	39.356	ug/L	2.070	5	13	70106	2
|	Ba	137	39.267	ug/L	1.376	3	19	120883	1
⌈>	Tb	159		ug/L			333608	330017	3
|	Tl	205	11.187	ug/L	0.630	5	65	273098	2
|	Pb	208	18.621	ug/L	0.788	4	262	627753	0
|	Bi	209		ug/L			310915	295260	2
|	Th	232	11.103	ug/L	0.538	4	397	468939	1
|	U	238	11.164	ug/L	0.565	5	75	522931	1

WA 2-1-2013

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ39 MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 17:37:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	458313	3
[	Be	9	26.291	ug/L	0.486	1	7	13846	1
	C	13		mg/L			6387	7040	0
	Cl	37		mg/L			2320156	2254112	0
[>	Sc	45		ug/L			234963	249892	3
	V	51	26.673	ug/L	0.953	3	2151	294827	0
	V-1	51	26.709	ug/L	0.910	3	2935	301651	0
	Cr	52	26.585	ug/L	0.801	3	6256	261484	1
	Cr	53	26.703	ug/L	0.699	2	957	31730	1
	Mn	55	27.794	ug/L	0.682	2	568	442773	1
[	Co	59	27.201	ug/L	0.620	2	39	328291	2
[>	Ge	72		ug/L			267809	282960	3
	Ni	60	28.310	ug/L	0.664	2	22	70584	1
	Ni	62	27.795	ug/L	0.941	3	492	10776	0
	Cu	63	28.896	ug/L	0.794	2	405	159575	0
	Cu	65	28.928	ug/L	1.078	3	84	74821	1
	Zn	66	88.702	ug/L	3.429	3	153	146357	1
	Zn	67	82.171	ug/L	2.798	3	101	22586	0
	Zn	68	86.909	ug/L	3.090	3	6809	105769	0
	As	75	28.657	ug/L	0.711	2	545	46568	1
	As-1	75	26.696	ug/L	1.026	3	8111	50309	0
	Se	82	86.009	ug/L	1.890	2	3	15737	2
	Se	78	84.212	ug/L	3.326	3	8243	44444	0
[	Mo	98	0.055	ug/L	0.018	32	37	387	26
	Y	89		ug/L			272756	290354	2
	Kr	83		ug/L			273	294	4
[>	In	115		ug/L			307062	328335	3
	Ag	107	27.635	ug/L	0.788	2	32	288869	1
	Cd	111	26.559	ug/L	0.863	3	192	71761	0
	Cd	114	26.311	ug/L	1.019	3	9	164091	1
	Sb	121	-0.007	ug/L	0.002	21	132	77	17
	Sb	123	-0.011	ug/L	0.001	10	115	52	16
	Ba	135	26.826	ug/L	1.113	4	13	54738	2
[	Ba	137	26.964	ug/L	1.147	4	19	95040	0
[>	Tb	159		ug/L			333608	371439	2
	Tl	205	28.109	ug/L	0.481	1	65	773081	1
	Pb	208	28.106	ug/L	1.011	3	262	1066744	1
	Bi	209		ug/L			310915	341582	3
	Th	232	26.123	ug/L	0.769	2	397	1241918	0
[	U	238	26.150	ug/L	0.932	3	75	1379315	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ39 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 17:43:40
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	355579	3
[	Be	9	0.204	ug/L	0.016	8	7	90	10
	C	13		mg/L			6387	7069	0
	Cl	37		mg/L			2320156	2897867	1
[>	Sc	45		ug/L			234963	278856	3
	V	51	25.422	ug/L	0.935	3	2151	313730	1
	V-1	51	25.030	ug/L	0.172	0	2935	315884	3
	Cr	52	21.496	ug/L	3.253	15	6256	237031	12
	Cr	53	20.504	ug/L	0.380	1	957	27473	4
	Mn	55	189.631	ug/L	0.471	0	568	3368775	3
[	Co	59	3.626	ug/L	0.028	0	39	48888	3
[>	Ge	72		ug/L			267809	235318	2
	Ni	60	27.813	ug/L	0.311	1	22	57697	2
	Ni	62	30.338	ug/L	1.019	3	492	9753	4
	Cu	63	36.047	ug/L	0.065	0	405	165562	1
	Cu	65	35.975	ug/L	0.421	1	84	77435	3
	Zn	66	86.148	ug/L	0.298	0	153	118316	2
	Zn	67	81.970	ug/L	1.334	1	101	18756	3
	Zn	68	86.739	ug/L	0.594	0	6809	87873	2
	As	75	10.038	ug/L	0.010	0	545	13883	2
	As-1	75	10.223	ug/L	0.094	0	8111	20430	1
	Se	82	3.261	ug/L	0.100	3	3	499	2
	Se	78	3.793	ug/L	0.531	13	8243	8580	0
[	Mo	98	231.763	ug/L	2.127	0	37	1229922	2
	Y	89		ug/L			272756	318653	2
	Kr	83		ug/L			273	310	3
[>	In	115		ug/L			307062	256164	2
	Ag	107	0.113	ug/L	0.006	5	32	945	7
	Cd	111	0.389	ug/L	0.088	22	192	977	18
	Cd	114	0.499	ug/L	0.001	0	9	2436	2
	Sb	121	1.214	ug/L	0.015	1	132	8531	1
	Sb	123	1.215	ug/L	0.024	1	115	6423	4
	Ba	135	74.278	ug/L	0.127	0	13	118331	2
[	Ba	137	74.074	ug/L	0.177	0	19	203872	2
[>	Tb	159		ug/L			333608	296678	2
	Tl	205	0.059	ug/L	0.004	6	65	1347	8
	Pb	208	18.149	ug/L	0.178	0	262	550538	2
	Bi	209		ug/L			310915	261455	2
	Th	232	0.827	ug/L	0.014	1	397	31768	3
[	U	238	0.650	ug/L	0.016	2	75	27455	4

ICP-MS Quantitative Analysis - Summary Report

WA 2-24-13

Sample ID: VZ39 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 17:49:57
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	399471	4
[	Be	9	0.184	ug/L	0.016	8	7	92	4
	C	13		mg/L			6387	7173	0
	Cl	37		mg/L			2320156	2999184	1
[>	Sc	45		ug/L			234963	303025	3
	V	51	24.095	ug/L	0.338	1	2151	323356	2
	V-1	51	24.329	ug/L	0.464	1	2935	333617	1
	Cr	52	19.436	ug/L	0.308	1	6256	234045	2
	Cr	53	20.435	ug/L	0.724	3	957	29728	2
	Mn	55	190.698	ug/L	3.056	1	568	3679899	2
[	Co	59	3.599	ug/L	0.057	1	39	52709	2
[>	Ge	72		ug/L			267809	257281	2
	Ni	60	27.739	ug/L	0.332	1	22	62927	3
	Ni	62	30.061	ug/L	0.393	1	492	10567	3
	Cu	63	35.500	ug/L	0.173	0	405	178275	2
	Cu	65	35.034	ug/L	0.197	0	84	82446	3
	Zn	66	85.021	ug/L	0.081	0	153	127663	2
	Zn	67	80.924	ug/L	0.620	0	101	20244	3
	Zn	68	84.878	ug/L	0.262	0	6809	94143	2
	As	75	9.962	ug/L	0.105	1	545	15070	3
	As-1	75	9.617	ug/L	0.118	1	8111	21473	2
	Se	82	3.374	ug/L	0.048	1	3	565	4
	Se	78	1.838	ug/L	0.525	28	8243	8625	0
[	Mo	98	232.528	ug/L	2.407	1	37	1349192	3
	Y	89		ug/L			272756	347071	3
	Kr	83		ug/L			273	319	2
[>	In	115		ug/L			307062	284345	2
	Ag	107	0.107	ug/L	0.004	3	32	997	6
	Cd	111	0.299	ug/L	0.016	5	192	876	6
	Cd	114	0.527	ug/L	0.011	2	9	2860	4
	Sb	121	1.060	ug/L	0.008	0	132	8285	2
	Sb	123	1.053	ug/L	0.022	2	115	6188	2
	Ba	135	68.532	ug/L	0.737	1	13	121195	3
[	Ba	137	68.177	ug/L	1.109	1	19	208296	3
[>	Tb	159		ug/L			333608	329175	3
	Tl	205	0.052	ug/L	0.001	1	65	1325	2
	Pb	208	17.916	ug/L	0.170	0	262	602976	3
	Bi	209		ug/L			310915	286814	3
	Th	232	0.748	ug/L	0.005	0	397	31896	3
[	U	238	0.634	ug/L	0.004	0	75	29724	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ39 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 17:56:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	459028	1
[	Be	9	26.646	ug/L	0.968	3	7	14058	3
	C	13		mg/L			6387	7538	1
	Cl	37		mg/L			2320156	3146182	0
[>	Sc	45		ug/L			234963	343237	1
	V	51	43.336	ug/L	0.330	0	2151	656493	1
	V-1	51	43.463	ug/L	0.234	0	2935	672035	1
	Cr	52	38.867	ug/L	0.323	0	6256	521158	1
	Cr	53	39.521	ug/L	0.788	1	957	63861	2
	Mn	55	209.325	ug/L	4.598	2	568	4577198	2
[	Co	59	22.929	ug/L	0.350	1	39	380189	0
[>	Ge	72		ug/L			267809	284808	2
	Ni	60	54.879	ug/L	0.522	0	22	137766	2
	Ni	62	58.322	ug/L	0.848	1	492	22198	1
	Cu	63	61.712	ug/L	0.573	0	405	342746	2
	Cu	65	60.987	ug/L	0.927	1	84	158772	1
	Zn	66	164.892	ug/L	1.557	0	153	273901	1
	Zn	67	154.904	ug/L	1.848	1	101	42788	1
	Zn	68	163.928	ug/L	2.143	1	6809	194507	1
	As	75	37.960	ug/L	0.438	1	545	61921	1
	As-1	75	35.653	ug/L	0.369	1	8111	64776	1
	Se	82	85.540	ug/L	1.499	1	3	15759	2
	Se	78	81.659	ug/L	0.922	1	8243	43671	1
[	Mo	98	237.935	ug/L	1.693	0	37	1528029	2
	Y	89		ug/L			272756	394359	1
	Kr	83		ug/L			273	317	2
[>	In	115		ug/L			307062	319200	2
	Ag	107	21.015	ug/L	0.170	0	32	213681	1
	Cd	111	25.955	ug/L	0.194	0	192	68233	2
	Cd	114	26.309	ug/L	0.499	1	9	159616	1
	Sb	121	1.103	ug/L	0.024	2	132	9673	2
	Sb	123	1.105	ug/L	0.020	1	115	7284	0
	Ba	135	95.079	ug/L	1.801	1	13	188699	1
[	Ba	137	94.716	ug/L	1.472	1	19	324759	0
[>	Tb	159		ug/L			333608	373611	2
	Tl	205	26.776	ug/L	0.232	0	65	740824	2
	Pb	208	44.493	ug/L	0.315	0	262	1699191	2
	Bi	209		ug/L			310915	326030	2
	Th	232	26.580	ug/L	0.414	1	397	1271400	1
[	U	238	26.640	ug/L	0.275	1	75	1414006	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 18:02:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			393316	524746	4
[	Be	9	52.754	ug/L	1.793	3	7	31815	5
	C	13		mg/L			6387	4231	1
	Cl	37		mg/L			2320156	2215273	0
[>	Sc	45		ug/L			234963	283933	4
[	V	51	50.439	ug/L	0.093	0	2151	631647	4
[	V-1	51	50.539	ug/L	0.223	0	2935	645802	4
[	Cr	52	51.297	ug/L	0.292	0	6256	566661	4
[	Cr	53	51.559	ug/L	0.756	1	957	68559	3
[	Mn	55	51.240	ug/L	0.867	1	568	927215	4
[	Co	59	50.576	ug/L	0.679	1	39	693534	3
[>	Ge	72		ug/L			267809	315030	3
[	Ni	60	53.079	ug/L	0.959	1	22	147361	3
[	Ni	62	52.352	ug/L	1.338	2	492	22096	3
[	Cu	63	51.821	ug/L	0.579	1	405	318444	4
[	Cu	65	52.454	ug/L	0.515	0	84	151086	4
[	Zn	66	52.289	ug/L	0.203	0	153	96209	3
[	Zn	67	53.531	ug/L	0.518	0	101	16434	3
[	Zn	68	51.203	ug/L	0.954	1	6809	72704	3
[	As	75	52.087	ug/L	0.744	1	545	93731	2
[	As-1	75	50.949	ug/L	0.797	1	8111	98280	2
[	Se	82	53.317	ug/L	1.101	2	3	10865	3
[	Se	78	48.976	ug/L	1.303	2	8243	32846	3
[	Mo	98	52.648	ug/L	1.175	2	37	374152	5
	Y	89		ug/L			272756	322346	2
	Kr	83		ug/L			273	283	4
[>	In	115		ug/L			307062	371270	4
[	Ag	107	52.478	ug/L	0.554	1	32	620644	4
[	Cd	111	52.614	ug/L	0.436	0	192	160624	4
[	Cd	114	52.002	ug/L	0.781	1	9	366944	4
[	Sb	121	50.871	ug/L	0.476	0	132	511646	4
[	Sb	123	50.879	ug/L	0.284	0	115	383911	4
[	Ba	135	51.008	ug/L	1.069	2	13	117705	3
[	Ba	137	50.183	ug/L	0.955	1	19	200072	2
[>	Tb	159		ug/L			333608	417199	4
[	Tl	205	52.527	ug/L	0.513	0	65	1622495	3
[	Pb	208	52.938	ug/L	0.296	0	262	2257564	4
[	Bi	209		ug/L			310915	380771	3
[	Th	232	53.643	ug/L	0.195	0	397	2865203	4
[	U	238	53.416	ug/L	0.625	1	75	3165428	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 18:09:08
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012313.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			393316	488350	3
	Be	9	-0.005	ug/L	0.007	161	7	6	60
	C	13		mg/L			6387	5984	2
	Cl	37		mg/L			2320156	2260279	0
>	Sc	45		ug/L			234963	268473	2
	V	51	-0.040	ug/L	0.008	20	2151	1986	5
	V-1	51	-0.040	ug/L	0.004	9	2935	2874	0
	Cr	52	-0.123	ug/L	0.014	11	6256	5879	0
	Cr	53	-0.118	ug/L	0.034	28	957	948	3
	Mn	55	-0.014	ug/L	0.002	11	568	409	8
	Co	59	0.001	ug/L	0.001	110	39	53	19
>	Ge	72		ug/L			267809	304791	1
	Ni	60	0.002	ug/L	0.001	50	22	31	6
	Ni	62	-0.998	ug/L	0.034	3	492	162	8
	Cu	63	-0.028	ug/L	0.001	4	405	297	1
	Cu	65	0.001	ug/L	0.004	468	84	97	10
	Zn	66	-0.008	ug/L	0.011	128	153	159	10
	Zn	67	-0.035	ug/L	0.042	119	101	105	12
	Zn	68	-1.152	ug/L	0.053	4	6809	6340	0
	As	75	-0.037	ug/L	0.009	23	545	556	3
	As-1	75	-0.917	ug/L	0.038	4	8111	7684	0
	Se	82	-0.073	ug/L	0.050	69	3	-9	101
	Se	78	-3.455	ug/L	0.179	5	8243	7800	0
	Mo	98	0.026	ug/L	0.007	28	37	220	23
	Y	89		ug/L			272756	308225	2
	Kr	83		ug/L			273	285	3
>	In	115		ug/L			307062	351996	1
	Ag	107	0.009	ug/L	0.003	34	32	138	26
	Cd	111	-0.004	ug/L	0.003	60	192	207	4
	Cd	114	0.001	ug/L	0.001	154	9	17	58
	Sb	121	0.066	ug/L	0.019	28	132	784	24
	Sb	123	0.058	ug/L	0.021	35	115	546	28
	Ba	135	0.002	ug/L	0.002	96	13	19	22
	Ba	137	0.006	ug/L	0.003	58	19	42	27
>	Tb	159		ug/L			333608	391782	1
	Tl	205	0.008	ug/L	0.002	21	65	323	18
	Pb	208	0.005	ug/L	0.002	51	262	490	21
	Bi	209		ug/L			310915	365338	0
	Th	232	0.030	ug/L	0.008	27	397	1984	22
	U	238	0.003	ug/L	0.001	30	75	235	20

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-24-13 **Analyst:** RL **Page:** 1 **of** 3

All corrections made by analyst unless otherwise noted. RL 1-24-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD-0			
		~~B~~1			
		~~B~~2			
		3			
		4			
		Rinse Sample			
		ICV			
		ICB			
		CCV1			
		CCB1			
		Lowcheck			
		ICSA			
		ICSAB			
		LR200			
		LR300			
		CCV2			
		CCB2			
	✓	WA39 MB	REN	2	RR-CCV
		VZ75 R		5	
		S			
		T			
		✓			
		WA39 ADup		2	As, Cd, Cr, Pb
		A			

5036F

Version 002
7/21/06

VZ75 00531

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-24-13 **Analyst:** EL **Page:** 2 **of** 3

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	WA39 ASpk	REN	2	
	✓	↓ MBSpk	↓	↓	
		CCV3			All I.S.↑
		CCB3			↓ As2, Se78↓
		STD 0			
		CCV4			Be↑
		CCB4			
✓		WA43 ADup	REN	10	RR Ag, Cd, Be, Sb, Pb Se high 2 RPD
43		A			CAF
		ASpk			✓
↓		B			Also RR As, Se
		C			
		D			
		E			Also RR As Se
		F			Also RR Cr, Ni, Tl
		↓ G	↓	↓	Also RR Cr, Tl
		CCV5			In↑ Be, Ni62, Pb↑
		CCB5			↓ As2, Se78↓
		STD 0			
		CCV6			Be, Zn67, Mo, Pb, Th, U↑
		CCB6			
		WA39 MB	REN	2	Cd, Cr, ~~Pb~~ RR Pb
		V275 R	↓	5	RR As
		↓ S	↓	5	RR Pb

V275 00532

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-24-13 **Analyst:** EL **Page:** 3 **of** 3

All corrections made by analyst unless otherwise noted. EL 1-25-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		V275 T	REN	5	
		↓ V	↓	↓	RRPb
		WA39 ADup	↓	2	As, Cd, Cr, Pb RRPb, As
		A	↓	↓	↓ ↓
		ASpk	↓	↓	↓ ↓
		MBSpk	↓	↓	Cd, Cr, Pb ↓
		CCV7			Be, Zn^{68}, Se^{78}, Th↑
		CCB7			As2, Se^{78}↑
		WA43 MB	REN	2	RR Be
		H	↓	10	↓
		I	↓	10	↓
		MBSpk	↓	2	↓
		V275 S	↓	5	Pb
		↓ V	↓	5	↓
		CCV8			Zn^{68}, Se^{78}, ↑
		CCB8			Zn^{68} As2, Se^{78}↑
		Rinse/DI			
		EL 1-25-13			

V275 00533

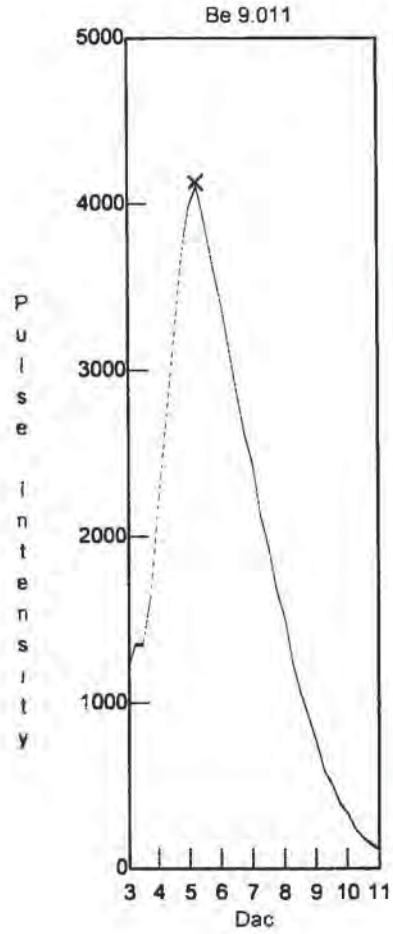
Instrument Tuning Report

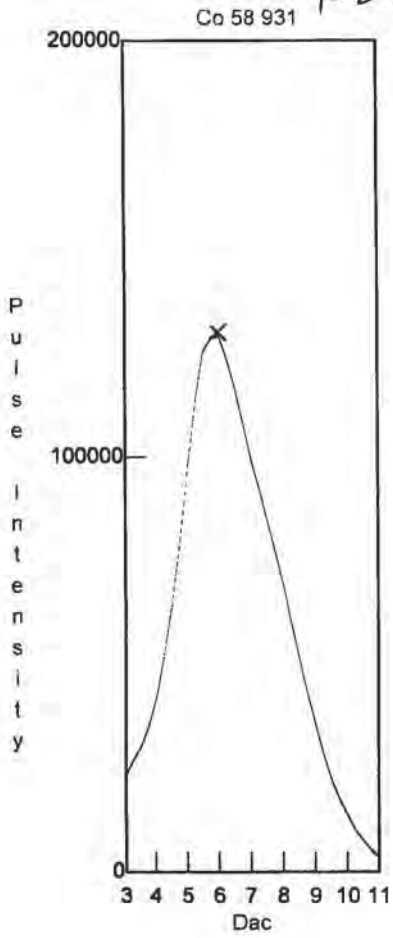
File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

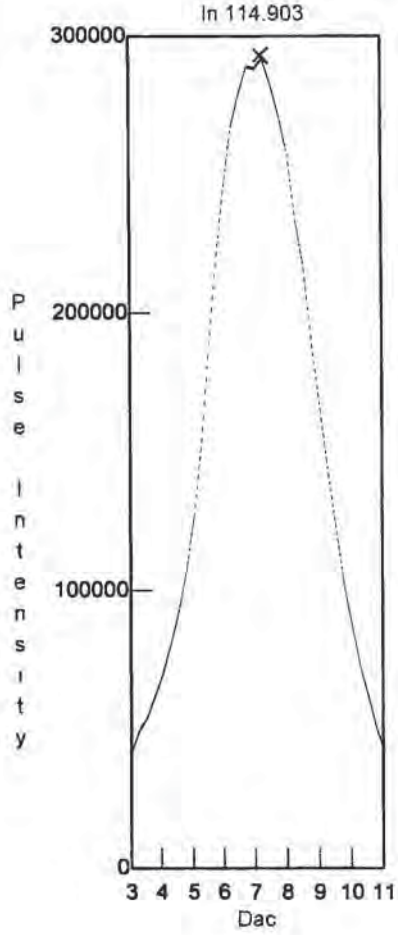
Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	9.075	2027	2155	0.694	
Mg	23.985	24.029	5662	2265	0.685	
Co	58.933	58.929	14156	2530	0.682	
In	114.904	114.928	27793	2970	0.694	
Pb	207.977	207.976	50442	3725	0.694	

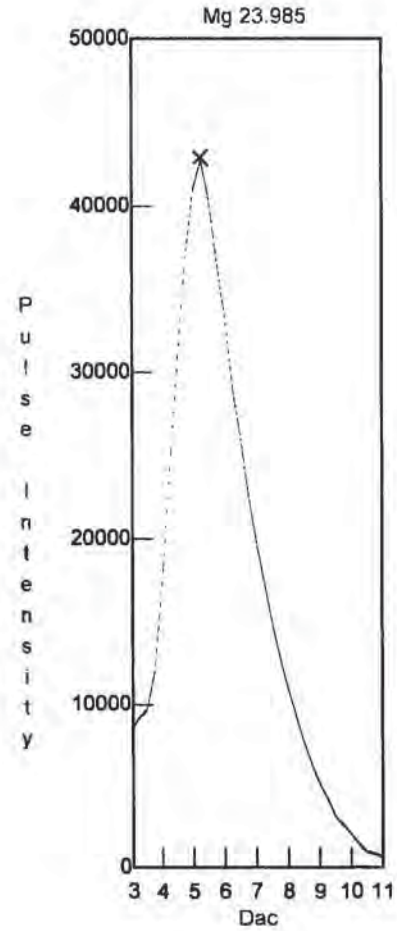
VZ75 00534

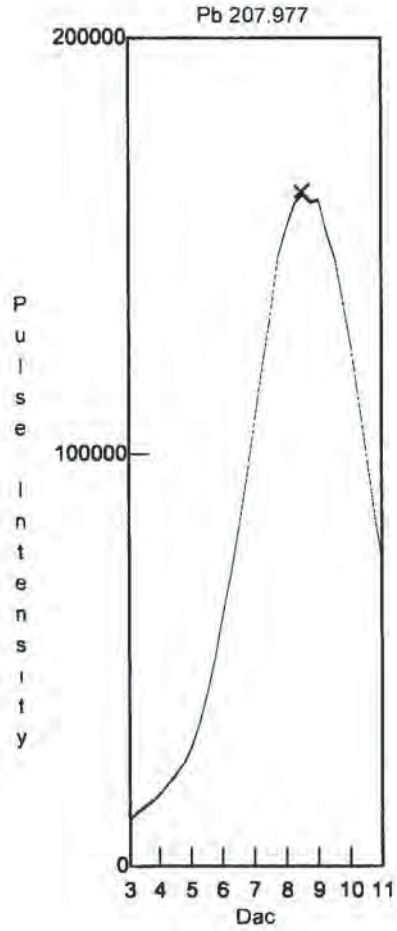
1-24-13

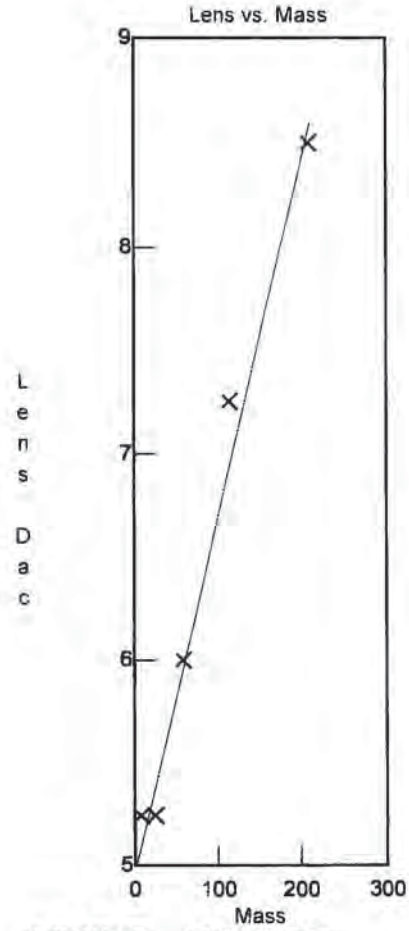












VZ75 00535

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Thursday, January 24, 2013 09:33:38
Sample Description:
Sample File: 1119.sam
Method File: C:\Elandata\Method\aridailyperf.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.1350
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\Default.dac
Number of Replicates: 5
Dual Detector Mode: Dual

Neb = 0.94
Disc ↑ 14

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24	39471.950	343.157	0.869
	In	115	286706.243	2371.609	0.827
	Pb	208	187018.215	2940.638	1.572
⌈>	Ba	138	199633.802	868.966	0.435
⌊	Ba++	69	0.012	0.000	2.185
⌈>	Ce	140	238768.709	2214.730	0.928
⌊	CeO	156	0.030	0.001	1.727
	Bkgd	220	6.501	2.851	43.853

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 09:57:51
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L				326470	0
⌊	Be	9		ug/L				12	36
	C	13		mg/L				5779	2
	Cl	37		mg/L				1752886	0
⌈>	Sc	45		ug/L				196148	0
|	V	51		ug/L				1569	8
|	V-1	51		ug/L				2367	5
|	Cr	52		ug/L				4973	1
|	Cr	53		ug/L				817	6
|	Mn	55		ug/L				498	2
⌊	Co	59		ug/L				55	9
⌈>	Ge	72		ug/L				219230	0
|	Ni	60		ug/L				33	18
|	Ni	62		ug/L				41	18
|	Cu	63		ug/L				242	10
|	Cu	65		ug/L				47	1
|	Zn	66		ug/L				125	13
|	Zn	67		ug/L				68	12
|	Zn	68		ug/L				6407	0
|	As	75		ug/L				295	11
|	As-1	75		ug/L				7392	0
|	Se	82		ug/L				-8	273
|	Se	78		ug/L				7496	0
⌊	Mo	98		ug/L				462	12
	Y	89		ug/L				224334	0
	Kr	83		ug/L				175	7
⌈>	In	115		ug/L				256781	0
|	Ag	107		ug/L				24	22
|	Cd	111		ug/L				121	12
|	Cd	114		ug/L				9	26
|	Sb	121		ug/L				17	28
|	Sb	123		ug/L				7	4
|	Ba	135		ug/L				15	9
⌊	Ba	137		ug/L				20	58
⌈>	Tb	159		ug/L				296918	0
|	Tl	205		ug/L				18	43
|	Pb	208		ug/L				203	14
|	Bi	209		ug/L				266454	1
|	Th	232		ug/L				46	16
⌊	U	238		ug/L				15	22

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:03:59
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			326470	338184	0
Be	9	10.000	ug/L	0.094	0	12	4271	0
C	13		mg/L			5779	5854	1
Cl	37		mg/L			1752886	1746127	0
Sc	45		ug/L			196148	197963	0
V	51	10.000	ug/L	0.138	1	1569	88686	1
V-1	51	10.000	ug/L	0.114	1	2367	91211	0
Cr	52	10.000	ug/L	0.105	1	4973	81186	0
Cr	53	10.000	ug/L	0.034	0	817	9981	0
Mn	55	10.000	ug/L	0.100	0	498	126597	0
Co	59	10.000	ug/L	0.089	0	55	97036	1
Ge	72		ug/L			219230	220927	0
Ni	60	10.000	ug/L	0.043	0	33	20400	1
Ni	62	10.000	ug/L	0.207	2	41	3009	2
Cu	63	10.000	ug/L	0.103	1	242	44521	0
Cu	65	10.000	ug/L	0.087	0	47	20776	1
Zn	66	10.000	ug/L	0.118	1	125	13400	1
Zn	67	10.000	ug/L	0.178	1	68	2236	1
Zn	68	10.000	ug/L	0.276	2	6407	15584	1
As	75	10.000	ug/L	0.030	0	295	12751	0
As-1	75	10.000	ug/L	0.099	0	7392	19596	0
Se	82	10.000	ug/L	0.162	1	-8	1424	2
Se	78	10.000	ug/L	0.161	1	7496	10883	0
Mo	98	10.000	ug/L	0.121	1	462	50501	0
Y	89		ug/L			224334	224068	0
Kr	83		ug/L			175	174	6
In	115		ug/L			256781	259642	1
Ag	107	10.000	ug/L	0.148	1	24	84469	0
Cd	111	10.000	ug/L	0.265	2	121	21627	1
Cd	114	10.000	ug/L	0.081	0	9	50584	1
Sb	121	10.000	ug/L	0.121	1	17	71374	0
Sb	123	10.000	ug/L	0.159	1	7	53441	0
Ba	135	10.000	ug/L	0.236	2	15	16832	1
Ba	137	10.000	ug/L	0.264	2	20	28661	1
Tb	159		ug/L			296918	301677	0
Tl	205	10.000	ug/L	0.066	0	18	223204	0
Pb	208	10.000	ug/L	0.033	0	203	310647	0
Bi	209		ug/L			266454	267245	0
Th	232	10.000	ug/L	0.075	0	46	385283	1
U	238	10.000	ug/L	0.086	0	15	423379	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:10:08
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			326470	338143	1
⌊	Be	9	19.990	ug/L	0.250	1	12	8506	0
	C	13		mg/L			5779	5858	1
	Cl	37		mg/L			1752886	1734662	0
⌈>	Sc	45		ug/L			196148	197059	0
|	V	51	19.991	ug/L	0.042	0	1569	174606	0
|	V-1	51	19.985	ug/L	0.042	0	2367	178559	0
|	Cr	52	20.001	ug/L	0.302	1	4973	156671	0
|	Cr	53	19.982	ug/L	0.357	1	817	18967	1
|	Mn	55	20.063	ug/L	0.235	1	498	255548	0
⌊	Co	59	19.964	ug/L	0.415	2	55	191399	1
⌈>	Ge	72		ug/L			219230	217784	0
|	Ni	60	20.006	ug/L	0.356	1	33	40241	1
|	Ni	62	20.103	ug/L	0.533	2	41	6046	2
|	Cu	63	20.035	ug/L	0.446	2	242	88301	1
|	Cu	65	19.997	ug/L	0.358	1	47	40885	1
|	Zn	66	19.990	ug/L	0.116	0	125	26228	0
|	Zn	67	20.049	ug/L	0.581	2	68	4393	2
|	Zn	68	19.966	ug/L	0.349	1	6407	24209	1
|	As	75	20.051	ug/L	0.054	0	295	25165	0
|	As-1	75	20.048	ug/L	0.089	0	7392	31585	0
|	Se	82	20.056	ug/L	0.113	0	-8	2857	1
|	Se	78	20.073	ug/L	0.336	1	7496	14132	0
⌊	Mo	98	20.050	ug/L	0.149	0	462	100357	0
	Y	89		ug/L			224334	222084	0
	Kr	83		ug/L			175	188	3
⌈>	In	115		ug/L			256781	259141	0
|	Ag	107	19.956	ug/L	0.126	0	24	166793	1
|	Cd	111	20.016	ug/L	0.491	2	121	43237	2
|	Cd	114	19.972	ug/L	0.241	1	9	100261	0
|	Sb	121	20.010	ug/L	0.075	0	17	142824	0
|	Sb	123	20.034	ug/L	0.393	1	7	107594	1
|	Ba	135	19.954	ug/L	0.109	0	15	33211	0
⌊	Ba	137	20.042	ug/L	0.231	1	20	57813	0
⌈>	Tb	159		ug/L			296918	300417	0
|	Tl	205	20.038	ug/L	0.205	1	18	448748	1
|	Pb	208	20.025	ug/L	0.189	0	203	622441	1
|	Bi	209		ug/L			266454	264165	2
|	Th	232	20.046	ug/L	0.154	0	46	776219	0
⌊	U	238	20.026	ug/L	0.322	1	15	848677	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:16:16
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			326470	341994	1
|	Be	9	50.179	ug/L	1.218	2	12	21967	1
	C	13		mg/L			5779	4790	1
	Cl	37		mg/L			1752886	1724243	1
⌈>	Sc	45		ug/L			196148	196987	1
|	V	51	50.258	ug/L	0.702	1	1569	447858	0
|	V-1	51	50.260	ug/L	0.648	1	2367	457068	0
|	Cr	52	50.240	ug/L	0.524	1	4973	395201	0
|	Cr	53	50.249	ug/L	0.762	1	817	47602	1
|	Mn	55	50.074	ug/L	0.463	0	498	641563	0
|	Co	59	50.092	ug/L	0.438	0	55	484462	1
⌈>	Ge	72		ug/L			219230	218201	0
|	Ni	60	50.025	ug/L	0.415	0	33	101021	0
|	Ni	62	49.967	ug/L	0.460	0	41	14947	1
|	Cu	63	49.975	ug/L	0.452	0	242	219799	0
|	Cu	65	50.034	ug/L	0.500	0	47	102782	0
|	Zn	66	49.997	ug/L	0.407	0	125	65520	0
|	Zn	67	49.981	ug/L	0.786	1	68	10852	1
|	Zn	68	50.007	ug/L	0.180	0	6407	51184	0
|	As	75	50.057	ug/L	0.151	0	295	62858	0
|	As-1	75	50.035	ug/L	0.173	0	7392	68183	0
|	Se	82	50.168	ug/L	0.538	1	-8	7296	1
|	Se	78	50.083	ug/L	0.564	1	7496	24314	1
|	Mo	98	50.281	ug/L	0.753	1	462	258722	1
	Y	89		ug/L			224334	221389	1
	Kr	83		ug/L			175	188	2
⌈>	In	115		ug/L			256781	258836	0
|	Ag	107	50.036	ug/L	0.671	1	24	419154	0
|	Cd	111	50.200	ug/L	0.415	0	121	110330	1
|	Cd	114	50.092	ug/L	0.324	0	9	253495	0
|	Sb	121	50.227	ug/L	0.070	0	17	366369	0
|	Sb	123	50.149	ug/L	0.402	0	7	273079	0
|	Ba	135	50.207	ug/L	0.388	0	15	85202	0
|	Ba	137	50.176	ug/L	0.200	0	20	147133	0
⌈>	Tb	159		ug/L			296918	303831	1
|	Tl	205	50.030	ug/L	0.313	0	18	1136524	0
|	Pb	208	50.098	ug/L	0.540	1	203	1590079	0
|	Bi	209		ug/L			266454	267565	0
|	Th	232	50.252	ug/L	2.344	4	46	2018297	3
|	U	238	50.452	ug/L	1.072	2	15	2264330	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:22:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			326470	345862	2
⌊	Be	9	98.876	ug/L	4.171	4	12	42163	2
	C	13		mg/L			5779	5962	1
	Cl	37		mg/L			1752886	1740379	0
⌈>	Sc	45		ug/L			196148	197873	0
|	V	51	99.267	ug/L	0.966	0	1569	865976	0
|	V-1	51	99.264	ug/L	0.862	0	2367	882900	0
|	Cr	52	99.255	ug/L	1.334	1	4973	760640	0
|	Cr	53	99.245	ug/L	1.021	1	817	91364	0
|	Mn	55	99.144	ug/L	1.538	1	498	1240130	0
⌊	Co	59	98.818	ug/L	1.033	1	55	923583	0
⌈>	Ge	72		ug/L			219230	217896	0
|	Ni	60	99.165	ug/L	1.047	1	33	194533	1
|	Ni	62	98.815	ug/L	0.975	0	41	28360	1
|	Cu	63	99.008	ug/L	0.837	0	242	420717	0
|	Cu	65	98.921	ug/L	0.908	0	47	195834	0
|	Zn	66	98.780	ug/L	1.106	1	125	124107	1
|	Zn	67	99.099	ug/L	0.488	0	68	20798	0
|	Zn	68	98.722	ug/L	0.634	0	6407	91088	0
|	As	75	99.283	ug/L	0.367	0	295	121317	0
|	As-1	75	99.229	ug/L	0.300	0	7392	124790	0
|	Se	82	99.229	ug/L	0.439	0	-8	14058	0
|	Se	78	99.007	ug/L	0.133	0	7496	39654	0
⌊	Mo	98	99.410	ug/L	0.615	0	462	500498	0
	Y	89		ug/L			224334	224052	0
	Kr	83		ug/L			175	193	0
⌈>	In	115		ug/L			256781	258844	0
|	Ag	107	99.284	ug/L	0.253	0	24	812338	0
|	Cd	111	99.286	ug/L	1.275	1	121	213012	0
|	Cd	114	99.388	ug/L	1.231	1	9	492927	1
|	Sb	121	99.359	ug/L	0.599	0	17	709559	0
|	Sb	123	99.448	ug/L	0.337	0	7	531758	0
|	Ba	135	99.464	ug/L	1.426	1	15	165813	0
⌊	Ba	137	99.295	ug/L	1.523	1	20	284446	0
⌈>	Tb	159		ug/L			296918	303779	0
|	Tl	205	100.223	ug/L	0.251	0	18	2293472	0
|	Pb	208	99.103	ug/L	0.696	0	203	3053596	0
|	Bi	209		ug/L			266454	261026	0
|	Th	232	100.189	ug/L	1.252	1	46	4049575	0
⌊	U	238	99.435	ug/L	0.634	0	15	4380006	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:29:03
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			326470	345954	2
	Be	9	-0.012	ug/L	0.005	40	12	8	24
	C	13		mg/L			5779	5808	1
	Cl	37		mg/L			1752886	1744480	0
>	Sc	45		ug/L			196148	196240	0
	V	51	-0.002	ug/L	0.018	1140	1569	1555	9
	V-1	51	-0.046	ug/L	0.009	20	2367	1968	4
	Cr	52	-0.010	ug/L	0.003	33	4973	4898	0
	Cr	53	-0.146	ug/L	0.050	33	817	685	6
	Mn	55	-0.006	ug/L	0.001	16	498	427	3
	Co	59	0.004	ug/L	0.002	36	55	94	15
>	Ge	72		ug/L			219230	216289	0
	Ni	60	0.002	ug/L	0.001	61	33	37	6
	Ni	62	-0.017	ug/L	0.028	162	41	36	21
	Cu	63	-0.005	ug/L	0.001	20	242	218	2
	Cu	65	0.014	ug/L	0.003	20	47	73	7
	Zn	66	-0.005	ug/L	0.015	319	125	117	15
	Zn	67	-0.004	ug/L	0.039	1057	68	66	12
	Zn	68	-0.164	ug/L	0.286	173	6407	6181	3
	As	75	0.013	ug/L	0.018	135	295	306	6
	As-1	75	-0.015	ug/L	0.045	288	7392	7275	0
	Se	82	0.045	ug/L	0.057	126	-8	-2	359
	Se	78	-0.071	ug/L	0.160	225	7496	7372	0
	Mo	98	-0.047	ug/L	0.010	21	462	220	22
	Y	89		ug/L			224334	223829	0
	Kr	83		ug/L			175	171	4
>	In	115		ug/L			256781	261612	1
	Ag	107	0.016	ug/L	0.007	39	24	160	34
	Cd	111	0.003	ug/L	0.002	71	121	131	4
	Cd	114	0.003	ug/L	0.002	56	9	24	35
	Sb	121	0.091	ug/L	0.019	21	17	678	21
	Sb	123	0.092	ug/L	0.022	24	7	503	24
	Ba	135	0.004	ug/L	0.002	64	15	22	18
	Ba	137	0.007	ug/L	0.000	1	20	42	1
>	Tb	159		ug/L			296918	297844	0
	Tl	205	0.013	ug/L	0.003	23	18	307	22
	Pb	208	0.008	ug/L	0.003	36	203	441	19
	Bi	209		ug/L			266454	265413	0
	Th	232	0.067	ug/L	0.015	21	46	2718	21
	U	238	0.005	ug/L	0.002	45	15	248	42

Quantitative Analysis - Calibration Report

Sample Date/Time: Thursday, January 24, 2013 10:29:03
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	0.9998	0.0012	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	0.9999	0.0440	10	20	50	100	
V-1	51	0.9999	0.0448	10	20	50	100	
Cr	52	0.9999	0.0385	10	20	50	100	
Cr	53	0.9999	0.0046	10	20	50	100	
Mn	55	0.9999	0.0632	10	20	50	100	
Co	59	0.9998	0.0472	10	20	50	100	
Ge	72							
Ni	60	0.9999	0.0090	10	20	50	100	
Ni	62	0.9998	0.0013	10	20	50	100	
Cu	63	0.9998	0.0195	10	20	50	100	
Cu	65	0.9998	0.0091	10	20	50	100	
Zn	66	0.9998	0.0058	10	20	50	100	
Zn	67	0.9999	0.0010	10	20	50	100	
Zn	68	0.9997	0.0039	10	20	50	100	
As	75	0.9999	0.0056	10	20	50	100	
As-1	75	0.9999	0.0054	10	20	50	100	
Se	82	0.9999	0.0007	10	20	50	100	
Se	78	0.9998	0.0015	10	20	50	100	
Mo	98	0.9999	0.0231	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	0.9999	0.0316	10	20	50	100	
Cd	111	0.9999	0.0083	10	20	50	100	
Cd	114	0.9999	0.0192	10	20	50	100	
Sb	121	0.9999	0.0276	10	20	50	100	
Sb	123	0.9999	0.0207	10	20	50	100	
Ba	135	0.9999	0.0064	10	20	50	100	
Ba	137	0.9999	0.0111	10	20	50	100	
Tb	159							
Tl	205	1.0000	0.0753	10	20	50	100	
Pb	208	0.9999	0.1014	10	20	50	100	
Bi	209							
Th	232	1.0000	0.1331	10	20	50	100	
U	238	0.9999	0.1450	10	20	50	100	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:37:06
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			326470	355397	1
⌊	Be	9	49.867	ug/L	0.789	1	12	21869	0
	C	13		mg/L			5779	13363	3
	Cl	37		mg/L			1752886	1735100	0
⌈>	Sc	45		ug/L			196148	201780	0
|	V	51	50.432	ug/L	0.466	0	1569	449445	0
|	V-1	51	50.346	ug/L	0.535	1	2367	457857	0
|	Cr	52	49.904	ug/L	0.454	0	4973	392551	0
|	Cr	53	49.668	ug/L	0.677	1	817	47048	1
|	Mn	55	50.778	ug/L	0.498	0	498	647986	0
⌊	Co	59	50.287	ug/L	0.548	1	55	479316	0
⌈>	Ge	72		ug/L			219230	221702	1
|	Ni	60	50.832	ug/L	0.690	1	33	101466	0
|	Ni	62	51.461	ug/L	1.091	2	41	15047	2
|	Cu	63	51.224	ug/L	0.173	0	242	221581	0
|	Cu	65	51.283	ug/L	0.262	0	47	103319	0
|	Zn	66	50.233	ug/L	0.144	0	125	64278	1
|	Zn	67	50.198	ug/L	0.566	1	68	10753	1
|	Zn	68	50.110	ug/L	0.262	0	6407	50234	1
|	As	75	51.929	ug/L	0.239	0	295	64702	0
|	As-1	75	50.966	ug/L	0.380	0	7392	68847	0
|	Se	82	80.768	ug/L	0.424	0	-8	11640	0
|	Se	78	80.309	ug/L	0.984	1	7496	34156	0
⌊	Mo	98	49.246	ug/L	0.205	0	462	252503	0
	Y	89		ug/L			224334	228960	0
	Kr	83		ug/L			175	182	3
⌈>	In	115		ug/L			256781	265935	0
|	Ag	107	50.800	ug/L	0.532	1	24	427034	0
|	Cd	111	49.279	ug/L	0.232	0	121	108691	0
|	Cd	114	49.743	ug/L	0.550	1	9	253461	1
|	Sb	121	48.956	ug/L	0.322	0	17	359204	0
|	Sb	123	49.691	ug/L	0.292	0	7	272990	0
|	Ba	135	50.431	ug/L	0.256	0	15	86393	1
⌊	Ba	137	50.146	ug/L	0.938	1	20	147596	1
⌈>	Tb	159		ug/L			296918	311997	1
|	Tl	205	49.339	ug/L	0.547	1	18	1159517	0
|	Pb	208	50.158	ug/L	0.343	0	203	1587337	0
|	Bi	209		ug/L			266454	271607	0
|	Th	232	51.959	ug/L	0.670	1	46	2156842	0
⌊	U	238	52.046	ug/L	0.818	1	15	2354364	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:43:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326470	349214	0
[	Be	9	-0.017	ug/L	0.002	10	12	6	10
	C	13		mg/L			5779	6021	3
	Cl	37		mg/L			1752886	1749236	0
[>	Sc	45		ug/L			196148	195888	1
[	V	51	-0.001	ug/L	0.006	833	1569	1560	3
[	V-1	51	-0.049	ug/L	0.009	18	2367	1932	3
[	Cr	52	-0.017	ug/L	0.013	77	4973	4835	0
[	Cr	53	-0.167	ug/L	0.036	21	817	665	3
[	Mn	55	-0.009	ug/L	0.004	43	498	389	11
[	Co	59	0.003	ug/L	0.001	40	55	81	13
[>	Ge	72		ug/L			219230	215463	0
[	Ni	60	-0.003	ug/L	0.002	73	33	27	16
[	Ni	62	-0.011	ug/L	0.027	256	41	37	20
[	Cu	63	-0.007	ug/L	0.002	26	242	209	3
[	Cu	65	0.010	ug/L	0.003	34	47	66	9
[	Zn	66	-0.006	ug/L	0.003	45	125	115	3
[	Zn	67	-0.015	ug/L	0.022	152	68	64	7
[	Zn	68	-0.143	ug/L	0.039	27	6407	6176	0
[	As	75	-0.001	ug/L	0.021	1901	295	288	8
[	As-1	75	0.056	ug/L	0.030	53	7392	7331	0
[	Se	82	0.056	ug/L	0.107	189	-8	0	2492
[	Se	78	0.211	ug/L	0.083	39	7496	7435	0
[	Mo	98	-0.064	ug/L	0.002	3	462	136	7
	Y	89		ug/L			224334	224080	0
	Kr	83		ug/L			175	165	3
[>	In	115		ug/L			256781	261206	0
[	Ag	107	0.009	ug/L	0.005	50	24	100	38
[	Cd	111	0.000	ug/L	0.005	55854	121	124	8
[	Cd	114	0.001	ug/L	0.001	66	9	16	27
[	Sb	121	0.034	ug/L	0.007	21	17	262	20
[	Sb	123	0.036	ug/L	0.009	25	7	203	24
[	Ba	135	0.000	ug/L	0.002	717	15	16	24
[	Ba	137	0.005	ug/L	0.001	18	20	34	7
[>	Tb	159		ug/L			296918	301242	1
[	Tl	205	0.006	ug/L	0.000	5	18	147	5
[	Pb	208	0.005	ug/L	0.002	43	203	347	17
[	Bi	209		ug/L			266454	265206	1
[	Th	232	0.039	ug/L	0.009	23	46	1597	22
[	U	238	0.003	ug/L	0.001	21	15	131	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:49:33
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326470	348218	1
[	Be	9	51.631	ug/L	0.319	0	12	22186	0
	C	13		mg/L			5779	4884	2
	Cl	37		mg/L			1752886	1745802	0
[>	Sc	45		ug/L			196148	198580	1
	V	51	50.454	ug/L	0.553	1	1569	442490	0
	V-1	51	50.583	ug/L	0.392	0	2367	452695	0
	Cr	52	50.827	ug/L	0.955	1	4973	393348	1
	Cr	53	51.208	ug/L	0.857	1	817	47711	1
	Mn	55	51.287	ug/L	0.910	1	498	644033	0
[	Co	59	51.142	ug/L	0.759	1	55	479716	1
[>	Ge	72		ug/L			219230	217653	0
	Ni	60	51.489	ug/L	0.266	0	33	100907	0
	Ni	62	52.066	ug/L	0.565	1	41	14945	0
	Cu	63	52.066	ug/L	0.271	0	242	221111	0
	Cu	65	51.964	ug/L	0.352	0	47	102781	0
	Zn	66	52.114	ug/L	0.508	0	125	65462	1
	Zn	67	51.705	ug/L	0.623	1	68	10872	1
	Zn	68	51.890	ug/L	0.100	0	6407	50843	0
	As	75	51.387	ug/L	0.172	0	295	62862	0
	As-1	75	51.398	ug/L	0.143	0	7392	68103	0
	Se	82	51.385	ug/L	0.298	0	-8	7267	0
	Se	78	51.310	ug/L	0.378	0	7496	24113	0
[	Mo	98	50.905	ug/L	0.237	0	462	256230	0
	Y	89		ug/L			224334	224187	1
	Kr	83		ug/L			175	170	3
[>	In	115		ug/L			256781	259678	0
	Ag	107	51.329	ug/L	0.458	0	24	421340	0
	Cd	111	50.832	ug/L	0.475	0	121	109473	0
	Cd	114	51.617	ug/L	0.741	1	9	256812	0
	Sb	121	50.879	ug/L	0.141	0	17	364537	0
	Sb	123	51.332	ug/L	0.213	0	7	275366	0
	Ba	135	51.335	ug/L	0.275	0	15	85867	0
[	Ba	137	51.029	ug/L	0.371	0	20	146668	0
[>	Tb	159		ug/L			296918	304310	0
	Tl	205	50.009	ug/L	0.127	0	18	1146396	0
	Pb	208	52.211	ug/L	0.463	0	203	1611684	1
	Bi	209		ug/L			266454	267818	1
	Th	232	50.488	ug/L	2.210	4	46	2044515	4
[	U	238	52.394	ug/L	0.157	0	15	2312006	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:56:11
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326470	348147	1
[	Be	9	-0.016	ug/L	0.005	30	12	7	26
	C	13		mg/L			5779	5886	3
	Cl	37		mg/L			1752886	1730542	0
[>	Sc	45		ug/L			196148	197870	0
	V	51	0.013	ug/L	0.011	82	1569	1695	4
	V-1	51	-0.065	ug/L	0.005	7	2367	1812	2
	Cr	52	0.001	ug/L	0.007	506	4973	5026	0
	Cr	53	-0.240	ug/L	0.034	14	817	605	5
	Mn	55	-0.012	ug/L	0.002	19	498	358	7
[	Co	59	0.003	ug/L	0.003	113	55	82	37
[>	Ge	72		ug/L			219230	215865	0
	Ni	60	-0.002	ug/L	0.003	123	33	28	18
	Ni	62	0.021	ug/L	0.040	188	41	47	24
	Cu	63	-0.007	ug/L	0.005	72	242	208	10
	Cu	65	0.014	ug/L	0.005	39	47	73	14
	Zn	66	-0.003	ug/L	0.008	223	125	118	8
	Zn	67	-0.023	ug/L	0.030	131	68	62	10
	Zn	68	-0.346	ug/L	0.104	30	6407	6015	1
	As	75	-0.009	ug/L	0.011	124	295	280	4
	As-1	75	0.018	ug/L	0.052	292	7392	7300	0
	Se	82	0.034	ug/L	0.040	117	-8	-3	155
	Se	78	0.088	ug/L	0.173	196	7496	7409	0
[	Mo	98	-0.068	ug/L	0.007	10	462	115	30
	Y	89		ug/L			224334	223566	0
	Kr	83		ug/L			175	167	1
[>	In	115		ug/L			256781	260099	1
	Ag	107	0.010	ug/L	0.003	33	24	106	26
	Cd	111	0.004	ug/L	0.002	58	121	132	5
	Cd	114	0.002	ug/L	0.001	70	9	20	37
	Sb	121	0.055	ug/L	0.011	19	17	413	19
	Sb	123	0.057	ug/L	0.009	15	7	315	15
	Ba	135	0.004	ug/L	0.002	47	15	22	14
[	Ba	137	0.001	ug/L	0.003	417	20	22	33
[>	Tb	159		ug/L			296918	299994	0
	Tl	205	0.007	ug/L	0.001	17	18	180	16
	Pb	208	0.005	ug/L	0.001	22	203	369	9
	Bi	209		ug/L			266454	270459	0
	Th	232	0.047	ug/L	0.008	17	46	1918	17
[	U	238	0.003	ug/L	0.001	34	15	142	31

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:02:00
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			326470	348441	0
	Be	9	0.201	ug/L	0.057	28	12	100	25
	C	13		mg/L			5779	5997	2
	Cl	37		mg/L			1752886	1733764	0
>	Sc	45		ug/L			196148	192940	0
	V	51	0.205	ug/L	0.026	12	1569	3282	6
	V-1	51	0.150	ug/L	0.020	13	2367	3629	4
	Cr	52	0.529	ug/L	0.023	4	4973	8815	2
	Cr	53	0.341	ug/L	0.040	11	817	1107	3
	Mn	55	0.526	ug/L	0.005	1	498	6905	1
	Co	59	0.208	ug/L	0.003	1	55	1945	1
>	Ge	72		ug/L			219230	212197	1
	Ni	60	0.522	ug/L	0.032	6	33	1030	5
	Ni	62	0.546	ug/L	0.048	8	41	192	5
	Cu	63	0.518	ug/L	0.009	1	242	2375	2
	Cu	65	0.551	ug/L	0.022	3	47	1108	4
	Zn	66	4.368	ug/L	0.143	3	125	5458	2
	Zn	67	3.827	ug/L	0.173	4	68	845	3
	Zn	68	4.280	ug/L	0.189	4	6407	9777	0
	As	75	0.235	ug/L	0.040	16	295	564	7
	As-1	75	0.368	ug/L	0.089	24	7392	7579	0
	Se	82	0.517	ug/L	0.077	14	-8	62	15
	Se	78	1.066	ug/L	0.299	28	7496	7592	0
	Mo	98	0.122	ug/L	0.007	5	462	1043	3
	Y	89		ug/L			224334	220120	0
	Kr	83		ug/L			175	174	2
>	In	115		ug/L			256781	257520	0
	Ag	107	0.189	ug/L	0.006	3	24	1564	3
	Cd	111	0.101	ug/L	0.011	10	121	337	6
	Cd	114	0.104	ug/L	0.006	5	9	522	4
	Sb	121	0.216	ug/L	0.005	2	17	1552	1
	Sb	123	0.221	ug/L	0.008	3	7	1185	3
	Ba	135	0.496	ug/L	0.016	3	15	838	3
	Ba	137	0.488	ug/L	0.009	1	20	1410	1
>	Tb	159		ug/L			296918	299687	0
	Tl	205	0.209	ug/L	0.003	1	18	4737	1
	Pb	208	0.113	ug/L	0.002	2	203	3640	2
	Bi	209		ug/L			266454	265677	2
	Th	232	0.222	ug/L	0.001	0	46	8901	0
	U	238	0.199	ug/L	0.004	1	15	8645	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:07:47
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326470	350382	0
[	Be	9	-0.011	ug/L	0.003	29	12	9	15
	C	13		mg/L			5779	15981	0
	Cl	37		mg/L			1752886	2885351	0
[>	Sc	45		ug/L			196148	189423	2
[	V	51	0.029	ug/L	0.040	137	1569	1763	21
[	V-1	51	0.412	ug/L	0.030	7	2367	5782	4
[	Cr	52	0.459	ug/L	0.003	0	4973	8144	2
[	Cr	53	1.623	ug/L	0.132	8	817	2205	3
[	Mn	55	0.031	ug/L	0.004	12	498	847	3
[	Co	59	0.023	ug/L	0.002	6	55	259	7
[>	Ge	72		ug/L			219230	207575	0
[	Ni	60	0.482	ug/L	0.007	1	33	931	1
[	Ni	62	3.700	ug/L	0.186	5	41	1049	5
[	Cu	63	0.432	ug/L	0.002	0	242	1979	0
[	Cu	65	0.621	ug/L	0.020	3	47	1215	3
[	Zn	66	1.812	ug/L	0.059	3	125	2285	3
[	Zn	67	2.020	ug/L	0.175	8	68	467	7
[	Zn	68	0.680	ug/L	0.120	17	6407	6623	1
[	As	75	0.052	ug/L	0.039	76	295	339	13
[	As-1	75	0.043	ug/L	0.020	47	7392	7048	0
[	Se	82	-0.073	ug/L	0.104	143	-8	-18	78
[	Se	78	-0.021	ug/L	0.201	958	7496	7091	1
[	Mo	98	396.632	ug/L	3.575	0	462	1901017	0
	Y	89		ug/L			224334	213535	1
	Kr	83		ug/L			175	178	6
[>	In	115		ug/L			256781	246438	0
[	Ag	107	0.025	ug/L	0.002	9	24	219	8
[	Cd	111	0.046	ug/L	0.014	31	121	210	14
[	Cd	114	0.603	ug/L	0.017	2	9	2855	3
[	Sb	121	0.077	ug/L	0.004	4	17	543	5
[	Sb	123	0.079	ug/L	0.003	3	7	408	3
[	Ba	135	0.046	ug/L	0.008	18	15	88	14
[	Ba	137	0.044	ug/L	0.006	14	20	141	12
[>	Tb	159		ug/L			296918	295206	0
[	Tl	205	0.032	ug/L	0.002	7	18	740	6
[	Pb	208	0.037	ug/L	0.001	2	203	1312	1
[	Bi	209		ug/L			266454	250826	0
[	Th	232	0.077	ug/L	0.011	13	46	3059	13
[	U	238	0.001	ug/L	0.000	18	15	55	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:14:05
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			326470	350819	0
⌊	Be	9	-0.004	ug/L	0.007	179	12	12	26
	C	13		mg/L			5779	15622	2
	Cl	37		mg/L			1752886	2775574	0
⌈>	Sc	45		ug/L			196148	182036	1
|	V	51	-0.303	ug/L	0.058	19	1569	-973	49
|	V-1	51	0.437	ug/L	0.019	4	2367	5765	1
|	Cr	52	20.515	ug/L	0.498	2	4973	148272	1
|	Cr	53	21.630	ug/L	0.350	1	817	18909	0
|	Mn	55	20.277	ug/L	0.128	0	498	233709	1
⌊	Co	59	20.314	ug/L	0.541	2	55	174669	1
⌈>	Ge	72		ug/L			219230	202147	1
|	Ni	60	20.333	ug/L	0.167	0	33	37026	0
|	Ni	62	23.789	ug/L	0.382	1	41	6362	0
|	Cu	63	20.357	ug/L	0.063	0	242	80425	0
|	Cu	65	20.533	ug/L	0.300	1	47	37744	1
|	Zn	66	20.699	ug/L	0.175	0	125	24217	1
|	Zn	67	18.786	ug/L	0.459	2	68	3708	1
|	Zn	68	19.032	ug/L	0.327	1	6407	21061	1
|	As	75	19.481	ug/L	0.163	0	295	22302	1
|	As-1	75	19.997	ug/L	0.237	1	7392	28773	0
|	Se	82	-0.072	ug/L	0.059	82	-8	-17	44
|	Se	78	-0.127	ug/L	0.300	235	7496	6873	0
⌊	Mo	98	399.509	ug/L	1.293	0	462	1864718	0
	Y	89		ug/L			224334	207325	1
	Kr	83		ug/L			175	185	2
⌈>	In	115		ug/L			256781	239499	0
|	Ag	107	19.822	ug/L	0.120	0	24	150081	1
|	Cd	111	19.838	ug/L	0.147	0	121	39474	1
|	Cd	114	20.497	ug/L	0.306	1	9	94064	1
|	Sb	121	0.074	ug/L	0.003	4	17	507	4
|	Sb	123	0.075	ug/L	0.007	9	7	379	8
|	Ba	135	0.039	ug/L	0.008	19	15	74	15
⌊	Ba	137	0.037	ug/L	0.004	10	20	117	9
⌈>	Tb	159		ug/L			296918	288620	0
|	Tl	205	0.032	ug/L	0.001	2	18	713	2
|	Pb	208	0.031	ug/L	0.001	2	203	1092	2
|	Bi	209		ug/L			266454	246157	1
|	Th	232	0.046	ug/L	0.004	8	46	1794	8
⌊	U	238	0.001	ug/L	0.000	21	15	40	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:20:23
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			326470	348745	1
⌊	Be	9	192.432	ug/L	1.301	0	12	82777	0
	C	13		mg/L			5779	5409	0
	Cl	37		mg/L			1752886	1588482	0
⌈>	Sc	45		ug/L			196148	185625	0
|	V	51	202.831	ug/L	4.859	2	1569	1658350	2
|	V-1	51	202.977	ug/L	5.072	2	2367	1691274	2
|	Cr	52	199.825	ug/L	3.508	1	4973	1431815	1
|	Cr	53	200.450	ug/L	3.479	1	817	172323	1
|	Mn	55	207.240	ug/L	2.910	1	498	2431361	0
⌊	Co	59	198.726	ug/L	4.278	2	55	1742318	1
⌈>	Ge	72		ug/L			219230	203173	0
|	Ni	60	198.236	ug/L	2.395	1	33	362558	0
|	Ni	62	198.810	ug/L	2.081	1	41	53163	0
|	Cu	63	198.005	ug/L	1.909	0	242	784283	0
|	Cu	65	197.219	ug/L	2.757	1	47	363997	0
|	Zn	66	195.765	ug/L	1.580	0	125	229221	0
|	Zn	67	195.308	ug/L	1.389	0	68	38159	0
|	Zn	68	197.554	ug/L	2.409	1	6407	164016	1
|	As	75	201.145	ug/L	2.118	1	295	228894	0
|	As-1	75	201.606	ug/L	1.736	0	7392	229336	0
|	Se	82	198.760	ug/L	3.116	1	-8	26264	1
|	Se	78	200.155	ug/L	2.028	1	7496	67650	0
⌊	Mo	98	205.293	ug/L	1.818	0	462	963274	0
	Y	89		ug/L			224334	209151	0
	Kr	83		ug/L			175	199	4
⌈>	In	115		ug/L			256781	243336	0
|	Ag	107	195.575	ug/L	1.508	0	24	1504393	1
|	Cd	111	199.697	ug/L	4.789	2	121	402626	1
|	Cd	114	198.657	ug/L	2.436	1	9	926199	1
|	Sb	121	203.189	ug/L	0.978	0	17	1364108	0
|	Sb	123	205.533	ug/L	2.371	1	7	1033134	1
|	Ba	135	205.786	ug/L	2.029	0	15	322521	1
⌊	Ba	137	205.896	ug/L	2.740	1	20	554491	1
⌈>	Tb	159		ug/L			296918	293116	0
|	Tl	205	202.887	ug/L	1.381	0	18	4479732	0
|	Pb	208	206.963	ug/L	0.761	0	203	6152830	0
|	Bi	209		ug/L			266454	245770	1
|	Th	232	207.874	ug/L	2.583	1	46	8107731	1
⌊	U	238	208.175	ug/L	1.737	0	15	8848461	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:26:59
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326470	343878	0
[	Be	9	290.001	ug/L	3.095	1	12	123002	0
	C	13		mg/L			5779	5598	2
	Cl	37		mg/L			1752886	1620272	0
[>	Sc	45		ug/L			196148	186969	2
[	V	51	314.941	ug/L	3.295	1	1569	2592890	2
[	V-1	51	311.725	ug/L	2.881	0	2367	2614991	2
[	Cr	52	309.286	ug/L	4.124	1	4973	2229824	2
[	Cr	53	299.609	ug/L	2.602	0	817	259037	1
[	Mn	55	309.765	ug/L	1.298	0	498	3660183	1
[	Co	59	311.638	ug/L	3.890	1	55	2751771	1
[>	Ge	72		ug/L			219230	206259	0
[	Ni	60	287.102	ug/L	6.391	2	33	533056	2
[	Ni	62	289.062	ug/L	4.828	1	41	78458	1
[	Cu	63	289.815	ug/L	1.734	0	242	1165297	0
[	Cu	65	287.359	ug/L	4.170	1	47	538413	1
[	Zn	66	285.178	ug/L	1.515	0	125	338943	0
[	Zn	67	284.196	ug/L	3.933	1	68	56343	1
[	Zn	68	286.749	ug/L	2.154	0	6407	238972	1
[	As	75	296.324	ug/L	2.844	0	295	342206	1
[	As-1	75	298.240	ug/L	2.626	0	7392	341090	1
[	Se	82	286.129	ug/L	3.862	1	-8	38389	1
[	Se	78	291.901	ug/L	3.276	1	7496	96929	1
[	Mo	98	306.307	ug/L	4.617	1	462	1458965	1
	Y	89		ug/L			224334	209332	1
	Kr	83		ug/L			175	214	6
[>	In	115		ug/L			256781	244154	2
[	Ag	107	305.503	ug/L	1.117	0	24	2357835	2
[	Cd	111	291.971	ug/L	2.811	0	121	590592	1
[	Cd	114	293.643	ug/L	3.661	1	9	1373463	1
[	Sb	121	318.425	ug/L	1.677	0	17	2144819	1
[	Sb	123	304.440	ug/L	2.812	0	7	1535311	1
[	Ba	135	300.990	ug/L	4.735	1	15	473225	1
[	Ba	137	305.580	ug/L	4.063	1	20	825577	0
[>	Tb	159		ug/L			296918	287206	1
[	Tl	205	312.754	ug/L	4.288	1	18	6765401	0
[	Pb	208	317.349	ug/L	2.031	0	203	9244433	1
[	Bi	209		ug/L			266454	232946	1
[	Th	232	318.836	ug/L	2.777	0	46	12185000	2
[	U	238	314.291	ug/L	5.043	1	15	13086612	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:33:37
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			326470	347075	1
	Be	9	49.495	ug/L	1.487	3	12	21195	2
	C	13		mg/L			5779	4875	2
	Cl	37		mg/L			1752886	1636373	0
>	Sc	45		ug/L			196148	187768	0
	V	51	50.596	ug/L	0.849	1	1569	419579	1
	V-1	51	50.454	ug/L	0.686	1	2367	426963	0
	Cr	52	50.695	ug/L	0.340	0	4973	371006	0
	Cr	53	50.249	ug/L	0.335	0	817	44284	0
	Mn	55	50.851	ug/L	0.592	1	498	603832	0
	Co	59	51.116	ug/L	0.801	1	55	453364	0
>	Ge	72		ug/L			219230	206795	0
	Ni	60	50.160	ug/L	0.363	0	33	93403	1
	Ni	62	50.577	ug/L	0.573	1	41	13795	1
	Cu	63	51.207	ug/L	0.450	0	242	206624	1
	Cu	65	51.309	ug/L	0.274	0	47	96426	1
	Zn	66	51.549	ug/L	0.136	0	125	61522	0
	Zn	67	51.383	ug/L	0.593	1	68	10265	1
	Zn	68	51.057	ug/L	0.546	1	6407	47630	1
	As	75	51.206	ug/L	0.093	0	295	59517	0
	As-1	75	51.270	ug/L	0.240	0	7392	64560	0
	Se	82	50.974	ug/L	0.283	0	-8	6849	0
	Se	78	51.188	ug/L	0.760	1	7496	22871	0
	Mo	98	50.214	ug/L	0.528	1	462	240136	0
	Y	89		ug/L			224334	210374	1
	Kr	83		ug/L			175	177	3
>	In	115		ug/L			256781	244837	0
	Ag	107	50.718	ug/L	0.284	0	24	392531	0
	Cd	111	51.374	ug/L	0.566	1	121	104317	0
	Cd	114	51.728	ug/L	0.216	0	9	242667	0
	Sb	121	51.793	ug/L	0.181	0	17	349883	0
	Sb	123	52.033	ug/L	0.298	0	7	263177	0
	Ba	135	51.782	ug/L	0.390	0	15	81665	0
	Ba	137	51.475	ug/L	0.195	0	20	139499	0
>	Tb	159		ug/L			296918	290529	0
	Tl	205	49.998	ug/L	0.522	1	18	1094204	0
	Pb	208	51.937	ug/L	0.330	0	203	1530524	0
	Bi	209		ug/L			266454	256243	0
	Th	232	49.703	ug/L	0.052	0	46	1921413	0
	U	238	53.519	ug/L	0.389	0	15	2254601	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:40:15
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			326470	344746	0
	Be	9	-0.012	ug/L	0.006	50	12	8	28
	C	13		mg/L			5779	5623	1
	Cl	37		mg/L			1752886	1648690	0
>	Sc	45		ug/L			196148	188335	1
	V	51	-0.007	ug/L	0.011	167	1569	1450	5
	V-1	51	-0.045	ug/L	0.016	36	2367	1894	6
	Cr	52	-0.030	ug/L	0.016	51	4973	4555	2
	Cr	53	-0.147	ug/L	0.039	26	817	656	4
	Mn	55	-0.007	ug/L	0.004	56	498	392	11
	Co	59	0.005	ug/L	0.002	41	55	94	17
>	Ge	72		ug/L			219230	205189	0
	Ni	60	0.000	ug/L	0.001	421	33	32	5
	Ni	62	-0.013	ug/L	0.009	64	41	35	7
	Cu	63	0.004	ug/L	0.005	129	242	241	7
	Cu	65	0.024	ug/L	0.006	22	47	89	10
	Zn	66	-0.003	ug/L	0.004	129	125	112	4
	Zn	67	0.010	ug/L	0.006	66	68	65	2
	Zn	68	-0.311	ug/L	0.037	11	6407	5746	0
	As	75	0.012	ug/L	0.015	127	295	289	6
	As-1	75	0.074	ug/L	0.085	113	7392	7002	1
	Se	82	-0.052	ug/L	0.099	189	-8	-15	88
	Se	78	0.224	ug/L	0.315	140	7496	7084	1
	Mo	98	-0.053	ug/L	0.005	9	462	183	11
	Y	89		ug/L			224334	211385	0
	Kr	83		ug/L			175	171	4
>	In	115		ug/L			256781	249423	0
	Ag	107	0.023	ug/L	0.007	29	24	207	25
	Cd	111	-0.004	ug/L	0.003	76	121	111	4
	Cd	114	0.003	ug/L	0.001	32	9	23	19
	Sb	121	0.115	ug/L	0.024	20	17	804	20
	Sb	123	0.116	ug/L	0.019	16	7	604	15
	Ba	135	0.005	ug/L	0.005	94	15	24	34
	Ba	137	0.010	ug/L	0.004	37	20	47	20
>	Tb	159		ug/L			296918	291384	0
	Tl	205	0.012	ug/L	0.003	27	18	285	25
	Pb	208	0.009	ug/L	0.003	30	203	478	17
	Bi	209		ug/L			266454	261498	1
	Th	232	0.079	ug/L	0.016	19	46	3093	19
	U	238	0.004	ug/L	0.001	27	15	200	26

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA39 MB REN
Sample Dil Factor: 2 D.el
Comments:
Sample Date/Time: Thursday, January 24, 2013 12:09:59
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326470	360743	0
[	Be	9	-0.010	ug/L	0.015	153	12	10	66
	C	13		mg/L			5779	6595	0
	Cl	37		mg/L			1752886	1696303	1
[>	Sc	45		ug/L			196148	197811	0
|	V	51	-0.008	ug/L	0.004	56	1569	1515	2
|	V-1	51	-0.024	ug/L	0.003	11	2367	2170	1
|	Cr	52	-0.015	ug/L	0.004	26	4973	4903	0
|	Cr	53	-0.067	ug/L	0.024	36	817	763	2
|	Mn	55	0.091	ug/L	0.004	4	498	1646	3
[	Co	59	0.001	ug/L	0.001	79	55	64	10
[>	Ge	72		ug/L			219230	219912	0
|	Ni	60	0.069	ug/L	0.009	12	33	170	10
|	Ni	62	0.103	ug/L	0.029	27	41	71	11
|	Cu	63	0.193	ug/L	0.005	2	242	1070	2
|	Cu	65	0.221	ug/L	0.012	5	47	487	4
|	Zn	66	0.884	ug/L	0.037	4	125	1245	3
|	Zn	67	0.792	ug/L	0.142	17	68	235	13
|	Zn	68	0.235	ug/L	0.090	38	6407	6631	0
|	As	75	-0.010	ug/L	0.009	98	295	284	4
|	As-1	75	-0.155	ug/L	0.076	48	7392	7230	0
|	Se	82	0.012	ug/L	0.103	841	-8	-6	214
|	Se	78	-0.568	ug/L	0.303	53	7496	7332	0
[	Mo	98	-0.061	ug/L	0.008	12	462	155	25
	Y	89		ug/L			224334	225495	0
	Kr	83		ug/L			175	169	6
[>	In	115		ug/L			256781	262187	0
|	Ag	107	0.010	ug/L	0.002	24	24	105	19
|	Cd	111	-0.001	ug/L	0.003	302	121	122	6
|	Cd	114	0.001	ug/L	0.001	53	9	14	18
|	Sb	121	0.025	ug/L	0.004	17	17	195	16
|	Sb	123	0.027	ug/L	0.006	23	7	152	22
|	Ba	135	0.031	ug/L	0.005	15	15	67	11
[	Ba	137	0.033	ug/L	0.006	18	20	115	15
[>	Tb	159		ug/L			296918	306882	1
|	Tl	205	0.003	ug/L	0.001	25	18	94	21
|	Pb	208	0.023	ug/L	0.001	2	203	935	1
|	Bi	209		ug/L			266454	275244	2
|	Th	232	0.042	ug/L	0.014	34	46	1747	34
[	U	238	0.001	ug/L	0.000	25	15	46	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 R REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Thursday, January 24, 2013 12:16:16
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326470	310165	5
[	Be	9	-0.016	ug/L	0.008	51	12	6	52
	C	13		mg/L			5779	6234	1
	Cl	37		mg/L			1752886	4446609	3
[>	Sc	45		ug/L			196148	200412	6
	V	51	0.347	ug/L	0.062	17	1569	4652	9
	V-1	51	1.238	ug/L	0.065	5	2367	13518	2
	Cr	52	0.208	ug/L	0.013	6	4973	6678	4
	Cr	53	2.985	ug/L	0.122	4	817	3590	4
	Mn	55	80.906	ug/L	0.800	0	498	1025196	6
[	Co	59	1.858	ug/L	0.020	1	55	17635	5
[>	Ge	72		ug/L			219230	207234	5
	Ni	60	3.774	ug/L	0.129	3	33	7078	8
	Ni	62	4.822	ug/L	0.446	9	41	1354	11
	Cu	63	2.841	ug/L	0.055	1	242	11700	4
	Cu	65	1.049	ug/L	0.013	1	47	2019	4
	Zn	66	7.516	ug/L	0.153	2	125	9094	6
	Zn	67	8.169	ug/L	0.406	4	68	1689	7
	Zn	68	8.302	ug/L	0.475	5	6407	12820	2
	As	75	4.267	ug/L	0.092	2	295	5229	7
	As-1	75	4.191	ug/L	0.318	7	7392	11694	2
	Se	82	1.446	ug/L	0.041	2	-8	186	2
	Se	78	1.055	ug/L	1.527	144	7496	7396	1
[	Mo	98	0.197	ug/L	0.010	5	462	1380	7
	Y	89		ug/L			224334	219424	6
	Kr	83		ug/L			175	189	5
[>	In	115		ug/L			256781	241219	6
	Ag	107	0.013	ug/L	0.002	16	24	118	17
	Cd	111	0.063	ug/L	0.086	138	121	235	72
	Cd	114	0.216	ug/L	0.013	6	9	1007	11
	Sb	121	0.424	ug/L	0.006	1	17	2836	7
	Sb	123	0.445	ug/L	0.017	3	7	2223	8
	Ba	135	47.346	ug/L	0.873	1	15	73622	7
[	Ba	137	47.523	ug/L	0.375	0	20	126926	6
[>	Tb	159		ug/L			296918	283896	6
	Tl	205	0.004	ug/L	0.001	29	18	95	28
	Pb	208	0.032	ug/L	0.002	5	203	1106	10
	Bi	209		ug/L			266454	237509	5
	Th	232	0.028	ug/L	0.004	15	46	1116	20
[	U	238	0.016	ug/L	0.001	5	15	679	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 S REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Thursday, January 24, 2013 12:22:33
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			326470	278787	2
	Be	9	-0.006	ug/L	0.010	186	12	9	41
	C	13		mg/L			5779	6158	1
	Cl	37		mg/L			1752886	1759319	0
>	Sc	45		ug/L			196148	179812	2
	V	51	4.155	ug/L	0.101	2	1569	34307	1
	V-1	51	4.198	ug/L	0.141	3	2367	35992	1
	Cr	52	2.318	ug/L	0.074	3	4973	20584	1
	Cr	53	2.555	ug/L	0.200	7	817	2864	3
	Mn	55	61.194	ug/L	1.394	2	498	695519	1
	Co	59	0.386	ug/L	0.012	3	55	3328	2
>	Ge	72		ug/L			219230	182912	1
	Ni	60	1.665	ug/L	0.141	8	33	2772	9
	Ni	62	1.882	ug/L	0.027	1	41	487	0
	Cu	63	1.659	ug/L	0.025	1	242	6116	0
	Cu	65	1.409	ug/L	0.040	2	47	2379	2
	Zn	66	2.845	ug/L	0.113	3	125	3100	1
	Zn	67	3.134	ug/L	0.138	4	68	607	5
	Zn	68	3.882	ug/L	0.181	4	6407	8141	1
	As	75	3.467	ug/L	0.039	1	295	3793	1
	As-1	75	4.471	ug/L	0.181	4	7392	10607	0
	Se	82	0.276	ug/L	0.011	3	-8	25	3
	Se	78	3.795	ug/L	0.576	15	7496	7288	0
	Mo	98	0.104	ug/L	0.004	4	462	824	3
	Y	89		ug/L			224334	192771	1
	Kr	83		ug/L			175	171	1
>	In	115		ug/L			256781	213077	0
	Ag	107	0.006	ug/L	0.001	17	24	58	11
	Cd	111	0.660	ug/L	0.027	4	121	1266	3
	Cd	114	0.684	ug/L	0.007	1	9	2800	0
	Sb	121	0.098	ug/L	0.006	6	17	592	6
	Sb	123	0.108	ug/L	0.008	7	7	482	7
	Ba	135	7.380	ug/L	0.026	0	15	10140	0
	Ba	137	7.567	ug/L	0.102	1	20	17861	1
>	Tb	159		ug/L			296918	250460	1
	Tl	205	0.004	ug/L	0.001	24	18	95	19
	Pb	208	0.344	ug/L	0.001	0	203	8918	1
	Bi	209		ug/L			266454	218461	3
	Th	232	0.125	ug/L	0.002	1	46	4195	2
	U	238	0.079	ug/L	0.003	3	15	2866	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 T REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Thursday, January 24, 2013 12:28:50
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			326470	305951	7
	Be	9	-0.012	ug/L	0.005	40	12	7	16
	C	13		mg/L			5779	6269	3
	Cl	37		mg/L			1752886	4259562	5
>	Sc	45		ug/L			196148	197635	9
	V	51	0.344	ug/L	0.034	9	1569	4559	6
	V-1	51	1.206	ug/L	0.017	1	2367	13070	9
	Cr	52	0.210	ug/L	0.023	10	4973	6600	7
	Cr	53	2.898	ug/L	0.054	1	817	3467	10
	Mn	55	81.596	ug/L	1.880	2	498	1018069	7
	Co	59	1.804	ug/L	0.049	2	55	16869	7
>	Ge	72		ug/L			219230	203297	7
	Ni	60	3.739	ug/L	0.090	2	33	6881	9
	Ni	62	4.455	ug/L	0.131	2	41	1231	10
	Cu	63	2.739	ug/L	0.056	2	242	11080	8
	Cu	65	1.001	ug/L	0.047	4	47	1889	6
	Zn	66	7.264	ug/L	0.114	1	125	8621	7
	Zn	67	7.745	ug/L	0.072	0	68	1574	7
	Zn	68	7.960	ug/L	0.710	8	6407	12286	3
	As	75	4.317	ug/L	0.133	3	295	5176	5
	As-1	75	4.357	ug/L	0.651	14	7392	11630	2
	Se	82	1.492	ug/L	0.161	10	-8	190	17
	Se	78	1.567	ug/L	1.907	121	7496	7397	1
	Mo	98	0.197	ug/L	0.001	0	462	1354	7
	Y	89		ug/L			224334	216581	8
	Kr	83		ug/L			175	190	4
>	In	115		ug/L			256781	238152	9
	Ag	107	0.008	ug/L	0.004	49	24	82	26
	Cd	111	-0.044	ug/L	0.038	86	121	28	284
	Cd	114	0.140	ug/L	0.007	4	9	644	8
	Sb	121	0.420	ug/L	0.006	1	17	2774	8
	Sb	123	0.428	ug/L	0.012	2	7	2108	7
	Ba	135	47.067	ug/L	1.876	3	15	72046	6
	Ba	137	46.737	ug/L	1.035	2	20	123048	7
>	Tb	159		ug/L			296918	280159	8
	Tl	205	0.003	ug/L	0.001	26	18	89	19
	Pb	208	0.022	ug/L	0.002	7	203	809	5
	Bi	209		ug/L			266454	234485	8
	Th	232	0.018	ug/L	0.001	7	46	725	14
	U	238	0.015	ug/L	0.000	1	15	626	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 V REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Thursday, January 24, 2013 12:35:09
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			326470	278512	5
⌊	Be	9	0.009	ug/L	0.031	343	12	13	72
	C	13		mg/L			5779	6518	1
	Cl	37		mg/L			1752886	2460643	2
⌈>	Sc	45		ug/L			196148	194040	3
|	V	51	1.794	ug/L	0.062	3	1569	16882	6
|	V-1	51	2.048	ug/L	0.066	3	2367	20167	5
|	Cr	52	0.913	ug/L	0.032	3	4973	11739	5
|	Cr	53	1.754	ug/L	0.067	3	817	2377	3
|	Mn	55	27.508	ug/L	0.542	1	498	337930	5
⌊	Co	59	0.165	ug/L	0.006	3	55	1570	6
⌈>	Ge	72		ug/L			219230	194022	3
|	Ni	60	0.222	ug/L	0.008	3	33	417	4
|	Ni	62	0.803	ug/L	0.104	12	41	241	11
|	Cu	63	0.971	ug/L	0.017	1	242	3888	4
|	Cu	65	0.369	ug/L	0.016	4	47	691	6
|	Zn	66	4.813	ug/L	0.074	1	125	5488	1
|	Zn	67	4.737	ug/L	0.185	3	68	943	6
|	Zn	68	5.734	ug/L	0.401	6	6407	10046	1
|	As	75	2.339	ug/L	0.045	1	295	2799	2
|	As-1	75	2.916	ug/L	0.227	7	7392	9611	0
|	Se	82	0.732	ug/L	0.060	8	-8	84	8
|	Se	78	2.835	ug/L	0.883	31	7496	7450	0
⌊	Mo	98	0.259	ug/L	0.003	1	462	1568	2
	Y	89		ug/L			224334	201618	3
	Kr	83		ug/L			175	176	3
⌈>	In	115		ug/L			256781	229558	4
|	Ag	107	0.001	ug/L	0.000	16	24	32	8
|	Cd	111	-0.067	ug/L	0.028	41	121	-16	312
|	Cd	114	0.003	ug/L	0.001	36	9	22	23
|	Sb	121	0.029	ug/L	0.001	5	17	197	7
|	Sb	123	0.039	ug/L	0.008	19	7	193	23
|	Ba	135	15.819	ug/L	0.597	3	15	23415	6
⌊	Ba	137	15.730	ug/L	0.589	3	20	40008	7
⌈>	Tb	159		ug/L			296918	266810	3
|	Tl	205	0.000	ug/L	0.000	40	18	25	15
|	Pb	208	0.056	ug/L	0.002	3	203	1690	4
|	Bi	209		ug/L			266454	230353	3
|	Th	232	0.033	ug/L	0.002	5	46	1211	7
⌊	U	238	0.036	ug/L	0.001	1	15	1421	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA39 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 12:41:28
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326470	250656	1
[	Be	9	0.176	ug/L	0.086	48	12	64	42
	C	13		mg/L			5779	8286	0
	Cl	37		mg/L			1752886	2577671	1
[>	Sc	45		ug/L			196148	218460	2
	V	51	25.503	ug/L	0.340	1	1569	246978	3
	V-1	51	25.745	ug/L	0.366	1	2367	254829	3
	Cr	52	20.359	ug/L	0.290	1	4973	176682	3
	Cr	53	21.405	ug/L	0.362	1	817	22475	4
	Mn	55	199.004	ug/L	1.275	0	498	2748075	2
[	Co	59	3.893	ug/L	0.025	0	55	40231	2
[>	Ge	72		ug/L			219230	184337	1
	Ni	60	28.003	ug/L	0.629	2	33	46493	2
	Ni	62	31.458	ug/L	0.843	2	41	7661	3
	Cu	63	37.108	ug/L	0.790	2	242	133513	2
	Cu	65	36.738	ug/L	0.501	1	47	61557	2
	Zn	66	87.310	ug/L	2.219	2	125	92813	3
	Zn	67	82.966	ug/L	2.428	2	68	14743	4
	Zn	68	88.978	ug/L	2.756	3	6407	69993	3
	As	75	10.124	ug/L	0.381	3	295	10686	3
	As-1	75	11.440	ug/L	0.396	3	7392	17667	1
[	Se	82	3.253	ug/L	0.105	3	-8	382	2
	Se	78	7.779	ug/L	0.535	6	7496	8442	0
[	Mo	98	234.993	ug/L	7.896	3	462	1000436	4
	Y	89		ug/L			224334	254229	1
	Kr	83		ug/L			175	202	4
[>	In	115		ug/L			256781	213783	1
	Ag	107	0.105	ug/L	0.004	3	24	732	4
	Cd	111	0.363	ug/L	0.096	26	121	745	23
	Cd	114	0.478	ug/L	0.030	6	9	1965	6
	Sb	121	1.090	ug/L	0.043	3	17	6443	4
	Sb	123	1.107	ug/L	0.060	5	7	4895	6
	Ba	135	69.873	ug/L	2.283	3	15	96230	4
[	Ba	137	69.577	ug/L	2.021	2	20	164659	3
[>	Tb	159		ug/L			296918	246689	1
	Tl	205	0.057	ug/L	0.007	12	18	1077	12
	Pb	208	18.166	ug/L	0.616	3	203	454647	3
	Bi	209		ug/L			266454	216312	1
	Th	232	0.795	ug/L	0.032	3	46	26119	3
[	U	238	0.637	ug/L	0.025	3	15	22785	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA39 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 12:47:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			326470	242102	3
⌊	Be	9	0.205	ug/L	0.021	10	12	70	9
	C	13		mg/L			5779	7960	3
	Cl	37		mg/L			1752886	2574029	1
⌈>	Sc	45		ug/L			196148	222657	4
|	V	51	25.418	ug/L	0.342	1	1569	250768	3
|	V-1	51	25.404	ug/L	0.167	0	2367	256305	5
|	Cr	52	21.221	ug/L	1.862	8	4973	187050	5
|	Cr	53	21.416	ug/L	0.212	0	817	22907	3
|	Mn	55	194.087	ug/L	2.006	1	498	2731479	4
⌊	Co	59	3.738	ug/L	0.047	1	55	39362	3
⌈>	Ge	72		ug/L			219230	185124	3
|	Ni	60	27.870	ug/L	0.282	1	33	46460	2
|	Ni	62	31.538	ug/L	0.531	1	41	7716	4
|	Cu	63	36.649	ug/L	0.714	1	242	132482	4
|	Cu	65	36.333	ug/L	0.527	1	47	61139	3
|	Zn	66	86.656	ug/L	2.253	2	125	92529	4
|	Zn	67	80.524	ug/L	1.437	1	68	14371	4
|	Zn	68	88.954	ug/L	1.834	2	6407	70280	4
|	As	75	9.968	ug/L	0.199	2	295	10572	3
|	As-1	75	11.293	ug/L	0.328	2	7392	17594	2
|	Se	82	3.270	ug/L	0.120	3	-8	386	6
|	Se	78	7.895	ug/L	0.776	9	7496	8507	1
⌊	Mo	98	228.909	ug/L	3.775	1	462	978798	4
	Y	89		ug/L			224334	253575	3
	Kr	83		ug/L			175	208	7
⌈>	In	115		ug/L			256781	211541	4
|	Ag	107	0.107	ug/L	0.005	4	24	734	4
|	Cd	111	0.345	ug/L	0.065	18	121	707	20
|	Cd	114	0.467	ug/L	0.022	4	9	1901	8
|	Sb	121	1.188	ug/L	0.040	3	17	6955	7
|	Sb	123	1.202	ug/L	0.061	5	7	5267	9
|	Ba	135	71.845	ug/L	1.947	2	15	97965	6
⌊	Ba	137	71.291	ug/L	1.250	1	20	167000	5
⌈>	Tb	159		ug/L			296918	240936	2
|	Tl	205	0.058	ug/L	0.002	2	18	1066	4
|	Pb	208	18.182	ug/L	0.425	2	203	444575	4
|	Bi	209		ug/L			266454	213024	3
|	Th	232	0.787	ug/L	0.032	4	46	25279	5
⌊	U	238	0.653	ug/L	0.026	3	15	22841	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA39 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 12:54:04
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			326470	282176	3
	Be	9	27.553	ug/L	0.297	1	12	9601	3
	C	13		mg/L			5779	8120	1
	Cl	37		mg/L			1752886	2680046	2
>	Sc	45		ug/L			196148	245348	4
	V	51	44.871	ug/L	0.444	0	1569	486413	4
	V-1	51	45.212	ug/L	0.467	1	2367	500253	5
	Cr	52	39.773	ug/L	0.956	2	4973	381776	6
	Cr	53	41.122	ug/L	1.231	2	817	47566	7
	Mn	55	216.912	ug/L	3.719	1	498	3363351	4
	Co	59	23.726	ug/L	0.406	1	55	274931	4
>	Ge	72		ug/L			219230	203389	3
	Ni	60	54.101	ug/L	0.168	0	33	99086	4
	Ni	62	58.094	ug/L	0.932	1	41	15585	5
	Cu	63	63.123	ug/L	0.136	0	242	250459	4
	Cu	65	62.667	ug/L	0.462	0	47	115830	4
	Zn	66	166.929	ug/L	0.557	0	125	195670	3
	Zn	67	154.079	ug/L	2.082	1	68	30146	3
	Zn	68	167.080	ug/L	0.652	0	6407	139795	4
	As	75	37.579	ug/L	0.410	1	295	43044	4
	As-1	75	36.980	ug/L	0.177	0	7392	47710	3
	Se	82	82.187	ug/L	0.597	0	-8	10869	4
	Se	78	85.086	ug/L	1.314	1	7496	32778	2
	Mo	98	234.031	ug/L	1.999	0	462	1099073	3
	Y	89		ug/L			224334	278712	3
	Kr	83		ug/L			175	206	2
>	In	115		ug/L			256781	238583	4
	Ag	107	19.542	ug/L	0.106	0	24	147388	4
	Cd	111	25.178	ug/L	0.091	0	121	49881	4
	Cd	114	25.169	ug/L	0.295	1	9	115019	3
	Sb	121	1.127	ug/L	0.035	3	17	7432	4
	Sb	123	1.134	ug/L	0.034	2	7	5591	4
	Ba	135	92.894	ug/L	0.362	0	15	142739	4
	Ba	137	92.850	ug/L	1.416	1	20	245145	4
>	Tb	159		ug/L			296918	273494	4
	Tl	205	25.679	ug/L	0.488	1	18	528784	2
	Pb	208	44.237	ug/L	0.243	0	203	1227086	3
	Bi	209		ug/L			266454	237002	4
	Th	232	26.410	ug/L	0.497	1	46	960639	2
	U	238	26.021	ug/L	0.128	0	15	1032100	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA39 MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 13:00:22
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326470	331725	1
[	Be	9	27.914	ug/L	0.114	0	12	11432	1
	C	13		mg/L			5779	7258	1
	Cl	37		mg/L			1752886	1978924	0
[>	Sc	45		ug/L			196148	231639	0
[	V	51	25.941	ug/L	0.124	0	1569	266308	1
[	V-1	51	25.924	ug/L	0.112	0	2367	272014	1
[	Cr	52	26.018	ug/L	0.250	0	4973	237768	1
[	Cr	53	25.961	ug/L	0.355	1	817	28692	1
[	Mn	55	27.227	ug/L	0.150	0	498	399147	1
[	Co	59	27.200	ug/L	0.281	1	55	297676	1
[>	Ge	72		ug/L			219230	253313	1
[	Ni	60	27.762	ug/L	0.634	2	33	63351	3
[	Ni	62	28.568	ug/L	0.404	1	41	9566	2
[	Cu	63	28.928	ug/L	0.339	1	242	143114	2
[	Cu	65	29.061	ug/L	0.135	0	47	66924	1
[	Zn	66	87.654	ug/L	0.997	1	125	128050	1
[	Zn	67	81.087	ug/L	0.464	0	68	19799	1
[	Zn	68	86.162	ug/L	0.603	0	6407	93362	1
[	As	75	27.642	ug/L	0.245	0	295	39514	1
[	As-1	75	26.041	ug/L	0.034	0	7392	44372	1
[	Se	82	82.111	ug/L	1.048	1	-8	13523	2
[	Se	78	81.999	ug/L	0.457	0	7496	39669	1
[	Mo	98	-0.001	ug/L	0.019	2033	462	528	20
	Y	89		ug/L			224334	263701	1
	Kr	83		ug/L			175	190	5
[>	In	115		ug/L			256781	312395	2
[	Ag	107	26.452	ug/L	0.657	2	24	261144	1
[	Cd	111	25.005	ug/L	0.412	1	121	64843	0
[	Cd	114	24.948	ug/L	0.179	0	9	149323	1
[	Sb	121	0.008	ug/L	0.001	13	17	86	8
[	Sb	123	0.008	ug/L	0.002	29	7	62	22
[	Ba	135	25.368	ug/L	0.383	1	15	51048	1
[	Ba	137	24.962	ug/L	0.064	0	20	86324	2
[>	Tb	159		ug/L			296918	341862	2
[	Tl	205	26.711	ug/L	0.400	1	18	687913	3
[	Pb	208	27.727	ug/L	0.298	1	203	961428	1
[	Bi	209		ug/L			266454	315428	1
[	Th	232	25.585	ug/L	0.202	0	46	1163748	2
[	U	238	25.087	ug/L	0.440	1	15	1243280	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 13:06:41
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			326470	347332	1
	Be	9	57.750	ug/L	0.742	1	12	24751	1
	C	13		mg/L			5779	5522	0
	Cl	37		mg/L			1752886	2175990	0
>	Sc	45		ug/L			196148	254594	1
	V	51	51.103	ug/L	0.460	0	1569	574619	1
	V-1	51	51.138	ug/L	0.371	0	2367	586755	1
	Cr	52	50.896	ug/L	0.619	1	4973	504967	0
	Cr	53	51.018	ug/L	0.619	1	817	60942	0
	Mn	55	51.582	ug/L	0.255	0	498	830530	1
	Co	59	52.547	ug/L	0.739	1	55	631872	0
>	Ge	72		ug/L			219230	273220	0
	Ni	60	53.868	ug/L	0.335	0	33	132522	0
	Ni	62	55.092	ug/L	0.998	1	41	19849	1
	Cu	63	53.947	ug/L	0.390	0	242	287574	0
	Cu	65	54.146	ug/L	0.522	0	47	134434	0
	Zn	66	53.641	ug/L	0.061	0	125	84577	0
	Zn	67	53.819	ug/L	0.660	1	68	14202	1
	Zn	68	52.548	ug/L	0.368	0	6407	64530	0
	As	75	52.022	ug/L	0.093	0	295	79883	0
	As-1	75	51.423	ug/L	0.185	0	7392	85528	0
	Se	82	52.078	ug/L	0.071	0	-8	9246	0
	Se	78	49.607	ug/L	0.507	1	7496	29575	0
	Mo	98	52.635	ug/L	0.389	0	462	332559	0
	Y	89		ug/L			224334	282673	0
	Kr	83		ug/L			175	183	1
>	In	115		ug/L			256781	337013	0
	Ag	107	52.165	ug/L	0.356	0	24	555714	0
	Cd	111	52.019	ug/L	0.496	0	121	145391	1
	Cd	114	51.535	ug/L	0.274	0	9	332769	0
	Sb	121	49.929	ug/L	0.242	0	17	464268	0
	Sb	123	50.114	ug/L	0.501	0	7	348886	0
	Ba	135	49.067	ug/L	0.116	0	15	106519	0
	Ba	137	48.882	ug/L	0.702	1	20	182344	1
>	Tb	159		ug/L			296918	372383	0
	Tl	205	52.158	ug/L	0.761	1	18	1463059	1
	Pb	208	53.431	ug/L	0.286	0	203	2018182	0
	Bi	209		ug/L			266454	339572	0
	Th	232	54.062	ug/L	0.280	0	46	2678659	0
	U	238	53.383	ug/L	0.488	0	15	2882422	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 13:13:20
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326470	337699	0
[	Be	9	-0.009	ug/L	0.009	100	12	9	39
	C	13		mg/L			5779	6451	0
	Cl	37		mg/L			1752886	2197323	0
[>	Sc	45		ug/L			196148	250342	1
	V	51	0.004	ug/L	0.016	407	1569	2047	9
	V-1	51	-0.049	ug/L	0.002	4	2367	2468	1
	Cr	52	-0.028	ug/L	0.005	15	4973	6073	1
	Cr	53	-0.192	ug/L	0.043	22	817	820	5
	Mn	55	-0.016	ug/L	0.001	8	498	377	5
[	Co	59	-0.001	ug/L	0.001	65	55	56	16
[>	Ge	72		ug/L			219230	267564	0
	Ni	60	-0.003	ug/L	0.001	37	33	32	9
	Ni	62	0.027	ug/L	0.007	24	41	60	4
	Cu	63	-0.007	ug/L	0.002	26	242	258	3
	Cu	65	0.010	ug/L	0.005	51	47	80	14
	Zn	66	0.017	ug/L	0.010	59	125	179	8
	Zn	67	0.076	ug/L	0.040	52	68	102	10
	Zn	68	-1.101	ug/L	0.115	10	6407	6660	1
	As	75	-0.057	ug/L	0.020	34	295	274	10
	As-1	75	-0.602	ug/L	0.029	4	7392	8147	0
	Se	82	-0.004	ug/L	0.052	1229	-8	-11	81
	Se	78	-2.176	ug/L	0.084	3	7496	8279	0
[	Mo	98	-0.070	ug/L	0.004	5	462	128	18
	Y	89		ug/L			224334	278078	0
	Kr	83		ug/L			175	182	4
[>	In	115		ug/L			256781	330257	1
	Ag	107	0.009	ug/L	0.003	35	24	130	28
	Cd	111	0.005	ug/L	0.007	134	121	170	9
	Cd	114	-0.001	ug/L	0.000	54	9	8	28
	Sb	121	0.061	ug/L	0.016	26	17	578	26
	Sb	123	0.062	ug/L	0.020	33	7	431	33
	Ba	135	0.001	ug/L	0.001	194	15	21	13
[	Ba	137	0.005	ug/L	0.003	55	20	46	24
[>	Tb	159		ug/L			296918	360539	0
	Tl	205	0.008	ug/L	0.001	16	18	245	14
	Pb	208	0.004	ug/L	0.002	54	203	402	20
	Bi	209		ug/L			266454	334558	0
	Th	232	0.040	ug/L	0.010	24	46	1989	23
[	U	238	0.002	ug/L	0.001	32	15	118	26

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 13:19:55
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L				326296	0
⌊	Be	9		ug/L				9	15
	C	13		mg/L				6429	1
	Cl	37		mg/L				2178145	0
⌈>	Sc	45		ug/L				236610	0
|	V	51		ug/L				1982	4
|	V-1	51		ug/L				2305	2
|	Cr	52		ug/L				5972	1
|	Cr	53		ug/L				778	2
|	Mn	55		ug/L				354	1
⌊	Co	59		ug/L				47	17
⌈>	Ge	72		ug/L				257502	0
|	Ni	60		ug/L				27	20
|	Ni	62		ug/L				61	14
|	Cu	63		ug/L				217	2
|	Cu	65		ug/L				77	10
|	Zn	66		ug/L				153	9
|	Zn	67		ug/L				85	9
|	Zn	68		ug/L				6550	2
|	As	75		ug/L				274	8
|	As-1	75		ug/L				8107	0
|	Se	82		ug/L				-17	46
|	Se	78		ug/L				8239	0
⌊	Mo	98		ug/L				61	25
	Y	89		ug/L				266728	0
	Kr	83		ug/L				188	4
⌈>	In	115		ug/L				313759	0
|	Ag	107		ug/L				56	22
|	Cd	111		ug/L				164	1
|	Cd	114		ug/L				8	66
|	Sb	121		ug/L				179	3
|	Sb	123		ug/L				140	12
|	Ba	135		ug/L				16	20
⌊	Ba	137		ug/L				22	41
⌈>	Tb	159		ug/L				347606	1
|	Tl	205		ug/L				107	5
|	Pb	208		ug/L				292	6
|	Bi	209		ug/L				320352	0
|	Th	232		ug/L				645	13
⌊	U	238		ug/L				28	22

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 13:26:04
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326296	343543	0
[	Be	9	56.808	ug/L	0.396	0	9	24077	0
	C	13		mg/L			6429	4750	0
	Cl	37		mg/L			2178145	1991684	0
[>	Sc	45		ug/L			236610	233560	1
[	V	51	50.792	ug/L	0.573	1	1982	523997	0
[	V-1	51	50.858	ug/L	0.260	0	2305	534776	0
[	Cr	52	50.981	ug/L	1.102	2	5972	463979	1
[	Cr	53	51.173	ug/L	0.587	1	778	55876	1
[	Mn	55	51.442	ug/L	0.201	0	354	759612	1
[	Co	59	52.549	ug/L	0.283	0	47	579738	0
[>	Ge	72		ug/L			257502	252859	0
[	Ni	60	53.415	ug/L	0.393	0	27	121602	0
[	Ni	62	53.799	ug/L	0.348	0	61	17952	0
[	Cu	63	53.490	ug/L	0.474	0	217	263826	1
[	Cu	65	53.723	ug/L	0.481	0	77	123465	0
[	Zn	66	53.235	ug/L	0.119	0	153	77689	0
[	Zn	67	53.367	ug/L	0.683	1	85	13038	0
[	Zn	68	53.960	ug/L	0.326	0	6550	60169	0
[	As	75	51.975	ug/L	0.405	0	274	73788	0
[	As-1	75	51.918	ug/L	0.387	0	8107	79267	0
[	Se	82	52.044	ug/L	0.602	1	-17	8544	0
[	Se	78	51.803	ug/L	0.307	0	8239	27644	0
[	Mo	98	52.032	ug/L	0.688	1	61	303764	0
	Y	89		ug/L			266728	261895	1
	Kr	83		ug/L			188	191	1
[>	In	115		ug/L			313759	307257	0
[	Ag	107	52.013	ug/L	0.856	1	56	505180	1
[	Cd	111	51.350	ug/L	0.616	1	164	130872	1
[	Cd	114	51.568	ug/L	0.684	1	8	303571	0
[	Sb	121	50.231	ug/L	0.473	0	179	425970	0
[	Sb	123	50.384	ug/L	0.342	0	140	319922	0
[	Ba	135	49.533	ug/L	0.453	0	16	98029	0
[	Ba	137	49.539	ug/L	0.167	0	22	168475	0
[>	Tb	159		ug/L			347606	344335	0
[	Tl	205	51.816	ug/L	0.647	1	107	1344112	0
[	Pb	208	53.130	ug/L	0.123	0	292	1855783	0
[	Bi	209		ug/L			320352	313047	1
[	Th	232	54.060	ug/L	0.176	0	645	2477475	0
[	U	238	53.491	ug/L	0.077	0	28	2670861	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 13:32:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			326296	352517	1
	Be	9	-0.010	ug/L	0.004	43	9	5	35
	C	13		mg/L			6429	6462	2
	Cl	37		mg/L			2178145	1991822	0
>	Sc	45		ug/L			236610	233918	0
	V	51	-0.009	ug/L	0.012	136	1982	1866	7
	V-1	51	-0.016	ug/L	0.010	61	2305	2115	4
	Cr	52	-0.018	ug/L	0.005	30	5972	5741	0
	Cr	53	-0.038	ug/L	0.032	84	778	728	4
	Mn	55	-0.002	ug/L	0.001	37	354	317	3
	Co	59	0.001	ug/L	0.001	95	47	62	24
>	Ge	72		ug/L			257502	251953	0
	Ni	60	-0.004	ug/L	0.001	13	27	17	7
	Ni	62	-0.004	ug/L	0.025	717	61	59	14
	Cu	63	0.002	ug/L	0.001	44	217	223	2
	Cu	65	0.003	ug/L	0.001	25	77	83	1
	Zn	66	-0.008	ug/L	0.006	72	153	138	5
	Zn	67	0.040	ug/L	0.047	116	85	93	12
	Zn	68	0.004	ug/L	0.117	2722	6550	6412	1
	As	75	0.008	ug/L	0.003	34	274	279	1
	As-1	75	-0.007	ug/L	0.007	94	8107	7923	0
	Se	82	0.027	ug/L	0.033	122	-17	-12	43
	Se	78	-0.037	ug/L	0.035	94	8239	8048	0
	Mo	98	0.009	ug/L	0.002	25	61	112	11
	Y	89		ug/L			266728	261773	1
	Kr	83		ug/L			188	182	4
>	In	115		ug/L			313759	306392	0
	Ag	107	0.005	ug/L	0.002	33	56	100	15
	Cd	111	0.002	ug/L	0.003	134	164	166	4
	Cd	114	0.001	ug/L	0.001	124	8	13	50
	Sb	121	0.048	ug/L	0.015	30	179	582	21
	Sb	123	0.045	ug/L	0.014	30	140	421	20
	Ba	135	0.002	ug/L	0.004	187	16	19	35
	Ba	137	0.002	ug/L	0.001	51	22	30	12
>	Tb	159		ug/L			347606	344785	2
	Tl	205	0.003	ug/L	0.002	64	107	176	26
	Pb	208	0.003	ug/L	0.002	62	292	388	15
	Bi	209		ug/L			320352	313676	1
	Th	232	0.027	ug/L	0.009	32	645	1880	21
	U	238	0.001	ug/L	0.001	45	28	97	32

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 ~~MB~~ REN ADP EL 1-24-13
Sample Dil Factor: 2/10
Comments:
Sample Date/Time: Thursday, January 24, 2013 13:38:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326296	355375	4
[	Be	9	-0.006	ug/L	0.008	142	9	7	44
	C	13		mg/L			6429	6196	0
	Cl	37		mg/L			2178145	3186090	1
[>	Sc	45		ug/L			236610	238196	2
[	V	51	0.098	ug/L	0.022	22	1982	3022	6
[	V-1	51	0.503	ug/L	0.006	1	2305	7690	2
[	Cr	52	u 0.022	ug/L	0.018	81	5972	6212	1
[	Cr	53	1.285	ug/L	0.052	4	778	2194	3
[	Mn	55	496.157	ug/L	10.189	2	354	7466232	0
[	Co	59	0.487	ug/L	0.008	1	47	5523	1
[>	Ge	72		ug/L			257502	236390	1
[	Ni	60	3.504	ug/L	0.045	1	27	7481	1
[	Ni	62	3.240	ug/L	0.104	3	61	1064	4
[	Cu	63	0.929	ug/L	0.031	3	217	4480	3
[	Cu	65	u 0.090	ug/L	0.005	5	77	265	2
[	Zn	66	u 1.238	ug/L	0.057	4	153	1825	2
[	Zn	67	2.210	ug/L	0.049	2	85	580	3
[	Zn	68	2.355	ug/L	0.231	9	6550	8202	0
[	As	75	0.756	ug/L	0.005	0	274	1251	2
[	As-1	75	0.640	ug/L	0.127	19	8107	8263	0
[	Se	82	0.793	ug/L	0.090	11	-17	105	11
[	Se	78	0.413	ug/L	0.565	136	8239	7707	0
[	Mo	98	0.626	ug/L	0.013	2	61	3472	0
	Y	89		ug/L			266728	252281	2
	Kr	83		ug/L			188	178	4
[>	In	115		ug/L			313759	278593	2
[	Ag	107	0.005	ug/L	0.001	15	56	95	8
[	Cd	111	-0.072	ug/L	0.002	2	164	-20	19
[	Cd	114	0.005	ug/L	0.001	28	8	31	23
[	Sb	121	0.069	ug/L	0.004	6	179	691	2
[	Sb	123	0.068	ug/L	0.002	2	140	515	3
[	Ba	135	37.798	ug/L	0.314	0	16	67825	1
[	Ba	137	37.626	ug/L	0.453	1	22	116014	1
[>	Tb	159		ug/L			347606	328224	3
[	Tl	205	u 0.001	ug/L	0.001	255	107	113	26
[	Pb	208	0.039	ug/L	0.003	7	292	1577	3
[	Bi	209		ug/L			320352	283494	3
[	Th	232	0.031	ug/L	0.004	11	645	1978	5
[	U	238	0.020	ug/L	0.000	0	28	970	2

ICP-MS Quantitative Analysis - Summary Report

43A EL 1-24-13

Sample ID: WA34 ADUP REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, January 24, 2013 13:44:47
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326296	405787	5
[	Be	9	-0.007	ug/L	0.003	37	9	7	18
	C	13		mg/L			6429	6354	1
	Cl	37		mg/L			2178145	3412777	1
[>	Sc	45		ug/L			236610	275943	3
[	V	51	0.101	ug/L	0.039	38	1982	3527	10
[	V-1	51	0.525	ug/L	0.022	4	2305	9183	3
[	Cr	52	u -0.018	ug/L	0.015	85	5972	6774	2
[	Cr	53	1.308	ug/L	0.069	5	778	2574	7
[	Mn	55	492.644	ug/L	18.968	3	354	8583326	1
[	Co	59	0.486	ug/L	0.011	2	47	6382	2
[>	Ge	72		ug/L			257502	262875	3
[	Ni	60	3.551	ug/L	0.025	0	27	8429	2
[	Ni	62	3.208	ug/L	0.087	2	61	1172	4
[	Cu	63	0.974	ug/L	0.039	4	217	5208	2
[	Cu	65	0.100	ug/L	0.010	9	77	318	9
[	Zn	66	u 1.684	ug/L	0.109	6	153	2709	9
[	Zn	67	2.571	ug/L	0.189	7	85	737	9
[	Zn	68	1.992	ug/L	0.070	3	6550	8748	2
[	As	75	0.807	ug/L	0.041	5	274	1467	6
[	As-1	75	0.063	ug/L	0.125	198	8107	8362	1
[	Se	82	1.022	ug/L	0.057	5	-17	157	8
[	Se	78	-1.778	ug/L	0.535	30	8239	7709	0
[	Mo	98	0.667	ug/L	0.007	1	61	4109	2
	Y	89		ug/L			266728	284350	3
	Kr	83		ug/L			188	173	5
[>	In	115		ug/L			313759	321830	4
[	Ag	107	0.002	ug/L	0.000	12	56	77	3
[	Cd	111	-0.067	ug/L	0.010	15	164	-9	296
[	Cd	114	0.003	ug/L	0.000	8	8	27	6
[	Sb	121	0.053	ug/L	0.004	7	179	654	3
[	Sb	123	0.050	ug/L	0.003	6	140	477	3
[	Ba	135	37.120	ug/L	0.870	2	16	76907	1
[	Ba	137	37.276	ug/L	0.630	1	22	132740	2
[>	Tb	159		ug/L			347606	375095	4
[	Tl	205	u -0.002	ug/L	0.000	14	107	47	17
[	Pb	208	0.037	ug/L	0.001	3	292	1708	1
[	Bi	209		ug/L			320352	320574	4
[	Th	232	0.022	ug/L	0.002	9	645	1810	6
[	U	238	0.017	ug/L	0.001	7	28	971	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 A REN EL 1-24-13
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, January 24, 2013 13:51:04
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326296	350064	0
[	Be	9	5.533	ug/L	0.195	3	9	2398	3
	C	13		mg/L			6429	6067	2
	Cl	37		mg/L			2178145	3260431	0
[>	Sc	45		ug/L			236610	245678	0
[	V	51	5.033	ug/L	0.119	2	1982	56469	1
[	V-1	51	5.444	ug/L	0.083	1	2305	62347	0
[	Cr	52	4.803	ug/L	0.096	2	5972	51602	1
[	Cr	53	6.094	ug/L	0.024	0	778	7710	0
[	Mn	55	483.725	ug/L	9.467	1	354	7509851	1
[	Co	59	5.292	ug/L	0.054	1	47	61452	0
[>	Ge	72		ug/L			257502	239859	1
[	Ni	60	8.792	ug/L	0.093	1	27	19006	0
[	Ni	62	8.912	ug/L	0.206	2	61	2868	0
[	Cu	63	6.261	ug/L	0.114	1	217	29469	0
[	Cu	65	5.456	ug/L	0.147	2	77	11956	1
[	Zn	66	17.845	ug/L	0.442	2	153	24792	0
[	Zn	67	17.535	ug/L	0.438	2	85	4116	0
[	Zn	68	18.718	ug/L	0.709	3	6550	23777	1
[	As	75	6.508	ug/L	0.097	1	274	8987	1
[	As-1	75	6.072	ug/L	0.229	3	8107	15459	0
[	Se	82	17.534	ug/L	0.018	0	-17	2719	1
[	Se	78	17.188	ug/L	0.780	4	8239	13826	0
[	Mo	98	5.855	ug/L	0.137	2	61	32468	0
	Y	89		ug/L			266728	255320	1
	Kr	83		ug/L			188	185	5
[>	In	115		ug/L			313759	287024	1
[	Ag	107	5.109	ug/L	0.107	2	56	46392	0
[	Cd	111	5.047	ug/L	0.060	1	164	12149	1
[	Cd	114	5.038	ug/L	0.109	2	8	27705	0
[	Sb	121	4.958	ug/L	0.129	2	179	39418	1
[	Sb	123	4.995	ug/L	0.127	2	140	29738	1
[	Ba	135	41.965	ug/L	0.965	2	16	77574	1
[	Ba	137	41.385	ug/L	0.881	2	22	131457	0
[>	Tb	159		ug/L			347606	332246	1
[	Tl	205	5.224	ug/L	0.091	1	107	130837	0
[	Pb	208	5.454	ug/L	0.121	2	292	184023	0
[	Bi	209		ug/L			320352	289511	2
[	Th	232	5.262	ug/L	0.121	2	645	233187	0
[	U	238	5.133	ug/L	0.164	3	28	247241	1

ICP-MS Quantitative Analysis - Summary Report

B EL 1-24-13

Sample ID: WA43 ~~ASPK~~ REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, January 24, 2013 13:57:21
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326296	330084	1
[	Be	9	0.008	ug/L	0.016	196	9	12	50
	C	13		mg/L			6429	5925	0
	Cl	37		mg/L			2178145	4542539	0
[>	Sc	45		ug/L			236610	223676	0
	V	51	0.023	ug/L	0.047	204	1982	2100	21
	V-1	51	0.914	ug/L	0.039	4	2305	11344	2
	Cr	52	u -0.010	ug/L	0.002	23	5972	5558	0
	Cr	53	2.762	ug/L	0.107	3	778	3583	3
	Mn	55	378.016	ug/L	2.973	0	354	5343495	0
[	Co	59	0.454	ug/L	0.006	1	47	4843	1
[>	Ge	72		ug/L			257502	226429	0
	Ni	60	1.693	ug/L	0.030	1	27	3473	1
	Ni	62	1.563	ug/L	0.081	5	61	519	3
	Cu	63	1.841	ug/L	0.038	2	217	8318	2
	Cu	65	u 0.250	ug/L	0.018	7	77	582	5
	Zn	66	u 1.429	ug/L	0.051	3	153	1999	4
	Zn	67	3.411	ug/L	0.157	4	85	816	3
	Zn	68	3.204	ug/L	0.029	0	6550	8617	1
	As	75	1.639	ug/L	0.047	2	274	2317	2
	As-1	75	1.464	ug/L	0.039	2	8107	8929	0
	Se	82	1.302	ug/L	0.045	3	-17	176	4
	Se	78	u 0.783	ug/L	0.192	24	8239	7509	0
[	Mo	98	0.986	ug/L	0.007	0	61	5209	0
	Y	89		ug/L			266728	244540	0
	Kr	83		ug/L			188	186	1
[>	In	115		ug/L			313759	270030	1
	Ag	107	0.003	ug/L	0.001	38	56	70	12
	Cd	111	-0.106	ug/L	0.038	35	164	-94	87
	Cd	114	0.003	ug/L	0.001	34	8	22	22
	Sb	121	0.122	ug/L	0.002	1	179	1060	1
	Sb	123	0.128	ug/L	0.013	10	140	835	9
	Ba	135	78.663	ug/L	0.600	0	16	136815	1
[	Ba	137	78.560	ug/L	0.324	0	22	234784	1
[>	Tb	159		ug/L			347606	314057	0
	Tl	205	u 0.004	ug/L	0.002	43	107	201	21
	Pb	208	0.038	ug/L	0.002	5	292	1474	3
	Bi	209		ug/L			320352	267506	0
	Th	232	0.018	ug/L	0.003	19	645	1318	10
[	U	238	0.055	ug/L	0.002	3	28	2518	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 ~~B~~ C REN EL 1-24-13
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, January 24, 2013 14:03:37
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			326296	375600	1
⌊	Be	9	-0.002	ug/L	0.006	288	9	9	30
	C	13		mg/L			6429	6553	1
	Cl	37		mg/L			2178145	2195016	0
⌈>	Sc	45		ug/L			236610	260673	1
|	V	51	0.390	ug/L	0.013	3	1982	6661	2
|	V-1	51	0.452	ug/L	0.021	4	2305	7814	1
|	Cr	52	u -0.055	ug/L	0.015	26	5972	6024	0
|	Cr	53	0.161	ug/L	0.062	38	778	1049	5
|	Mn	55	202.966	ug/L	6.889	3	354	3342483	1
⌊	Co	59	0.363	ug/L	0.014	3	47	4514	2
⌈>	Ge	72		ug/L			257502	260527	1
|	Ni	60	1.859	ug/L	0.048	2	27	4388	3
|	Ni	62	1.574	ug/L	0.089	5	61	601	3
|	Cu	63	1.132	ug/L	0.014	1	217	5968	2
|	Cu	65	1.097	ug/L	0.028	2	77	2675	3
|	Zn	66	u 1.289	ug/L	0.052	4	153	2090	4
|	Zn	67	1.555	ug/L	0.148	9	85	475	6
|	Zn	68	0.686	ug/L	0.103	14	6550	7329	0
|	As	75	0.475	ug/L	0.008	1	274	969	1
|	As-1	75	-0.154	ug/L	0.076	49	8107	7983	0
|	Se	82	u 0.120	ug/L	0.075	62	-17	2	468
|	Se	78	-2.259	ug/L	0.280	12	8239	7456	0
⌊	Mo	98	3.146	ug/L	0.062	1	61	18981	1
	Y	89		ug/L			266728	276559	0
	Kr	83		ug/L			188	181	4
⌈>	In	115		ug/L			313759	324991	1
|	Ag	107	-0.002	ug/L	0.001	28	56	39	14
|	Cd	111	0.011	ug/L	0.008	73	164	201	10
|	Cd	114	0.007	ug/L	0.001	21	8	50	16
|	Sb	121	0.360	ug/L	0.014	3	179	3409	2
|	Sb	123	0.348	ug/L	0.010	3	140	2481	1
|	Ba	135	11.939	ug/L	0.276	2	16	25003	1
⌊	Ba	137	11.784	ug/L	0.251	2	22	42399	1
⌈>	Tb	159		ug/L			347606	368594	1
|	Tl	205	u 0.000	ug/L	0.001	155	107	123	13
|	Pb	208	0.132	ug/L	0.003	2	292	5231	2
|	Bi	209		ug/L			320352	330247	0
|	Th	232	-0.005	ug/L	0.001	17	645	454	9
⌊	U	238	0.175	ug/L	0.003	1	28	9389	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 D REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, January 24, 2013 14:11:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326296	385730	4
[	Be	9	-0.006	ug/L	0.010	180	9	7	59
	C	13		mg/L			6429	6206	2
	Cl	37		mg/L			2178145	2986049	0
[>	Sc	45		ug/L			236610	258327	3
[	V	51	0.288	ug/L	0.019	6	1982	5438	0
[	V-1	51	0.620	ug/L	0.028	4	2305	9689	2
[	Cr	52	u -0.050	ug/L	0.011	21	5972	6021	1
[	Cr	53	1.000	ug/L	0.071	7	778	2040	4
[	Mn	55	166.509	ug/L	8.608	5	354	2715728	2
[	Co	59	0.218	ug/L	0.018	8	47	2702	5
[>	Ge	72		ug/L			257502	254706	2
[	Ni	60	1.572	ug/L	0.058	3	27	3630	2
[	Ni	62	1.401	ug/L	0.189	13	61	529	10
[	Cu	63	0.658	ug/L	0.025	3	217	3477	1
[	Cu	65	u 0.145	ug/L	0.012	8	77	412	8
[	Zn	66	u 1.285	ug/L	0.064	4	153	2036	2
[	Zn	67	2.942	ug/L	0.102	3	85	804	3
[	Zn	68	1.914	ug/L	0.312	16	6550	8394	1
[	As	75	0.609	ug/L	0.044	7	274	1137	3
[	As-1	75	-0.134	ug/L	0.153	113	8107	7830	0
[	Se	82	0.666	ug/L	0.036	5	-17	92	4
[	Se	78	-2.102	ug/L	0.484	23	8239	7348	0
[	Mo	98	2.277	ug/L	0.100	4	61	13442	2
	Y	89		ug/L			266728	273370	3
	Kr	83		ug/L			188	174	1
[>	In	115		ug/L			313759	314765	3
[	Ag	107	-0.002	ug/L	0.001	31	56	40	9
[	Cd	111	-0.034	ug/L	0.007	20	164	77	25
[	Cd	114	0.004	ug/L	0.001	31	8	35	20
[	Sb	121	0.088	ug/L	0.007	8	179	938	4
[	Sb	123	0.091	ug/L	0.006	6	140	731	3
[	Ba	135	58.906	ug/L	2.346	3	16	119319	1
[	Ba	137	58.601	ug/L	3.213	5	22	203902	2
[>	Tb	159		ug/L			347606	363474	3
[	Tl	205	u -0.001	ug/L	0.000	30	107	70	15
[	Pb	208	0.019	ug/L	0.001	5	292	1000	1
[	Bi	209		ug/L			320352	314124	2
[	Th	232	-0.005	ug/L	0.001	10	645	412	9
[	U	238	0.050	ug/L	0.003	5	28	2681	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 E REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, January 24, 2013 14:18:15
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			326296	336812	1
	Be	9	0.012	ug/L	0.007	58	9	14	21
	C	13		mg/L			6429	5752	1
	Cl	37		mg/L			2178145	11719381	0
>	Sc	45		ug/L			236610	228387	0
	V	51	-0.032	ug/L	0.190	584	1982	1579	120
	V-1	51	3.504	ug/L	0.172	4	2305	38095	4
	Cr	52	1.222	ug/L	0.020	1	5972	16504	0
	Cr	53	12.147	ug/L	0.272	2	778	13542	2
	Mn	55	385.049	ug/L	3.019	0	354	5557660	1
	Co	59	0.099	ug/L	0.002	1	47	1113	1
>	Ge	72		ug/L			257502	214320	0
	Ni	60	1.682	ug/L	0.055	3	27	3267	2
	Ni	62	6.022	ug/L	0.878	14	61	1747	13
	Cu	63	7.537	ug/L	0.109	1	217	31663	0
	Cu	65	0.567	ug/L	0.034	6	77	1169	6
	Zn	66	U 1.306	ug/L	0.040	3	153	1740	3
	Zn	67	2.941	ug/L	0.113	3	85	676	3
	Zn	68	2.178	ug/L	0.045	2	6550	7289	0
	As	75	1.763	ug/L	0.027	1	274	2341	1
	As-1	75	1.233	ug/L	0.104	8	8107	8182	0
	Se	82	1.769	ug/L	0.090	5	-17	232	4
	Se	78	U 0.506	ug/L	0.327	64	8239	7019	0
	Mo	98	1.036	ug/L	0.021	2	61	5179	2
	Y	89		ug/L			266728	243065	1
	Kr	83		ug/L			188	240	4
>	In	115		ug/L			313759	249590	1
	Ag	107	0.002	ug/L	0.001	53	56	62	14
	Cd	111	-0.653	ug/L	0.232	35	164	-1221	39
	Cd	114	0.003	ug/L	0.001	37	8	20	24
	Sb	121	0.189	ug/L	0.002	0	179	1446	1
	Sb	123	0.192	ug/L	0.007	3	140	1098	2
	Ba	135	64.569	ug/L	1.369	2	16	103791	1
	Ba	137	64.145	ug/L	1.233	1	22	177184	1
>	Tb	159		ug/L			347606	295319	0
	Tl	205	n -0.002	ug/L	0.000	14	107	43	15
	Pb	208	0.013	ug/L	0.001	10	292	631	6
	Bi	209		ug/L			320352	238876	1
	Th	232	-0.002	ug/L	0.002	97	645	476	14
	U	238	0.054	ug/L	0.001	1	28	2328	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 F REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, January 24, 2013 14:24:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326296	428682	2
[	Be	9	-0.001	ug/L	0.006	716	9	11	26
	C	13		mg/L			6429	6147	0
	Cl	37		mg/L			2178145	2795167	1
[>	Sc	45		ug/L			236610	320122	1
	V	51	-0.060	ug/L	0.015	24	1982	1832	11
	V-1	51	0.235	ug/L	0.029	12	2305	6492	4
	Cr	52	u -0.136	ug/L	0.018	13	5972	6400	2
	Cr	53	0.787	ug/L	0.086	10	778	2213	4
	Mn	55	660.299	ug/L	40.152	6	354	13349033	4
[	Co	59	0.181	ug/L	0.010	5	47	2795	3
[>	Ge	72		ug/L			257502	299273	1
	Ni	60	2.907	ug/L	0.159	5	27	7859	4
	Ni	62	2.364	ug/L	0.136	5	61	1002	5
	Cu	63	u 0.176	ug/L	0.024	13	217	1276	10
	Cu	65	0.120	ug/L	0.014	11	77	415	8
	Zn	66	u 0.746	ug/L	0.042	5	153	1464	4
	Zn	67	1.241	ug/L	0.141	11	85	455	7
	Zn	68	-0.532	ug/L	0.219	41	6550	6983	2
	As	75	u 0.097	ug/L	0.014	14	274	481	5
	As-1	75	-1.124	ug/L	0.057	5	8107	7595	0
	Se	82	u 0.168	ug/L	0.061	36	-17	12	97
	Se	78	-4.510	ug/L	0.229	5	8239	7560	0
[	Mo	98	0.448	ug/L	0.019	4	61	3167	2
	Y	89		ug/L			266728	325603	1
	Kr	83		ug/L			188	173	7
[>	In	115		ug/L			313759	393632	0
	Ag	107	-0.003	ug/L	0.001	23	56	37	21
	Cd	111	0.012	ug/L	0.003	21	164	245	3
	Cd	114	0.002	ug/L	0.001	45	8	23	24
	Sb	121	0.002	ug/L	0.001	51	179	251	5
	Sb	123	0.002	ug/L	0.002	119	140	190	9
	Ba	135	15.329	ug/L	0.486	3	16	38883	3
[	Ba	137	15.444	ug/L	0.410	2	22	67311	2
[>	Tb	159		ug/L			347606	430540	2
	Tl	205	u -0.002	ug/L	0.000	7	107	52	10
	Pb	208	0.012	ug/L	0.001	4	292	881	3
	Bi	209		ug/L			320352	382556	0
	Th	232	-0.005	ug/L	0.001	21	645	538	7
[	U	238	0.023	ug/L	0.001	3	28	1484	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 G REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, January 24, 2013 14:30:53
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326296	381833	1
[	Be	9	-0.005	ug/L	0.006	115	9	8	31
	C	13		mg/L			6429	5839	1
	Cl	37		mg/L			2178145	2306403	0
[>	Sc	45		ug/L			236610	311992	1
|	V	51	4.870	ug/L	0.030	0	1982	69477	0
|	V-1	51	4.908	ug/L	0.030	0	2305	71688	0
|	Cr	52	u -0.068	ug/L	0.020	29	5972	7053	2
|	Cr	53	0.332	ug/L	0.046	13	778	1504	4
|	Mn	55	55.896	ug/L	0.296	0	354	1102476	0
[	Co	59	0.189	ug/L	0.003	1	47	2841	1
[>	Ge	72		ug/L			257502	297759	0
|	Ni	60	0.734	ug/L	0.012	1	27	1999	1
|	Ni	62	0.649	ug/L	0.039	5	61	325	5
|	Cu	63	u 0.415	ug/L	0.015	3	217	2660	2
|	Cu	65	0.355	ug/L	0.012	3	77	1051	2
|	Zn	66	u 0.823	ug/L	0.024	2	153	1589	1
|	Zn	67	1.474	ug/L	0.142	9	85	520	7
|	Zn	68	-0.715	ug/L	0.089	12	6550	6735	1
|	As	75	0.352	ug/L	0.030	8	274	902	4
|	As-1	75	-0.919	ug/L	0.061	6	8107	7888	0
|	Se	82	u 0.202	ug/L	0.022	10	-17	19	22
|	Se	78	-4.669	ug/L	0.150	3	8239	7452	0
[	Mo	98	2.831	ug/L	0.030	1	61	19529	0
	Y	89		ug/L			266728	318671	1
	Kr	83		ug/L			188	174	2
[>	In	115		ug/L			313759	390517	0
|	Ag	107	-0.003	ug/L	0.001	28	56	34	30
|	Cd	111	0.011	ug/L	0.003	27	164	241	4
|	Cd	114	0.004	ug/L	0.001	15	8	44	11
|	Sb	121	0.138	ug/L	0.002	1	179	1708	1
|	Sb	123	0.134	ug/L	0.004	3	140	1253	2
|	Ba	135	5.082	ug/L	0.099	1	16	12799	1
[	Ba	137	5.064	ug/L	0.098	1	22	21913	1
[>	Tb	159		ug/L			347606	422852	1
|	Tl	205	u -0.002	ug/L	0.000	9	107	63	11
|	Pb	208	0.041	ug/L	0.000	1	292	2127	0
|	Bi	209		ug/L			320352	381058	1
|	Th	232	-0.009	ug/L	0.000	1	645	306	4
[	U	238	0.065	ug/L	0.002	2	28	4000	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 14:37:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326296	340683	3
[	Be	9	59.774	ug/L	1.621	2	9	25118	3
	C	13		mg/L			6429	4514	0
	Cl	37		mg/L			2178145	2198062	0
[>	Sc	45		ug/L			236610	277380	1
	V	51	50.455	ug/L	0.416	0	1982	618265	1
	V-1	51	50.633	ug/L	0.600	1	2305	632361	1
	Cr	52	49.792	ug/L	0.556	1	5972	538411	1
	Cr	53	50.383	ug/L	1.167	2	778	65348	2
	Mn	55	49.540	ug/L	0.678	1	354	868868	2
[	Co	59	51.743	ug/L	0.303	0	47	677982	1
[>	Ge	72		ug/L			257502	291299	1
	Ni	60	54.364	ug/L	0.249	0	27	142582	2
	Ni	62	55.231	ug/L	0.661	1	61	21226	0
	Cu	63	54.920	ug/L	0.480	0	217	312030	1
	Cu	65	54.386	ug/L	0.381	0	77	143983	1
	Zn	66	54.384	ug/L	0.546	1	153	91416	0
	Zn	67	55.027	ug/L	0.718	1	85	15486	2
	Zn	68	53.302	ug/L	0.180	0	6550	68559	1
	As	75	52.682	ug/L	0.312	0	274	86163	2
	As-1	75	51.684	ug/L	0.307	0	8107	90952	2
	Se	82	54.284	ug/L	0.884	1	-17	10266	0
	Se	78	50.529	ug/L	0.444	0	8239	31290	1
[	Mo	98	54.493	ug/L	0.068	0	61	366512	1
	Y	89		ug/L			266728	310458	1
	Kr	83		ug/L			188	175	4
[>	In	115		ug/L			313759	361676	1
	Ag	107	52.320	ug/L	1.182	2	56	631288	2
	Cd	111	51.146	ug/L	0.460	0	164	161926	2
	Cd	114	51.869	ug/L	0.640	1	8	379272	0
	Sb	121	49.861	ug/L	0.409	0	179	525245	1
	Sb	123	49.660	ug/L	0.629	1	140	391660	0
	Ba	135	48.748	ug/L	0.186	0	16	119843	1
[	Ba	137	47.895	ug/L	0.702	1	22	202316	1
[>	Tb	159		ug/L			347606	406211	1
	Tl	205	53.859	ug/L	0.348	0	107	1648197	1
	Pb	208	55.504	ug/L	0.741	1	292	2287236	2
	Bi	209		ug/L			320352	379918	1
	Th	232	54.947	ug/L	0.708	1	645	2970811	2
[	U	238	54.715	ug/L	0.312	0	28	3222966	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 14:43:51
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			326296	315316	0
[	Be	9	0.002	ug/L	0.004	194	9	9	15
	C	13		mg/L			6429	5515	0
	Cl	37		mg/L			2178145	2213001	0
[>	Sc	45		ug/L			236610	270992	1
	V	51	-0.023	ug/L	0.006	25	1982	1996	3
	V-1	51	0.057	ug/L	0.012	21	2305	3331	3
	Cr	52	-0.080	ug/L	0.012	15	5972	6008	0
	Cr	53	0.172	ug/L	0.060	34	778	1106	6
	Mn	55	0.006	ug/L	0.002	37	354	511	7
[	Co	59	0.001	ug/L	0.000	23	47	65	3
[>	Ge	72		ug/L			257502	291279	1
	Ni	60	0.002	ug/L	0.004	163	27	37	28
	Ni	62	0.132	ug/L	0.058	43	61	120	17
	Cu	63	0.020	ug/L	0.003	14	217	358	5
	Cu	65	0.007	ug/L	0.010	146	77	105	23
	Zn	66	0.026	ug/L	0.006	21	153	217	2
	Zn	67	0.154	ug/L	0.042	27	85	140	7
	Zn	68	-1.376	ug/L	0.068	4	6550	5830	1
	As	75	-0.019	ug/L	0.006	29	274	279	4
	As-1	75	-0.979	ug/L	0.079	8	8107	7621	0
	Se	82	0.117	ug/L	0.035	30	-17	2	285
	Se	78	-3.587	ug/L	0.313	8	8239	7759	0
[	Mo	98	0.010	ug/L	0.006	62	61	134	30
	Y	89		ug/L			266728	309075	0
	Kr	83		ug/L			188	172	1
[>	In	115		ug/L			313759	384763	0
	Ag	107	0.007	ug/L	0.003	42	56	154	23
	Cd	111	0.012	ug/L	0.003	24	164	239	4
	Cd	114	0.001	ug/L	0.001	72	8	19	35
	Sb	121	0.043	ug/L	0.014	32	179	674	21
	Sb	123	0.041	ug/L	0.019	48	140	494	31
	Ba	135	0.004	ug/L	0.005	152	16	28	47
[	Ba	137	0.005	ug/L	0.005	96	22	48	40
[>	Tb	159		ug/L			347606	397249	0
	Tl	205	0.006	ug/L	0.003	47	107	293	27
	Pb	208	0.006	ug/L	0.002	43	292	559	17
	Bi	209		ug/L			320352	384257	0
	Th	232	0.031	ug/L	0.009	29	645	2363	20
[	U	238	0.003	ug/L	0.002	55	28	200	46

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 14:50:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L				299821	0
[	Be	9		ug/L				8	43
	C	13		mg/L				5490	0
	Cl	37		mg/L				2209783	0
[>	Sc	45		ug/L				269921	0
|	V	51		ug/L				2076	6
|	V-1	51		ug/L				3167	5
|	Cr	52		ug/L				6055	2
|	Cr	53		ug/L				1033	5
|	Mn	55		ug/L				461	6
[	Co	59		ug/L				36	12
[>	Ge	72		ug/L				289363	1
|	Ni	60		ug/L				28	16
|	Ni	62		ug/L				125	3
|	Cu	63		ug/L				330	7
|	Cu	65		ug/L				100	15
|	Zn	66		ug/L				212	9
|	Zn	67		ug/L				127	13
|	Zn	68		ug/L				6062	2
|	As	75		ug/L				270	8
|	As-1	75		ug/L				7562	0
|	Se	82		ug/L				-5	119
|	Se	78		ug/L				7701	0
[	Mo	98		ug/L				50	28
	Y	89		ug/L				308134	0
	Kr	83		ug/L				177	2
[>	In	115		ug/L				377272	0
|	Ag	107		ug/L				78	4
|	Cd	111		ug/L				231	6
|	Cd	114		ug/L				12	13
|	Sb	121		ug/L				224	15
|	Sb	123		ug/L				169	6
|	Ba	135		ug/L				25	27
[	Ba	137		ug/L				37	10
[>	Tb	159		ug/L				394343	0
|	Tl	205		ug/L				122	6
|	Pb	208		ug/L				413	10
|	Bi	209		ug/L				385288	1
|	Th	232		ug/L				836	5
[	U	238		ug/L				42	28

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 14:56:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			299821	298379	1
	Be	9	63.050	ug/L	0.315	0	8	23209	1
	C	13		mg/L			5490	4315	1
	Cl	37		mg/L			2209783	2172239	0
>	Sc	45		ug/L			269921	269866	0
	V	51	51.028	ug/L	0.686	1	2076	608093	1
	V-1	51	50.933	ug/L	0.402	0	3167	619363	0
	Cr	52	50.460	ug/L	0.349	0	6055	529996	0
	Cr	53	50.198	ug/L	0.566	1	1033	63493	1
	Mn	55	49.643	ug/L	0.266	0	461	847053	0
	Co	59	52.017	ug/L	0.517	0	36	663061	0
>	Ge	72		ug/L			289363	286453	0
	Ni	60	54.413	ug/L	0.603	1	28	140325	0
	Ni	62	55.007	ug/L	0.399	0	125	20848	0
	Cu	63	54.354	ug/L	0.401	0	330	303779	0
	Cu	65	55.018	ug/L	0.894	1	100	143256	1
	Zn	66	54.097	ug/L	0.950	1	212	89468	1
	Zn	67	55.721	ug/L	0.335	0	127	15450	1
	Zn	68	54.357	ug/L	0.707	1	6062	67325	0
	As	75	52.800	ug/L	0.173	0	270	84881	0
	As-1	75	53.079	ug/L	0.156	0	7562	90072	0
	Se	82	53.055	ug/L	0.227	0	-5	9882	0
	Se	78	54.074	ug/L	0.446	0	7701	30745	0
	Mo	98	55.384	ug/L	0.107	0	50	366291	0
	Y	89		ug/L			308134	301623	1
	Kr	83		ug/L			177	186	4
>	In	115		ug/L			377272	374655	0
	Ag	107	52.703	ug/L	0.423	0	78	624210	0
	Cd	111	51.486	ug/L	0.271	0	231	160031	0
	Cd	114	51.429	ug/L	0.525	1	12	369182	0
	Sb	121	49.300	ug/L	0.133	0	224	509818	0
	Sb	123	49.438	ug/L	0.252	0	169	382788	0
	Ba	135	48.139	ug/L	0.467	0	25	116178	0
	Ba	137	47.790	ug/L	0.749	1	37	198186	1
>	Tb	159		ug/L			394343	392189	0
	Tl	205	55.054	ug/L	0.549	0	122	1626658	1
	Pb	208	55.256	ug/L	0.159	0	413	2238086	0
	Bi	209		ug/L			385288	375617	1
	Th	232	55.984	ug/L	0.348	0	836	2922259	0
	U	238	55.279	ug/L	0.890	1	42	3143631	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 15:03:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			299821	293744	0
	Be	9	0.018	ug/L	0.019	107	8	14	47
	C	13		mg/L			5490	5731	2
	Cl	37		mg/L			2209783	2211325	0
>	Sc	45		ug/L			269921	267515	1
	V	51	-0.020	ug/L	0.012	57	2076	1817	8
	V-1	51	-0.031	ug/L	0.012	37	3167	2764	4
	Cr	52	-0.008	ug/L	0.016	207	6055	5920	1
	Cr	53	-0.042	ug/L	0.046	109	1033	971	4
	Mn	55	-0.003	ug/L	0.002	68	461	408	8
	Co	59	0.002	ug/L	0.002	82	36	65	36
>	Ge	72		ug/L			289363	286208	0
	Ni	60	0.002	ug/L	0.002	121	28	32	14
	Ni	62	-0.019	ug/L	0.033	170	125	116	9
	Cu	63	-0.005	ug/L	0.006	122	330	301	11
	Cu	65	0.000	ug/L	0.003	1160	100	99	8
	Zn	66	-0.027	ug/L	0.008	31	212	165	7
	Zn	67	-0.088	ug/L	0.060	68	127	102	16
	Zn	68	0.038	ug/L	0.120	316	6062	6038	1
	As	75	-0.003	ug/L	0.013	444	270	263	7
	As-1	75	0.109	ug/L	0.053	48	7562	7648	0
	Se	82	-0.010	ug/L	0.085	882	-5	-7	221
	Se	78	0.401	ug/L	0.203	50	7701	7788	0
	Mo	98	0.011	ug/L	0.003	26	50	123	15
	Y	89		ug/L			308134	307344	0
	Kr	83		ug/L			177	176	3
>	In	115		ug/L			377272	381047	1
	Ag	107	0.006	ug/L	0.002	35	78	151	16
	Cd	111	0.006	ug/L	0.009	153	231	251	11
	Cd	114	0.002	ug/L	0.002	92	12	25	46
	Sb	121	0.042	ug/L	0.015	34	224	673	22
	Sb	123	0.043	ug/L	0.011	25	169	507	16
	Ba	135	0.000	ug/L	0.004	1400	25	25	34
	Ba	137	-0.000	ug/L	0.003	1770	37	36	35
>	Tb	159		ug/L			394343	394777	1
	Tl	205	0.005	ug/L	0.003	55	122	272	29
	Pb	208	0.002	ug/L	0.002	111	413	501	18
	Bi	209		ug/L			385288	382224	1
	Th	232	0.034	ug/L	0.010	28	836	2628	18
	U	238	0.002	ug/L	0.001	51	42	182	38

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA39 MB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 15:09:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			299821	315538	1
	Be	9	0.006	ug/L	0.010	155	8	11	33
	C	13		mg/L			5490	6529	0
	Cl	37		mg/L			2209783	2210123	0
>	Sc	45		ug/L			269921	279091	0
	V	51	-0.015	ug/L	0.004	23	2076	1957	2
	V-1	51	-0.047	ug/L	0.007	15	3167	2688	2
	Cr	52	0.008	ug/L	0.003	33	6055	6350	0
	Cr	53	-0.091	ug/L	0.036	40	1033	951	4
	Mn	55	0.074	ug/L	0.001	1	461	1782	1
	Co	59	0.002	ug/L	0.001	43	36	68	19
>	Ge	72		ug/L			289363	295426	1
	Ni	60	0.017	ug/L	0.005	28	28	73	15
	Ni	62	-0.039	ug/L	0.031	80	125	112	11
	Cu	63	0.197	ug/L	0.007	3	330	1469	3
	Cu	65	0.201	ug/L	0.010	4	100	640	4
	Zn	66	0.731	ug/L	0.004	0	212	1460	1
	Zn	67	0.615	ug/L	0.032	5	127	304	3
	Zn	68	0.634	ug/L	0.250	39	6062	6924	2
	As	75	-0.001	ug/L	0.026	2638	270	274	16
	As-1	75	0.033	ug/L	0.068	206	7562	7772	0
	Se	82	0.005	ug/L	0.059	1280	-5	-4	250
	Se	78	0.111	ug/L	0.244	219	7701	7910	0
	Mo	98	0.011	ug/L	0.006	53	50	129	30
	Y	89		ug/L			308134	315964	1
	Kr	83		ug/L			177	177	1
>	In	115		ug/L			377272	394107	1
	Ag	107	0.004	ug/L	0.001	26	78	133	8
	Cd	111	-0.003	ug/L	0.007	267	231	233	10
	Cd	114	0.001	ug/L	0.001	123	12	17	31
	Sb	121	0.008	ug/L	0.004	50	224	322	12
	Sb	123	0.007	ug/L	0.003	35	169	236	7
	Ba	135	0.020	ug/L	0.001	7	25	76	6
	Ba	137	0.021	ug/L	0.006	28	37	131	18
>	Tb	159		ug/L			394343	407781	1
	Tl	205	0.002	ug/L	0.001	41	122	184	11
	Pb	208	0.020	ug/L	0.001	3	413	1240	2
	Bi	209		ug/L			385288	395495	1
	Th	232	0.020	ug/L	0.006	28	836	1943	14
	U	238	0.001	ug/L	0.000	42	42	84	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 R REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Thursday, January 24, 2013 15:15:20
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			299821	425317	3
	Be	9	0.007	ug/L	0.001	11	8	15	4
	C	13		mg/L			5490	6653	3
	Cl	37		mg/L			2209783	5735237	2
>	Sc	45		ug/L			269921	293252	1
	V	51	0.326	ug/L	0.077	23	2076	6461	15
	V-1	51	1.533	ug/L	0.079	5	3167	23586	3
	Cr	52	0.207	ug/L	0.018	8	6055	8911	1
	Cr	53	3.966	ug/L	0.156	3	1033	6483	2
	Mn	55	81.073	ug/L	4.119	5	461	1502413	4
	Co	59	1.853	ug/L	0.094	5	36	25695	4
>	Ge	72		ug/L			289363	275235	1
	Ni	60	4.548	ug/L	0.229	5	28	11290	4
	Ni	62	5.167	ug/L	0.395	7	125	1988	6
	Cu	63	3.121	ug/L	0.134	4	330	17052	3
	Cu	65	1.110	ug/L	0.026	2	100	2870	1
	Zn	66	7.837	ug/L	0.423	5	212	12622	4
	Zn	67	8.304	ug/L	0.483	5	127	2314	4
	Zn	68	8.257	ug/L	0.505	6	6062	14712	2
	As	75	4.616	ug/L	0.201	4	270	7363	3
	As-1	75	4.167	ug/L	0.222	5	7562	13419	1
	Se	82	1.982	ug/L	0.156	7	-5	349	7
	Se	78	0.213	ug/L	0.266	125	7701	7411	0
	Mo	98	0.310	ug/L	0.007	2	50	2018	1
	Y	89		ug/L			308134	308695	0
	Kr	83		ug/L			177	192	4
>	In	115		ug/L			377272	344201	1
	Ag	107	0.007	ug/L	0.001	19	78	144	8
	Cd	111	4 0.062	ug/L	0.015	23	231	389	10
	Cd	114	0.221	ug/L	0.016	7	12	1465	6
	Sb	121	0.408	ug/L	0.020	4	224	4073	3
	Sb	123	0.399	ug/L	0.024	6	169	2989	4
	Ba	135	46.347	ug/L	2.202	4	25	102720	3
	Ba	137	46.164	ug/L	2.532	5	37	175805	4
>	Tb	159		ug/L			394343	392858	1
	Tl	205	0.001	ug/L	0.001	186	122	140	22
	Pb	208	0.027	ug/L	0.002	8	413	1467	4
	Bi	209		ug/L			385288	328220	1
	Th	232	0.015	ug/L	0.003	19	836	1630	8
	U	238	0.016	ug/L	0.000	2	42	929	1

VZ75 · 00580

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 S REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Thursday, January 24, 2013 15:21:37
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			299821	402305	3
[	Be	9	0.028	ug/L	0.003	11	8	25	8
	C	13		mg/L			5490	6801	0
	Cl	37		mg/L			2209783	2318846	1
[>	Sc	45		ug/L			269921	314116	1
[	V	51	4.019	ug/L	0.091	2	2076	57981	3
[	V-1	51	3.992	ug/L	0.069	1	3167	59909	2
[	Cr	52	2.213	ug/L	0.062	2	6055	33795	3
[	Cr	53	2.232	ug/L	0.072	3	1033	4435	3
[	Mn	55	60.314	ug/L	0.789	1	461	1197923	2
[	Co	59	0.385	ug/L	0.009	2	36	5759	3
[>	Ge	72		ug/L			289363	287761	0
[	Ni	60	1.719	ug/L	0.049	2	28	4480	2
[	Ni	62	2.270	ug/L	0.119	5	125	983	5
[	Cu	63	1.792	ug/L	0.029	1	330	10379	1
[	Cu	65	1.557	ug/L	0.049	3	100	4170	2
[	Zn	66	2.952	ug/L	0.036	1	212	5104	1
[	Zn	67	3.088	ug/L	0.273	8	127	980	8
[	Zn	68	2.753	ug/L	0.067	2	6062	9149	1
[	As	75	3.560	ug/L	0.069	1	270	6000	2
[	As-1	75	3.539	ug/L	0.027	0	7562	13051	1
[	Se	82	0.342	ug/L	0.073	21	-5	58	22
[	Se	78	-0.090	ug/L	0.251	278	7701	7619	0
[	Mo	98	0.207	ug/L	0.005	2	50	1428	1
	Y	89		ug/L			308134	325160	1
	Kr	83		ug/L			177	175	1
[>	In	115		ug/L			377272	371843	1
[	Ag	107	0.002	ug/L	0.001	66	78	102	16
[	Cd	111	0.710	ug/L	0.027	3	231	2413	2
[	Cd	114	0.706	ug/L	0.032	4	12	5042	4
[	Sb	121	u 0.083	ug/L	0.001	0	224	1073	0
[	Sb	123	0.078	ug/L	0.001	0	169	769	1
[	Ba	135	7.201	ug/L	0.154	2	25	17271	2
[	Ba	137	7.155	ug/L	0.276	3	37	29482	4
[>	Tb	159		ug/L			394343	410872	1
[	Tl	205	u 0.001	ug/L	0.000	42	122	155	8
[	Pb	208	0.355	ug/L	0.008	2	413	15206	3
[	Bi	209		ug/L			385288	364085	0
[	Th	232	0.116	ug/L	0.003	2	836	7196	2
[	U	238	0.078	ug/L	0.001	1	42	4715	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 T REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Thursday, January 24, 2013 15:27:54
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			299821	414342	1
[	Be	9	-0.009	ug/L	0.007	83	8	7	50
	C	13		mg/L			5490	6728	1
	Cl	37		mg/L			2209783	5241381	0
[>	Sc	45		ug/L			269921	274338	1
	V	51	0.265	ug/L	0.020	7	2076	5305	4
	V-1	51	1.379	ug/L	0.010	0	3167	20182	1
	Cr	52	0.203	ug/L	0.003	1	6055	8292	2
	Cr	53	3.672	ug/L	0.062	1	1033	5694	2
	Mn	55	82.357	ug/L	3.674	4	461	1427560	3
[	Co	59	1.806	ug/L	0.088	4	36	23425	3
[>	Ge	72		ug/L			289363	258597	0
	Ni	60	4.187	ug/L	0.123	2	28	9771	2
	Ni	62	4.681	ug/L	0.314	6	125	1704	6
	Cu	63	3.062	ug/L	0.161	5	330	15728	4
	Cu	65	1.064	ug/L	0.050	4	100	2588	4
	Zn	66	7.545	ug/L	0.375	4	212	11428	4
	Zn	67	7.784	ug/L	0.416	5	127	2046	4
	Zn	68	8.197	ug/L	0.294	3	6062	13765	1
	As	75	4.580	ug/L	0.134	2	270	6866	2
	As-1	75	4.302	ug/L	0.123	2	7562	12800	1
	Se	82	2.042	ug/L	0.044	2	-5	338	2
	Se	78	0.964	ug/L	0.022	2	7701	7254	0
[	Mo	98	0.302	ug/L	0.014	4	50	1850	4
	Y	89		ug/L			308134	287042	0
	Kr	83		ug/L			177	189	5
[>	In	115		ug/L			377272	322687	2
	Ag	107	0.003	ug/L	0.001	26	78	98	8
	Cd	111	u -0.074	ug/L	0.046	62	231	0	644102
	Cd	114	0.133	ug/L	0.007	5	12	835	4
	Sb	121	0.390	ug/L	0.025	6	224	3660	4
	Sb	123	0.381	ug/L	0.020	5	169	2682	3
	Ba	135	45.517	ug/L	1.952	4	25	94568	2
[	Ba	137	45.747	ug/L	1.943	4	37	163321	2
[>	Tb	159		ug/L			394343	371466	1
	Tl	205	-0.000	ug/L	0.000	88	122	110	5
	Pb	208	0.015	ug/L	0.001	4	413	956	2
	Bi	209		ug/L			385288	309842	1
	Th	232	0.000	ug/L	0.000	3036	836	788	2
[	U	238	0.015	ug/L	0.001	8	42	838	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 V REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Thursday, January 24, 2013 15:34:11
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			299821	373053	4
[	Be	9	-0.001	ug/L	0.010	1306	8	10	45
	C	13		mg/L			5490	7077	1
	Cl	37		mg/L			2209783	2836967	0
[>	Sc	45		ug/L			269921	272249	4
[	V	51	1.751	ug/L	0.094	5	2076	23045	2
[	V-1	51	1.990	ug/L	0.132	6	3167	27432	2
[	Cr	52	0.879	ug/L	0.052	5	6055	15302	2
[	Cr	53	1.670	ug/L	0.175	10	1033	3132	3
[	Mn	55	27.841	ug/L	1.459	5	461	478732	2
[	Co	59	0.168	ug/L	0.008	4	36	2191	1
[>	Ge	72		ug/L			289363	258644	2
[	Ni	60	0.222	ug/L	0.009	4	28	541	1
[	Ni	62	0.965	ug/L	0.182	18	125	439	11
[	Cu	63	1.042	ug/L	0.057	5	330	5545	2
[	Cu	65	0.380	ug/L	0.011	2	100	981	4
[	Zn	66	0.725	ug/L	0.021	2	212	1268	1
[	Zn	67	1.316	ug/L	0.130	9	127	440	4
[	Zn	68	1.310	ug/L	0.183	13	6062	6749	0
[	As	75	2.426	ug/L	0.102	4	270	3749	1
[	As-1	75	2.597	ug/L	0.248	9	7562	10400	0
[	Se	82	0.819	ug/L	0.035	4	-5	133	7
[	Se	78	1.363	ug/L	0.555	40	7701	7405	0
[	Mo	98	0.360	ug/L	0.010	2	50	2193	4
	Y	89		ug/L			308134	281006	3
	Kr	83		ug/L			177	173	1
[>	In	115		ug/L			377272	322524	3
[	Ag	107	-0.001	ug/L	0.001	47	78	55	14
[	Cd	111	u -0.061	ug/L	0.021	34	231	36	156
[	Cd	114	0.005	ug/L	0.002	36	12	42	23
[	Sb	121	u 0.012	ug/L	0.005	38	224	297	10
[	Sb	123	0.011	ug/L	0.004	31	169	220	11
[	Ba	135	15.541	ug/L	0.852	5	25	32259	2
[	Ba	137	15.511	ug/L	0.711	4	37	55335	1
[>	Tb	159		ug/L			394343	362924	2
[	Tl	205	u -0.003	ug/L	0.000	11	122	36	21
[	Pb	208	0.051	ug/L	0.003	5	413	2256	3
[	Bi	209		ug/L			385288	317827	4
[	Th	232	0.020	ug/L	0.003	14	836	1757	8
[	U	238	0.036	ug/L	0.001	2	42	1938	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA39 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 15:39:52
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			299821	340962	4
	Be	9	0.218	ug/L	0.014	6	8	101	7
	C	13		mg/L			5490	8836	1
	Cl	37		mg/L			2209783	2935242	0
>	Sc	45		ug/L			269921	305019	2
	V	51	24.956	ug/L	0.977	3	2076	337112	1
	V-1	51	25.211	ug/L	0.850	3	3167	348125	0
	Cr	52	19.877	ug/L	0.583	2	6055	240007	0
	Cr	53	20.961	ug/L	0.543	2	1033	30642	3
	Mn	55	193.307	ug/L	1.614	0	461	3726049	1
	Co	59	3.761	ug/L	0.054	1	36	54216	1
>	Ge	72		ug/L			289363	233571	2
	Ni	60	29.794	ug/L	0.880	2	28	62635	0
	Ni	62	34.873	ug/L	0.806	2	125	10810	0
	Cu	63	38.518	ug/L	0.726	1	330	175565	0
	Cu	65	37.971	ug/L	0.977	2	100	80610	0
	Zn	66	91.156	ug/L	2.018	2	212	122776	0
	Zn	67	85.009	ug/L	1.788	2	127	19161	1
	Zn	68	91.322	ug/L	1.720	1	6062	88878	0
	As	75	10.384	ug/L	0.272	2	270	13783	1
	As-1	75	11.299	ug/L	0.390	3	7562	20432	0
	Se	82	3.539	ug/L	0.111	3	-5	533	3
	Se	78	6.574	ug/L	0.625	9	7701	8505	0
	Mo	98	248.409	ug/L	6.895	2	50	1338918	0
	Y	89		ug/L			308134	338270	2
	Kr	83		ug/L			177	207	6
>	In	115		ug/L			377272	284676	1
	Ag	107	0.115	ug/L	0.016	14	78	1096	11
	Cd	111	0.437	ug/L	0.149	34	231	1203	28
	Cd	114	0.540	ug/L	0.011	1	12	2954	0
	Sb	121	1.113	ug/L	0.047	4	224	8905	2
	Sb	123	1.118	ug/L	0.047	4	169	6702	3
	Ba	135	70.769	ug/L	1.200	1	25	129746	0
	Ba	137	70.257	ug/L	1.904	2	37	221314	1
>	Tb	159		ug/L			394343	325062	3
	Tl	205	0.053	ug/L	0.004	6	122	1391	3
	Pb	208	18.750	ug/L	0.644	3	413	617982	0
	Bi	209		ug/L			385288	287479	2
	Th	232	0.800	ug/L	0.028	3	836	35271	0
	U	238	0.677	ug/L	0.044	6	42	31915	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA39 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 15:45:33
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			299821	385642	2
⌊	Be	9	0.176	ug/L	0.003	1	8	94	1
	C	13		mg/L			5490	8439	1
	Cl	37		mg/L			2209783	2978231	0
⌈>	Sc	45		ug/L			269921	341285	1
|	V	51	23.954	ug/L	0.450	1	2076	362380	2
|	V-1	51	24.335	ug/L	0.271	1	3167	376363	2
|	Cr	52	19.166	ug/L	0.111	0	6055	259337	2
|	Cr	53	20.624	ug/L	1.293	6	1033	33777	7
|	Mn	55	185.371	ug/L	2.620	1	461	3998055	1
⌊	Co	59	3.559	ug/L	0.025	0	36	57417	1
⌈>	Ge	72		ug/L			289363	253228	0
|	Ni	60	29.192	ug/L	0.806	2	28	66554	1
|	Ni	62	33.224	ug/L	0.882	2	125	11173	1
|	Cu	63	37.400	ug/L	0.757	2	330	184854	1
|	Cu	65	36.998	ug/L	0.853	2	100	85178	1
|	Zn	66	88.067	ug/L	1.635	1	212	128632	0
|	Zn	67	82.927	ug/L	1.650	1	127	20270	1
|	Zn	68	88.874	ug/L	2.256	2	6062	93929	1
|	As	75	10.301	ug/L	0.260	2	270	14828	1
|	As-1	75	10.798	ug/L	0.302	2	7562	21467	1
|	Se	82	3.533	ug/L	0.191	5	-5	577	4
|	Se	78	4.985	ug/L	0.296	5	7701	8623	0
⌊	Mo	98	245.414	ug/L	4.900	1	50	1434529	1
	Y	89		ug/L			308134	367277	1
	Kr	83		ug/L			177	213	6
⌈>	In	115		ug/L			377272	315115	0
|	Ag	107	0.114	ug/L	0.001	1	78	1201	1
|	Cd	111	0.366	ug/L	0.034	9	231	1149	8
|	Cd	114	0.541	ug/L	0.016	2	12	3275	2
|	Sb	121	1.117	ug/L	0.069	6	224	9901	5
|	Sb	123	1.141	ug/L	0.019	1	169	7571	1
|	Ba	135	68.314	ug/L	2.368	3	25	138648	3
⌊	Ba	137	68.410	ug/L	1.948	2	37	238587	2
⌈>	Tb	159		ug/L			394343	362100	1
|	Tl	205	0.054	ug/L	0.003	6	122	1573	4
|	Pb	208	17.875	ug/L	0.490	2	413	656653	1
|	Bi	209		ug/L			385288	311940	0
|	Th	232	0.785	ug/L	0.046	5	836	38550	4
⌊	U	238	0.629	ug/L	0.015	2	42	33031	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA39 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 15:51:15
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			299821	386872	2
	Be	9	26.924	ug/L	0.452	1	8	12853	1
	C	13		mg/L			5490	8375	0
	Cl	37		mg/L			2209783	2951735	0
>	Sc	45		ug/L			269921	331584	0
	V	51	42.938	ug/L	0.274	0	2076	629121	0
	V-1	51	43.093	ug/L	0.090	0	3167	644481	0
	Cr	52	38.045	ug/L	0.434	1	6055	492795	0
	Cr	53	38.805	ug/L	0.650	1	1033	60598	1
	Mn	55	208.288	ug/L	1.627	0	461	4365105	1
	Co	59	22.732	ug/L	0.087	0	36	356063	0
>	Ge	72		ug/L			289363	251931	0
	Ni	60	56.880	ug/L	0.337	0	28	129009	0
	Ni	62	61.014	ug/L	1.072	1	125	20324	1
	Cu	63	62.980	ug/L	0.250	0	330	309539	0
	Cu	65	63.383	ug/L	0.684	1	100	145126	0
	Zn	66	168.215	ug/L	2.659	1	212	244285	1
	Zn	67	156.350	ug/L	1.080	0	127	37928	1
	Zn	68	167.205	ug/L	1.096	0	6062	171178	0
	As	75	38.726	ug/L	0.215	0	270	54815	0
	As-1	75	37.527	ug/L	0.021	0	7562	57936	0
	Se	82	87.427	ug/L	1.298	1	-5	14324	1
	Se	78	88.574	ug/L	0.815	0	7701	40014	0
	Mo	98	243.469	ug/L	1.796	0	50	1415991	0
	Y	89		ug/L			308134	360806	1
	Kr	83		ug/L			177	206	8
>	In	115		ug/L			377272	307958	0
	Ag	107	19.523	ug/L	0.019	0	78	190105	0
	Cd	111	25.263	ug/L	0.221	0	231	64638	0
	Cd	114	25.785	ug/L	0.129	0	12	152147	0
	Sb	121	1.057	ug/L	0.026	2	224	9164	2
	Sb	123	1.083	ug/L	0.013	1	169	7030	1
	Ba	135	91.463	ug/L	1.049	1	25	181418	0
	Ba	137	91.924	ug/L	0.928	1	37	313317	0
>	Tb	159		ug/L			394343	355918	1
	Tl	205	25.962	ug/L	0.092	0	122	696156	1
	Pb	208	44.543	ug/L	0.413	0	413	1608161	0
	Bi	209		ug/L			385288	310837	1
	Th	232	26.291	ug/L	0.026	0	836	1245815	1
	U	238	25.765	ug/L	0.474	1	42	1329514	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA39 MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 15:57:00
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			299821	376443	2
[	Be	9	27.761	ug/L	0.451	1	8	12901	3
	C	13		mg/L			5490	7407	1
	Cl	37		mg/L			2209783	1971158	1
[>	Sc	45		ug/L			269921	255914	4
	V	51	25.237	ug/L	0.208	0	2076	286142	3
	V-1	51	25.284	ug/L	0.181	0	3167	293028	3
	Cr	52	25.467	ug/L	0.721	2	6055	256384	3
	Cr	53	25.601	ug/L	0.573	2	1033	31173	3
	Mn	55	26.863	ug/L	0.333	1	461	434727	3
[	Co	59	26.730	ug/L	0.643	2	36	322980	3
[>	Ge	72		ug/L			289363	268508	3
	Ni	60	28.142	ug/L	0.490	1	28	68063	4
	Ni	62	28.602	ug/L	0.154	0	125	10216	2
	Cu	63	28.854	ug/L	0.427	1	330	151270	2
	Cu	65	29.063	ug/L	0.198	0	100	70984	3
	Zn	66	88.705	ug/L	0.724	0	212	137411	3
	Zn	67	80.033	ug/L	0.321	0	127	20748	3
	Zn	68	87.669	ug/L	0.249	0	6062	98342	3
	As	75	28.329	ug/L	0.412	1	270	42795	2
	As-1	75	27.216	ug/L	0.396	1	7562	46700	2
	Se	82	84.204	ug/L	0.394	0	-5	14703	2
	Se	78	86.143	ug/L	0.393	0	7701	41670	2
[	Mo	98	0.120	ug/L	0.043	36	50	787	31
	Y	89		ug/L			308134	281243	3
	Kr	83		ug/L			177	171	0
[>	In	115		ug/L			377272	335886	3
	Ag	107	26.678	ug/L	0.056	0	78	283302	3
	Cd	111	25.378	ug/L	0.448	1	231	70820	4
	Cd	114	25.606	ug/L	0.721	2	12	164735	3
	Sb	121	-0.014	ug/L	0.002	13	224	68	28
	Sb	123	-0.013	ug/L	0.001	9	169	60	11
	Ba	135	25.428	ug/L	0.451	1	25	55012	3
[	Ba	137	25.205	ug/L	0.610	2	37	93696	3
[>	Tb	159		ug/L			394343	373130	3
	Tl	205	26.911	ug/L	0.100	0	122	756538	3
	Pb	208	27.904	ug/L	0.060	0	413	1056359	3
	Bi	209		ug/L			385288	344074	3
	Th	232	25.555	ug/L	0.145	0	836	1269699	4
[	U	238	25.132	ug/L	0.340	1	42	1359580	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 16:03:19
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			299821	303963	1
[	Be	9	57.312	ug/L	0.054	0	8	21493	1
	C	13		mg/L			5490	4903	0
	Cl	37		mg/L			2209783	1928328	0
[>	Sc	45		ug/L			269921	213967	1
	V	51	51.010	ug/L	0.828	1	2076	481955	2
	V-1	51	51.033	ug/L	0.686	1	3167	492002	1
	Cr	52	51.294	ug/L	0.659	1	6055	427052	1
	Cr	53	51.349	ug/L	0.594	1	1033	51470	0
	Mn	55	51.215	ug/L	0.206	0	461	692890	2
[	Co	59	52.941	ug/L	0.643	1	36	535000	0
[>	Ge	72		ug/L			289363	230319	1
	Ni	60	53.598	ug/L	0.413	0	28	111133	0
	Ni	62	54.841	ug/L	0.155	0	125	16712	1
	Cu	63	54.174	ug/L	0.336	0	330	243441	0
	Cu	65	53.895	ug/L	0.255	0	100	112828	0
	Zn	66	54.176	ug/L	0.502	0	212	72039	0
	Zn	67	54.393	ug/L	0.332	0	127	12129	1
	Zn	68	55.339	ug/L	0.742	1	6062	55018	0
	As	75	52.097	ug/L	0.249	0	270	67343	1
	As-1	75	53.430	ug/L	0.087	0	7562	72861	1
	Se	82	51.734	ug/L	0.522	1	-5	7747	1
	Se	78	56.786	ug/L	0.413	0	7701	25652	0
[	Mo	98	52.270	ug/L	0.459	0	50	277934	0
	Y	89		ug/L			308134	238162	0
	Kr	83		ug/L			177	187	7
[>	In	115		ug/L			377272	279804	1
	Ag	107	52.833	ug/L	0.405	0	78	467292	0
	Cd	111	51.412	ug/L	0.305	0	231	119344	1
	Cd	114	51.878	ug/L	0.226	0	12	278114	1
	Sb	121	50.844	ug/L	0.480	0	224	392634	0
	Sb	123	50.677	ug/L	0.881	1	169	292995	1
	Ba	135	49.637	ug/L	0.214	0	25	89466	1
[	Ba	137	49.367	ug/L	1.042	2	37	152862	0
[>	Tb	159		ug/L			394343	310241	0
	Tl	205	52.848	ug/L	0.521	0	122	1235217	1
	Pb	208	54.061	ug/L	0.214	0	413	1701406	0
	Bi	209		ug/L			385288	286444	0
	Th	232	55.453	ug/L	0.334	0	836	2289694	0
[	U	238	54.763	ug/L	0.571	1	42	2463146	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 16:09:57
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			299821	291442	0
[	Be	9	-0.002	ug/L	0.006	354	8	7	28
	C	13		mg/L			5490	6163	0
	Cl	37		mg/L			2209783	1938030	0
[>	Sc	45		ug/L			269921	203474	0
[	V	51	0.018	ug/L	0.021	116	2076	1725	10
[	V-1	51	0.032	ug/L	0.008	25	3167	2680	2
[	Cr	52	0.086	ug/L	0.016	18	6055	5229	1
[	Cr	53	0.125	ug/L	0.044	35	1033	896	5
[	Mn	55	0.027	ug/L	0.001	2	461	700	0
[	Co	59	0.001	ug/L	0.001	72	36	41	25
[>	Ge	72		ug/L			289363	222331	0
[	Ni	60	-0.001	ug/L	0.001	66	28	19	7
[	Ni	62	0.249	ug/L	0.044	17	125	169	7
[	Cu	63	0.006	ug/L	0.005	75	330	280	7
[	Cu	65	-0.002	ug/L	0.007	335	100	72	19
[	Zn	66	-0.022	ug/L	0.008	37	212	134	8
[	Zn	67	-0.030	ug/L	0.052	176	127	91	12
[	Zn	68	1.674	ug/L	0.197	11	6062	6123	2
[	As	75	0.090	ug/L	0.029	31	270	320	11
[	As-1	75	1.602	ug/L	0.025	1	7562	7744	0
[	Se	82	0.024	ug/L	0.115	472	-5	0	2693
[	Se	78	5.823	ug/L	0.137	2	7701	7849	0
[	Mo	98	0.011	ug/L	0.004	37	50	95	22
	Y	89		ug/L			308134	228383	1
	Kr	83		ug/L			177	178	5
[>	In	115		ug/L			377272	270519	2
[	Ag	107	0.001	ug/L	0.002	170	78	68	32
[	Cd	111	-0.012	ug/L	0.008	64	231	139	10
[	Cd	114	0.000	ug/L	0.000	215	12	9	19
[	Sb	121	0.037	ug/L	0.018	49	224	441	33
[	Sb	123	0.038	ug/L	0.013	34	169	337	24
[	Ba	135	-0.001	ug/L	0.002	139	25	15	24
[	Ba	137	0.000	ug/L	0.002	473212	37	26	23
[>	Tb	159		ug/L			394343	296859	0
[	Tl	205	0.005	ug/L	0.002	41	122	202	23
[	Pb	208	-0.001	ug/L	0.001	192	413	291	13
[	Bi	209		ug/L			385288	278760	1
[	Th	232	0.015	ug/L	0.007	50	836	1213	24
[	U	238	0.001	ug/L	0.000	35	42	67	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 MB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 16:15:51
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			299821	314057	1
[	Be	9	0.004	ug/L	0.010	216	8	10	34
	C	13		mg/L			5490	7001	1
	Cl	37		mg/L			2209783	1938099	0
[>	Sc	45		ug/L			269921	215457	3
[	V	51	0.022	ug/L	0.020	91	2076	1861	10
[	V-1	51	0.010	ug/L	0.019	195	3167	2617	3
[	Cr	52	0.132	ug/L	0.014	10	6055	5927	1
[	Cr	53	0.089	ug/L	0.076	85	1033	911	5
[	Mn	55	0.084	ug/L	0.002	2	461	1516	3
[	Co	59	0.002	ug/L	0.000	1	36	47	3
[>	Ge	72		ug/L			289363	229839	1
[	Ni	60	0.066	ug/L	0.007	10	28	159	8
[	Ni	62	0.256	ug/L	0.048	18	125	177	9
[	Cu	63	0.475	ug/L	0.007	1	330	2388	0
[	Cu	65	0.476	ug/L	0.026	5	100	1073	5
[	Zn	66	1.874	ug/L	0.052	2	212	2649	3
[	Zn	67	1.662	ug/L	0.033	1	127	467	0
[	Zn	68	3.574	ug/L	0.081	2	6062	8050	0
[	As	75	0.072	ug/L	0.007	9	270	307	1
[	As-1	75	1.484	ug/L	0.100	6	7562	7857	0
[	Se	82	0.086	ug/L	0.047	55	-5	-17	40
[	Se	78	5.371	ug/L	0.354	6	7701	7959	0
[	Mo	98	0.013	ug/L	0.004	32	50	107	20
	Y	89		ug/L			308134	242652	1
	Kr	83		ug/L			177	188	3
[>	In	115		ug/L			377272	282262	0
[	Ag	107	-0.001	ug/L	0.000	44	78	52	5
[	Cd	111	-0.008	ug/L	0.002	25	231	155	2
[	Cd	114	0.001	ug/L	0.002	148	12	16	62
[	Sb	121	0.006	ug/L	0.003	50	224	217	11
[	Sb	123	0.006	ug/L	0.006	97	169	159	20
[	Ba	135	0.057	ug/L	0.007	11	25	122	9
[	Ba	137	0.050	ug/L	0.006	11	37	182	9
[>	Tb	159		ug/L			394343	312225	2
[	Tl	205	0.002	ug/L	0.001	61	122	142	22
[	Pb	208	0.033	ug/L	0.000	1	413	1362	3
[	Bi	209		ug/L			385288	292801	1
[	Th	232	0.011	ug/L	0.004	39	836	1126	19
[	U	238	0.000	ug/L	0.000	142	42	42	31

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 H REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, January 24, 2013 16:22:10
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			299821	321781	0
[	Be	9	0.003	ug/L	0.003	124	8	10	12
	C	13		mg/L			5490	6233	1
	Cl	37		mg/L			2209783	1926296	0
[>	Sc	45		ug/L			269921	231000	2
[	V	51	0.226	ug/L	0.023	10	2076	4073	3
[	V-1	51	0.227	ug/L	0.025	10	3167	5056	2
[	Cr	52	0.137	ug/L	0.031	22	6055	6399	1
[	Cr	53	0.145	ug/L	0.037	25	1033	1037	2
[	Mn	55	1059.760	ug/L	53.679	5	461	15457174	2
[	Co	59	0.353	ug/L	0.009	2	36	3879	1
[>	Ge	72		ug/L			289363	228989	0
[	Ni	60	1.473	ug/L	0.119	8	28	3059	8
[	Ni	62	1.523	ug/L	0.044	2	125	557	1
[	Cu	63	0.172	ug/L	0.007	3	330	1029	2
[	Cu	65	0.112	ug/L	0.007	6	100	312	4
[	Zn	66	0.685	ug/L	0.031	4	212	1071	3
[	Zn	67	0.995	ug/L	0.135	13	127	319	9
[	Zn	68	2.404	ug/L	0.129	5	6062	6965	1
[	As	75	1.358	ug/L	0.022	1	270	1954	1
[	As-1	75	2.592	ug/L	0.046	1	7562	9208	0
[	Se	82	-0.004	ug/L	0.060	1691	-5	-4	187
[	Se	78	4.628	ug/L	0.206	4	7701	7676	0
[	Mo	98	0.230	ug/L	0.016	6	50	1255	6
	Y	89		ug/L			308134	237093	1
	Kr	83		ug/L			177	181	3
[>	In	115		ug/L			377272	277409	0
[	Ag	107	-0.001	ug/L	0.001	66	78	45	16
[	Cd	111	-0.007	ug/L	0.002	28	231	154	2
[	Cd	114	0.001	ug/L	0.000	22	12	16	10
[	Sb	121	0.039	ug/L	0.003	8	224	464	5
[	Sb	123	0.040	ug/L	0.006	14	169	355	9
[	Ba	135	13.356	ug/L	0.606	4	25	23874	3
[	Ba	137	13.243	ug/L	0.515	3	37	40677	3
[>	Tb	159		ug/L			394343	314218	1
[	Tl	205	-0.001	ug/L	0.000	34	122	75	9
[	Pb	208	0.016	ug/L	0.002	15	413	824	8
[	Bi	209		ug/L			385288	286185	1
[	Th	232	-0.001	ug/L	0.001	40	836	604	5
[	U	238	0.019	ug/L	0.002	9	42	904	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 I REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, January 24, 2013 16:28:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			299821	336915	1
[	Be	9	u -0.005	ug/L	0.009	160	8	7	50
	C	13		mg/L			5490	6098	1
	Cl	37		mg/L			2209783	1967066	0
[>	Sc	45		ug/L			269921	222189	0
[	V	51	1.150	ug/L	0.007	0	2076	12955	0
[	V-1	51	1.152	ug/L	0.014	1	3167	14081	0
[	Cr	52	u 0.083	ug/L	0.019	22	6055	5693	2
[	Cr	53	0.150	ug/L	0.039	25	1033	1003	3
[	Mn	55	187.219	ug/L	2.968	1	461	2629065	1
[	Co	59	0.527	ug/L	0.009	1	36	5560	1
[>	Ge	72		ug/L			289363	222700	0
[	Ni	60	1.528	ug/L	0.043	2	28	3084	2
[	Ni	62	1.494	ug/L	0.038	2	125	534	2
[	Cu	63	u 0.140	ug/L	0.006	4	330	863	2
[	Cu	65	0.090	ug/L	0.013	14	100	259	10
[	Zn	66	u 1.290	ug/L	0.065	5	212	1817	4
[	Zn	67	1.566	ug/L	0.017	1	127	432	1
[	Zn	68	2.980	ug/L	0.064	2	6062	7279	1
[	As	75	1.192	ug/L	0.010	0	270	1693	0
[	As-1	75	2.470	ug/L	0.032	1	7562	8807	0
[	Se	82	u 0.062	ug/L	0.075	121	-5	4	226
[	Se	78	4.847	ug/L	0.153	3	7701	7538	0
[	Mo	98	2.534	ug/L	0.035	1	50	13064	1
	Y	89		ug/L			308134	232789	0
	Kr	83		ug/L			177	172	5
[>	In	115		ug/L			377272	271690	0
[	Ag	107	u -0.001	ug/L	0.001	53	78	43	15
[	Cd	111	u -0.017	ug/L	0.004	24	231	129	7
[	Cd	114	0.005	ug/L	0.000	10	12	32	7
[	Sb	121	0.245	ug/L	0.013	5	224	1998	5
[	Sb	123	0.253	ug/L	0.003	1	169	1541	1
[	Ba	135	14.677	ug/L	0.403	2	25	25695	2
[	Ba	137	14.797	ug/L	0.198	1	37	44516	1
[>	Tb	159		ug/L			394343	306284	1
[	Tl	205	u -0.002	ug/L	0.001	35	122	57	23
[	Pb	208	u 0.018	ug/L	0.000	2	413	879	0
[	Bi	209		ug/L			385288	279002	0
[	Th	232	-0.007	ug/L	0.000	6	836	375	3
[	U	238	0.070	ug/L	0.002	2	42	3123	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 16:34:48
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			299821	348207	1
	Be	9	26.506	ug/L	0.587	2	8	11390	0
	C	13		mg/L			5490	6701	1
	Cl	37		mg/L			2209783	1857894	0
>	Sc	45		ug/L			269921	210946	0
	V	51	25.865	ug/L	0.131	0	2076	241737	0
	V-1	51	25.723	ug/L	0.114	0	3167	245725	0
	Cr	52	25.694	ug/L	0.466	1	6055	213256	1
	Cr	53	25.259	ug/L	0.328	1	1033	25373	0
	Mn	55	26.381	ug/L	0.466	1	461	352002	1
	Co	59	26.572	ug/L	0.632	2	36	264751	1
>	Ge	72		ug/L			289363	221722	1
	Ni	60	27.953	ug/L	0.340	1	28	55806	0
	Ni	62	28.353	ug/L	0.647	2	125	8363	1
	Cu	63	29.134	ug/L	0.393	1	330	126143	0
	Cu	65	28.907	ug/L	0.073	0	100	58293	0
	Zn	66	85.704	ug/L	0.703	0	212	109616	0
	Zn	67	78.064	ug/L	1.045	1	127	16714	1
	Zn	68	86.302	ug/L	2.058	2	6062	79995	1
	As	75	27.886	ug/L	0.321	1	270	34794	0
	As-1	75	27.655	ug/L	0.382	1	7562	39098	0
	Se	82	81.196	ug/L	1.409	1	-5	11707	1
	Se	78	86.359	ug/L	1.139	1	7701	34481	0
	Mo	98	25.271	ug/L	0.309	1	50	129375	0
	Y	89		ug/L			308134	231651	1
	Kr	83		ug/L			177	181	4
>	In	115		ug/L			377272	274952	0
	Ag	107	26.498	ug/L	0.144	0	78	230353	0
	Cd	111	24.866	ug/L	0.278	1	231	56807	1
	Cd	114	25.025	ug/L	0.202	0	12	131842	0
	Sb	121	23.739	ug/L	0.204	0	224	180249	1
	Sb	123	23.917	ug/L	0.209	0	169	135970	1
	Ba	135	25.764	ug/L	0.429	1	25	45640	1
	Ba	137	25.773	ug/L	0.218	0	37	78454	1
>	Tb	159		ug/L			394343	312631	0
	Tl	205	27.081	ug/L	0.271	0	122	637856	0
	Pb	208	27.907	ug/L	0.232	0	413	885181	0
	Bi	209		ug/L			385288	285732	0
	Th	232	25.905	ug/L	0.325	1	836	1078215	0
	U	238	25.237	ug/L	0.433	1	42	1144078	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 S REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Thursday, January 24, 2013 16:41:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			299821	340546	2
⌊	Be	9	0.028	ug/L	0.019	66	8	21	35
	C	13		mg/L			5490	6199	2
	Cl	37		mg/L			2209783	1915967	0
⌈>	Sc	45		ug/L			269921	229917	1
|	V	51	4.069	ug/L	0.165	4	2076	42921	2
|	V-1	51	4.048	ug/L	0.182	4	3167	44410	2
|	Cr	52	2.222	ug/L	0.046	2	6055	24807	0
|	Cr	53	2.264	ug/L	0.105	4	1033	3279	2
|	Mn	55	60.675	ug/L	1.141	1	461	881876	1
⌊	Co	59	0.376	ug/L	0.004	1	36	4111	0
⌈>	Ge	72		ug/L			289363	221166	0
|	Ni	60	1.617	ug/L	0.040	2	28	3241	3
|	Ni	62	2.084	ug/L	0.137	6	125	701	4
|	Cu	63	1.722	ug/L	0.009	0	330	7676	0
|	Cu	65	1.442	ug/L	0.061	4	100	2973	3
|	Zn	66	2.866	ug/L	0.015	0	212	3813	1
|	Zn	67	2.973	ug/L	0.167	5	127	728	5
|	Zn	68	4.440	ug/L	0.158	3	6062	8501	1
|	As	75	3.479	ug/L	0.019	0	270	4511	1
|	As-1	75	4.687	ug/L	0.041	0	7562	11410	0
|	Se	82	0.268	ug/L	0.115	42	-5	34	47
|	Se	78	4.603	ug/L	0.147	3	7701	7405	0
⌊	Mo	98	0.195	ug/L	0.010	5	50	1034	4
	Y	89		ug/L			308134	241026	0
	Kr	83		ug/L			177	175	1
⌈>	In	115		ug/L			377272	265892	0
|	Ag	107	0.007	ug/L	0.003	42	78	110	20
|	Cd	111	0.672	ug/L	0.022	3	231	1643	3
|	Cd	114	0.691	ug/L	0.001	0	12	3528	0
|	Sb	121	0.090	ug/L	0.009	10	224	818	7
|	Sb	123	0.094	ug/L	0.008	8	169	634	6
|	Ba	135	7.242	ug/L	0.005	0	25	12418	1
⌊	Ba	137	7.236	ug/L	0.050	0	37	21321	1
⌈>	Tb	159		ug/L			394343	308306	1
|	Tl	205	0.002	ug/L	0.001	63	122	135	16
|	Pb	208	0.351	ug/L	0.002	0	413	11308	2
|	Bi	209		ug/L			385288	272811	0
|	Th	232	0.122	ug/L	0.009	7	836	5669	4
⌊	U	238	0.078	ug/L	0.003	4	42	3518	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 V REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Thursday, January 24, 2013 16:47:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			299821	413798	4
	Be	9	-0.002	ug/L	0.007	339	8	10	27
	C	13		mg/L			5490	6495	1
	Cl	37		mg/L			2209783	2584931	2
>	Sc	45		ug/L			269921	256477	3
	V	51	1.701	ug/L	0.039	2	2076	21182	5
	V-1	51	1.841	ug/L	0.016	0	3167	24183	4
	Cr	52	0.847	ug/L	0.047	5	6055	14114	4
	Cr	53	1.331	ug/L	0.085	6	1033	2554	4
	Mn	55	26.870	ug/L	0.429	1	461	436009	4
	Co	59	0.163	ug/L	0.002	1	36	2011	4
>	Ge	72		ug/L			289363	244334	3
	Ni	60	0.217	ug/L	0.012	5	28	500	7
	Ni	62	0.546	ug/L	0.068	12	125	280	4
	Cu	63	1.032	ug/L	0.020	1	330	5194	5
	Cu	65	0.365	ug/L	0.014	3	100	894	7
	Zn	66	0.698	ug/L	0.010	1	212	1161	4
	Zn	67	1.166	ug/L	0.074	6	127	380	3
	Zn	68	1.756	ug/L	0.221	12	6062	6803	1
	As	75	2.352	ug/L	0.019	0	270	3443	3
	As-1	75	2.770	ug/L	0.207	7	7562	10053	1
	Se	82	0.819	ug/L	0.116	14	-5	125	11
	Se	78	2.270	ug/L	0.823	36	7701	7322	0
	Mo	98	0.349	ug/L	0.009	2	50	2009	6
	Y	89		ug/L			308134	266255	4
	Kr	83		ug/L			177	164	7
>	In	115		ug/L			377272	301301	5
	Ag	107	0.001	ug/L	0.001	97	78	71	8
	Cd	111	-0.059	ug/L	0.012	19	231	35	73
	Cd	114	0.004	ug/L	0.001	19	12	31	16
	Sb	121	0.011	ug/L	0.002	20	224	273	3
	Sb	123	0.011	ug/L	0.002	15	169	206	5
	Ba	135	15.367	ug/L	0.191	1	25	29832	4
	Ba	137	15.329	ug/L	0.237	1	37	51118	3
>	Tb	159		ug/L			394343	355002	5
	Tl	205	-0.002	ug/L	0.000	5	122	57	9
	Pb	208	0.049	ug/L	0.002	3	413	2150	6
	Bi	209		ug/L			385288	306154	3
	Th	232	0.025	ug/L	0.001	6	836	1920	8
	U	238	0.035	ug/L	0.001	2	42	1853	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 16:53:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			299821	330494	0
Be	9	51.487	ug/L	0.428	0	8	20995	0
C	13		mg/L			5490	4835	2
Cl	37		mg/L			2209783	1763808	0
Sc	45		ug/L			269921	188275	1
V	51	50.630	ug/L	0.840	1	2076	420875	0
V-1	51	50.790	ug/L	0.901	1	3167	430817	0
Cr	52	50.603	ug/L	0.472	0	6055	370763	1
Cr	53	51.102	ug/L	0.752	1	1033	45075	1
Mn	55	51.022	ug/L	0.590	1	461	607281	0
Co	59	51.312	ug/L	0.822	1	36	456272	1
Ge	72		ug/L			289363	203512	0
Ni	60	52.288	ug/L	0.544	1	28	95804	0
Ni	62	52.647	ug/L	0.463	0	125	14179	0
Cu	63	52.728	ug/L	0.419	0	330	209376	0
Cu	65	52.279	ug/L	0.413	0	100	96714	1
Zn	66	52.483	ug/L	0.681	1	212	61673	1
Zn	67	52.206	ug/L	0.626	1	127	10289	0
Zn	68	55.437	ug/L	0.511	0	6062	48697	0
As	75	52.016	ug/L	0.361	0	270	59410	0
As-1	75	53.936	ug/L	0.684	1	7562	64939	0
Se	82	51.803	ug/L	0.539	1	-5	6855	1
Se	78	59.123	ug/L	1.193	2	7701	23377	1
Mo	98	51.290	ug/L	1.062	2	50	240994	1
Y	89		ug/L			308134	209903	1
Kr	83		ug/L			177	180	3
In	115		ug/L			377272	245799	1
Ag	107	51.311	ug/L	0.347	0	78	398687	0
Cd	111	50.960	ug/L	0.341	0	231	103921	1
Cd	114	51.128	ug/L	0.609	1	12	240773	1
Sb	121	50.583	ug/L	0.440	0	224	343150	0
Sb	123	50.890	ug/L	0.633	1	169	258490	1
Ba	135	50.627	ug/L	0.573	1	25	80153	0
Ba	137	50.110	ug/L	0.340	0	37	136330	0
Tb	159		ug/L			394343	285082	0
Tl	205	51.193	ug/L	0.334	0	122	1099430	0
Pb	208	52.993	ug/L	0.350	0	413	1532558	1
Bi	209		ug/L			385288	259534	0
Th	232	49.972	ug/L	0.333	0	836	1896102	0
U	238	53.903	ug/L	0.111	0	42	2228285	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 17:00:20
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			299821	333419	0
	Be	9	-0.003	ug/L	0.002	55	8	7	9
	C	13		mg/L			5490	5979	1
	Cl	37		mg/L			2209783	1793858	0
>	Sc	45		ug/L			269921	191588	0
	V	51	0.024	ug/L	0.022	91	2076	1675	11
	V-1	51	-0.018	ug/L	0.011	64	3167	2094	5
	Cr	52	0.095	ug/L	0.010	10	6055	4995	1
	Cr	53	-0.039	ug/L	0.042	107	1033	698	4
	Mn	55	0.024	ug/L	0.002	8	461	613	4
	Co	59	0.001	ug/L	0.001	49	36	38	16
>	Ge	72		ug/L			289363	207444	1
	Ni	60	-0.002	ug/L	0.005	232	28	16	53
	Ni	62	0.067	ug/L	0.041	61	125	108	11
	Cu	63	-0.010	ug/L	0.001	7	330	195	2
	Cu	65	-0.006	ug/L	0.007	117	100	60	23
	Zn	66	-0.021	ug/L	0.008	40	212	127	8
	Zn	67	-0.126	ug/L	0.009	7	127	66	3
	Zn	68	1.930	ug/L	0.159	8	6062	5922	1
	As	75	0.093	ug/L	0.011	12	270	301	4
	As-1	75	1.772	ug/L	0.072	4	7562	7417	0
	Se	82	0.000	ug/L	0.026	5181	-5	-3	90
	Se	78	6.446	ug/L	0.277	4	7701	7516	0
	Mo	98	0.007	ug/L	0.005	64	50	71	33
	Y	89		ug/L			308134	215488	0
	Kr	83		ug/L			177	171	2
>	In	115		ug/L			377272	251647	1
	Ag	107	0.002	ug/L	0.000	13	78	71	2
	Cd	111	-0.009	ug/L	0.001	14	231	135	0
	Cd	114	0.000	ug/L	0.001	342	12	9	35
	Sb	121	0.045	ug/L	0.019	42	224	460	27
	Sb	123	0.047	ug/L	0.024	51	169	358	34
	Ba	135	-0.001	ug/L	0.002	391	25	15	22
	Ba	137	-0.002	ug/L	0.000	23	37	20	6
>	Tb	159		ug/L			394343	287674	1
	Tl	205	0.002	ug/L	0.003	114	122	142	43
	Pb	208	0.000	ug/L	0.001	269	413	310	8
	Bi	209		ug/L			385288	265356	1
	Th	232	0.020	ug/L	0.009	48	836	1361	27
	U	238	0.001	ug/L	0.001	63	42	80	40

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-25-13 **Analyst:** BA **Page:** 1 of 3

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			3005-3
		1			3006-15
		2			↓ -16
		3			3008-2
		↓ 4			3007-1
		Rinse sample			
		ICV			2955-7
		ICB			
		CCV1			
		CCB1			
		Low Check			
		ICSA			
		ICSAB			
		LR200			
		LR300			
		CCV2			
		CCB2			
		WA39 MB	REN	2	Pb
		ADUP		10	As, Pb
		A		↓	↓
		ASPK			
		↓ MBSPK	↓	2	Pb
		CCV3			
		CCB3			As2, ^{78}Se ↓

5036F

Version 002
7/21/06

VZ75 : 00602

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-25-13 **Analyst:** BA **Page:** 2 of 3

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	WA43 ADUP	REN	10	RR 20x
	✓	A			
	✓	ASPK			
	✓	B			
	✓	C			
	✓	D			
	✓	E			RR 10x
	✓	F			RR 20x
	✓	G			
		CCV4			All ISTDs, Ni, ^{63}Cu, ^{67}Zn, Pb↑
		CCB4			All ISTDs↑ As2, ^{78}Se↓
		STD 0			
		CCV5			Ni, Cu, Tl, Pb, Th↑
		CCB5			
		WA48 MB1	SWN	20	
		WA49 A			
WA49		B			
		C			
		WA48 ADUP			
		A			
		ASPK			Sb↓ - CAF
		REF1		50	
		MBISPK		20	
		CCV6			Ni, Tl, Pb, Th↑

VZ75 00603

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-25-13 **Analyst:** BA **Page:** 3 of 3

All corrections made by analyst unless otherwise noted. BA 1-25-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		CCB6			End ~~Pkg~~ (WA48, WA49)
		WA70 MB	SWN	20	
		VZ75 R	REN	10	As
		WA70 B	SWN	20	
		C			
		D			
		ADUP			
		A			
		ASPK			As↑
		MBSPK			
		CCV7			Co Ni ↑
		CCB7			End Pkg (VZ75)
		BA 1/25/13			

VZ75 00604

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 1-25-13

MS1	Analyst BA 1-25-13	Peer [illegible] 1-25-13	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	↓
Samples:			
RSD's & SD's	✓	✓	See log
Internal Standards	✓	✓	↓
Carry-over	—	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	—	✓	
Analytic Spikes	—	✓	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	WA48, WA70
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	CAF - WA48, WA70

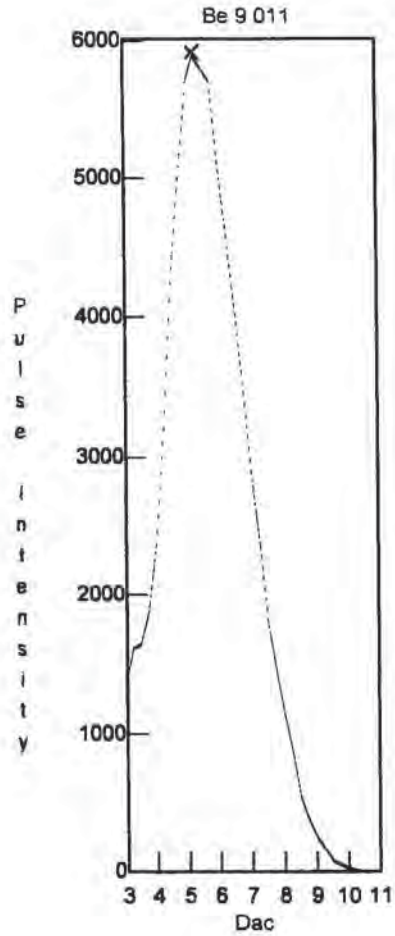
Instrument Tuning Report

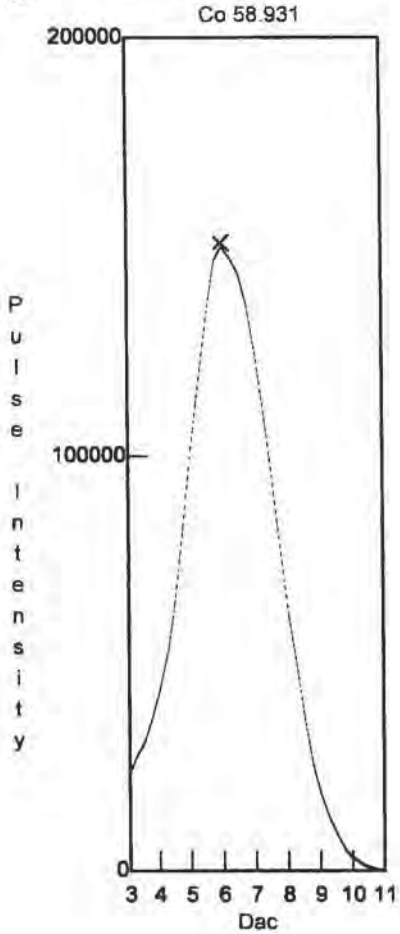
File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

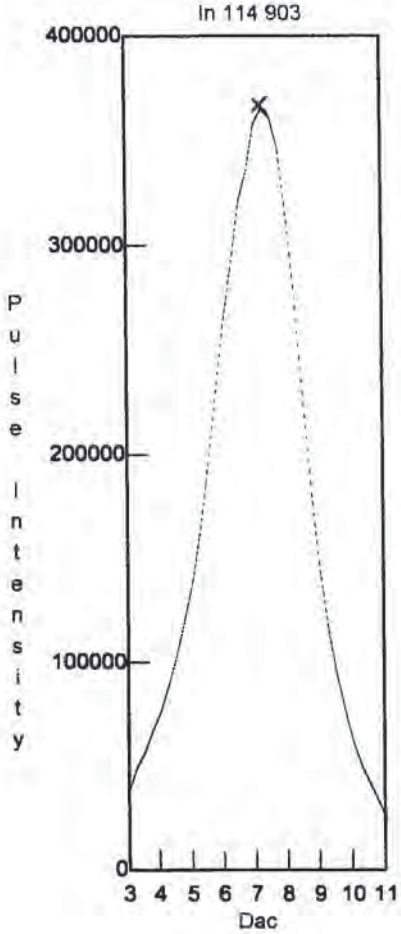
Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	9.075	2041	2155	0.692	
Mg	23.985	23.929	5648	2265	0.682	
Co	58.933	58.928	14154	2530	0.678	
In	114.904	114.878	27786	2970	0.715	
Pb	207.977	207.976	50441	3725	0.698	

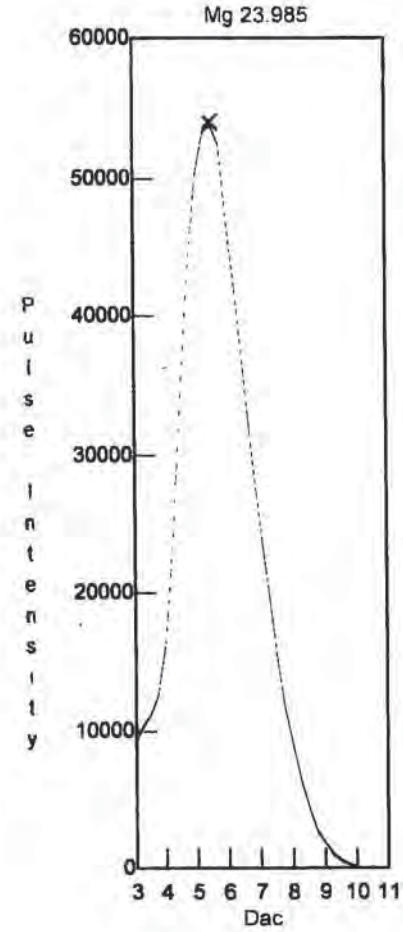
VZ75 00606

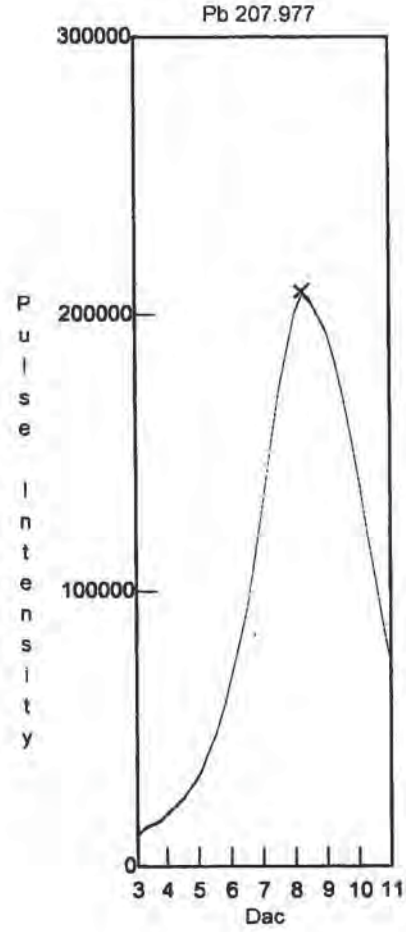
1-25-13

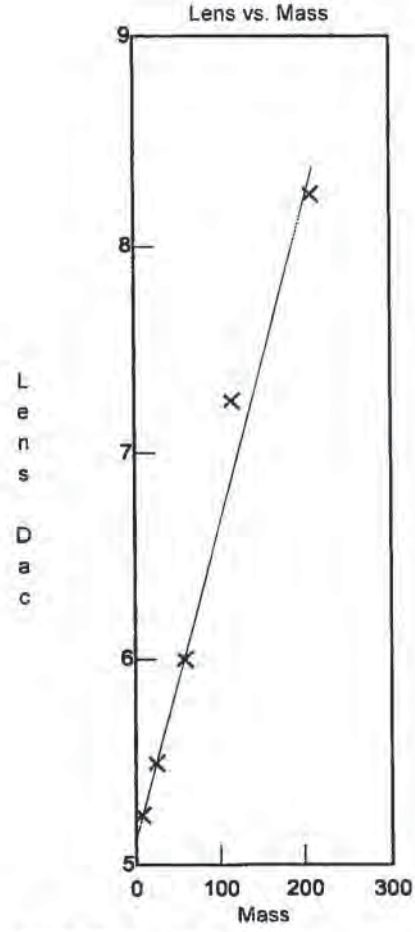

Be 9 011
Pulse Intensity
Dac


Co 58.931
Pulse Intensity
Dac


In 114 903
Pulse Intensity
Dac


Mg 23.985
Pulse Intensity
Dac


Pb 207.977
Pulse Intensity
Dac


Lens vs. Mass
Lens Dac
Mass

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, January 25, 2013 08:15:56
Sample Description:
Sample File: 1119.sam
Method File: C:\Elandata\Method\aridailyperf.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.1354
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\Default.dac
Number of Replicates: 5
Dual Detector Mode: Dual

Neb 0.96
Discrim 13

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24	38422.375 –	615.530	1.602
	In	115	272536.788 –	1151.735	0.423
	Pb	208	182263.846 ✓	1353.636	0.743
⌈>	Ba	138	179068.851	1129.701	0.631
⌊	Ba++	69	0.012 ✓	0.000	2.102
⌈>	Ce	140	217556.578	1957.509	0.900
⌊	CeO	156	0.030 ✓	0.000	1.612
	Bkgd	220	6.251	2.795	44.721

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 08:47:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L				6303	1
	Cl	37		mg/L				1603536	0
>	Ge	72		ug/L				194270	0
	Ni	60		ug/L				65	17
	Ni	62		ug/L				49	33
	Cu	63		ug/L				228	9
	Cu	65		ug/L				79	8
	Zn	66		ug/L				239	15
	Zn	67		ug/L				88	12
	Zn	68		ug/L				5360	1
	As	75		ug/L				206	10
	As-1	75		ug/L				6847	0
	Se	82		ug/L				-11	45
	Se	78		ug/L				6969	0
	Y	89		ug/L				215048	0
	Kr	83		ug/L				150	2
>	In	115		ug/L				260223	0
	Ag	107		ug/L				14	21
	Cd	111		ug/L				106	5
	Cd	114		ug/L				14	39
	Sb	121		ug/L				15	12
	Sb	123		ug/L				10	46
	Ba	135		ug/L				25	15
	Ba	137		ug/L				33	27
>	Tb	159		ug/L				299158	0
	Tl	205		ug/L				18	33
	Pb	208		ug/L				405	0
	Bi	209		ug/L				281037	1
	Th	232		ug/L				35	34
	U	238		ug/L				16	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 08:52:59
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	6818	1
	Cl	37		mg/L			1603536	1600605	0
⌈>	Ge	72		ug/L			194270	193430	0
|	Ni	60	10.000	ug/L	0.052	0	65	18598	0
|	Ni	62	10.000	ug/L	0.125	1	49	2776	1
|	Cu	63	10.000	ug/L	0.038	0	228	40011	0
|	Cu	65	10.000	ug/L	0.066	0	79	18476	0
|	Zn	66	10.000	ug/L	0.175	1	239	12061	1
|	Zn	67	10.000	ug/L	0.155	1	88	2025	1
|	Zn	68	10.000	ug/L	0.254	2	5360	13429	1
|	As	75	10.000	ug/L	0.058	0	206	11498	0
|	As-1	75	10.000	ug/L	0.009	0	6847	17689	0
|	Se	82	10.000	ug/L	0.183	1	-11	1393	1
⌊	Se	78	10.000	ug/L	0.107	1	6969	10102	0
	Y	89		ug/L			215048	213088	0
	Kr	83		ug/L			150	155	6
⌈>	In	115		ug/L			260223	257449	1
|	Ag	107	10.000	ug/L	0.096	0	14	80971	0
|	Cd	111	10.000	ug/L	0.191	1	106	21559	1
|	Cd	114	10.000	ug/L	0.079	0	14	49742	0
|	Sb	121	10.000	ug/L	0.038	0	15	68713	0
|	Sb	123	10.000	ug/L	0.137	1	10	51583	0
|	Ba	135	10.000	ug/L	0.106	1	25	16188	0
⌊	Ba	137	10.000	ug/L	0.130	1	33	27327	0
⌈>	Tb	159		ug/L			299158	295368	1
|	Tl	205	10.000	ug/L	0.105	1	18	231311	1
|	Pb	208	10.000	ug/L	0.087	0	405	325270	0
|	Bi	209		ug/L			281037	277397	1
|	Th	232	10.000	ug/L	0.175	1	35	392302	1
⌊	U	238	10.000	ug/L	0.160	1	16	434924	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 08:58:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	7821	0
	Cl	37		mg/L			1603536	1581040	0
>	Ge	72		ug/L			194270	192247	0
	Ni	60	19.955	ug/L	0.193	0	65	36497	0
	Ni	62	19.891	ug/L	0.239	1	49	5325	1
	Cu	63	19.961	ug/L	0.172	0	228	78531	0
	Cu	65	19.965	ug/L	0.326	1	79	36323	1
	Zn	66	20.017	ug/L	0.173	0	239	23840	0
	Zn	67	20.081	ug/L	0.271	1	88	4017	1
	Zn	68	19.969	ug/L	0.305	1	5360	21266	1
	As	75	19.986	ug/L	0.279	1	206	22570	0
	As-1	75	19.999	ug/L	0.267	1	6847	28381	0
	Se	82	20.022	ug/L	0.272	1	-11	2796	0
	Se	78	20.056	ug/L	0.096	0	6969	13273	0
	Y	89		ug/L			215048	211629	0
	Kr	83		ug/L			150	150	3
>	In	115		ug/L			260223	254839	0
	Ag	107	20.011	ug/L	0.339	1	14	160710	1
	Cd	111	20.036	ug/L	0.309	1	106	42965	0
	Cd	114	20.010	ug/L	0.174	0	14	98708	0
	Sb	121	20.031	ug/L	0.098	0	15	137090	0
	Sb	123	20.063	ug/L	0.222	1	10	103747	0
	Ba	135	19.987	ug/L	0.393	1	25	31925	1
	Ba	137	20.061	ug/L	0.252	1	33	54906	1
>	Tb	159		ug/L			299158	293897	0
	Tl	205	20.044	ug/L	0.077	0	18	465473	1
	Pb	208	20.009	ug/L	0.233	1	405	648342	0
	Bi	209		ug/L			281037	274439	0
	Th	232	20.007	ug/L	0.272	1	35	782111	0
	U	238	20.031	ug/L	0.349	1	16	872348	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 09:04:33
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	4639	0
	Cl	37		mg/L			1603536	1580079	0
⌈>	Ge	72		ug/L			194270	190965	0
|	Ni	60	50.110	ug/L	0.413	0	65	91950	0
|	Ni	62	50.099	ug/L	0.266	0	49	13381	0
|	Cu	63	50.036	ug/L	0.516	1	228	195906	1
|	Cu	65	50.075	ug/L	0.082	0	79	91075	0
|	Zn	66	49.951	ug/L	0.420	0	239	58456	0
|	Zn	67	49.888	ug/L	0.715	1	88	9677	0
|	Zn	68	50.021	ug/L	0.417	0	5360	45066	0
|	As	75	50.048	ug/L	0.596	1	206	56106	0
|	As-1	75	50.066	ug/L	0.742	1	6847	60813	0
|	Se	82	50.057	ug/L	0.131	0	-11	7002	0
⌊	Se	78	50.115	ug/L	0.493	0	6969	22861	0
	Y	89		ug/L			215048	210925	0
	Kr	83		ug/L			150	152	1
⌈>	In	115		ug/L			260223	255257	0
|	Ag	107	49.983	ug/L	0.521	1	14	401399	0
|	Cd	111	50.017	ug/L	0.206	0	106	107474	1
|	Cd	114	50.101	ug/L	0.604	1	14	250061	0
|	Sb	121	50.064	ug/L	0.840	1	15	345374	1
|	Sb	123	50.042	ug/L	0.813	1	10	260253	0
|	Ba	135	50.095	ug/L	0.357	0	25	80878	0
⌊	Ba	137	50.111	ug/L	0.191	0	33	138869	0
⌈>	Tb	159		ug/L			299158	291794	0
|	Tl	205	50.151	ug/L	0.403	0	18	1173951	0
|	Pb	208	50.161	ug/L	0.345	0	405	1639694	1
|	Bi	209		ug/L			281037	272790	0
|	Th	232	50.339	ug/L	1.228	2	35	2022507	3
⌊	U	238	50.477	ug/L	0.181	0	16	2291990	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 09:10:20
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	6347	1
	Cl	37		mg/L			1603536	1596434	1
>	Ge	72		ug/L			194270	192964	0
	Ni	60	99.096	ug/L	0.945	0	65	178316	1
	Ni	62	99.363	ug/L	0.738	0	49	26214	0
	Cu	63	99.132	ug/L	1.213	1	228	380948	0
	Cu	65	99.063	ug/L	0.950	0	79	176465	0
	Zn	66	99.074	ug/L	1.197	1	239	113435	1
	Zn	67	99.049	ug/L	1.368	1	88	18738	1
	Zn	68	99.092	ug/L	1.379	1	5360	82647	1
	As	75	99.350	ug/L	0.392	0	206	109968	0
	As-1	75	99.391	ug/L	0.244	0	6847	113139	0
	Se	82	99.130	ug/L	0.796	0	-11	13628	0
	Se	78	99.262	ug/L	0.542	0	6969	38196	0
	Y	89		ug/L			215048	212274	0
	Kr	83		ug/L			150	167	0
>	In	115		ug/L			260223	259228	0
	Ag	107	98.996	ug/L	1.563	1	14	781198	1
	Cd	111	99.206	ug/L	0.905	0	106	210795	0
	Cd	114	99.320	ug/L	0.849	0	14	492266	0
	Sb	121	99.420	ug/L	0.898	0	15	683318	0
	Sb	123	99.517	ug/L	0.331	0	10	517308	0
	Ba	135	99.386	ug/L	0.547	0	25	159668	0
	Ba	137	99.257	ug/L	1.092	1	33	272564	0
>	Tb	159		ug/L			299158	297872	0
	Tl	205	99.895	ug/L	1.806	1	18	2378533	1
	Pb	208	99.049	ug/L	1.503	1	405	3202936	0
	Bi	209		ug/L			281037	272766	0
	Th	232	99.797	ug/L	1.796	1	35	4064959	1
	U	238	99.193	ug/L	0.913	0	16	4477284	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 09:16:28
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	6331	1
	Cl	37		mg/L			1603536	1619114	0
>	Ge	72		ug/L			194270	192908	0
	Ni	60	-0.019	ug/L	0.005	28	65	31	30
	Ni	62	-0.040	ug/L	0.031	77	49	38	21
	Cu	63	-0.006	ug/L	0.003	53	228	202	6
	Cu	65	-0.003	ug/L	0.003	86	79	72	6
	Zn	66	-0.017	ug/L	0.007	40	239	218	3
	Zn	67	-0.083	ug/L	0.031	37	88	72	7
	Zn	68	-0.303	ug/L	0.067	22	5360	5086	0
	As	75	0.025	ug/L	0.016	62	206	232	7
	As-1	75	-0.014	ug/L	0.070	490	6847	6783	0
	Se	82	0.088	ug/L	0.016	17	-11	0	268
	Se	78	-0.057	ug/L	0.197	348	6969	6903	0
	Y	89		ug/L			215048	212991	0
	Kr	83		ug/L			150	147	3
>	In	115		ug/L			260223	259773	0
	Ag	107	0.013	ug/L	0.004	27	14	119	23
	Cd	111	0.003	ug/L	0.002	60	106	111	2
	Cd	114	0.000	ug/L	0.001	5239	14	14	17
	Sb	121	0.069	ug/L	0.018	26	15	491	24
	Sb	123	0.071	ug/L	0.014	19	10	380	18
	Ba	135	-0.000	ug/L	0.001	187	25	24	5
	Ba	137	0.001	ug/L	0.004	292	33	37	29
>	Tb	159		ug/L			299158	298678	1
	Tl	205	0.011	ug/L	0.002	18	18	275	17
	Pb	208	0.005	ug/L	0.003	52	405	569	15
	Bi	209		ug/L			281037	280896	0
	Th	232	0.051	ug/L	0.010	19	35	2127	19
	U	238	0.003	ug/L	0.002	57	16	148	51

Quantitative Analysis - Calibration Report

Sample Date/Time: Friday, January 25, 2013 09:10:20
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Ge	72							
Ni	60	0.9999	0.0093	10	20	50	100	
Ni	62	0.9999	0.0014	10	20	50	100	
Cu	63	0.9999	0.0199	10	20	50	100	
Cu	65	0.9999	0.0092	10	20	50	100	
Zn	66	0.9999	0.0059	10	20	50	100	
Zn	67	0.9998	0.0010	10	20	50	100	
Zn	68	0.9999	0.0040	10	20	50	100	
As	75	0.9999	0.0057	10	20	50	100	
As-1	75	0.9999	0.0055	10	20	50	100	
Se	82	0.9999	0.0007	10	20	50	100	
Se	78	0.9999	0.0016	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	0.9998	0.0304	10	20	50	100	
Cd	111	0.9999	0.0082	10	20	50	100	
Cd	114	0.9999	0.0191	10	20	50	100	
Sb	121	0.9999	0.0265	10	20	50	100	
Sb	123	1.0000	0.0201	10	20	50	100	
Ba	135	0.9999	0.0062	10	20	50	100	
Ba	137	0.9999	0.0106	10	20	50	100	
Tb	159							
Tl	205	1.0000	0.0799	10	20	50	100	
Pb	208	0.9998	0.1086	10	20	50	100	
Bi	209							
Th	232	1.0000	0.1368	10	20	50	100	
U	238	0.9998	0.1515	10	20	50	100	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 09:23:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		mg/L			6303	11267	3
	Cl	37		mg/L			1603536	1588268	0
>	Ge	72		ug/L			194270	196972 ✓	0
	Ni	60	51.142	ug/L	0.740	1	65	93966	1
	Ni	62	50.657	ug/L	0.396	0	49	13666	0
	Cu	63	50.543	ug/L	0.726	1	228	198373	1
	Cu	65	50.723	ug/L	0.579	1	79	92270	0
	Zn	66	50.690	ug/L	0.282	0	239	59361	0
	Zn	67	50.312	ug/L	0.185	0	88	9759	0
	Zn	68	49.847	ug/L	0.292	0	5360	45140	0
	As	75	52.363	ug/L	0.508	0	206	59261	1
	As-1	75	50.904	ug/L	0.318	0	6847	62535	0
	Se	82	81.444	ug/L	1.134	1	-11	11427	1
	Se	78	79.659	ug/L	0.302	0	6969	32685	0
	Y	89		ug/L			215048	218749	0
	Kr	83		ug/L			150	158	0
>	In	115		ug/L			260223	263613 ✓	0
	Ag	107	51.409	ug/L	0.367	0	14	412571	0
	Cd	111	50.418	ug/L	0.131	0	106	108996	0
	Cd	114	49.866	ug/L	0.548	1	14	251358	1
	Sb	121	49.838	ug/L	0.627	1	15	348346	1
	Sb	123	49.864	ug/L	0.374	0	10	263593	0
	Ba	135	50.474	ug/L	0.250	0	25	82472	0
	Ba	137	51.074	ug/L	0.433	0	33	142642	0
>	Tb	159		ug/L			299158	304148 ✓	0
	Tl	205	49.351	ug/L	0.460	0	18	1199939	0
	Pb	208	51.039	ug/L	0.373	0	405	1685515	0
	Bi	209		ug/L			281037	282637	0
	Th	232	51.794	ug/L	0.222	0	35	2154349	0
	U	238	51.703	ug/L	0.101	0	16	2382956	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 09:29:37
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	6281	0
	Cl	37		mg/L			1603536	1591847	0
>	Ge	72		ug/L			194270	188539 ✓	0
	Ni	60	-0.019	ug/L	0.004	19	65	30	19
	Ni	62	-0.040	ug/L	0.044	111	49	37	29
	Cu	63	-0.009	ug/L	0.002	22	228	187	4
	Cu	65	-0.005	ug/L	0.007	125	79	67	17
	Zn	66	-0.009	ug/L	0.012	129	239	221	5
	Zn	67	-0.101	ug/L	0.021	21	88	67	6
	Zn	68	-0.116	ug/L	0.138	118	5360	5113	1
	As	75	0.015	ug/L	0.018	118	206	216	8
	As-1	75	0.110	ug/L	0.029	25	6847	6760	0
	Se	82	0.058	ug/L	0.050	86	-11	-3	207
	Se	78	0.388	ug/L	0.090	23	6969	6883	0
	Y	89		ug/L			215048	209646	1
	Kr	83		ug/L			150	146	2
>	In	115		ug/L			260223	256369 ✓	0
	Ag	107	0.009	ug/L	0.001	14	14	80	11
	Cd	111	0.005	ug/L	0.003	59	106	115	5
	Cd	114	-0.001	ug/L	0.002	212	14	10	86
	Sb	121	0.026	ug/L	0.002	9	15	193	8
	Sb	123	0.027	ug/L	0.006	21	10	150	20
	Ba	135	-0.002	ug/L	0.003	203	25	22	23
	Ba	137	0.002	ug/L	0.002	78	33	38	11
>	Tb	159		ug/L			299158	294723 ✓	0
	Tl	205	0.004	ug/L	0.001	29	18	102	25
	Pb	208	0.004	ug/L	0.001	38	405	514	9
	Bi	209		ug/L			281037	275665	0
	Th	232	0.031	ug/L	0.004	12	35	1279	13
	U	238	0.002	ug/L	0.000	25	16	90	22

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 09:34:55
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			6303	4767	0
Cl	37		mg/L			1603536	1603640	0
> Ge	72		ug/L			194270	188636 ✓	0
Ni	60	52.004	ug/L	0.751	1	65	91502	0
Ni	62	52.146	ug/L	0.263	0	49	13471	0
Cu	63	51.971	ug/L	0.970	1	228	195335	1
Cu	65	51.774	ug/L	0.524	1	79	90195	0
Zn	66	51.836	ug/L	1.108	2	239	58125	1
Zn	67	52.042	ug/L	0.287	0	88	9665	0
Zn	68	51.975	ug/L	0.753	1	5360	44851	0
As	75	51.426	ug/L	0.230	0	206	55741	0
As-1	75	51.171	ug/L	0.320	0	6847	60167	0
Se	82	51.580	ug/L	0.489	0	-11	6926	0
Se	78	50.812	ug/L	0.713	1	6969	22417	0
Y	89		ug/L			215048	207767	0
Kr	83		ug/L			150	163	3
> In	115		ug/L			260223	249579 ✓	0
Ag	107	52.421	ug/L	0.463	0	14	398290	0
Cd	111	51.529	ug/L	0.626	1	106	105460	0
Cd	114	51.402	ug/L	0.461	0	14	245294	0
Sb	121	51.986	ug/L	0.436	0	15	344006	0
Sb	123	51.789	ug/L	0.305	0	10	259189	0
Ba	135	51.700	ug/L	0.790	1	25	79974	1
Ba	137	51.400	ug/L	1.674	3	33	135885	2
> Tb	159		ug/L			299158	288335 ✓	0
Tl	205	50.602	ug/L	0.477	0	18	1166380	0
Pb	208	51.701	ug/L	0.544	1	405	1618594	0
Bi	209		ug/L			281037	271202	0
Th	232	50.259	ug/L	0.092	0	35	1981764	0
U	238	52.125	ug/L	0.109	0	16	2277507	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 09:41:02
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	6191	1
	Cl	37		mg/L			1603536	1616031	0
>	Ge	72		ug/L			194270	189210 ✓	0
	Nl	60	-0.021	ug/L	0.004	17	65	27	23
	Ni	62	-0.021	ug/L	0.008	37	49	42	5
	Cu	63	-0.010	ug/L	0.007	70	228	183	14
	Cu	65	-0.003	ug/L	0.004	128	79	72	9
	Zn	66	0.005	ug/L	0.016	303	239	238	6
	Zn	67	-0.118	ug/L	0.051	43	88	64	14
	Zn	68	-0.294	ug/L	0.076	25	5360	4995	0
	As	75	0.055	ug/L	0.037	67	206	260	15
	As-1	75	0.039	ug/L	0.084	215	6847	6709	0
	Se	82	0.072	ug/L	0.108	149	-11	-1	1124
	Se	78	0.041	ug/L	0.301	737	6969	6800	0
	Y	89		ug/L			215048	209800	1
	Kr	83		ug/L			150	148	2
>	In	115		ug/L			260223	252717 ✓	0
	Ag	107	0.008	ug/L	0.001	15	14	77	12
	Cd	111	0.008	ug/L	0.007	85	106	119	10
	Cd	114	-0.001	ug/L	0.000	12	14	8	8
	Sb	121	0.042	ug/L	0.008	20	15	296	19
	Sb	123	0.042	ug/L	0.007	15	10	224	15
	Ba	135	0.002	ug/L	0.004	227	25	27	23
	Ba	137	0.003	ug/L	0.003	92	33	40	16
>	Tb	159		ug/L			299158	291183 ✓	0
	Tl	205	0.005	ug/L	0.001	32	18	124	27
	Pb	208	0.003	ug/L	0.000	13	405	495	3
	Bi	209		ug/L			281037	276360	0
	Th	232	0.037	ug/L	0.007	17	35	1516	17
	U	238	0.002	ug/L	0.001	34	16	100	28

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 09:46:19
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	5533	2
	Cl	37		mg/L			1603536	1597762	0
>	Ge	72		ug/L			194270	186155 ✓	0
	Ni	60	0.495	ug/L	0.005	1	65	921	1
	Ni	62	0.502	ug/L	0.080	15	49	174	11
	Cu	63	0.518	ug/L	0.006	1	228	2139	0
	Cu	65	0.527	ug/L	0.030	5	79	980	6
	Zn	66	4.255	ug/L	0.071	1	239	4919	0
	Zn	67	3.744	ug/L	0.199	5	88	765	4
	Zn	68	3.980	ug/L	0.212	5	5360	8132	1
	As	75	0.258	ug/L	0.023	9	206	472	5
	As-1	75	0.438	ug/L	0.066	15	6847	7013	0
	Se	82	0.526	ug/L	0.039	7	-11	58	8
	Se	78	1.274	ug/L	0.173	13	6969	7065	0
	Y	89		ug/L			215048	205046	1
	Kr	83		ug/L			150	157	4
>	In	115		ug/L			260223	249116 ✓	0
	Ag	107	0.199	ug/L	0.004	1	14	1521	1
	Cd	111	0.117	ug/L	0.004	3	106	339	1
	Cd	114	0.104	ug/L	0.012	11	14	507	10
	Sb	121	0.218	ug/L	0.011	4	15	1456	4
	Sb	123	0.215	ug/L	0.009	4	10	1085	3
	Ba	135	0.511	ug/L	0.011	2	25	813	3
	Ba	137	0.494	ug/L	0.016	3	33	1336	3
>	Tb	159		ug/L			299158	287860 ✓	0
	Tl	205	0.214	ug/L	0.007	3	18	4947	3
	Pb	208	0.103	ug/L	0.001	1	405	3609	0
	Bi	209		ug/L			281037	275554	0
	Th	232	0.218	ug/L	0.003	1	35	8603	0
	U	238	0.200	ug/L	0.001	0	16	8743	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 09:51:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	14935	0
	Cl	37		mg/L			1603536	2664144	0
>	Ge	72		ug/L			194270	181428 ✓	0
	Ni	60	0.518	ug/L	0.030	5	65	936	5
	Ni	62	3.531	ug/L	0.098	2	49	920	2
	Cu	63	0.449	ug/L	0.009	1	228	1834	2
	Cu	65	0.601	ug/L	0.020	3	79	1080	3
	Zn	66	1.612	ug/L	0.014	0	239	1955	1
	Zn	67	1.841	ug/L	0.080	4	88	408	4
	Zn	68	0.434	ug/L	0.060	13	5360	5325	0
	As	75	0.116	ug/L	0.016	13	206	313	4
	As-1	75	0.126	ug/L	0.047	37	6847	6522	1
	Se	82	-0.083	ug/L	0.039	47	-11	-21	23
	Se	78	0.232	ug/L	0.180	77	6969	6578	1
	Y	89		ug/L			215048	200800	0
	Kr	83		ug/L			150	175	5
>	In	115		ug/L			260223	243672 ✓	0
	Ag	107	0.027	ug/L	0.002	5	14	210	6
	Cd	111	0.067	ug/L	0.026	39	106	232	23
	Cd	114	0.585	ug/L	0.013	2	14	2737	1
	Sb	121	0.070	ug/L	0.002	2	15	465	2
	Sb	123	0.071	ug/L	0.003	3	10	358	4
	Ba	135	0.037	ug/L	0.008	22	25	79	14
	Ba	137	0.036	ug/L	0.003	9	33	123	6
>	Tb	159		ug/L			299158	284073 ✓	0
	Tl	205	0.033	ug/L	0.002	6	18	773	6
	Pb	208	0.027	ug/L	0.001	2	405	1221	2
	Bi	209		ug/L			281037	258175	0
	Th	232	0.061	ug/L	0.007	10	35	2415	10
	U	238	0.001	ug/L	0.000	31	16	37	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 09:57:22
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	14732	0
	Cl	37		mg/L			1603536	2575350	0
>	Ge	72		ug/L			194270	176472 ✓	0
	Ni	60	20.497	ug/L	0.190	0	65	33778	1
	Ni	62	23.540	ug/L	0.644	2	49	5713	2
	Cu	63	20.203	ug/L	0.071	0	228	71167	0
	Cu	65	20.248	ug/L	0.264	1	79	33044	1
	Zn	66	20.371	ug/L	0.182	0	239	21503	1
	Zn	67	18.682	ug/L	0.154	0	88	3297	0
	Zn	68	18.809	ug/L	0.158	0	5360	18292	1
	As	75	19.411	ug/L	0.082	0	206	19799	0
	As-1	75	20.001	ug/L	0.031	0	6847	25789	0
	Se	82	-0.054	ug/L	0.129	239	-11	-17	95
	Se	78	0.099	ug/L	0.217	218	6969	6360	1
	Y	89		ug/L			215048	195765	1
	Kr	83		ug/L			150	171	6
>	In	115		ug/L			260223	236849 ✓	1
	Ag	107	19.880	ug/L	0.081	0	14	143350	1
	Cd	111	19.924	ug/L	0.069	0	106	38758	1
	Cd	114	20.381	ug/L	0.296	1	14	92301	1
	Sb	121	0.072	ug/L	0.002	3	15	465	1
	Sb	123	0.074	ug/L	0.006	7	10	361	6
	Ba	135	0.042	ug/L	0.006	13	25	83	9
	Ba	137	0.036	ug/L	0.003	9	33	120	6
>	Tb	159		ug/L			299158	279382 ✓	1
	Tl	205	0.031	ug/L	0.002	5	18	720	5
	Pb	208	0.026	ug/L	0.001	4	405	1159	2
	Bi	209		ug/L			281037	253443	0
	Th	232	0.033	ug/L	0.001	2	35	1305	3
	U	238	0.000	ug/L	0.000	23	16	29	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 10:03:08
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	5772	1
	Cl	37		mg/L			1603536	1471440	0
>	Ge	72		ug/L			194270	177878 ✓	0
	Ni	60	196.207	ug/L	2.808	1	65	325396	1
	Ni	62	194.204	ug/L	2.340	1	49	47187	1
	Cu	63	194.905	ug/L	1.757	0	228	690250	0
	Cu	65	194.312	ug/L	0.499	0	79	319013	0
	Zn	66	194.642	ug/L	2.048	1	239	205222	0
	Zn	67	194.111	ug/L	2.574	1	88	33772	1
	Zn	68	194.202	ug/L	1.132	0	5360	144604	0
	As	75	200.714	ug/L	1.150	0	206	204605	0
	As-1	75	200.332	ug/L	1.620	0	6847	203847	0
	Se	82	199.261	ug/L	0.370	0	-11	25263	0
	Se	78	197.974	ug/L	1.585	0	6969	63881	0
	Y	89		ug/L			215048	196508	0
	Kr	83		ug/L			150	187	2
>	In	115		ug/L			260223	239830 ✓	1
	Ag	107	198.084	ug/L	3.173	1	14	1446043	0
	Cd	111	199.380	ug/L	3.323	1	106	391803	0
	Cd	114	197.365	ug/L	3.987	2	14	904887	0
	Sb	121	203.002	ug/L	3.297	1	15	1290705	0
	Sb	123	204.148	ug/L	3.142	1	10	981736	1
	Ba	135	204.442	ug/L	0.706	0	25	303841	1
	Ba	137	203.496	ug/L	1.024	0	33	516958	1
>	Tb	159		ug/L			299158	279268 ✓	0
	Tl	205	202.079	ug/L	2.377	1	18	4511298	0
	Pb	208	205.105	ug/L	1.333	0	405	6218136	0
	Bi	209		ug/L			281037	250455	0
	Th	232	208.084	ug/L	1.464	0	35	7946642	0
	U	238	207.283	ug/L	1.158	0	16	8771826	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 10:09:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	6071	0
	Cl	37		mg/L			1603536	1500264	1
>	Ge	72		ug/L			194270	182664 ✓	1
	Ni	60	293.541	ug/L	1.942	0	65	499904	1
	Ni	62	291.296	ug/L	2.374	0	49	72656	0
	Cu	63	288.566	ug/L	1.924	0	228	1049278	0
	Cu	65	288.664	ug/L	3.290	1	79	486587	0
	Zn	66	285.336	ug/L	2.610	0	239	308818	0
	Zn	67	288.511	ug/L	2.668	0	88	51503	0
	Zn	68	288.052	ug/L	4.121	1	5360	217793	0
	As	75	297.647	ug/L	4.570	1	206	311444	0
	As-1	75	297.626	ug/L	4.246	1	6847	307834	0
	Se	82	290.343	ug/L	4.391	1	-11	37801	0
	Se	78	289.621	ug/L	2.550	0	6969	92925	0
	Y	89		ug/L			215048	203789	0
	Kr	83		ug/L			150	204	2
>	In	115		ug/L			260223	242981 ✓	0
	Ag	107	306.624	ug/L	2.633	0	14	2268094	0
	Cd	111	299.217	ug/L	2.694	0	106	595757	1
	Cd	114	299.087	ug/L	2.098	0	14	1389477	0
	Sb	121	305.256	ug/L	1.461	0	15	1966617	0
	Sb	123	305.201	ug/L	1.173	0	10	1487048	0
	Ba	135	304.872	ug/L	4.889	1	25	459060	1
	Ba	137	303.814	ug/L	4.183	1	33	781945	1
>	Tb	159		ug/L			299158	284710 ✓	0
	Tl	205	304.381	ug/L	3.935	1	18	6927425	0
	Pb	208	309.924	ug/L	1.854	0	405	9578872	0
	Bi	209		ug/L			281037	246263	0
	Th	232	311.723	ug/L	2.752	0	35	12136425	0
	U	238	310.163	ug/L	1.826	0	16	13381534	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 10:15:19
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	4726	3
	Cl	37		mg/L			1603536	1531330	0
⌈>	Ge	72		ug/L			194270	183392 ✓	0
|	Ni	60	51.466	ug/L	0.104	0	65	88044	0
|	Ni	62	50.761	ug/L	0.428	0	49	12750	1
|	Cu	63	51.580	ug/L	0.655	1	228	188480	0
|	Cu	65	51.312	ug/L	0.880	1	79	86899	1
|	Zn	66	51.833	ug/L	1.118	2	239	56504	1
|	Zn	67	52.081	ug/L	0.621	1	88	9404	1
|	Zn	68	51.961	ug/L	0.197	0	5360	43596	0
|	As	75	51.608	ug/L	0.382	0	206	54381	0
|	As-1	75	51.457	ug/L	0.477	0	6847	58783	0
|	Se	82	51.787	ug/L	0.415	0	-11	6761	1
⌊	Se	78	51.346	ug/L	0.459	0	6969	21953	0
	Y	89		ug/L			215048	200560	0
	Kr	83		ug/L			150	155	4
⌈>	In	115		ug/L			260223	245178 ✓	0
|	Ag	107	51.206	ug/L	0.311	0	14	382194	0
|	Cd	111	51.394	ug/L	0.236	0	106	103336	1
|	Cd	114	51.664	ug/L	0.378	0	14	242198	0
|	Sb	121	52.157	ug/L	0.673	1	15	339049	0
|	Sb	123	52.375	ug/L	0.277	0	10	257501	0
|	Ba	135	51.659	ug/L	0.573	1	25	78504	1
⌊	Ba	137	52.196	ug/L	0.648	1	33	135578	1
⌈>	Tb	159		ug/L			299158	287717 ✓	0
|	Tl	205	49.887	ug/L	0.385	0	18	1147445	0
|	Pb	208	51.534	ug/L	0.249	0	405	1609945	0
|	Bi	209		ug/L			281037	270763	0
|	Th	232	49.977	ug/L	0.326	0	35	1966413	0
⌊	U	238	52.541	ug/L	0.142	0	16	2290811	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 10:21:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	6024	3
	Cl	37		mg/L			1603536	1530280	0
>	Ge	72		ug/L			194270	182837 ✓	0
	Ni	60	-0.019	ug/L	0.002	10	65	30	11
	Ni	62	-0.048	ug/L	0.015	31	49	34	10
	Cu	63	0.000	ug/L	0.003	679	228	217	5
	Cu	65	0.008	ug/L	0.003	37	79	87	5
	Zn	66	-0.002	ug/L	0.009	383	239	222	3
	Zn	67	-0.069	ug/L	0.062	90	88	71	14
	Zn	68	-0.367	ug/L	0.081	21	5360	4774	1
	As	75	0.034	ug/L	0.016	45	206	229	6
	As-1	75	0.071	ug/L	0.139	196	6847	6515	1
	Se	82	-0.025	ug/L	0.055	222	-11	-13	50
	Se	78	0.177	ug/L	0.432	244	6969	6611	1
	Y	89		ug/L			215048	202542	0
	Kr	83		ug/L			150	151	4
>	In	115		ug/L			260223	243154 ✓	0
	Ag	107	0.016	ug/L	0.002	12	14	130	11
	Cd	111	0.003	ug/L	0.006	199	106	105	11
	Cd	114	-0.001	ug/L	0.001	146	14	10	42
	Sb	121	0.090	ug/L	0.017	19	15	596	18
	Sb	123	0.095	ug/L	0.013	13	10	474	13
	Ba	135	0.001	ug/L	0.004	766	25	24	25
	Ba	137	0.002	ug/L	0.004	174	33	37	29
>	Tb	159		ug/L			299158	283081 ✓	0
	Tl	205	0.010	ug/L	0.002	20	18	252	18
	Pb	208	0.005	ug/L	0.002	41	405	544	11
	Bi	209		ug/L			281037	272380	0
	Th	232	0.057	ug/L	0.012	20	35	2219	19
	U	238	0.003	ug/L	0.001	26	16	128	22

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA39 MB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 10:28:49
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	6910	2
	Cl	37		mg/L			1603536	1556399	0
>	Ge	72		ug/L			194270	192489 ✓	0
	Ni	60	-0.005	ug/L	0.004	84	65	56	13
	Ni	62	-0.025	ug/L	0.046	183	49	42	28
	Cu	63	0.224	ug/L	0.013	5	228	1084	5
	Cu	65	0.233	ug/L	0.008	3	79	492	3
	Zn	66	1.093	ug/L	0.041	3	239	1482	2
	Zn	67	0.919	ug/L	0.056	6	88	260	3
	Zn	68	0.287	ug/L	0.059	20	5360	5534	0
	As	75	0.025	ug/L	0.003	12	206	231	1
	As-1	75	-0.243	ug/L	0.011	4	6847	6525	0
	Se	82	0.007	ug/L	0.027	384	-11	-10	35
	Se	78	-0.888	ug/L	0.046	5	6969	6627	0
	Y	89		ug/L			215048	214881	0
	Kr	83		ug/L			150	150	2
>	In	115		ug/L			260223	257565 ✓	0
	Ag	107	0.012	ug/L	0.001	9	14	107	8
	Cd	111	0.011	ug/L	0.001	8	106	128	2
	Cd	114	-0.000	ug/L	0.001	205	14	12	35
	Sb	121	0.045	ug/L	0.005	10	15	320	9
	Sb	123	0.044	ug/L	0.004	9	10	237	8
	Ba	135	0.021	ug/L	0.001	6	25	58	3
	Ba	137	0.026	ug/L	0.005	20	33	103	14
>	Tb	159		ug/L			299158	301456 ✓	0
	Tl	205	0.007	ug/L	0.001	18	18	192	16
	Pb	208	u 0.018	ug/L	0.000	2	405	1012	1
	Bi	209		ug/L			281037	288560	0
	Th	232	0.036	ug/L	0.005	12	35	1514	12
	U	238	0.002	ug/L	0.000	13	16	88	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA39 ADUP REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 25, 2013 10:34:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	6405	0
	Cl	37		mg/L			1603536	1717649	0
>	Ge	72		ug/L			194270	191932 ✓	0
	Ni	60	5.840	ug/L	0.107	1	65	10513	2
	Ni	62	6.251	ug/L	0.218	3	49	1685	3
	Cu	63	7.567	ug/L	0.145	1	228	29134	2
	Cu	65	7.339	ug/L	0.050	0	79	13076	0
	Zn	66	18.881	ug/L	0.205	1	239	21693	0
	Zn	67	17.497	ug/L	0.386	2	88	3364	2
	Zn	68	18.064	ug/L	0.093	0	5360	19317	0
	As	75	2.061	ug/L	0.059	2	206	2468	2
	As-1	75	1.698	ug/L	0.080	4	6847	8571	0
	Se	82	0.828	ug/L	0.065	7	-11	102	8
	Se	78	-0.483	ug/L	0.163	33	6969	6734	0
	Y	89		ug/L			215048	228232	0
	Kr	83		ug/L			150	155	5
>	In	115		ug/L			260223	258293 ✓	0
	Ag	107	0.027	ug/L	0.001	5	14	224	5
	Cd	111	0.061	ug/L	0.009	14	106	234	7
	Cd	114	0.086	ug/L	0.007	7	14	438	7
	Sb	121	0.225	ug/L	0.010	4	15	1557	3
	Sb	123	0.225	ug/L	0.006	2	10	1175	3
	Ba	135	13.698	ug/L	0.088	0	25	21949	1
	Ba	137	13.928	ug/L	0.230	1	33	38138	1
>	Tb	159		ug/L			299158	300121 ✓	0
	Tl	205	0.014	ug/L	0.002	11	18	360	10
	Pb	208	3.664	ug/L	0.007	0	405	119780	0
	Bi	209		ug/L			281037	277213	0
	Th	232	0.177	ug/L	0.003	1	35	7302	1
	U	238	0.125	ug/L	0.001	1	16	5724	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA39 A REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 25, 2013 10:40:21
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			6303	6518	2
Cl	37		mg/L			1603536	1749682	0
> Ge	72		ug/L			194270	200149 ✓	0
Ni	60	5.789	ug/L	0.126	2	65	10868	2
Ni	62	6.339	ug/L	0.082	1	49	1782	1
Cu	63	7.416	ug/L	0.006	0	228	29779	0
Cu	65	7.380	ug/L	0.086	1	79	13712	0
Zn	66	18.730	ug/L	0.024	0	239	22443	0
Zn	67	17.979	ug/L	0.223	1	88	3602	1
Zn	68	17.739	ug/L	0.254	1	5360	19880	0
As	75	2.032	ug/L	0.013	0	206	2540	0
As-1	75	1.462	ug/L	0.059	4	6847	8677	0
Se	82	0.734	ug/L	0.129	17	-11	93	19
Se	78	-1.328	ug/L	0.284	21	6969	6746	1
Y	89		ug/L			215048	237541	0
Kr	83		ug/L			150	155	5
> In	115		ug/L			260223	267182 ✓	0
Ag	107	0.027	ug/L	0.002	6	14	237	6
Cd	111	0.079	ug/L	0.013	16	106	282	10
Cd	114	0.095	ug/L	0.006	6	14	502	5
Sb	121	0.245	ug/L	0.002	0	15	1754	1
Sb	123	0.246	ug/L	0.007	2	10	1328	3
Ba	135	14.071	ug/L	0.243	1	25	23319	1
Ba	137	14.238	ug/L	0.284	1	33	40325	1
> Tb	159		ug/L			299158	312775 ✓	0
Tl	205	0.013	ug/L	0.000	3	18	342	2
Pb	208	3.610	ug/L	0.009	0	405	122984	0
Bi	209		ug/L			281037	293070	1
Th	232	0.170	ug/L	0.001	0	35	7288	0
U	238	0.129	ug/L	0.003	2	16	6124	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA39 ASPK REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 25, 2013 10:46:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	6352	2
	Cl	37		mg/L			1603536	1777789	0
>	Ge	72		ug/L			194270	211274 ✓	1
	Ni	60	11.283	ug/L	0.083	0	65	22293	1
	Ni	62	11.710	ug/L	0.268	2	49	3430	3
	Cu	63	12.971	ug/L	0.048	0	228	54791	0
	Cu	65	12.751	ug/L	0.213	1	79	24945	1
	Zn	66	36.231	ug/L	0.643	1	239	45584	2
	Zn	67	33.350	ug/L	0.124	0	88	6971	0
	Zn	68	34.566	ug/L	0.192	0	5360	35362	0
	As	75	7.931	ug/L	0.148	1	206	9818	1
	As-1	75	6.629	ug/L	0.179	2	6847	15210	0
	Se	82	18.527	ug/L	0.230	1	-11	2778	1
	Se	78	15.165	ug/L	0.390	2	6969	12810	0
	Y	89		ug/L			215048	252889	2
	Kr	83		ug/L			150	149	4
>	In	115		ug/L			260223	287356 ✓	2
	Ag	107	3.710	ug/L	0.016	0	14	32467	2
	Cd	111	5.344	ug/L	0.080	1	106	12695	1
	Cd	114	5.282	ug/L	0.034	0	14	29030	1
	Sb	121	0.238	ug/L	0.011	4	15	1829	3
	Sb	123	0.228	ug/L	0.002	0	10	1326	2
	Ba	135	18.732	ug/L	0.337	1	25	33389	4
	Ba	137	18.929	ug/L	0.128	0	33	57650	2
>	Tb	159		ug/L			299158	332161 ✓	1
	Tl	205	5.189	ug/L	0.022	0	18	137802	1
	Pb	208	8.982	ug/L	0.064	0	405	324277	1
	Bi	209		ug/L			281037	311666	1
	Th	232	5.305	ug/L	0.036	0	35	241009	1
	U	238	5.231	ug/L	0.050	0	16	263265	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA39 MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 10:51:55
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	7892	0
	Cl	37		mg/L			1603536	1619839	0
>	Ge	72		ug/L			194270	215636 ✓	1
	Ni	60	27.380	ug/L	0.338	1	65	55102	0
	Ni	62	26.716	ug/L	0.332	1	49	7915	1
	Cu	63	27.612	ug/L	0.258	0	228	118766	2
	Cu	65	27.679	ug/L	0.366	1	79	55168	2
	Zn	66	85.072	ug/L	1.025	1	239	108897	2
	Zn	67	79.997	ug/L	1.873	2	88	16928	2
	Zn	68	83.341	ug/L	0.839	1	5360	78627	2
	As	75	28.295	ug/L	0.178	0	206	35161	1
	As-1	75	25.094	ug/L	0.388	1	6847	37603	2
	Se	82	84.684	ug/L	0.373	0	-11	13008	1
	Se	78	79.844	ug/L	0.756	0	6969	35849	2
	Y	89		ug/L			215048	241063	2
	Kr	83		ug/L			150	149	1
>	In	115		ug/L			260223	297186 ✓	2
	Ag	107	26.311	ug/L	0.365	1	14	238036	1
	Cd	111	25.084	ug/L	0.322	1	106	61199	2
	Cd	114	25.206	ug/L	0.162	0	14	143232	1
	Sb	121	0.014	ug/L	0.001	6	15	130	4
	Sb	123	0.015	ug/L	0.001	5	10	100	4
	Ba	135	25.931	ug/L	0.320	1	25	47781	2
	Ba	137	26.274	ug/L	0.283	1	33	82752	2
>	Tb	159		ug/L			299158	345892 ✓	1
	Tl	205	25.483	ug/L	0.101	0	18	704654	1
	Pb	208	26.612	ug/L	0.289	1	405	999777	2
	Bi	209		ug/L			281037	327908	2
	Th	232	24.936	ug/L	0.422	1	35	1179678	2
	U	238	24.690	ug/L	0.192	0	16	1294251	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 10:57:43
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	4836	0
	Cl	37		mg/L			1603536	1620713	0
>	Ge	72		ug/L			194270	203710 ✓	0
	Ni	60	52.364	ug/L	0.757	1	65	99507	1
	Ni	62	51.578	ug/L	1.131	2	49	14391	2
	Cu	63	51.651	ug/L	0.547	1	228	209666	1
	Cu	65	51.265	ug/L	0.586	1	79	96448	1
	Zn	66	52.323	ug/L	0.420	0	239	63363	1
	Zn	67	52.147	ug/L	0.566	1	88	10458	1
	Zn	68	51.373	ug/L	0.496	0	5360	47941	0
	As	75	51.949	ug/L	0.235	0	206	60806	0
	As-1	75	51.229	ug/L	0.445	0	6847	65041	0
	Se	82	52.775	ug/L	0.027	0	-11	7654	0
	Se	78	50.406	ug/L	0.703	1	6969	24074	0
	Y	89		ug/L			215048	228144	0
	Kr	83		ug/L			150	163	1
>	In	115		ug/L			260223	279814 ✓	1
	Ag	107	51.020	ug/L	0.682	1	14	434557	0
	Cd	111	51.999	ug/L	0.094	0	106	119318	1
	Cd	114	51.904	ug/L	0.305	0	14	277681	1
	Sb	121	50.972	ug/L	0.385	0	15	378155	1
	Sb	123	50.918	ug/L	0.478	0	10	285681	1
	Ba	135	51.285	ug/L	0.866	1	25	88932	0
	Ba	137	51.471	ug/L	0.759	1	33	152564	0
>	Tb	159		ug/L			299158	324160 ✓	0
	Tl	205	50.064	ug/L	0.226	0	18	1297354	0
	Pb	208	51.626	ug/L	0.273	0	405	1817131	1
	Bi	209		ug/L			281037	302103	1
	Th	232	52.457	ug/L	0.523	0	35	2325472	1
	U	238	52.469	ug/L	0.436	0	16	2577347	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 11:03:50
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			6303	5965	3
Cl	37		mg/L			1603536	1647161	0
> Ge	72		ug/L			194270	205869 ✓	0
Ni	60	-0.021	ug/L	0.002	8	65	30	11
Ni	62	-0.045	ug/L	0.025	56	49	39	17
Cu	63	-0.011	ug/L	0.006	54	228	197	12
Cu	65	-0.005	ug/L	0.003	60	79	74	7
Zn	66	0.018	ug/L	0.017	93	239	275	7
Zn	67	-0.070	ug/L	0.013	18	88	80	3
Zn	68	-1.053	ug/L	0.116	11	5360	4804	1
As	75	0.006	ug/L	0.004	70	206	225	2
As-1	75	-0.614	ug/L	0.032	5	6847	6555	0
Se	82	0.054	ug/L	0.058	107	-11	-4	212
Se	78	-2.099	ug/L	0.114	5	6969	6680	0
Y	89		ug/L			215048	232356	1
Kr	83		ug/L			150	151	1
> In	115		ug/L			260223	284124 ✓	2
Ag	107	0.010	ug/L	0.001	9	14	98	10
Cd	111	0.003	ug/L	0.005	137	106	123	6
Cd	114	-0.001	ug/L	0.001	138	14	12	37
Sb	121	0.039	ug/L	0.006	14	15	307	15
Sb	123	0.038	ug/L	0.006	14	10	227	15
Ba	135	0.003	ug/L	0.003	109	25	32	19
Ba	137	0.002	ug/L	0.003	145	33	43	20
> Tb	159		ug/L			299158	324993 ✓	0
Tl	205	0.005	ug/L	0.001	29	18	148	25
Pb	208	0.006	ug/L	0.001	24	405	635	7
Bi	209		ug/L			281037	309027	0
Th	232	0.039	ug/L	0.007	17	35	1784	17
U	238	0.002	ug/L	0.001	37	16	107	31

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 ADUP REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 25, 2013 11:09:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	6180	1
	Cl	37		mg/L			1603536	2822453	1
>	Ge	72		ug/L			194270	205971	1
	Ni	60	3.284	ug/L	0.069	2	65	6374	2
	Ni	62	2.922	ug/L	0.071	2	49	873	2
	Cu	63	0.922	ug/L	0.012	1	228	4020	1
	Cu	65	0.072	ug/L	0.007	10	79	220	4
	Zn	66	1.062	ug/L	0.043	4	239	1549	4
	Zn	67	1.789	ug/L	0.140	7	88	453	5
	Zn	68	0.694	ug/L	0.141	20	5360	6261	1
	As	75	0.803	ug/L	0.016	2	206	1165	2
	As-1	75	0.006	ug/L	0.096	1597	6847	7265	0
	Se	82	0.835	ug/L	0.044	5	-11	110	4
	Se	78	-1.897	ug/L	0.318	16	6969	6750	0
	Y	89		ug/L			215048	234829	0
	Kr	83		ug/L			150	154	5
>	In	115		ug/L			260223	273291	1
	Ag	107	0.017	ug/L	0.005	31	14	155	29
	Cd	111	-0.062	ug/L	0.019	31	106	-26	165
	Cd	114	0.003	ug/L	0.002	55	14	32	29
	Sb	121	0.078	ug/L	0.005	6	15	579	4
	Sb	123	0.078	ug/L	0.001	1	10	438	1
	Ba	135	37.867	ug/L	0.264	0	25	64146	0
	Ba	137	38.062	ug/L	0.487	1	33	110201	0
>	Tb	159		ug/L			299158	323618	0
	Tl	205	0.003	ug/L	0.001	19	18	105	14
	Pb	208	0.032	ug/L	0.000	0	405	1566	1
	Bi	209		ug/L			281037	289387	0
	Th	232	0.052	ug/L	0.002	3	35	2329	2
	U	238	0.020	ug/L	0.001	3	16	989	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 A REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 25, 2013 11:14:54
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	6382	0
	Cl	37		mg/L			1603536	3065888	1
>	Ge	72		ug/L			194270	235982	4
	Ni	60	3.555	ug/L	0.037	1	65	7898	4
	Ni	62	3.235	ug/L	0.215	6	49	1099	1
	Cu	63	1.078	ug/L	0.032	2	228	5347	7
	Cu	65	0.091	ug/L	0.011	11	79	296	12
	Zn	66	1.084	ug/L	0.045	4	239	1807	7
	Zn	67	1.690	ug/L	0.050	2	88	497	6
	Zn	68	-0.027	ug/L	0.280	1034	5360	6477	0
	As	75	0.815	ug/L	0.020	2	206	1350	2
	As-1	75	-0.592	ug/L	0.293	49	6847	7531	0
	Se	82	1.130	ug/L	0.070	6	-11	176	11
	Se	78	-3.790	ug/L	0.926	24	6969	6994	0
	Y	89		ug/L			215048	278679	6
	Kr	83		ug/L			150	152	3
>	In	115		ug/L			260223	329094	6
	Ag	107	0.005	ug/L	0.001	23	14	68	21
	Cd	111	-0.072	ug/L	0.011	14	106	-59	40
	Cd	114	0.002	ug/L	0.001	43	14	28	10
	Sb	121	0.064	ug/L	0.002	2	15	577	8
	Sb	123	0.065	ug/L	0.004	6	10	439	5
	Ba	135	37.328	ug/L	0.341	0	25	76135	5
	Ba	137	37.524	ug/L	0.328	0	33	130797	5
>	Tb	159		ug/L			299158	378058	5
	Tl	205	0.001	ug/L	0.000	43	18	45	22
	Pb	208	0.030	ug/L	0.002	6	405	1740	7
	Bi	209		ug/L			281037	332466	3
	Th	232	0.029	ug/L	0.002	6	35	1559	7
	U	238	0.017	ug/L	0.001	3	16	1020	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 ASPK REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 25, 2013 11:20:41 Del
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	6246	2
	Cl	37		mg/L			1603536	3169508	0
>	Ge	72		ug/L			194270	243275	1
	Ni	60	8.841	ug/L	0.076	0	65	20133	2
	Ni	62	8.542	ug/L	0.205	2	49	2897	1
	Cu	63	6.255	ug/L	0.041	0	228	30574	1
	Cu	65	5.358	ug/L	0.031	0	79	12128	2
	Zn	66	17.701	ug/L	0.143	0	239	25795	1
	Zn	67	16.911	ug/L	0.378	2	88	4125	2
	Zn	68	15.925	ug/L	0.399	2	5360	22375	0
	As	75	6.455	ug/L	0.093	1	206	9248	1
	As-1	75	4.741	ug/L	0.221	4	6847	14966	1
	Se	82	18.240	ug/L	0.151	0	-11	3150	2
	Se	78	13.533	ug/L	0.572	4	6969	14101	0
	Y	89		ug/L			215048	287896	1
	Kr	83		ug/L			150	159	2
>	In	115		ug/L			260223	338693	2
	Ag	107	5.111	ug/L	0.097	1	14	52705	0
	Cd	111	5.025	ug/L	0.110	2	106	14078	1
	Cd	114	5.015	ug/L	0.023	0	14	32495	2
	Sb	121	4.889	ug/L	0.076	1	15	43914	0
	Sb	123	4.848	ug/L	0.036	0	10	32938	2
	Ba	135	40.992	ug/L	0.519	1	25	86045	0
	Ba	137	40.946	ug/L	0.755	1	33	146895	0
>	Tb	159		ug/L			299158	375637	1
	Tl	205	5.069	ug/L	0.009	0	18	152225	1
	Pb	208	5.209	ug/L	0.050	0	405	212892	0
	Bi	209		ug/L			281037	337893	1
	Th	232	5.081	ug/L	0.057	1	35	261054	1
	U	238	5.022	ug/L	0.070	1	16	285853	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 B REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 25, 2013 11:26:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	6076	0
	Cl	37		mg/L			1603536	4794840	3
>	Ge	72		ug/L			194270	246672	6
	Ni	60	1.888	ug/L	0.113	6	65	4434	11
	Ni	62	1.627	ug/L	0.102	6	49	609	6
	Cu	63	2.037	ug/L	0.074	3	228	10308	9
	Cu	65	0.282	ug/L	0.010	3	79	741	3
	Zn	66	1.352	ug/L	0.020	1	239	2278	6
	Zn	67	3.148	ug/L	0.272	8	88	869	8
	Zn	68	0.341	ug/L	0.451	132	5360	7127	1
	As	75	1.694	ug/L	0.033	1	206	2655	8
	As-1	75	-0.042	ug/L	0.296	711	6847	8619	1
	Se	82	1.644	ug/L	0.032	1	-11	274	6
	Se	78	-4.350	ug/L	1.154	26	6969	7077	0
	Y	89		ug/L			215048	298643	8
	Kr	83		ug/L			150	172	3
>	In	115		ug/L			260223	350513	8
	Ag	107	0.007	ug/L	0.003	39	14	99	38
	Cd	111	-0.078	ug/L	0.012	14	106	-81	46
	Cd	114	0.002	ug/L	0.001	60	14	35	29
	Sb	121	0.142	ug/L	0.003	1	15	1337	7
	Sb	123	0.133	ug/L	0.004	3	10	949	7
	Ba	135	76.187	ug/L	0.723	0	25	165427	7
	Ba	137	75.680	ug/L	1.583	2	33	280763	6
>	Tb	159		ug/L			299158	384378	8
	Tl	205	0.008	ug/L	0.002	29	18	267	34
	Pb	208	0.032	ug/L	0.001	2	405	1871	7
	Bi	209		ug/L			281037	336410	6
	Th	232	0.032	ug/L	0.004	12	35	1749	19
	U	238	0.054	ug/L	0.001	2	16	3167	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 C REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 25, 2013 11:32:14
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	6219	0
	Cl	37		mg/L			1603536	1934482	1
[>	Ge	72		ug/L			194270	252995	2
|	Ni	60	1.900	ug/L	0.039	2	65	4564	0
|	Ni	62	1.459	ug/L	0.089	6	49	567	7
|	Cu	63	1.100	ug/L	0.016	1	228	5839	2
|	Cu	65	1.125	ug/L	0.008	0	79	2730	1
|	Zn	66	1.337	ug/L	0.009	0	239	2313	2
|	Zn	67	1.432	ug/L	0.219	15	88	469	12
|	Zn	68	-0.525	ug/L	0.106	20	5360	6445	3
|	As	75	0.434	ug/L	0.029	6	206	897	5
|	As-1	75	-0.843	ug/L	0.147	17	6847	7731	0
|	Se	82	0.137	ug/L	0.114	83	-11	10	202
L	Se	78	-4.430	ug/L	0.486	10	6969	7243	0
	Y	89		ug/L			215048	288954	2
	Kr	83		ug/L			150	161	6
[>	In	115		ug/L			260223	366024	1
|	Ag	107	0.003	ug/L	0.001	38	14	52	23
|	Cd	111	0.022	ug/L	0.004	17	106	215	6
|	Cd	114	0.004	ug/L	0.002	35	14	51	23
|	Sb	121	0.365	ug/L	0.003	0	15	3565	0
|	Sb	123	0.361	ug/L	0.007	1	10	2662	1
|	Ba	135	11.448	ug/L	0.301	2	25	26007	4
L	Ba	137	11.444	ug/L	0.126	1	33	44417	2
[>	Tb	159		ug/L			299158	385830	0
|	Tl	205	0.003	ug/L	0.001	31	18	115	26
|	Pb	208	0.127	ug/L	0.001	0	405	5860	1
|	Bi	209		ug/L			281037	364723	1
|	Th	232	0.011	ug/L	0.001	6	35	643	6
L	U	238	0.173	ug/L	0.002	1	16	10137	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 D REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 25, 2013 11:38:00
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

Dal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	6178	0
	Cl	37		mg/L			1603536	2896287	0
⌈>	Ge	72		ug/L			194270	255661	1
|	Nl	60	1.506	ug/L	0.079	5	65	3675	5
|	Ni	62	1.248	ug/L	0.095	7	49	500	7
|	Cu	63	0.686	ug/L	0.021	3	228	3790	3
|	Cu	65	0.159	ug/L	0.002	1	79	479	1
|	Zn	66	1.488	ug/L	0.024	1	239	2566	2
|	Zn	67	2.803	ug/L	0.132	4	88	816	5
|	Zn	68	0.301	ug/L	0.148	49	5360	7364	0
|	As	75	0.575	ug/L	0.021	3	206	1113	3
|	As-1	75	-1.008	ug/L	0.056	5	6847	7581	0
|	Se	82	0.684	ug/L	0.106	15	-11	109	18
⌊	Se	78	-4.837	ug/L	0.152	3	6969	7153	0
	Y	89		ug/L			215048	301513	2
	Kr	83		ug/L			150	168	2
⌈>	In	115		ug/L			260223	366478	1
|	Ag	107	0.003	ug/L	0.000	9	14	55	3
|	Cd	111	-0.008	ug/L	0.002	30	106	126	5
|	Cd	114	0.003	ug/L	0.001	18	14	39	7
|	Sb	121	0.104	ug/L	0.001	0	15	1035	1
|	Sb	123	0.102	ug/L	0.002	1	10	766	3
|	Ba	135	56.450	ug/L	0.197	0	25	128228	2
⌊	Ba	137	56.118	ug/L	1.100	1	33	217853	1
⌈>	Tb	159		ug/L			299158	394762	2
|	Tl	205	0.002	ug/L	0.000	11	18	80	9
|	Pb	208	0.017	ug/L	0.000	1	405	1283	1
|	Bi	209		ug/L			281037	360630	2
|	Th	232	0.011	ug/L	0.001	7	35	625	8
⌊	U	238	0.050	ug/L	0.002	4	16	3011	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 E REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 25, 2013 11:43:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	5482	2
	Cl	37		mg/L			1603536	11061068	1
>	Ge	72		ug/L			194270	191455 ✓	2
	Ni	60	1.994	ug/L	0.043	2	65	3624	3
	Ni	62	6.003	ug/L	0.796	13	49	1613	10
	Cu	63	7.593	ug/L	0.141	1	228	29149	0
	Cu	65	0.600	ug/L	0.009	1	79	1138	1
	Zn	66	1.314	ug/L	0.033	2	239	1726	4
	Zn	67	2.587	ug/L	0.098	3	88	570	0
	Zn	68	0.655	ug/L	0.243	37	5360	5787	1
	As	75	1.593	ug/L	0.080	5	206	1949	4
	As-1	75	0.448	ug/L	0.276	61	6847	7218	2
	Se	82	1.853	ug/L	0.043	2	-11	241	2
	Se	78	-1.491	ug/L	0.852	57	6969	6398	1
	Y	89		ug/L			215048	239235	3
	Kr	83		ug/L			150	210	1
>	In	115		ug/L			260223	259295 ✓	2
	Ag	107	0.012	ug/L	0.002	19	14	110	18
	Cd	111	-0.720	ug/L	0.169	23	106	-1416	22
	Cd	114	0.002	ug/L	0.001	23	14	25	11
	Sb	121	0.197	ug/L	0.001	0	15	1372	1
	Sb	123	0.201	ug/L	0.005	2	10	1054	4
	Ba	135	61.082	ug/L	0.546	0	25	98179	3
	Ba	137	61.042	ug/L	0.454	0	33	167702	3
>	Tb	159		ug/L			299158	284508 ✓	3
	Tl	205	0.001	ug/L	0.000	24	18	43	12
	Pb	208	0.009	ug/L	0.001	14	405	654	3
	Bi	209		ug/L			281037	242365	3
	Th	232	0.018	ug/L	0.002	12	35	738	9
	U	238	0.053	ug/L	0.001	2	16	2306	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 F REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 25, 2013 11:49:32
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

BR 3A 1/25/13 Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	5819	0
	Cl	37		mg/L			1603536	2491181	0
>	Ge	72		ug/L			194270	246737	0
	Ni	60	2.691	ug/L	0.084	3	65	6272	2
	Ni	62	2.136	ug/L	0.100	4	49	781	4
	Cu	63	0.158	ug/L	0.019	12	228	1068	8
	Cu	65	0.099	ug/L	0.006	5	79	325	3
	Zn	66	0.665	ug/L	0.015	2	239	1275	1
	Zn	67	1.095	ug/L	0.163	14	88	376	10
	Zn	68	-0.845	ug/L	0.046	5	5360	5965	0
	As	75	0.097	ug/L	0.012	12	206	399	4
	As-1	75	-1.035	ug/L	0.046	4	6847	7280	0
	Se	82	0.154	ug/L	0.026	16	-11	12	34
	Se	78	-3.885	ug/L	0.203	5	6969	7286	0
	Y	89		ug/L			215048	280451	0
	Kr	83		ug/L			150	156	1
>	In	115		ug/L			260223	354856	0
	Ag	107	0.002	ug/L	0.001	37	14	42	19
	Cd	111	0.029	ug/L	0.007	23	106	229	9
	Cd	114	0.000	ug/L	0.000	682	14	20	15
	Sb	121	0.023	ug/L	0.001	5	15	234	4
	Sb	123	0.025	ug/L	0.003	10	10	189	9
	Ba	135	14.867	ug/L	0.216	1	25	32721	0
	Ba	137	14.895	ug/L	0.310	2	33	56027	1
>	Tb	159		ug/L			299158	361008	1
	Tl	205	0.001	ug/L	0.000	23	18	54	14
	Pb	208	0.008	ug/L	0.001	19	405	785	6
	Bi	209		ug/L			281037	354390	0
	Th	232	0.012	ug/L	0.001	5	35	656	5
	U	238	0.024	ug/L	0.001	4	16	1338	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA43 G REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 25, 2013 11:55:17
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	5567	1
	Cl	37		mg/L			1603536	1956742	0
>	Ge	72		ug/L			194270	254103	1
	Ni	60	0.694	ug/L	0.014	2	65	1729	1
	Ni	62	0.517	ug/L	0.089	17	49	243	13
	Cu	63	0.473	ug/L	0.005	0	228	2689	2
	Cu	65	0.419	ug/L	0.011	2	79	1087	3
	Zn	66	0.821	ug/L	0.012	1	239	1548	2
	Zn	67	1.362	ug/L	0.035	2	88	453	2
	Zn	68	-1.132	ug/L	0.083	7	5360	5847	0
	As	75	0.322	ug/L	0.008	2	206	737	2
	As-1	75	-1.072	ug/L	0.150	13	6847	7442	1
	Se	82	0.169	ug/L	0.041	24	-11	15	45
	Se	78	-4.791	ug/L	0.507	10	6969	7126	1
	Y	89		ug/L			215048	285784	1
	Kr	83		ug/L			150	159	6
>	In	115		ug/L			260223	368726	1
	Ag	107	0.001	ug/L	0.001	56	14	37	26
	Cd	111	0.016	ug/L	0.007	44	106	198	8
	Cd	114	0.006	ug/L	0.002	34	14	59	23
	Sb	121	0.158	ug/L	0.006	3	15	1567	5
	Sb	123	0.159	ug/L	0.008	4	10	1187	4
	Ba	135	5.034	ug/L	0.036	0	25	11537	2
	Ba	137	4.996	ug/L	0.111	2	33	19555	2
>	Tb	159		ug/L			299158	370793	1
	Tl	205	0.001	ug/L	0.000	14	18	65	9
	Pb	208	0.039	ug/L	0.000	1	405	2067	1
	Bi	209		ug/L			281037	364857	1
	Th	232	0.008	ug/L	0.001	8	35	447	6
	U	238	0.066	ug/L	0.001	1	16	3733	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 12:01:04
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	4213	2
	Cl	37		mg/L			1603536	1837742	0
>	Ge	72		ug/L			194270	266795	0
	Ni	60	55.763	ug/L	0.631	1	65	138763	0
	Ni	62	56.073	ug/L	0.561	1	49	20482	0
	Cu	63	55.372	ug/L	0.579	1	228	294339	0
	Cu	65	54.986	ug/L	0.267	0	79	135477	0
	Zn	66	54.248	ug/L	0.748	1	239	86019	0
	Zn	67	55.531	ug/L	0.855	1	88	14577	1
	Zn	68	52.123	ug/L	0.490	0	5360	63598	1
	As	75	51.577	ug/L	0.265	0	206	79067	0
	As-1	75	50.162	ug/L	0.520	1	6847	83601	0
	Se	82	52.441	ug/L	0.091	0	-11	9961	0
	Se	78	47.407	ug/L	1.061	2	6969	30220	0
	Y	89		ug/L			215048	296899	0
	Kr	83		ug/L			150	159	4
>	In	115		ug/L			260223	388255	0
	Ag	107	54.074	ug/L	0.068	0	14	639151	0
	Cd	111	52.138	ug/L	0.369	0	106	166001	0
	Cd	114	51.718	ug/L	0.064	0	14	383948	0
	Sb	121	49.812	ug/L	0.324	0	15	512791	0
	Sb	123	49.202	ug/L	0.160	0	10	383070	0
	Ba	135	48.308	ug/L	0.239	0	25	116253	0
	Ba	137	47.385	ug/L	0.380	0	33	194914	0
>	Tb	159		ug/L			299158	386670	0
	Tl	205	55.126	ug/L	0.643	1	18	1704017	1
	Pb	208	55.867	ug/L	0.283	0	405	2345545	0
	Bi	209		ug/L			281037	391148	0
	Th	232	54.294	ug/L	0.200	0	35	2871023	0
	U	238	53.857	ug/L	0.373	0	16	3155718	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 12:07:11
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			6303	4929	0
	Cl	37		mg/L			1603536	1849849	0
>	Ge	72		ug/L			194270	276757	1
	Ni	60	-0.019	ug/L	0.001	5	65	44	5
	Ni	62	0.028	ug/L	0.039	140	49	80	17
	Cu	63	0.006	ug/L	0.006	96	228	359	9
	Cu	65	0.004	ug/L	0.004	102	79	123	7
	Zn	66	0.018	ug/L	0.018	100	239	369	6
	Zn	67	-0.032	ug/L	0.027	86	88	117	6
	Zn	68	-2.417	ug/L	0.052	2	5360	4931	0
	As	75	-0.057	ug/L	0.021	36	206	203	16
	As-1	75	-1.672	ug/L	0.081	4	6847	7187	0
	Se	82	0.102	ug/L	0.108	105	-11	4	514
	Se	78	-5.709	ug/L	0.262	4	6969	7348	0
	Y	89		ug/L			215048	307678	1
	Kr	83		ug/L			150	149	8
>	In	115		ug/L			260223	405654	0
	Ag	107	0.012	ug/L	0.003	22	14	169	18
	Cd	111	0.038	ug/L	0.006	14	106	292	7
	Cd	114	-0.001	ug/L	0.000	47	14	15	20
	Sb	121	0.039	ug/L	0.010	25	15	440	23
	Sb	123	0.037	ug/L	0.008	21	10	316	19
	Ba	135	-0.001	ug/L	0.006	463	25	35	40
	Ba	137	0.003	ug/L	0.002	70	33	67	15
>	Tb	159		ug/L			299158	399429	1
	Tl	205	0.008	ug/L	0.003	33	18	285	29
	Pb	208	0.008	ug/L	0.002	28	405	888	9
	Bi	209		ug/L			281037	415487	1
	Th	232	0.044	ug/L	0.009	21	35	2458	19
	U	238	0.002	ug/L	0.001	47	16	137	38

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 12:12:44
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L				4773	0
	Cl	37		mg/L				1793872	0
⌈>	Ge	72		ug/L				240711	4
|	Ni	60		ug/L				33	17
|	Ni	62		ug/L				81	13
|	Cu	63		ug/L				326	6
|	Cu	65		ug/L				87	15
|	Zn	66		ug/L				308	8
|	Zn	67		ug/L				121	4
|	Zn	68		ug/L				5076	0
|	As	75		ug/L				214	24
|	As-1	75		ug/L				7102	0
|	Se	82		ug/L				-1	303
⌊	Se	78		ug/L				7248	0
	Y	89		ug/L				267684	5
	Kr	83		ug/L				153	6
⌈>	In	115		ug/L				352460	3
|	Ag	107		ug/L				72	14
|	Cd	111		ug/L				205	2
|	Cd	114		ug/L				5	66
|	Sb	121		ug/L				137	18
|	Sb	123		ug/L				104	11
|	Ba	135		ug/L				29	16
⌊	Ba	137		ug/L				40	30
⌈>	Tb	159		ug/L				350195	3
|	Tl	205		ug/L				100	13
|	Pb	208		ug/L				681	14
|	Bi	209		ug/L				362060	3
|	Th	232		ug/L				710	12
⌊	U	238		ug/L				26	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 12:18:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	3866	1
	Cl	37		mg/L			1793872	1741947	0
>	Ge	72		ug/L			240711	230420 ✓	0
	Ni	60	55.941	ug/L	0.506	0	33	120182	0
	Ni	62	56.107	ug/L	0.587	1	81	17721	1
	Cu	63	56.278	ug/L	0.541	0	326	258405	0
	Cu	65	55.270	ug/L	0.169	0	87	117598	0
	Zn	66	54.031	ug/L	0.515	0	308	74013	1
	Zn	67	54.844	ug/L	0.913	1	121	12446	1
	Zn	68	54.486	ug/L	0.459	0	5076	55628	0
	As	75	51.721	ug/L	0.176	0	214	68438	0
	As-1	75	51.841	ug/L	0.393	0	7102	73026	0
	Se	82	51.526	ug/L	0.273	0	-1	8464	1
	Se	78	51.992	ug/L	0.522	1	7248	26497	0
	Y	89		ug/L			267684	255177	1
	Kr	83		ug/L			153	168	4
>	In	115		ug/L			352460	337835 ✓	0
	Ag	107	54.600	ug/L	0.274	0	72	561615	0
	Cd	111	51.252	ug/L	0.759	1	205	142049	1
	Cd	114	51.914	ug/L	0.420	0	5	335342	1
	Sb	121	50.082	ug/L	0.219	0	137	448734	0
	Sb	123	49.322	ug/L	0.369	0	104	334227	0
	Ba	135	47.850	ug/L	0.414	0	29	100194	0
	Ba	137	47.326	ug/L	0.315	0	40	169389	0
>	Tb	159		ug/L			350195	331988 ✓	1
	Tl	205	56.312	ug/L	0.292	0	100	1494542	0
	Pb	208	56.725	ug/L	0.513	0	681	2044858	0
	Bi	209		ug/L			362060	346614	1
	Th	232	56.137	ug/L	0.650	1	710	2549114	0
	U	238	54.642	ug/L	1.265	2	26	2748497	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 12:24:34
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	4616	0
	Cl	37		mg/L			1793872	1766263	0
>	Ge	72		ug/L			240711	239561 ✓	0
	Ni	60	0.003	ug/L	0.000	14	33	40	1
	Ni	62	-0.023	ug/L	0.018	76	81	73	8
	Cu	63	-0.003	ug/L	0.002	66	326	310	2
	Cu	65	0.004	ug/L	0.010	272	87	95	24
	Zn	66	0.024	ug/L	0.006	26	308	340	3
	Zn	67	-0.046	ug/L	0.029	62	121	110	6
	Zn	68	0.081	ug/L	0.150	184	5076	5130	2
	As	75	0.005	ug/L	0.008	148	214	220	4
	As-1	75	0.106	ug/L	0.050	46	7102	7209	0
	Se	82	-0.082	ug/L	0.022	26	-1	-15	24
	Se	78	0.332	ug/L	0.151	45	7248	7343	0
	Y	89		ug/L			267684	269653	1
	Kr	83		ug/L			153	165	3
>	In	115		ug/L			352460	353759 ✓	1
	Ag	107	0.005	ug/L	0.004	76	72	127	34
	Cd	111	0.008	ug/L	0.004	47	205	230	6
	Cd	114	0.001	ug/L	0.000	30	5	15	18
	Sb	121	0.028	ug/L	0.009	31	137	397	21
	Sb	123	0.027	ug/L	0.006	23	104	293	16
	Ba	135	0.001	ug/L	0.004	498	29	31	31
	Ba	137	0.002	ug/L	0.001	57	40	49	11
>	Tb	159		ug/L			350195	350020 ✓	1
	Tl	205	0.005	ug/L	0.001	20	100	242	12
	Pb	208	0.003	ug/L	0.001	31	681	812	6
	Bi	209		ug/L			362060	368341	1
	Th	232	0.032	ug/L	0.010	32	710	2250	23
	U	238	0.002	ug/L	0.001	51	26	118	40

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA48 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 25, 2013 12:30:00
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	4772	0
	Cl	37		mg/L			1793872	1766082	0
>	Ge	72		ug/L			240711	239757 ✓	0
	Ni	60	0.035	ug/L	0.004	10	33	110	7
	Ni	62	0.011	ug/L	0.038	339	81	85	14
	Cu	63	0.129	ug/L	0.010	7	326	941	4
	Cu	65	0.137	ug/L	0.005	3	87	391	3
	Zn	66	1.156	ug/L	0.015	1	308	1947	1
	Zn	67	0.964	ug/L	0.165	17	121	346	11
	Zn	68	1.231	ug/L	0.121	9	5076	6249	1
	As	75	U 0.010	ug/L	0.017	173	214	226	9
	As-1	75	0.106	ug/L	0.047	44	7102	7215	0
	Se	82	-0.023	ug/L	0.009	41	-1	-5	30
	Se	78	0.371	ug/L	0.125	33	7248	7364	0
	Y	89		ug/L			267684	269470	0
	Kr	83		ug/L			153	163	4
>	In	115		ug/L			352460	355044 ✓	0
	Ag	107	0.000	ug/L	0.001	187	72	76	9
	Cd	111	0.009	ug/L	0.003	33	205	234	4
	Cd	114	0.001	ug/L	0.001	61	5	14	38
	Sb	121	U 0.007	ug/L	0.004	62	137	203	19
	Sb	123	0.005	ug/L	0.001	26	104	137	6
	Ba	135	0.008	ug/L	0.005	64	29	46	23
	Ba	137	0.007	ug/L	0.002	23	40	65	9
>	Tb	159		ug/L			350195	345405 ✓	0
	Tl	205	0.001	ug/L	0.000	24	100	126	5
	Pb	208	0.010	ug/L	0.002	15	681	1060	5
	Bi	209		ug/L			362060	367595	0
	Th	232	0.012	ug/L	0.002	17	710	1271	7
	U	238	0.000	ug/L	0.000	40	26	46	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA49 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 25, 2013 12:35:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	6073	2
	Cl	37		mg/L			1793872	1763698	0
[>	Ge	72		ug/L			240711	243244	0
	Ni	60	9.706	ug/L	0.091	0	33	22042	0
	Ni	62	25.401	ug/L	0.437	1	81	8514	1
	Cu	63	16.021	ug/L	0.124	0	326	77894	0
	Cu	65	16.890	ug/L	0.179	1	87	37998	1
	Zn	66	49.380	ug/L	0.302	0	308	71432	0
	Zn	67	49.111	ug/L	0.577	1	121	11779	1
	Zn	68	48.113	ug/L	0.393	0	5076	52456	0
	As	75	1.640	ug/L	0.036	2	214	2500	1
	As-1	75	1.491	ug/L	0.013	0	7102	9188	0
	Se	82	0.101	ug/L	0.107	106	-1	16	115
	Se	78	-0.368	ug/L	0.064	17	7248	7178	0
	Y	89		ug/L			267684	508703	0
	Kr	83		ug/L			153	186	3
[>	In	115		ug/L			352460	350942	0
	Ag	107	0.192	ug/L	0.004	2	72	2121	2
	Cd	111	1.242	ug/L	0.057	4	205	3776	3
	Cd	114	0.091	ug/L	0.006	6	5	616	6
	Sb	121	U 0.002	ug/L	0.000	9	137	155	1
	Sb	123	0.001	ug/L	0.001	102	104	112	8
	Ba	135	70.240	ug/L	0.402	0	29	152774	1
	Ba	137	69.342	ug/L	0.076	0	40	257797	0
[>	Tb	159		ug/L			350195	350010	0
	Tl	205	0.083	ug/L	0.001	0	100	2409	1
	Pb	208	3.952	ug/L	0.020	0	681	150828	0
	Bi	209		ug/L			362060	357776	1
	Th	232	2.065	ug/L	0.016	0	710	99565	1
	U	238	0.522	ug/L	0.006	1	26	27739	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA4~~8~~9 B SWN BA 1/25/13
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 25, 2013 12:41:34
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4773	6854	2
Cl	37		mg/L			1793872	1774590	0
> Ge	72		ug/L			240711	245039 ✓	0
Ni	60	12.470	ug/L	0.163	1	33	28516	1
Ni	62	20.742	ug/L	0.175	0	81	7019	1
Cu	63	15.273	ug/L	0.086	0	326	74819	0
Cu	65	15.572	ug/L	0.104	0	87	35297	0
Zn	66	62.546	ug/L	0.181	0	308	91063	0
Zn	67	61.741	ug/L	0.708	1	121	14886	1
Zn	68	63.241	ug/L	0.640	1	5076	67832	0
As	75	1.599	ug/L	0.036	2	214	2462	2
As-1	75	1.517	ug/L	0.043	2	7102	9290	0
Se	82	-0.021	ug/L	0.027	130	-1	-5	93
Se	78	-0.266	ug/L	0.034	12	7248	7271	0
Y	89		ug/L			267684	425399	0
Kr	83		ug/L			153	189	0
> In	115		ug/L			352460	356425 ✓	0
Ag	107	0.095	ug/L	0.004	4	72	1098	4
Cd	111	0.633	ug/L	0.011	1	205	2058	1
Cd	114	0.171	ug/L	0.009	5	5	1173	5
Sb	121	U -0.001	ug/L	0.001	159	137	130	9
Sb	123	-0.002	ug/L	0.003	177	104	92	24
Ba	135	84.811	ug/L	0.904	1	29	187342	1
Ba	137	83.783	ug/L	0.151	0	40	316342	0
> Tb	159		ug/L			350195	355820 ✓	0
Tl	205	0.112	ug/L	0.004	3	100	3277	2
Pb	208	5.537	ug/L	0.015	0	681	214555	0
Bi	209		ug/L			362060	361639	1
Th	232	2.341	ug/L	0.022	0	710	114608	0
U	238	0.493	ug/L	0.003	0	26	26632	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA49 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 25, 2013 12:47:22
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		mg/L			4773	7342	0
Cl	37		mg/L			1793872	1767839	0
> Ge	72		ug/L			240711	249201	1
Ni	60	12.601	ug/L	0.193	1	33	29302	0
Ni	62	21.652	ug/L	0.221	1	81	7447	0
Cu	63	33.731	ug/L	0.246	0	326	167634	0
Cu	65	34.053	ug/L	0.622	1	87	78383	0
Zn	66	90.254	ug/L	0.966	1	308	133483	0
Zn	67	87.274	ug/L	0.365	0	121	21347	1
Zn	68	90.444	ug/L	0.770	0	5076	96394	0
As	75	1.957	ug/L	0.052	2	214	3013	1
As-1	75	1.753	ug/L	0.101	5	7102	9774	0
Se	82	0.073	ug/L	0.081	109	-1	11	124
Se	78	-0.675	ug/L	0.242	35	7248	7228	0
Y	89		ug/L			267684	455051	0
Kr	83		ug/L			153	182	3
> In	115		ug/L			352460	357650	0
Ag	107	0.140	ug/L	0.003	1	72	1598	1
Cd	111	0.822	ug/L	0.040	4	205	2618	5
Cd	114	0.313	ug/L	0.005	1	5	2142	1
Sb	121	0.002	ug/L	0.001	35	137	159	3
Sb	123	-0.000	ug/L	0.001	1091	104	104	8
Ba	135	101.219	ug/L	0.547	0	29	224341	0
Ba	137	101.202	ug/L	1.003	0	40	383399	0
> Tb	159		ug/L			350195	360207	0
Tl	205	0.209	ug/L	0.006	2	100	6126	2
Pb	208	9.068	ug/L	0.063	0	681	355272	0
Bi	209		ug/L			362060	364943	0
Th	232	2.270	ug/L	0.011	0	710	112565	0
U	238	0.594	ug/L	0.007	1	26	32461	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA48 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 25, 2013 12:53:10
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	5776	0
	Cl	37		mg/L			1793872	1795261	0
>	Ge	72		ug/L			240711	247461 ✓	0
	Ni	60	9.144	ug/L	0.047	0	33	21127	0
	Ni	62	13.827	ug/L	0.519	3	81	4752	2
	Cu	63	8.116	ug/L	0.072	0	326	40309	0
	Cu	65	8.411	ug/L	0.152	1	87	19294	1
	Zn	66	26.337	ug/L	0.458	1	308	38904	1
	Zn	67	27.628	ug/L	0.434	1	121	6795	0
	Zn	68	26.464	ug/L	0.184	0	5076	31700	0
	As	75	1.179	ug/L	0.016	1	214	1890	0
	As-1	75	1.058	ug/L	0.030	2	7102	8752	0
	Se	82	0.008	ug/L	0.065	789	-1	0	14163
	Se	78	-0.407	ug/L	0.101	24	7248	7286	0
	Y	89		ug/L			267684	404199	0
	Kr	83		ug/L			153	177	2
>	In	115		ug/L			352460	361494 ✓	0
	Ag	107	0.082	ug/L	0.001	1	72	980	0
	Cd	111	0.444	ug/L	0.006	1	205	1527	1
	Cd	114	0.070	ug/L	0.003	4	5	491	4
	Sb	121	0.003	ug/L	0.001	16	137	172	2
	Sb	123	0.005	ug/L	0.002	41	104	139	9
	Ba	135	49.072	ug/L	0.263	0	29	109948	0
	Ba	137	47.930	ug/L	0.137	0	40	183561	0
>	Tb	159		ug/L			350195	361340 ✓	1
	Tl	205	0.032	ug/L	0.001	2	100	1040	3
	Pb	208	2.329	ug/L	0.015	0	681	92038	0
	Bi	209		ug/L			362060	372231	1
	Th	232	1.037	ug/L	0.016	1	710	51977	1
	U	238	0.217	ug/L	0.007	3	26	11897	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA48 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 25, 2013 12:58:23
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	5557	3
	Cl	37		mg/L			1793872	1821904	0
>	Ge	72		ug/L			240711	247029 ✓	0
	Ni	60	10.233	ug/L	0.089	0	33	23597	0
	Ni	62	15.210	ug/L	0.036	0	81	5211	0
	Cu	63	8.711	ug/L	0.098	1	326	43166	1
	Cu	65	8.903	ug/L	0.054	0	87	20384	0
	Zn	66	26.214	ug/L	0.116	0	308	38659	1
	Zn	67	26.796	ug/L	0.223	0	121	6583	1
	Zn	68	26.309	ug/L	0.116	0	5076	31490	0
	As	75	1.077	ug/L	0.026	2	214	1743	2
	As-1	75	0.906	ug/L	0.051	5	7102	8529	0
	Se	82	-0.012	ug/L	0.061	523	-1	-3	306
	Se	78	-0.584	ug/L	0.177	30	7248	7202	0
	Y	89		ug/L			267684	401476	1
	Kr	83		ug/L			153	177	1
>	In	115		ug/L			352460	357526 ✓	1
	Ag	107	0.063	ug/L	0.002	3	72	760	2
	Cd	111	0.401	ug/L	0.006	1	205	1383	1
	Cd	114	0.069	ug/L	0.004	5	5	479	4
	Sb	121	U -0.005	ug/L	0.000	6	137	90	4
	Sb	123	-0.005	ug/L	0.001	11	104	69	5
	Ba	135	48.794	ug/L	0.441	0	29	108122	0
	Ba	137	48.205	ug/L	0.362	0	40	182578	0
>	Tb	159		ug/L			350195	361163 ✓	0
	Tl	205	0.035	ug/L	0.001	3	100	1116	2
	Pb	208	2.397	ug/L	0.025	1	681	94687	1
	Bi	209		ug/L			362060	362012	0
	Th	232	1.071	ug/L	0.009	0	710	53643	0
	U	238	0.207	ug/L	0.001	0	26	11336	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA48 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 25, 2013 13:03:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	5368	1
	Cl	37		mg/L			1793872	1831039	0
>	Ge	72		ug/L			240711	247098 ✓	0
	Ni	60	38.949	ug/L	0.451	1	33	89748	1
	Ni	62	43.936	ug/L	0.714	1	81	14899	1
	Cu	63	37.538	ug/L	0.164	0	326	184952	0
	Cu	65	37.396	ug/L	0.599	1	87	85355	1
	Zn	66	114.905	ug/L	1.797	1	308	168434	1
	Zn	67	110.387	ug/L	1.411	1	121	26739	1
	Zn	68	115.289	ug/L	1.554	1	5076	120412	1
	As	75	28.899	ug/L	0.372	1	214	41106	1
	As-1	75	27.010	ug/L	0.193	0	7102	44296	0
	Se	82	82.352	ug/L	1.008	1	-1	14508	1
	Se	78	81.940	ug/L	0.097	0	7248	40499	0
	Y	89		ug/L			267684	399113	0
	Kr	83		ug/L			153	186	4
>	In	115		ug/L			352460	354077 ✓	1
	Ag	107	27.175	ug/L	0.097	0	72	292991	0
	Cd	111	26.320	ug/L	0.080	0	205	76557	0
	Cd	114	26.249	ug/L	0.328	1	5	177713	1
	Sb	121	3.282	ug/L	0.022	0	137	30945	0
	Sb	123	3.225	ug/L	0.012	0	104	23000	0
	Ba	135	97.768	ug/L	0.786	0	29	214532	1
	Ba	137	97.476	ug/L	0.769	0	40	365606	1
>	Tb	159		ug/L			350195	360985 ✓	1
	Tl	205	28.057	ug/L	0.371	1	100	809727	1
	Pb	208	30.978	ug/L	0.325	1	681	1214539	0
	Bi	209		ug/L			362060	368834	0
	Th	232	27.084	ug/L	0.306	1	710	1337646	0
	U	238	25.690	ug/L	0.461	1	26	1405147	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA48 REF1 SWN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, January 25, 2013 13:08:47
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	5561	2
	Cl	37		mg/L			1793872	1839921	0
>	Ge	72		ug/L			240711	247667 ✓	0
	Ni	60	25.838	ug/L	0.421	1	33	59681	1
	Ni	62	25.809	ug/L	0.532	2	81	8806	1
	Cu	63	30.502	ug/L	0.175	0	326	150691	0
	Cu	65	30.319	ug/L	0.222	0	87	69378	0
	Zn	66	78.611	ug/L	1.505	1	308	115593	1
	Zn	67	77.937	ug/L	1.287	1	121	18958	1
	Zn	68	81.492	ug/L	0.841	1	5076	86842	1
	As	75	54.037	ug/L	0.886	1	214	76841	1
	As-1	75	53.315	ug/L	0.966	1	7102	80515	1
	Se	82	68.569	ug/L	0.728	1	-1	12107	0
	Se	78	67.783	ug/L	1.032	1	7248	34866	0
	Y	89		ug/L			267684	404053	0
	Kr	83		ug/L			153	180	2
>	In	115		ug/L			352460	360602 ✓	0
	Ag	107	42.640	ug/L	0.173	0	72	468171	1
	Cd	111	28.266	ug/L	0.234	0	205	83715	0
	Cd	114	28.180	ug/L	0.194	0	5	194291	0
	Sb	121	1.498	ug/L	0.019	1	137	14464	1
	Sb	123	1.468	ug/L	0.028	1	104	10723	1
	Ba	135	123.251	ug/L	0.355	0	29	275428	0
	Ba	137	122.641	ug/L	0.289	0	40	468466	0
>	Tb	159		ug/L			350195	364914 ✓	0
	Tl	205	59.338	ug/L	0.730	1	100	1731097	1
	Pb	208	58.574	ug/L	0.487	0	681	2320958	0
	Bi	209		ug/L			362060	375378	1
	Th	232	4.845	ug/L	0.048	0	710	242494	0
	U	238	0.605	ug/L	0.008	1	26	33498	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA48 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 25, 2013 13:13:58
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	5181	1
	Cl	37		mg/L			1793872	1870849	0
>	Ge	72		ug/L			240711	245740 ✓	1
	Ni	60	30.431	ug/L	0.194	0	33	69739	0
	Ni	62	30.273	ug/L	0.722	2	81	10234	1
	Cu	63	30.458	ug/L	0.249	0	326	149300	0
	Cu	65	30.112	ug/L	0.387	1	87	68365	0
	Zn	66	90.496	ug/L	1.657	1	308	131975	0
	Zn	67	83.918	ug/L	1.141	1	121	20244	0
	Zn	68	89.598	ug/L	1.598	1	5076	94210	0
	As	75	29.027	ug/L	0.442	1	214	41056	0
	As-1	75	26.968	ug/L	0.443	1	7102	43990	0
	Se	82	85.542	ug/L	0.849	0	-1	14986	0
	Se	78	84.873	ug/L	0.882	1	7248	41451	0
	Y	89		ug/L			267684	282606	0
	Kr	83		ug/L			153	183	4
>	In	115		ug/L			352460	361264 ✓	0
	Ag	107	28.294	ug/L	0.338	1	72	311252	1
	Cd	111	25.774	ug/L	0.043	0	205	76494	0
	Cd	114	25.895	ug/L	0.231	0	5	178867	0
	Sb	121	24.366	ug/L	0.209	0	137	233529	0
	Sb	123	24.169	ug/L	0.256	1	104	175187	0
	Ba	135	24.506	ug/L	0.140	0	29	54889	1
	Ba	137	24.509	ug/L	0.190	0	40	93821	0
>	Tb	159		ug/L			350195	360690 ✓	0
	Tl	205	28.768	ug/L	0.098	0	100	829605	0
	Pb	208	29.247	ug/L	0.086	0	681	1145844	0
	Bi	209		ug/L			362060	374748	0
	Th	232	26.603	ug/L	0.334	1	710	1312874	0
	U	238	25.915	ug/L	0.360	1	26	1416411	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 13:19:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	4175	1
	Cl	37		mg/L			1793872	1850276	0
>	Ge	72		ug/L			240711	237284 ✓	1
	Ni	60	56.076	ug/L	1.035	1	33	124045	0
	Ni	62	56.368	ug/L	0.263	0	81	18332	1
	Cu	63	55.235	ug/L	0.502	0	326	261166	1
	Cu	65	54.804	ug/L	0.203	0	87	120083	1
	Zn	66	53.240	ug/L	0.139	0	308	75103	1
	Zn	67	54.950	ug/L	1.191	2	121	12839	1
	Zn	68	54.249	ug/L	0.883	1	5076	57050	0
	As	75	52.383	ug/L	0.916	1	214	71363	0
	As-1	75	52.422	ug/L	0.950	1	7102	75955	0
	Se	82	52.581	ug/L	0.738	1	-1	8894	1
	Se	78	52.824	ug/L	0.686	1	7248	27607	0
	Y	89		ug/L			267684	268723	0
	Kr	83		ug/L			153	174	4
>	In	115		ug/L			352460	344464 ✓	1
	Ag	107	53.895	ug/L	0.937	1	72	565178	1
	Cd	111	51.729	ug/L	0.631	1	205	146175	0
	Cd	114	52.017	ug/L	0.382	0	5	342578	0
	Sb	121	50.267	ug/L	0.445	0	137	459198	0
	Sb	123	49.271	ug/L	0.737	1	104	340394	0
	Ba	135	47.631	ug/L	1.034	2	29	101680	1
	Ba	137	47.157	ug/L	0.743	1	40	172079	1
>	Tb	159		ug/L			350195	343285 ✓	0
	Tl	205	55.582	ug/L	0.820	1	100	1525428	1
	Pb	208	56.294	ug/L	0.465	0	681	2098475	0
	Bi	209		ug/L			362060	349433	0
	Th	232	55.792	ug/L	0.623	1	710	2619877	1
	U	238	54.323	ug/L	0.202	0	26	2825911	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 13:25:52
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	5515	2
	Cl	37		mg/L			1793872	1876032	0
>	Ge	72		ug/L			240711	239395 ✓	0
	Ni	60	-0.006	ug/L	0.001	16	33	20	9
	Ni	62	-0.032	ug/L	0.027	85	81	70	12
	Cu	63	-0.019	ug/L	0.001	2	326	231	1
	Cu	65	-0.004	ug/L	0.005	123	87	78	12
	Zn	66	-0.110	ug/L	0.012	10	308	150	11
	Zn	67	-0.201	ug/L	0.033	16	121	73	10
	Zn	68	-0.196	ug/L	0.041	20	5076	4858	0
	As	75	0.021	ug/L	0.014	66	214	242	8
	As-1	75	0.069	ug/L	0.030	42	7102	7155	0
	Se	82	0.026	ug/L	0.125	476	-1	3	683
	Se	78	0.212	ug/L	0.136	64	7248	7291	0
	Y	89		ug/L			267684	274293	0
	Kr	83		ug/L			153	155	6
>	In	115		ug/L			352460	348751 ✓	2
	Ag	107	0.006	ug/L	0.002	29	72	130	13
	Cd	111	0.011	ug/L	0.003	27	205	236	4
	Cd	114	0.001	ug/L	0.001	76	5	11	40
	Sb	121	0.023	ug/L	0.009	40	137	346	24
	Sb	123	0.026	ug/L	0.010	40	104	281	25
	Ba	135	-0.003	ug/L	0.001	15	29	21	3
	Ba	137	-0.000	ug/L	0.004	1051	40	37	43
>	Tb	159		ug/L			350195	350379 ✓	0
	Tl	205	0.004	ug/L	0.001	31	100	204	16
	Pb	208	-0.007	ug/L	0.001	13	681	427	8
	Bi	209		ug/L			362060	361447	0
	Th	232	0.024	ug/L	0.007	27	710	1874	17
	U	238	0.002	ug/L	0.001	46	26	107	34

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA70 MB SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 25, 2013 13:31:58
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	5787	1
	Cl	37		mg/L			1793872	1876693	0
>	Ge	72		ug/L			240711	243116	0
	Ni	60	0.019	ug/L	0.005	27	33	76	14
	Ni	62	-0.057	ug/L	0.026	45	81	63	13
	Cu	63	0.062	ug/L	0.002	3	326	631	1
	Cu	65	0.075	ug/L	0.005	6	87	255	3
	Zn	66	0.593	ug/L	0.015	2	308	1165	1
	Zn	67	0.526	ug/L	0.099	18	121	247	8
	Zn	68	0.429	ug/L	0.089	20	5076	5548	1
	As	75	0.006	ug/L	0.017	288	214	225	10
	As-1	75	0.049	ug/L	0.026	53	7102	7238	0
	Se	82	-0.063	ug/L	0.039	62	-1	-12	54
	Se	78	0.142	ug/L	0.093	65	7248	7376	0
	Y	89		ug/L			267684	277712	1
	Kr	83		ug/L			153	165	1
>	In	115		ug/L			352460	354639	1
	Ag	107	0.001	ug/L	0.001	109	72	85	15
	Cd	111	0.005	ug/L	0.012	260	205	220	14
	Cd	114	0.001	ug/L	0.000	16	5	14	8
	Sb	121	0.002	ug/L	0.002	133	137	154	14
	Sb	123	0.001	ug/L	0.002	277	104	109	10
	Ba	135	0.007	ug/L	0.006	90	29	43	30
	Ba	137	0.007	ug/L	0.004	51	40	67	20
>	Tb	159		ug/L			350195	353440	0
	Tl	205	-0.000	ug/L	0.001	450	100	97	19
	Pb	208	0.006	ug/L	0.001	12	681	928	3
	Bi	209		ug/L			362060	361500	0
	Th	232	0.007	ug/L	0.002	29	710	1069	9
	U	238	0.000	ug/L	0.000	90	26	44	37

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 R REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, January 25, 2013 13:37:43
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	6164	2
	Cl	37		mg/L			1793872	3560501	1
>	Ge	72		ug/L			240711	240637 ✓	2
	Ni	60	2.075	ug/L	0.049	2	33	4690	4
	Ni	62	2.280	ug/L	0.168	7	81	830	6
	Cu	63	1.519	ug/L	0.016	1	326	7599	1
	Cu	65	0.611	ug/L	0.042	6	87	1443	7
	Zn	66	4.433	ug/L	0.052	1	308	6624	2
	Zn	67	4.340	ug/L	0.086	1	121	1140	2
	Zn	68	4.377	ug/L	0.268	6	5076	9330	1
	As	75	2.233	ug/L	0.013	0	214	3290	3
	As-1	75	1.874	ug/L	0.158	8	7102	9596	0
	Se	82	0.996	ug/L	0.046	4	-1	169	7
	Se	78	-0.298	ug/L	0.554	185	7248	7125	0
	Y	89		ug/L			267684	278382	3
	Kr	83		ug/L			153	162	0
>	In	115		ug/L			352460	333780 ✓	2
	Ag	107	0.004	ug/L	0.002	39	72	107	12
	Cd	111	0.032	ug/L	0.005	16	205	281	2
	Cd	114	0.112	ug/L	0.004	3	5	717	6
	Sb	121	0.201	ug/L	0.003	1	137	1905	3
	Sb	123	0.203	ug/L	0.013	6	104	1453	3
	Ba	135	22.399	ug/L	0.324	1	29	46349	2
	Ba	137	22.469	ug/L	0.322	1	40	79465	2
>	Tb	159		ug/L			350195	354189 ✓	3
	Tl	205	0.001	ug/L	0.001	95	100	136	21
	Pb	208	0.014	ug/L	0.001	4	681	1208	2
	Bi	209		ug/L			362060	329543	2
	Th	232	0.006	ug/L	0.001	14	710	1000	7
	U	238	0.009	ug/L	0.001	9	26	522	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA70 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 25, 2013 13:43:28
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	12903	1
	Cl	37		mg/L			1793872	1951894	0
>	Ge	72		ug/L			240711	253112 ✓	0
	Ni	60	22.541	ug/L	0.285	1	33	53218	1
	Ni	62	24.977	ug/L	0.721	2	81	8712	2
	Cu	63	67.768	ug/L	0.495	0	326	341746	0
	Cu	65	68.090	ug/L	0.012	0	87	159123	0
	Zn	66	281.821	ug/L	2.487	0	308	422692	0
	Zn	67	255.926	ug/L	0.889	0	121	63336	0
	Zn	68	279.011	ug/L	3.419	1	5076	290920	0
	As	75	31.745	ug/L	0.098	0	214	46229	0
	As-1	75	32.357	ug/L	0.109	0	7102	52877	0
	Se	82	0.256	ug/L	0.054	21	-1	44	22
	Se	78	-0.986	ug/L	0.135	13	7248	7213	0
	Y	89		ug/L			267684	390523	1
	Kr	83		ug/L			153	187	4
>	In	115		ug/L			352460	364194 ✓	0
	Ag	107	0.270	ug/L	0.007	2	72	3068	2
	Cd	111	1.021	ug/L	0.007	0	205	3259	0
	Cd	114	0.803	ug/L	0.008	1	5	5596	0
	Sb	121	0.785	ug/L	0.013	1	137	7721	2
	Sb	123	0.785	ug/L	0.026	3	104	5839	3
	Ba	135	19.521	ug/L	0.392	2	29	44081	1
	Ba	137	19.443	ug/L	0.138	0	40	75044	1
>	Tb	159		ug/L			350195	377206 ✓	0
	Tl	205	0.117	ug/L	0.002	1	100	3639	1
	Pb	208	35.498	ug/L	0.243	0	681	1454267	0
	Bi	209		ug/L			362060	386599	0
	Th	232	0.643	ug/L	0.001	0	710	33959	0
	U	238	0.444	ug/L	0.005	1	26	25424	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA70 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 25, 2013 13:49:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	8812	1
	Cl	37		mg/L			1793872	1908979	0
>	Ge	72		ug/L			240711	254749 ✓	0
	Ni	60	**8.202**	ug/L	0.004	0	33	19512	0
	Ni	62	**11.242**	ug/L	0.343	3	81	3994	2
	Cu	63	**18.856**	ug/L	0.056	0	326	95954	0
	Cu	65	**19.102**	ug/L	0.065	0	87	44996	0
	Zn	66	**55.598**	ug/L	0.393	0	308	84189	0
	Zn	67	**51.404**	ug/L	0.474	0	121	12906	1
	Zn	68	**54.226**	ug/L	0.487	0	5076	61234	0
	As	75	**8.222**	ug/L	0.022	0	214	12219	0
	As-1	75	**8.129**	ug/L	0.038	0	7102	18998	0
	Se	82	**0.059**	ug/L	0.033	56	-1	9	65
	Se	78	**-1.040**	ug/L	0.112	10	7248	7238	0
	Y	89		ug/L			267684	375229	0
	Kr	83		ug/L			153	181	1
>	In	115		ug/L			352460	366829 ✓	0
	Ag	107	**0.048**	ug/L	0.003	5	72	606	5
	Cd	111	**0.278**	ug/L	0.011	3	205	1050	3
	Cd	114	**0.092**	ug/L	0.001	1	5	648	1
	Sb	121	**0.359**	ug/L	0.172	47	137	3634	45
	Sb	123	**0.253**	ug/L	0.006	2	104	1968	2
	Ba	135	**12.092**	ug/L	0.100	0	29	27516	1
	Ba	137	**12.041**	ug/L	0.207	1	40	46830	2
>	Tb	159		ug/L			350195	373440 ✓	2
	Tl	205	**0.039**	ug/L	0.001	2	100	1278	0
	Pb	208	**11.786**	ug/L	0.248	2	681	478379	0
	Bi	209		ug/L			362060	376750	1
	Th	232	**0.650**	ug/L	0.014	2	710	33962	1
	U	238	**0.202**	ug/L	0.003	1	26	11442	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA70 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 25, 2013 13:54:59
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	12180	2
	Cl	37		mg/L			1793872	1892909	0
>	Ge	72		ug/L			240711	252853 ✓	0
	Ni	60	20.860	ug/L	0.236	1	33	49200	0
	Ni	62	25.380	ug/L	0.221	0	81	8843	1
	Cu	63	82.945	ug/L	0.406	0	326	417767	0
	Cu	65	83.005	ug/L	0.463	0	87	193761	0
	Zn	66	191.331	ug/L	1.547	0	308	286788	1
	Zn	67	175.990	ug/L	1.816	1	121	43550	1
	Zn	68	189.985	ug/L	2.040	1	5076	199589	0
	As	75	42.190	ug/L	0.125	0	214	61304	0
	As-1	75	43.199	ug/L	0.211	0	7102	68022	0
	Se	82	0.009	ug/L	0.103	1122	-1	0	9484
	Se	78	-1.041	ug/L	0.231	22	7248	7183	1
	Y	89		ug/L			267684	402995	0
	Kr	83		ug/L			153	193	6
>	In	115		ug/L			352460	366324 ✓	0
	Ag	107	0.272	ug/L	0.002	0	72	3109	0
	Cd	111	0.571	ug/L	0.015	2	205	1926	2
	Cd	114	0.270	ug/L	0.005	1	5	1899	2
	Sb	121	1.795	ug/L	0.023	1	137	17573	0
	Sb	123	1.783	ug/L	0.034	1	104	13207	1
	Ba	135	41.563	ug/L	0.688	1	29	94370	1
	Ba	137	41.613	ug/L	0.316	0	40	161503	0
>	Tb	159		ug/L			350195	370611 ✓	0
	Tl	205	0.061	ug/L	0.002	3	100	1924	2
	Pb	208	72.055	ug/L	0.122	0	681	2899594	0
	Bi	209		ug/L			362060	377354	0
	Th	232	0.848	ug/L	0.012	1	710	43746	0
	U	238	0.377	ug/L	0.003	0	26	21221	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA70 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 25, 2013 14:00:47
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	13688	1
	Cl	37		mg/L			1793872	1885439	0
>	Ge	72		ug/L			240711	253021 ✓	0
	Ni	60	20.466	ug/L	0.182	0	33	48304	0
	Ni	62	22.029	ug/L	0.466	2	81	7691	1
	Cu	63	61.631	ug/L	0.182	0	326	310714	0
	Cu	65	61.020	ug/L	0.223	0	87	142561	0
	Zn	66	212.528	ug/L	4.903	2	308	318700	1
	Zn	67	192.470	ug/L	2.550	1	121	47645	1
	Zn	68	208.942	ug/L	1.294	0	5076	219120	0
	As	75	37.853	ug/L	0.216	0	214	55061	0
	As-1	75	38.900	ug/L	0.198	0	7102	62037	0
	Se	82	0.187	ug/L	0.042	22	-1	32	23
	Se	78	-0.318	ug/L	0.231	72	7248	7487	1
	Y	89		ug/L			267684	365871	0
	Kr	83		ug/L			153	179	4
>	In	115		ug/L			352460	367495 ✓	0
	Ag	107	0.212	ug/L	0.010	4	72	2449	4
	Cd	111	0.717	ug/L	0.013	1	205	2372	2
	Cd	114	0.525	ug/L	0.008	1	5	3695	1
	Sb	121	0.958	ug/L	0.004	0	137	9473	0
	Sb	123	0.933	ug/L	0.017	1	104	6980	0
	Ba	135	20.049	ug/L	0.246	1	29	45684	1
	Ba	137	20.128	ug/L	0.309	1	40	78388	1
>	Tb	159		ug/L			350195	372314 ✓	1
	Tl	205	0.101	ug/L	0.001	0	100	3117	1
	Pb	208	41.462	ug/L	0.599	1	681	1676262	0
	Bi	209		ug/L			362060	377625	0
	Th	232	0.526	ug/L	0.008	1	710	27549	1
	U	238	0.216	ug/L	0.005	2	26	12234	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA70 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 25, 2013 14:06:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	13594	0
	Cl	37		mg/L			1793872	1885606	0
>	Ge	72		ug/L			240711	252439 ✓	0
	Ni	60	18.816	ug/L	0.327	1	33	44308	1
	Ni	62	20.489	ug/L	0.379	1	81	7143	1
	Cu	63	60.286	ug/L	0.712	1	326	303229	0
	Cu	65	59.915	ug/L	0.345	0	87	139652	0
	Zn	66	199.763	ug/L	4.786	2	308	298874	1
	Zn	67	178.854	ug/L	1.476	0	121	44185	1
	Zn	68	196.310	ug/L	1.836	0	5076	205716	0
	As	75	35.445	ug/L	0.307	0	214	51452	0
	As-1	75	36.383	ug/L	0.356	0	7102	58368	0
	Se	82	0.250	ug/L	0.053	21	-1	43	22
	Se	78	-0.358	ug/L	0.193	54	7248	7453	0
	Y	89		ug/L			267684	361791	1
	Kr	83		ug/L			153	178	6
>	In	115		ug/L			352460	367799 ✓	1
	Ag	107	0.208	ug/L	0.007	3	72	2404	2
	Cd	111	0.720	ug/L	0.052	7	205	2381	5
	Cd	114	0.541	ug/L	0.009	1	5	3808	0
	Sb	121	0.977	ug/L	0.009	0	137	9669	0
	Sb	123	0.971	ug/L	0.013	1	104	7265	0
	Ba	135	18.786	ug/L	0.246	1	29	42840	0
	Ba	137	18.578	ug/L	0.278	1	40	72409	0
>	Tb	159		ug/L			350195	376197 ✓	0
	Tl	205	0.090	ug/L	0.001	1	100	2822	1
	Pb	208	38.163	ug/L	0.106	0	681	1559204	0
	Bi	209		ug/L			362060	380888	0
	Th	232	0.482	ug/L	0.007	1	710	25574	1
	U	238	0.205	ug/L	0.002	0	26	11713	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA70 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 25, 2013 14:12:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	12466	1
	Cl	37		mg/L			1793872	1874725	0
>	Ge	72		ug/L			240711	252786	0
	Ni	60	50.556	ug/L	0.492	0	33	119160	0
	Ni	62	52.086	ug/L	0.553	1	81	18053	0
	Cu	63	92.600	ug/L	0.795	0	326	466236	0
	Cu	65	92.111	ug/L	1.369	1	87	214937	0
	Zn	66	320.844	ug/L	0.546	0	308	480558	0
	Zn	67	293.209	ug/L	1.140	0	121	72450	0
	Zn	68	314.845	ug/L	2.483	0	5076	327173	0
	As	75	69.679	ug/L	0.436	0	214	101073	0
	As-1	75	68.725	ug/L	0.607	0	7102	103780	0
	Se	82	84.832	ug/L	0.412	0	-1	15289	0
	Se	78	83.330	ug/L	0.601	0	7248	42004	0
	Y	89		ug/L			267684	369257	0
	Kr	83		ug/L			153	187	2
>	In	115		ug/L			352460	365964	0
	Ag	107	26.677	ug/L	0.248	0	72	297267	0
	Cd	111	26.635	ug/L	0.190	0	205	80071	0
	Cd	114	26.615	ug/L	0.254	0	5	186230	0
	Sb	121	1.050	ug/L	0.011	1	137	10331	0
	Sb	123	1.022	ug/L	0.008	0	104	7610	0
	Ba	135	47.085	ug/L	0.504	1	29	106802	1
	Ba	137	46.759	ug/L	0.673	1	40	181282	0
>	Tb	159		ug/L			350195	374917	1
	Tl	205	27.689	ug/L	0.254	0	100	829937	0
	Pb	208	72.869	ug/L	0.966	1	681	2966124	0
	Bi	209		ug/L			362060	381129	1
	Th	232	25.948	ug/L	0.324	1	710	1330989	0
	U	238	25.900	ug/L	0.393	1	26	1471326	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA70 MBSPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, January 25, 2013 14:18:11
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	6627	0
	Cl	37		mg/L			1793872	1932857	0
>	Ge	72		ug/L			240711	255046 ✓	0
	Ni	60	30.029	ug/L	0.962	3	33	71424	2
	Ni	62	28.675	ug/L	0.720	2	81	10066	2
	Cu	63	29.349	ug/L	0.645	2	326	149320	1
	Cu	65	28.880	ug/L	0.298	1	87	68057	0
	Zn	66	89.339	ug/L	0.931	1	308	135239	0
	Zn	67	82.982	ug/L	1.394	1	121	20778	1
	Zn	68	88.956	ug/L	1.540	1	5076	97121	1
	As	75	29.336	ug/L	0.489	1	214	43063	1
	As-1	75	26.924	ug/L	0.511	1	7102	45595	1
	Se	82	87.759	ug/L	1.098	1	-1	15957	0
	Se	78	85.983	ug/L	1.326	1	7248	43483	0
	Y	89		ug/L			267684	293019	0
	Kr	83		ug/L			153	170	6
>	In	115		ug/L			352460	366241 ✓	1
	Ag	107	27.913	ug/L	0.065	0	72	311287	1
	Cd	111	26.114	ug/L	0.516	1	205	78558	1
	Cd	114	26.128	ug/L	0.052	0	5	182970	1
	Sb	121	-0.006	ug/L	0.001	16	137	86	11
	Sb	123	-0.005	ug/L	0.001	27	104	73	13
	Ba	135	24.679	ug/L	0.118	0	29	56038	1
	Ba	137	25.047	ug/L	0.200	0	40	97202	0
>	Tb	159		ug/L			350195	377021 ✓	0
	Tl	205	28.076	ug/L	0.350	1	100	846295	0
	Pb	208	28.466	ug/L	0.090	0	681	1165781	0
	Bi	209		ug/L			362060	381147	1
	Th	232	26.177	ug/L	0.431	1	710	1350379	1
	U	238	25.705	ug/L	0.163	0	26	1468577	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 14:24:00
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	4870	0
	Cl	37		mg/L			1793872	1915253	0
>	Ge	72		ug/L			240711	247182 ✓	0
	Ni	60	55.930	ug/L	1.050	1	33	128899	1
	Ni	62	54.177	ug/L	0.858	1	81	18358	1
	Cu	63	54.576	ug/L	0.064	0	326	268840	0
	Cu	65	53.622	ug/L	0.188	0	87	122393	0
	Zn	66	53.977	ug/L	0.880	1	308	79313	1
	Zn	67	54.181	ug/L	0.119	0	121	13192	0
	Zn	68	53.654	ug/L	0.910	1	5076	58841	1
	As	75	52.767	ug/L	0.732	1	214	74894	0
	As-1	75	52.559	ug/L	0.726	1	7102	79321	0
	Se	82	53.792	ug/L	0.814	1	-1	9479	0
	Se	78	53.255	ug/L	0.365	0	7248	28935	0
	Y	89		ug/L			267684	282570	0
	Kr	83		ug/L			153	177	1
>	In	115		ug/L			352460	354305 ✓	0
	Ag	107	53.461	ug/L	0.437	0	72	576696	0
	Cd	111	52.129	ug/L	0.464	0	205	151522	0
	Cd	114	51.979	ug/L	0.557	1	5	352116	0
	Sb	121	50.173	ug/L	0.213	0	137	471461	0
	Sb	123	49.555	ug/L	0.110	0	104	352176	0
	Ba	135	47.752	ug/L	0.184	0	29	104863	0
	Ba	137	47.942	ug/L	0.130	0	40	179956	0
>	Tb	159		ug/L			350195	363415 ✓	0
	Tl	205	53.745	ug/L	0.220	0	100	1561509	1
	Pb	208	54.550	ug/L	0.229	0	681	2152689	0
	Bi	209		ug/L			362060	360497	0
	Th	232	53.946	ug/L	0.717	1	710	2681534	0
	U	238	53.412	ug/L	0.773	1	26	2941260	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 14:30:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7+.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		mg/L			4773	6007	1
	Cl	37		mg/L			1793872	1946545	0
>	Ge	72		ug/L			240711	248046 ✓	0
	Ni	60	-0.006	ug/L	0.005	78	33	20	50
	Ni	62	-0.082	ug/L	0.007	8	81	56	3
	Cu	63	-0.023	ug/L	0.006	26	326	220	13
	Cu	65	-0.001	ug/L	0.007	833	87	88	16
	Zn	66	-0.098	ug/L	0.022	22	308	173	18
	Zn	67	-0.189	ug/L	0.047	24	121	79	14
	Zn	68	-0.329	ug/L	0.012	3	5076	4900	0
	As	75	0.014	ug/L	0.005	37	214	241	2
	As-1	75	0.002	ug/L	0.058	3183	7102	7321	0
	Se	82	-0.040	ug/L	0.047	116	-1	-8	96
	Se	78	0.002	ug/L	0.150	8777	7248	7469	0
	Y	89		ug/L			267684	286859	0
	Kr	83		ug/L			153	172	1
>	In	115		ug/L			352460	353530 ✓	0
	Ag	107	0.004	ug/L	0.001	41	72	110	14
	Cd	111	-0.002	ug/L	0.005	241	205	200	7
	Cd	114	0.001	ug/L	0.001	44	5	15	28
	Sb	121	0.018	ug/L	0.007	38	137	309	21
	Sb	123	0.020	ug/L	0.007	33	104	245	19
	Ba	135	-0.004	ug/L	0.002	48	29	20	19
	Ba	137	-0.001	ug/L	0.001	99	40	35	13
>	Tb	159		ug/L			350195	366122 ✓	0
	Tl	205	0.003	ug/L	0.001	26	100	195	13
	Pb	208	-0.006	ug/L	0.001	18	681	459	10
	Bi	209		ug/L			362060	371201	1
	Th	232	0.025	ug/L	0.008	31	710	1996	20
	U	238	0.002	ug/L	0.001	50	26	113	38

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-30-13 **Analyst:** BA **Page:** 2 of 2

All corrections made by analyst unless otherwise noted. BA 1-31-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WA81 A	REN	5	Li↑(NR) Cr
		↓ ASPK	↓	↓	↓ ↓
		CCV3			Li↑, Be↓
		CCB3			Li↑, As2↓
		WB01 MB1	REN	2	↓
		ASVP			Li, Sc↑ RR Cr
		A			Li↑
		ASPK			↓
		↓ MB1SPK	↓	↓	
		CCV4			Be↓
		CCB4			End pkg (WB01)
	✓	WB21 MB	REN	2	
	✓	↓ B	↓	↓	
		Last vacuum, plasma off			
		BA 1/31/13			

5036F

Version 002
7/21/06

VZ75 00679

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 1-30-13

MS1 M1230130.REP	Analyst BA 1-31-13	Peer fd 1-31-13	Comment
Logbook			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
QC Check Verification			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	↓
Samples			
RSD's & SD's	✓	✓	See log
Internal Standards	✓	✓	↓
Carry-over	—	—	
Method QC			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	See log
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Distribution			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and AFA	—	—	

VZ75 00671

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 1-30-13 **Analyst:** BA **Page:** 1 of 2

All corrections made by analyst unless otherwise noted. BA 1-31-13 Run M1230130.RER

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			3009-6
		1			3006-15
		2			↓ -16
		3			3009-5
		↓ 4			3007-1
		Rinse sample			
		ICV			2955-7
		ICB			
		CCV1			
		CCB1			
		Low Check			
		ICSA			
		ICSAB			Li↑
		LR200			↓ , Be↓
		LR300			
		CCV2			Li↑
		CCB2			
		VZ75 T	REN	5	Cd
	✓	WA78 ADUP	SWN	50	Li↑(NR), Sc↑ - RR Cr
	✓	↓ A	↓	↓	Li↑(NR), Sc, Tb↑ ↓
	✓	↓ SPK	↓	↓	↓
	✓	WA80 B	REN	5	Li↑(NR), Sc↑ ↓
		WA81 B	↓	↓	Li↑(NR) Cr
		↓ AOUP	↓	↓	↓ ↓

VZ75 00672

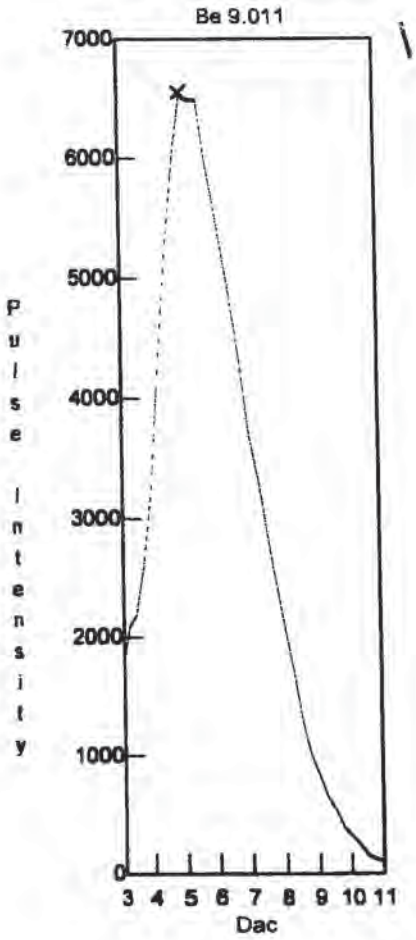
Instrument Tuning Report

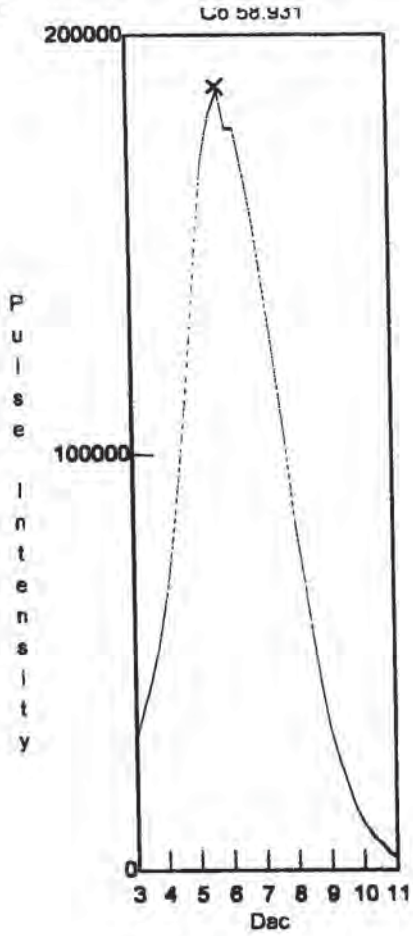
File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

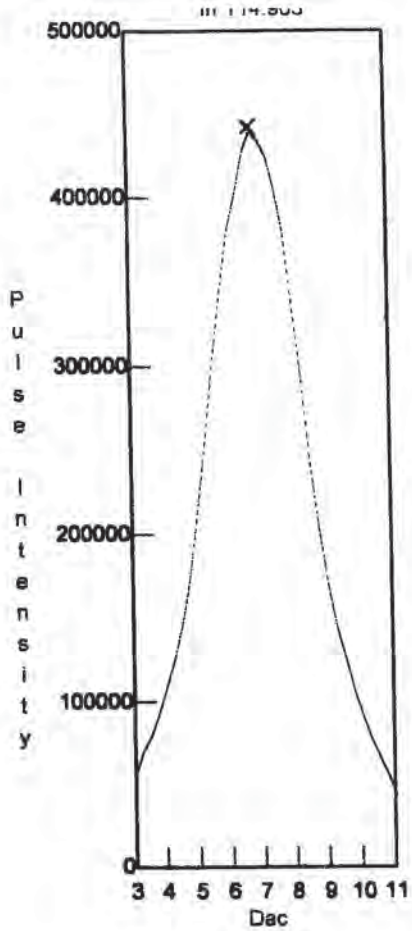
Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	8.976	2028	2155	0.687	
Mg	23.985	24.029	5664	2265	0.689	
Co	58.933	58.929	14158	2530	0.683	
In	114.904	114.928	27794	2970	0.699	
Pb	207.977	207.976	50437	3725	0.689	

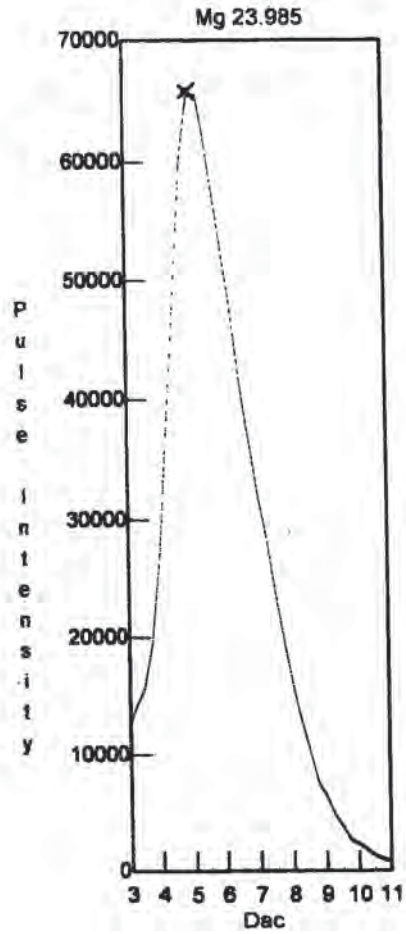
VZ75 : 00673

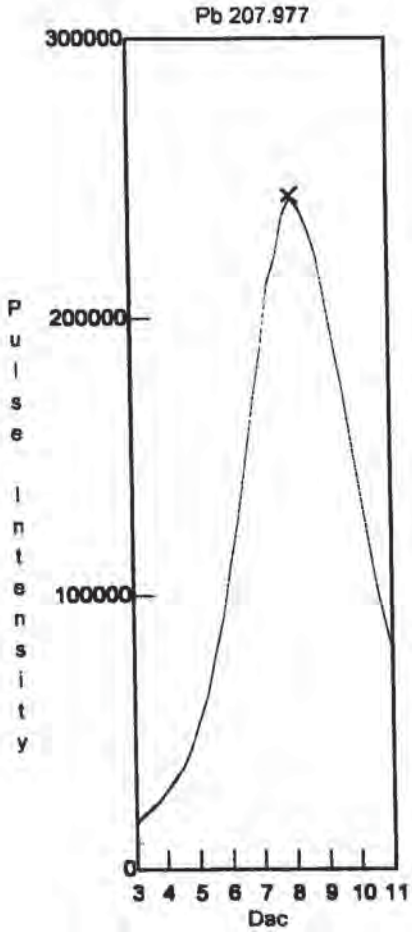
1-30

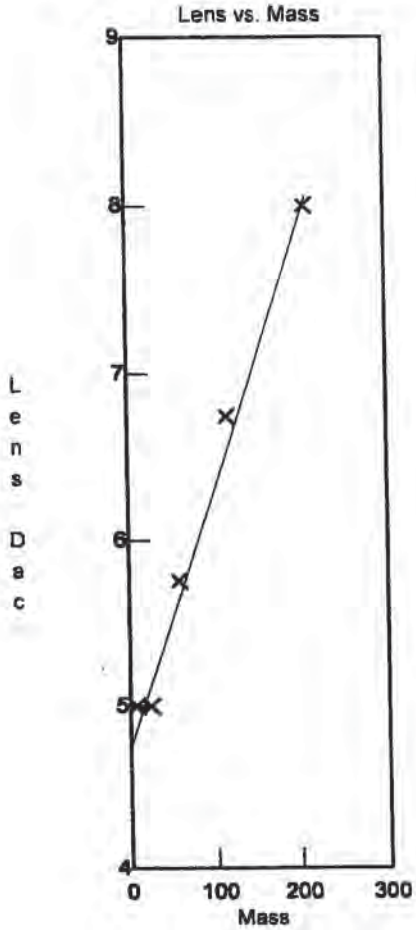












V275 00674

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Wednesday, January 30, 2013 08:36:01
Sample Description:
Sample File: 1119.sam
Method File: C:\Elandata\Method\aridailyperf.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.1363
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\Default.dac
Number of Replicates: 5
Dual Detector Mode: Dual

Neb 0.94

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24	36392.354	768.086	2.111
	In	115	298347.998	4604.528	1.543
	Pb	208	179442.845	1866.290	1.040
>	Ba	138	206865.612	2984.762	1.443
	Ba++	69	0.014	0.000	2.345
>	Ce	140	250095.398	2582.042	1.032
	CeO	156	0.030	0.000	1.601
	Bkgd	220	6.501	3.236	49.778

VZ75 · 09675

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 13:38:08
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L				307716	1
[	Be	9		ug/L				22	42
	C	13		mg/L				4726	1
	Cl	37		mg/L				2244324	0
[>	Sc	45		ug/L				278446	1
[	V	51		ug/L				2126	8
[	V-1	51		ug/L				2969	4
[	Cr	52		ug/L				6847	0
[	Cr	53		ug/L				1043	2
[	Mn	55		ug/L				406	12
[	Co	59		ug/L				42	14
[>	Ge	72		ug/L				329636	0
[	Ni	60		ug/L				63	13
[	Ni	62		ug/L				92	6
[	Cu	63		ug/L				260	6
[	Cu	65		ug/L				98	15
[	Zn	66		ug/L				419	1
[	Zn	67		ug/L				151	6
[	Zn	68		ug/L				7182	1
[	As	75		ug/L				350	9
[	As-1	75		ug/L				8943	0
[	Se	82		ug/L				-2	623
[	Se	78		ug/L				9092	0
[	Mo	98		ug/L				30	27
	Y	89		ug/L				335409	1
	Kr	83		ug/L				211	2
[>	In	115		ug/L				384233	0
[	Ag	107		ug/L				42	19
[	Cd	111		ug/L				243	1
[	Cd	114		ug/L				10	44
[	Sb	121		ug/L				82	19
[	Sb	123		ug/L				55	9
[	Ba	135		ug/L				23	16
[	Ba	137		ug/L				30	12
[>	Tb	159		ug/L				407191	0
[	Tl	205		ug/L				48	24
[	Pb	208		ug/L				434	2
[	Bi	209		ug/L				359435	0
[	Th	232		ug/L				453	12
[	U	238		ug/L				69	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 13:44:17
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			307716	305368	1
⌊	Be	9	10.000	ug/L	0.286	2	22	4760	1
	C	13		mg/L			4726	5052	1
	Cl	37		mg/L			2244324	2242043	0
⌈>	Sc	45		ug/L			278446	274382	0
|	V	51	10.000	ug/L	0.063	0	2126	125372	0
|	V-1	51	10.000	ug/L	0.059	0	2969	128922	0
|	Cr	52	10.000	ug/L	0.068	0	6847	116023	0
|	Cr	53	10.000	ug/L	0.052	0	1043	14245	0
|	Mn	55	10.000	ug/L	0.047	0	406	187917	0
⌊	Co	59	10.000	ug/L	0.129	1	42	142355	1
⌈>	Ge	72		ug/L			329636	321279	0
|	Ni	60	10.000	ug/L	0.196	1	63	30501	1
|	Ni	62	10.000	ug/L	0.273	2	92	4562	2
|	Cu	63	10.000	ug/L	0.104	1	260	66297	0
|	Cu	65	10.000	ug/L	0.076	0	98	30797	0
|	Zn	66	10.000	ug/L	0.046	0	419	20240	0
|	Zn	67	10.000	ug/L	0.448	4	151	3484	3
|	Zn	68	10.000	ug/L	0.183	1	7182	20981	1
|	As	75	10.000	ug/L	0.087	0	350	18845	0
|	As-1	75	10.000	ug/L	0.105	1	8943	26810	0
|	Se	82	10.000	ug/L	0.178	1	-2	2188	1
|	Se	78	10.000	ug/L	0.417	4	9092	14034	1
⌊	Mo	98	10.000	ug/L	0.112	1	30	73245	0
	Y	89		ug/L			335409	325086	0
	Kr	83		ug/L			211	213	2
⌈>	In	115		ug/L			384233	373244	0
|	Ag	107	10.000	ug/L	0.193	1	42	123291	1
|	Cd	111	10.000	ug/L	0.191	1	243	32023	1
|	Cd	114	10.000	ug/L	0.171	1	10	73315	0
|	Sb	121	10.000	ug/L	0.137	1	82	99488	0
|	Sb	123	10.000	ug/L	0.040	0	55	74040	0
|	Ba	135	10.000	ug/L	0.348	3	23	22540	2
⌊	Ba	137	10.000	ug/L	0.083	0	30	38881	0
⌈>	Tb	159		ug/L			407191	399586	0
|	Tl	205	10.000	ug/L	0.118	1	48	301742	0
|	Pb	208	10.000	ug/L	0.060	0	434	413096	1
|	Bi	209		ug/L			359435	353130	0
|	Th	232	10.000	ug/L	0.119	1	453	520699	0
⌊	U	238	10.000	ug/L	0.100	0	69	538552	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 13:50:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			307716	306123	2
Be	9	19.940	ug/L	0.343	1	22	9384	2
C	13		mg/L			4726	5006	1
Cl	37		mg/L			2244324	2244240	0
Sc	45		ug/L			278446	269625	0
V	51	20.048	ug/L	0.176	0	2126	247290	1
V-1	51	20.033	ug/L	0.208	1	2969	252585	1
Cr	52	20.073	ug/L	0.397	1	6847	225345	1
Cr	53	20.026	ug/L	0.316	1	1043	27157	1
Mn	55	20.024	ug/L	0.224	1	406	371182	1
Co	59	20.028	ug/L	0.096	0	42	281704	0
Ge	72		ug/L			329636	312815	1
Ni	60	19.979	ug/L	0.213	1	63	59022	1
Ni	62	20.027	ug/L	0.195	0	92	8855	1
Cu	63	19.988	ug/L	0.079	0	260	128467	0
Cu	65	20.043	ug/L	0.268	1	98	60518	0
Zn	66	20.062	ug/L	0.353	1	419	39619	1
Zn	67	20.099	ug/L	0.230	1	151	6805	1
Zn	68	20.010	ug/L	0.406	2	7182	34103	0
As	75	20.063	ug/L	0.294	1	350	36937	0
As-1	75	20.069	ug/L	0.383	1	8943	44336	0
Se	82	20.032	ug/L	0.543	2	-2	4297	1
Se	78	20.049	ug/L	0.866	4	9092	18822	1
Mo	98	20.037	ug/L	0.253	1	30	143935	0
Y	89		ug/L			335409	314524	0
Kr	83		ug/L			211	211	4
In	115		ug/L			384233	358505	0
Ag	107	20.078	ug/L	0.213	1	42	241523	0
Cd	111	20.026	ug/L	0.144	0	243	61698	0
Cd	114	20.096	ug/L	0.164	0	10	144302	0
Sb	121	20.090	ug/L	0.154	0	82	195406	0
Sb	123	20.127	ug/L	0.057	0	55	146826	0
Ba	135	20.097	ug/L	0.251	1	23	44358	0
Ba	137	20.100	ug/L	0.240	1	30	76577	0
Tb	159		ug/L			407191	386171	0
Tl	205	20.045	ug/L	0.190	0	48	589818	1
Pb	208	20.063	ug/L	0.217	1	434	810786	1
Bi	209		ug/L			359435	340570	2
Th	232	20.049	ug/L	0.150	0	453	1018521	1
U	238	20.032	ug/L	0.390	1	69	1049271	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 13:56:33
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			307716	317364	0
	Be	9	49.767	ug/L	0.991	1	22	23698	2
	C	13		mg/L			4726	4387	2
	Cl	37		mg/L			2244324	2240564	0
>	Sc	45		ug/L			278446	272559	1
	V	51	49.963	ug/L	0.504	1	2126	617545	1
	V-1	51	50.009	ug/L	0.466	0	2969	633546	1
	Cr	52	49.888	ug/L	0.377	0	6847	550085	0
	Cr	53	50.034	ug/L	0.408	0	1043	67276	0
	Mn	55	49.811	ug/L	0.302	0	406	915442	0
	Co	59	49.782	ug/L	0.396	0	42	692634	0
>	Ge	72		ug/L			329636	315137	0
	Ni	60	49.808	ug/L	0.236	0	63	145366	0
	Ni	62	49.806	ug/L	0.314	0	92	21636	0
	Cu	63	49.834	ug/L	0.741	1	260	317022	1
	Cu	65	49.765	ug/L	0.257	0	98	147788	1
	Zn	66	49.794	ug/L	0.377	0	419	96499	0
	Zn	67	49.772	ug/L	0.771	1	151	16392	0
	Zn	68	49.812	ug/L	0.800	1	7182	74041	1
	As	75	49.950	ug/L	0.480	0	350	91694	0
	As-1	75	49.956	ug/L	0.484	0	8943	98060	0
	Se	82	49.840	ug/L	0.860	1	-2	10606	1
	Se	78	49.847	ug/L	0.813	1	9092	33845	0
	Mo	98	50.011	ug/L	0.231	0	30	362310	0
	Y	89		ug/L			335409	317995	0
	Kr	83		ug/L			211	222	3
>	In	115		ug/L			384233	363376	0
	Ag	107	49.851	ug/L	0.468	0	42	598849	0
	Cd	111	49.944	ug/L	0.511	1	243	154760	0
	Cd	114	49.821	ug/L	0.430	0	10	356211	0
	Sb	121	49.883	ug/L	0.503	1	82	486014	0
	Sb	123	49.873	ug/L	0.288	0	55	364058	0
	Ba	135	49.972	ug/L	0.345	0	23	111456	0
	Ba	137	49.942	ug/L	0.834	1	30	191704	1
>	Tb	159		ug/L			407191	393421	1
	Tl	205	49.858	ug/L	0.774	1	48	1473363	0
	Pb	208	49.839	ug/L	0.820	1	434	2018490	0
	Bi	209		ug/L			359435	341099	1
	Th	232	50.360	ug/L	0.832	1	453	2699378	1
	U	238	50.340	ug/L	0.720	1	69	2780454	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 14:02:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			307716	314778 ✓	1
[	Be	9	99.753	ug/L	0.878	0	22	46703	0
	C	13		mg/L			4726	5367	1
	Cl	37		mg/L			2244324	2254587	0
[>	Sc	45		ug/L			278446	272906 ✓	2
[	V	51	99.646	ug/L	1.948	1	2126	1216526	0
[	V-1	51	99.549	ug/L	1.609	1	2969	1241012	0
[	Cr	52	99.676	ug/L	2.552	2	6847	1081840	0
[	Cr	53	99.375	ug/L	1.517	1	1043	130078	0
[	Mn	55	99.625	ug/L	1.569	1	406	1809943	0
[	Co	59	99.643	ug/L	2.638	2	42	1371441	1
[>	Ge	72		ug/L			329636	315476 ✓	1
[	Ni	60	99.352	ug/L	2.602	2	63	284030	1
[	Ni	62	99.479	ug/L	0.506	0	92	42438	0
[	Cu	63	99.315	ug/L	1.420	1	260	618102	0
[	Cu	65	99.281	ug/L	1.117	1	98	288137	1
[	Zn	66	99.299	ug/L	0.098	0	419	187871	1
[	Zn	67	99.497	ug/L	1.241	1	151	32123	0
[	Zn	68	99.155	ug/L	0.508	0	7182	137069	0
[	As	75	99.522	ug/L	1.168	1	350	179689	0
[	As-1	75	99.533	ug/L	1.145	1	8943	184354	0
[	Se	82	99.314	ug/L	1.729	1	-2	20686	0
[	Se	78	99.330	ug/L	1.673	1	9092	57779	0
[	Mo	98	99.825	ug/L	0.622	0	30	719722	0
	Y	89		ug/L			335409	315209	1
	Kr	83		ug/L			211	234	4
[>	In	115		ug/L			384233	355600 ✓	1
[	Ag	107	99.805	ug/L	1.299	1	42	1165585	0
[	Cd	111	99.768	ug/L	1.449	1	243	299957	0
[	Cd	114	99.717	ug/L	1.557	1	10	691107	0
[	Sb	121	100.098	ug/L	1.279	1	82	957351	0
[	Sb	123	100.205	ug/L	1.371	1	55	720605	0
[	Ba	135	99.981	ug/L	1.891	1	23	218032	0
[	Ba	137	100.060	ug/L	2.358	2	30	376541	1
[>	Tb	159		ug/L			407191	387527 ✓	1
[	Tl	205	100.331	ug/L	1.675	1	48	2952990	0
[	Pb	208	100.023	ug/L	1.971	1	434	3992865	0
[	Bi	209		ug/L			359435	332301	1
[	Th	232	99.736	ug/L	2.174	2	453	5220279	0
[	U	238	99.689	ug/L	1.503	1	69	5367620	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 14:09:20
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			307716	326968	1
Be	9	-0.000	ug/L	0.013	5183	22	23	26
C	13		mg/L			4726	4376	1
Cl	37		mg/L			2244324	2286775	0
Sc	45		ug/L			278446	275913	1
V	51	0.004	ug/L	0.007	187	2126	2151	4
V-1	51	-0.023	ug/L	0.009	37	2969	2647	3
Cr	52	-0.038	ug/L	0.014	38	6847	6370	1
Cr	53	-0.118	ug/L	0.032	27	1043	878	3
Mn	55	-0.000	ug/L	0.002	4402	406	402	6
Co	59	0.001	ug/L	0.001	125	42	53	26
Ge	72		ug/L			329636	317274	0
Ni	60	-0.006	ug/L	0.000	6	63	45	1
Ni	62	-0.029	ug/L	0.026	91	92	76	14
Cu	63	0.001	ug/L	0.001	248	260	254	4
Cu	65	0.007	ug/L	0.004	60	98	114	11
Zn	66	-0.028	ug/L	0.008	28	419	350	3
Zn	67	-0.105	ug/L	0.045	42	151	112	13
Zn	68	-0.124	ug/L	0.015	11	7182	6749	0
As	75	0.013	ug/L	0.009	68	350	360	5
As-1	75	0.001	ug/L	0.047	3602	8943	8610	0
Se	82	-0.033	ug/L	0.085	259	-2	-9	194
Se	78	-0.022	ug/L	0.152	705	9092	8740	0
Mo	98	0.016	ug/L	0.006	38	30	142	31
Y	89		ug/L			335409	320450	1
Kr	83		ug/L			211	214	5
In	115		ug/L			384233	363558	0
Ag	107	0.006	ug/L	0.001	23	42	111	15
Cd	111	0.003	ug/L	0.002	69	243	240	3
Cd	114	0.001	ug/L	0.001	105	10	18	49
Sb	121	0.049	ug/L	0.016	33	82	555	29
Sb	123	0.049	ug/L	0.015	30	55	412	27
Ba	135	-0.001	ug/L	0.003	225	23	19	28
Ba	137	0.002	ug/L	0.001	62	30	35	12
Tb	159		ug/L			407191	390859	0
Tl	205	0.012	ug/L	0.002	20	48	402	18
Pb	208	0.001	ug/L	0.001	102	434	469	11
Bi	209		ug/L			359435	351729	0
Th	232	0.040	ug/L	0.012	28	453	2533	23
U	238	0.002	ug/L	0.001	29	69	192	19

Quantitative Analysis - Calibration Report

Sample Date/Time: Wednesday, January 30, 2013 14:02:42
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	1.0000	0.0015	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	1.0000	0.0447	10	20	50	100	
V-1	51	1.0000	0.0456	10	20	50	100	
Cr	52	1.0000	0.0395	10	20	50	100	
Cr	53	0.9999	0.0048	10	20	50	100	
Mn	55	1.0000	0.0666	10	20	50	100	
Co	59	1.0000	0.0504	10	20	50	100	
Ge	72							
Ni	60	0.9999	0.0091	10	20	50	100	
Ni	62	0.9999	0.0013	10	20	50	100	
Cu	63	0.9999	0.0197	10	20	50	100	
Cu	65	0.9999	0.0092	10	20	50	100	
Zn	66	0.9999	0.0060	10	20	50	100	
Zn	67	0.9999	0.0010	10	20	50	100	
Zn	68	0.9999	0.0042	10	20	50	100	
As	75	1.0000	0.0057	10	20	50	100	
As-1	75	1.0000	0.0056	10	20	50	100	
Se	82	0.9999	0.0007	10	20	50	100	
Se	78	0.9999	0.0016	10	20	50	100	
Mo	98	1.0000	0.0229	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	1.0000	0.0328	10	20	50	100	
Cd	111	1.0000	0.0084	10	20	50	100	
Cd	114	1.0000	0.0195	10	20	50	100	
Sb	121	1.0000	0.0269	10	20	50	100	
Sb	123	1.0000	0.0202	10	20	50	100	
Ba	135	1.0000	0.0061	10	20	50	100	
Ba	137	1.0000	0.0106	10	20	50	100	
Tb	159							
Tl	205	1.0000	0.0760	10	20	50	100	
Pb	208	1.0000	0.1030	10	20	50	100	
Bi	209							
Th	232	1.0000	0.1351	10	20	50	100	
U	238	1.0000	0.1390	10	20	50	100	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 14:16:38
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			307716	334846 ✓	2
[	Be	9	50.293	ug/L	1.802	3	22	25048	1
	C	13		mg/L			4726	12252	3
	Cl	37		mg/L			2244324	2263981	0
[>	Sc	45		ug/L			278446	280499 ✓	1
[	V	51	50.469	ug/L	0.499	0	2126	634343	0
[	V-1	51	50.418	ug/L	0.587	1	2969	647565	0
[	Cr	52	49.797	ug/L	0.892	1	6847	559102	1
[	Cr	53	49.711	ug/L	1.036	2	1043	67406	0
[	Mn	55	51.072	ug/L	0.540	1	406	953994	0
[	Co	59	49.737	ug/L	1.166	2	42	703700	1
[>	Ge	72		ug/L			329636	324512 ✓	0
[	Ni	60	49.851	ug/L	0.849	1	63	146641	0
[	Ni	62	49.518	ug/L	0.848	1	92	21774	0
[	Cu	63	50.567	ug/L	0.318	0	260	323876	0
[	Cu	65	50.692	ug/L	0.746	1	98	151374	0
[	Zn	66	49.703	ug/L	0.703	1	419	96927	0
[	Zn	67	50.172	ug/L	0.593	1	151	16736	0
[	Zn	68	48.970	ug/L	0.960	1	7182	73206	0
[	As	75	51.178	ug/L	0.803	1	350	95217	0
[	As-1	75	50.098	ug/L	0.625	1	8943	99821	0
[	Se	82	80.433	ug/L	1.359	1	-2	17233	0
[	Se	78	78.605	ug/L	0.747	0	9092	48904	0
[	Mo	98	48.805	ug/L	0.756	1	30	361961	1
	Y	89		ug/L			335409	326042	2
	Kr	83		ug/L			211	216	8
[>	In	115		ug/L			384233	369775 ✓	1
[	Ag	107	50.295	ug/L	0.433	0	42	610830	0
[	Cd	111	49.531	ug/L	0.587	1	243	154983	1
[	Cd	114	49.578	ug/L	0.769	1	10	357319	0
[	Sb	121	48.915	ug/L	0.270	0	82	486550	0
[	Sb	123	48.941	ug/L	0.732	1	55	366010	0
[	Ba	135	49.614	ug/L	0.649	1	23	112525	0
[	Ba	137	49.940	ug/L	0.893	1	30	195454	1
[>	Tb	159		ug/L			407191	402855 ✓	1
[	Tl	205	50.119	ug/L	0.784	1	48	1533740	1
[	Pb	208	50.034	ug/L	0.825	1	434	2076775	1
[	Bi	209		ug/L			359435	351587	1
[	Th	232	51.577	ug/L	0.488	0	453	2807011	0
[	U	238	52.244	ug/L	0.895	1	69	2924432	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 14:23:16
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			307716	335658 ✓	0
[	Be	9	-0.012	ug/L	0.011	85	22	17	29
	C	13		mg/L			4726	4604	2
	Cl	37		mg/L			2244324	2267997	0
[>	Sc	45		ug/L			278446	274899 ✓	0
	V	51	-0.002	ug/L	0.011	593	2126	2076	6
	V-1	51	-0.037	ug/L	0.001	3	2969	2473	0
	Cr	52	-0.040	ug/L	0.005	11	6847	6325	0
	Cr	53	-0.144	ug/L	0.034	23	1043	841	5
	Mn	55	-0.003	ug/L	0.001	51	406	350	7
[	Co	59	0.001	ug/L	0.000	76	42	50	11
[>	Ge	72		ug/L			329636	312868 ✓	1
	Ni	60	-0.008	ug/L	0.001	13	63	39	6
	Ni	62	0.005	ug/L	0.042	783	92	90	19
	Cu	63	0.000	ug/L	0.005	1892	260	249	12
	Cu	65	0.003	ug/L	0.002	85	98	101	7
	Zn	66	-0.036	ug/L	0.020	54	419	329	11
	Zn	67	-0.028	ug/L	0.032	113	151	135	6
	Zn	68	-0.195	ug/L	0.050	25	7182	6562	0
	As	75	0.005	ug/L	0.013	292	350	340	6
	As-1	75	-0.017	ug/L	0.053	321	8943	8458	0
	Se	82	-0.061	ug/L	0.016	26	-2	-14	23
	Se	78	-0.064	ug/L	0.184	286	9092	8598	0
[	Mo	98	0.010	ug/L	0.001	14	30	98	11
	Y	89		ug/L			335409	319103	0
	Kr	83		ug/L			211	215	2
[>	In	115		ug/L			384233	358286 ✓	0
	Ag	107	0.005	ug/L	0.001	24	42	94	14
	Cd	111	0.001	ug/L	0.007	665	243	229	9
	Cd	114	0.001	ug/L	0.001	152	10	14	50
	Sb	121	0.021	ug/L	0.005	24	82	279	17
	Sb	123	0.023	ug/L	0.006	23	55	221	18
	Ba	135	0.001	ug/L	0.002	164	23	25	21
[	Ba	137	0.001	ug/L	0.002	151	30	32	22
[>	Tb	159		ug/L			407191	394335 ✓	0
	Tl	205	0.003	ug/L	0.001	24	48	147	17
	Pb	208	0.000	ug/L	0.000	98	434	439	5
	Bi	209		ug/L			359435	346212	1
	Th	232	0.023	ug/L	0.007	30	453	1648	22
[	U	238	0.001	ug/L	0.000	32	69	149	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 14:29:04
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			307716	334313 ✓	1
[	Be	9	49.611	ug/L	1.345	2	22	24677	1
	C	13		mg/L			4726	4510	1
	Cl	37		mg/L			2244324	2252214	0
[>	Sc	45		ug/L			278446	272878 ✓	0
	V	51	50.575	ug/L	0.240	0	2126	618589	1
	V-1	51	50.581	ug/L	0.033	0	2969	632068	0
	Cr	52	50.309	ug/L	0.439	0	6847	549493	1
	Cr	53	50.342	ug/L	0.937	1	1043	66403	1
	Mn	55	50.498	ug/L	0.397	0	406	917709	0
[	Co	59	50.290	ug/L	0.892	1	42	692315	1
[>	Ge	72		ug/L			329636	314736 ✓	0
	Ni	60	50.513	ug/L	0.406	0	63	144126	1
	Ni	62	50.251	ug/L	0.343	0	92	21431	0
	Cu	63	50.528	ug/L	0.562	1	260	313886	1
	Cu	65	50.680	ug/L	0.774	1	98	146793	1
	Zn	66	50.471	ug/L	0.608	1	419	95461	1
	Zn	67	50.894	ug/L	0.417	0	151	16465	0
	Zn	68	50.737	ug/L	0.312	0	7182	73323	0
	As	75	50.562	ug/L	0.586	1	350	91247	1
	As-1	75	50.156	ug/L	0.614	1	8943	96922	0
	Se	82	51.746	ug/L	0.400	0	-2	10753	0
	Se	78	50.355	ug/L	0.676	1	9092	33505	0
[	Mo	98	50.003	ug/L	0.262	0	30	359696	0
	Y	89		ug/L			335409	315838	0
	Kr	83		ug/L			211	213	3
[>	In	115		ug/L			384233	361746 ✓	1
	Ag	107	49.767	ug/L	0.630	1	42	591353	2
	Cd	111	49.846	ug/L	0.392	0	243	152577	0
	Cd	114	50.039	ug/L	0.975	1	10	352790	0
	Sb	121	49.681	ug/L	0.574	1	82	483409	0
	Sb	123	49.677	ug/L	0.462	0	55	363458	0
	Ba	135	50.324	ug/L	0.623	1	23	111657	0
[	Ba	137	50.177	ug/L	0.637	1	30	192113	0
[>	Tb	159		ug/L			407191	395657 ✓	0
	Tl	205	49.599	ug/L	0.284	0	48	1490717	0
	Pb	208	50.141	ug/L	0.533	1	434	2044159	0
	Bi	209		ug/L			359435	342027	0
	Th	232	50.827	ug/L	0.591	1	453	2716798	0
[	U	238	51.344	ug/L	0.774	1	69	2822831	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 14:35:43
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			307716	333807 ✓	1
[	Be	9	-0.011	ug/L	0.007	58	22	18	17
	C	13		mg/L			4726	4429	1
	Cl	37		mg/L			2244324	2294467	0
[>	Sc	45		ug/L			278446	269693 ✓	0
|	V	51	0.002	ug/L	0.006	358	2126	2078	3
|	V-1	51	-0.035	ug/L	0.001	2	2969	2451	1
|	Cr	52	-0.041	ug/L	0.014	34	6847	6194	1
|	Cr	53	-0.149	ug/L	0.023	15	1043	819	3
|	Mn	55	-0.002	ug/L	0.001	22	406	349	2
[	Co	59	0.002	ug/L	0.001	29	42	67	11
[>	Ge	72		ug/L			329636	310954 ✓	0
|	Ni	60	-0.005	ug/L	0.003	64	63	45	21
|	Ni	62	-0.040	ug/L	0.043	107	92	70	25
|	Cu	63	-0.000	ug/L	0.004	1148	260	243	11
|	Cu	65	0.004	ug/L	0.005	123	98	104	12
|	Zn	66	-0.033	ug/L	0.010	31	419	333	6
|	Zn	67	-0.066	ug/L	0.034	51	151	122	8
|	Zn	68	-0.218	ug/L	0.092	42	7182	6493	1
|	As	75	0.027	ug/L	0.018	65	350	378	8
|	As-1	75	-0.034	ug/L	0.043	128	8943	8378	0
|	Se	82	-0.026	ug/L	0.024	92	-2	-7	64
|	Se	78	-0.136	ug/L	0.156	114	9092	8510	0
[	Mo	98	0.010	ug/L	0.003	34	30	98	23
	Y	89		ug/L			335409	312779	1
	Kr	83		ug/L			211	220	1
[>	In	115		ug/L			384233	360441 ✓	0
|	Ag	107	0.005	ug/L	0.001	23	42	95	14
|	Cd	111	0.000	ug/L	0.002	1598	243	228	3
|	Cd	114	0.001	ug/L	0.000	21	10	19	10
|	Sb	121	0.036	ug/L	0.013	35	82	427	29
|	Sb	123	0.037	ug/L	0.010	27	55	325	23
|	Ba	135	-0.000	ug/L	0.003	868	23	21	26
[	Ba	137	-0.001	ug/L	0.001	46	30	22	11
[>	Tb	159		ug/L			407191	387339 ✓	1
|	Tl	205	0.005	ug/L	0.001	16	48	197	12
|	Pb	208	0.001	ug/L	0.001	162	434	437	9
|	Bi	209		ug/L			359435	342982	1
|	Th	232	0.028	ug/L	0.007	25	453	1905	20
[	U	238	0.002	ug/L	0.001	42	69	147	23

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 14:41:31
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			307716	324649 ✓	1
[	Be	9	0.203	ug/L	0.019	9	22	121	8
	C	13		mg/L			4726	5394	3
	Cl	37		mg/L			2244324	2322135	0
⌈>	Sc	45		ug/L			278446	267448 ✓	0
|	V	51	0.198	ug/L	0.017	8	2126	4408	5
|	V-1	51	0.177	ug/L	0.007	4	2969	5015	2
|	Cr	52	0.487	ug/L	0.022	4	6847	11725	1
|	Cr	53	0.406	ug/L	0.037	9	1043	1519	2
|	Mn	55	0.533	ug/L	0.004	0	406	9880	1
[	Co	59	0.205	ug/L	0.007	3	42	2804	3
⌈>	Ge	72		ug/L			329636	307234 ✓	0
|	Ni	60	0.523	ug/L	0.009	1	63	1515	1
|	Ni	62	0.503	ug/L	0.016	3	92	294	1
|	Cu	63	0.528	ug/L	0.001	0	260	3439	0
|	Cu	65	0.542	ug/L	0.014	2	98	1624	1
|	Zn	66	4.239	ug/L	0.014	0	419	8185	0
|	Zn	67	3.806	ug/L	0.075	1	151	1332	1
|	Zn	68	4.055	ug/L	0.084	2	7182	11879	0
|	As	75	0.235	ug/L	0.026	10	350	738	5
|	As-1	75	0.187	ug/L	0.047	25	8943	8657	0
|	Se	82	0.505	ug/L	0.034	6	-2	100	6
|	Se	78	0.442	ug/L	0.182	41	9092	8687	0
[	Mo	98	0.199	ug/L	0.007	3	30	1423	3
	Y	89		ug/L			335409	311914	0
	Kr	83		ug/L			211	213	1
⌈>	In	115		ug/L			384233	350172 ✓	1
|	Ag	107	0.180	ug/L	0.004	2	42	2114	2
|	Cd	111	0.098	ug/L	0.011	11	243	511	5
|	Cd	114	0.103	ug/L	0.002	1	10	711	1
|	Sb	121	0.204	ug/L	0.005	2	82	1997	2
|	Sb	123	0.209	ug/L	0.001	0	55	1533	1
|	Ba	135	0.501	ug/L	0.015	2	23	1096	2
[	Ba	137	0.502	ug/L	0.017	3	30	1887	2
⌈>	Tb	159		ug/L			407191	381782 ✓	0
|	Tl	205	0.212	ug/L	0.004	1	48	6199	0
|	Pb	208	0.107	ug/L	0.001	0	434	4599	1
|	Bi	209		ug/L			359435	338309	1
|	Th	232	0.209	ug/L	0.002	0	453	11211	1
[	U	238	0.200	ug/L	0.002	0	69	10660	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 14:47:19
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			307716	356695 ✓	0
⌊	Be	9	-0.013	ug/L	0.007	53	22	18	20
	C	13		mg/L			4726	16170	1
	Cl	37		mg/L			2244324	3563220	1
⌈>	Sc	45		ug/L			278446	251579 ✓	1
|	V	51	0.027	ug/L	0.021	79	2126	2217	8
|	V-1	51	0.496	ug/L	0.019	3	2969	8366	1
|	Cr	52	0.413	ug/L	0.027	6	6847	10292	1
|	Cr	53	1.826	ug/L	0.046	2	1043	3129	2
|	Mn	55	0.043	ug/L	0.003	7	406	1093	3
⌊	Co	59	0.026	ug/L	0.000	1	42	365	3
⌈>	Ge	72		ug/L			329636	282410 ✓	0
|	Ni	60	0.528	ug/L	0.034	6	63	1404	6
|	Ni	62	4.369	ug/L	0.407	9	92	1752	9
|	Cu	63	0.482	ug/L	0.014	2	260	2906	2
|	Cu	65	0.709	ug/L	0.051	7	98	1927	7
|	Zn	66	1.272	ug/L	0.068	5	419	2508	4
|	Zn	67	1.260	ug/L	0.100	7	151	492	6
|	Zn	68	0.162	ug/L	0.062	38	7182	6343	0
|	As	75	0.112	ug/L	0.012	10	350	480	3
|	As-1	75	0.115	ug/L	0.035	30	8943	7844	0
|	Se	82	-0.055	ug/L	0.037	66	-2	-12	55
|	Se	78	0.216	ug/L	0.133	61	9092	7885	0
⌊	Mo	98	397.033	ug/L	2.224	0	30	2562565	0
	Y	89		ug/L			335409	280169	0
	Kr	83		ug/L			211	228	0
⌈>	In	115		ug/L			384233	316359 ✓	0
|	Ag	107	0.024	ug/L	0.001	4	42	282	3
|	Cd	111	0.061	ug/L	0.032	51	243	364	24
|	Cd	114	0.742	ug/L	0.018	2	10	4583	3
|	Sb	121	0.066	ug/L	0.001	1	82	630	1
|	Sb	123	0.069	ug/L	0.001	2	55	488	1
|	Ba	135	0.039	ug/L	0.005	11	23	95	8
⌊	Ba	137	0.043	ug/L	0.003	8	30	169	7
⌈>	Tb	159		ug/L			407191	367629 ✓	0
|	Tl	205	0.031	ug/L	0.003	8	48	915	7
|	Pb	208	0.029	ug/L	0.000	0	434	1478	0
|	Bi	209		ug/L			359435	308294	0
|	Th	232	0.047	ug/L	0.006	13	453	2757	11
⌊	U	238	0.001	ug/L	0.000	5	69	130	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 14:53:37
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			307716	371555	0
[	Be	9	-0.009	ug/L	0.016	175	22	21	39
	C	13		mg/L			4726	15905	1
	Cl	37		mg/L			2244324	3383563	1
[>	Sc	45		ug/L			278446	239606 ✓	1
|	V	51	-0.416	ug/L	0.043	10	2126	-2616	16
|	V-1	51	0.520	ug/L	0.021	4	2969	8239	3
|	Cr	52	20.266	ug/L	0.104	0	6847	197871	0
|	Cr	53	21.864	ug/L	0.161	0	1043	25831	0
|	Mn	55	19.872	ug/L	0.170	0	406	317309	1
[	Co	59	19.504	ug/L	0.313	1	42	235783	1
[>	Ge	72		ug/L			329636	275838 ✓	0
|	Ni	60	19.793	ug/L	0.348	1	63	49524	1
|	Ni	62	23.537	ug/L	0.206	0	92	8839	1
|	Cu	63	19.631	ug/L	0.136	0	260	107009	0
|	Cu	65	19.791	ug/L	0.141	0	98	50287	0
|	Zn	66	20.251	ug/L	0.193	0	419	33782	1
|	Zn	67	17.798	ug/L	0.262	1	151	5129	2
|	Zn	68	18.906	ug/L	0.342	1	7182	27715	1
|	As	75	19.526	ug/L	0.132	0	350	31062	0
|	As-1	75	19.886	ug/L	0.195	0	8943	38195	0
|	Se	82	-0.088	ug/L	0.069	78	-2	-18	69
|	Se	78	0.066	ug/L	0.184	276	9092	7637	1
[	Mo	98	395.402	ug/L	0.669	0	30	2492621	0
	Y	89		ug/L			335409	274662	1
	Kr	83		ug/L			211	227	2
[>	In	115		ug/L			384233	309667 ✓	1
|	Ag	107	19.395	ug/L	0.335	1	42	197258	0
|	Cd	111	19.888	ug/L	0.270	1	243	52230	1
|	Cd	114	20.587	ug/L	0.350	1	10	124275	2
|	Sb	121	0.068	ug/L	0.002	3	82	630	2
|	Sb	123	0.067	ug/L	0.002	2	55	464	2
|	Ba	135	0.039	ug/L	0.004	10	23	92	10
[	Ba	137	0.041	ug/L	0.006	14	30	157	10
[>	Tb	159		ug/L			407191	365707 ✓	1
|	Tl	205	0.031	ug/L	0.000	1	48	903	0
|	Pb	208	0.029	ug/L	0.001	3	434	1484	1
|	Bi	209		ug/L			359435	307587	0
|	Th	232	0.025	ug/L	0.001	5	453	1651	4
[	U	238	0.001	ug/L	0.000	18	69	101	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 14:59:54
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			307716	374136	2
⌊	Be	9	178.510	ug/L	3.120	1	22	99301	1
	C	13		mg/L			4726	5749	1
	Cl	37		mg/L			2244324	1959809	1
⌈>	Sc	45		ug/L			278446	252525 ✓	0
|	V	51	198.750	ug/L	1.651	0	2126	2243925	1
|	V-1	51	198.847	ug/L	1.433	0	2969	2291619	1
|	Cr	52	192.641	ug/L	1.943	1	6847	1929608	1
|	Cr	53	193.312	ug/L	1.399	0	1043	233298	1
|	Mn	55	197.278	ug/L	2.807	1	406	3316516	0
⌊	Co	59	191.282	ug/L	3.262	1	42	2436622	0
⌈>	Ge	72		ug/L			329636	285146 ✓	1
|	Ni	60	189.953	ug/L	3.169	1	63	490899	2
|	Ni	62	188.734	ug/L	2.650	1	92	72696	0
|	Cu	63	187.385	ug/L	2.175	1	260	1053980	1
|	Cu	65	188.280	ug/L	0.975	0	98	493826	0
|	Zn	66	188.656	ug/L	0.806	0	419	322280	0
|	Zn	67	189.417	ug/L	3.076	1	151	55167	2
|	Zn	68	190.493	ug/L	2.043	1	7182	232294	1
|	As	75	197.934	ug/L	1.010	0	350	322735	0
|	As-1	75	197.197	ug/L	0.208	0	8943	322563	1
|	Se	82	197.902	ug/L	5.187	2	-2	37259	2
|	Se	78	195.204	ug/L	2.439	1	9092	95045	0
⌊	Mo	98	197.757	ug/L	0.782	0	30	1288730	1
	Y	89		ug/L			335409	282725	1
	Kr	83		ug/L			211	231	1
⌈>	In	115		ug/L			384233	320782 ✓	1
|	Ag	107	196.576	ug/L	9.323	4	42	2070233	3
|	Cd	111	198.067	ug/L	4.318	2	243	536903	0
|	Cd	114	199.580	ug/L	5.011	2	10	1247545	0
|	Sb	121	204.817	ug/L	5.700	2	82	1766615	1
|	Sb	123	203.443	ug/L	2.860	1	55	1319690	1
|	Ba	135	208.399	ug/L	1.704	0	23	409989	1
⌊	Ba	137	208.681	ug/L	4.087	1	30	708329	0
⌈>	Tb	159		ug/L			407191	377609 ✓	1
|	Tl	205	197.852	ug/L	1.081	0	48	5674810	1
|	Pb	208	197.047	ug/L	2.289	1	434	7664855	0
|	Bi	209		ug/L			359435	308408	0
|	Th	232	206.236	ug/L	2.110	1	453	10518923	0
⌊	U	238	206.821	ug/L	3.837	1	69	10850334	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 15:06:31
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			307716	349593 ✓	1
[	Be	9	275.532	ug/L	1.782	0	22	143231	0
	C	13		mg/L			4726	5836	1
	Cl	37		mg/L			2244324	2084739	3
[>	Sc	45		ug/L			278446	252615 ✓	0
	V	51	305.633	ug/L	0.598	0	2126	3450816	0
	V-1	51	303.699	ug/L	1.305	0	2969	3499799	0
	Cr	52	298.876	ug/L	1.766	0	6847	2991349	1
	Cr	53	293.365	ug/L	2.451	0	1043	353687	1
	Mn	55	297.261	ug/L	4.754	1	406	4999440	1
[	Co	59	290.282	ug/L	0.863	0	42	3699279	0
[>	Ge	72		ug/L			329636	287244 ✓	0
	Ni	60	280.863	ug/L	1.845	0	63	731127	1
	Ni	62	283.948	ug/L	3.786	1	92	110151	1
	Cu	63	280.216	ug/L	2.683	0	260	1587690	1
	Cu	65	279.916	ug/L	1.201	0	98	739559	0
	Zn	66	282.489	ug/L	3.100	1	419	485965	1
	Zn	67	282.809	ug/L	3.006	1	151	82899	1
	Zn	68	280.121	ug/L	1.160	0	7182	341161	0
	As	75	293.538	ug/L	0.352	0	350	482006	0
	As-1	75	293.578	ug/L	0.747	0	8943	479942	0
	Se	82	290.380	ug/L	3.376	1	-2	55083	1
	Se	78	290.220	ug/L	2.481	0	9092	138504	1
[	Mo	98	296.816	ug/L	0.845	0	30	1948494	0
	Y	89		ug/L			335409	286522	1
	Kr	83		ug/L			211	262	2
[>	In	115		ug/L			384233	321664 ✓	0
	Ag	107	295.827	ug/L	2.980	1	42	3125187	0
	Cd	111	292.693	ug/L	0.675	0	243	795708	0
	Cd	114	294.415	ug/L	1.424	0	10	1845950	0
	Sb	121	315.494	ug/L	1.227	0	82	2729647	1
	Sb	123	304.141	ug/L	1.500	0	55	1978523	0
	Ba	135	311.427	ug/L	5.047	1	23	614329	0
[	Ba	137	311.312	ug/L	2.914	0	30	1059805	0
[>	Tb	159		ug/L			407191	373807 ✓	0
	Tl	205	298.463	ug/L	3.685	1	48	8475337	1
	Pb	208	298.996	ug/L	3.460	1	434	11513978	0
	Bi	209		ug/L			359435	292222	1
	Th	232	308.071	ug/L	1.285	0	453	15555965	0
[	U	238	308.405	ug/L	3.930	1	69	16019006	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 15:13:08
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			307716	370581	1
[	Be	9	46.463	ug/L	0.847	1	22	25622	1
	C	13		mg/L			4726	4570	2
	Cl	37		mg/L			2244324	2197046	0
[>	Sc	45		ug/L			278446	262638 ✓	0
[	V	51	49.207	ug/L	0.597	1	2126	579296	1
[	V-1	51	49.277	ug/L	0.490	0	2969	592721	0
[	Cr	52	49.161	ug/L	0.387	0	6847	516936	0
[	Cr	53	49.378	ug/L	0.487	0	1043	62707	0
[	Mn	55	49.435	ug/L	0.732	1	406	864657	0
[	Co	59	48.032	ug/L	0.373	0	42	636412	0
[>	Ge	72		ug/L			329636	298055 ✓	0
[	Ni	60	49.099	ug/L	0.532	1	63	132660	0
[	Ni	62	48.747	ug/L	0.486	0	92	19691	1
[	Cu	63	49.418	ug/L	0.280	0	260	290717	0
[	Cu	65	49.007	ug/L	0.578	1	98	134418	0
[	Zn	66	50.267	ug/L	0.183	0	419	90038	0
[	Zn	67	50.161	ug/L	1.586	3	151	15367	2
[	Zn	68	49.500	ug/L	0.363	0	7182	67900	0
[	As	75	50.112	ug/L	0.436	0	350	85643	0
[	As-1	75	49.772	ug/L	0.615	1	8943	91140	0
[	Se	82	51.379	ug/L	0.064	0	-2	10111	0
[	Se	78	50.243	ug/L	0.730	1	9092	31676	0
[	Mo	98	49.039	ug/L	0.604	1	30	334051	0
	Y	89		ug/L			335409	297677	0
	Kr	83		ug/L			211	204	1
[>	In	115		ug/L			384233	335925 ✓	1
[	Ag	107	49.694	ug/L	0.468	0	42	548289	0
[	Cd	111	50.344	ug/L	0.379	0	243	143109	1
[	Cd	114	50.401	ug/L	0.369	0	10	330025	0
[	Sb	121	51.167	ug/L	0.672	1	82	462337	0
[	Sb	123	50.564	ug/L	0.454	0	55	343546	0
[	Ba	135	51.366	ug/L	0.589	1	23	105835	0
[	Ba	137	51.401	ug/L	0.919	1	30	182750	0
[>	Tb	159		ug/L			407191	384022 ✓	0
[	Tl	205	49.379	ug/L	0.413	0	48	1440514	1
[	Pb	208	49.526	ug/L	0.436	0	434	1959673	0
[	Bi	209		ug/L			359435	336601	0
[	Th	232	51.758	ug/L	0.994	1	453	2685037	1
[	U	238	52.325	ug/L	0.248	0	69	2792325	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 15:19:47
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			307716	366628 ✓	1
[	Be	9	-0.020	ug/L	0.013	64	22	15	46
	C	13		mg/L			4726	4585	0
	Cl	37		mg/L			2244324	2215274	0
[>	Sc	45		ug/L			278446	259132 ✓	0
[	V	51	-0.004	ug/L	0.005	122	2126	1928	3
[	V-1	51	-0.006	ug/L	0.005	89	2969	2692	3
[	Cr	52	-0.069	ug/L	0.014	20	6847	5669	1
[	Cr	53	-0.070	ug/L	0.011	16	1043	885	2
[	Mn	55	0.005	ug/L	0.002	38	406	464	7
[	Co	59	0.002	ug/L	0.001	29	42	69	13
[>	Ge	72		ug/L			329636	291325 ✓	0
[	Ni	60	-0.006	ug/L	0.003	44	63	41	16
[	Ni	62	-0.007	ug/L	0.031	469	92	79	16
[	Cu	63	0.012	ug/L	0.004	33	260	297	7
[	Cu	65	0.015	ug/L	0.004	26	98	128	9
[	Zn	66	-0.021	ug/L	0.014	65	419	333	6
[	Zn	67	-0.061	ug/L	0.055	89	151	115	14
[	Zn	68	-0.274	ug/L	0.044	16	7182	6015	0
[	As	75	0.029	ug/L	0.009	30	350	357	3
[	As-1	75	0.005	ug/L	0.047	905	8943	7912	0
[	Se	82	-0.063	ug/L	0.045	71	-2	-14	60
[	Se	78	-0.026	ug/L	0.146	550	9092	8023	0
[	Mo	98	0.021	ug/L	0.004	19	30	168	16
	Y	89		ug/L			335409	296065	0
	Kr	83		ug/L			211	209	5
[>	In	115		ug/L			384233	334268 ✓	1
[	Ag	107	0.009	ug/L	0.003	31	42	131	23
[	Cd	111	-0.006	ug/L	0.003	45	243	194	4
[	Cd	114	0.001	ug/L	0.001	49	10	16	20
[	Sb	121	0.080	ug/L	0.016	19	82	793	18
[	Sb	123	0.074	ug/L	0.015	19	55	549	18
[	Ba	135	0.005	ug/L	0.002	49	23	30	16
[	Ba	137	0.002	ug/L	0.002	64	30	34	15
[>	Tb	159		ug/L			407191	382595 ✓	0
[	Tl	205	0.011	ug/L	0.002	19	48	370	16
[	Pb	208	0.002	ug/L	0.001	44	434	492	7
[	Bi	209		ug/L			359435	335431	1
[	Th	232	0.043	ug/L	0.010	23	453	2672	20
[	U	238	0.003	ug/L	0.001	30	69	207	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ75 T REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 30, 2013 15:25:50
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			307716	369174 ✓	2
[	Be	9	-0.013	ug/L	0.008	57	22	19	19
	C	13		mg/L			4726	6105	1
	Cl	37		mg/L			2244324	5604543	2
[>	Sc	45		ug/L			278446	296516 ✓	3
[	V	51	0.334	ug/L	0.014	4	2126	6688	5
[	V-1	51	1.437	ug/L	0.093	6	2969	22604	8
[	Cr	52	0.183	ug/L	0.015	8	6847	9442	4
[	Cr	53	3.570	ug/L	0.260	7	1043	6156	9
[	Mn	55	81.391	ug/L	1.100	1	406	1606601	1
[	Co	59	1.765	ug/L	0.009	0	42	26301	2
[>	Ge	72		ug/L			329636	310690 ✓	1
[	Ni	60	3.903	ug/L	0.082	2	63	11049	3
[	Ni	62	4.749	ug/L	0.278	5	92	2079	7
[	Cu	63	2.686	ug/L	0.070	2	260	16705	4
[	Cu	65	1.014	ug/L	0.038	3	98	2991	5
[	Zn	66	7.028	ug/L	0.147	2	419	13463	3
[	Zn	67	7.556	ug/L	0.270	3	151	2535	4
[	Zn	68	7.381	ug/L	0.121	1	7182	16313	0
[	As	75	4.462	ug/L	0.113	2	350	8252	4
[	As-1	75	3.867	ug/L	0.039	1	8943	15156	1
[	Se	82	1.742	ug/L	0.162	9	-2	355	10
[	Se	78	-0.388	ug/L	0.339	87	9092	8379	0
[	Mo	98	0.292	ug/L	0.009	2	30	2099	3
	Y	89		ug/L			335409	332946	3
	Kr	83		ug/L			211	235	6
[>	In	115		ug/L			384233	353915 ✓	3
[	Ag	107	0.014	ug/L	0.003	17	42	204	10
[	Cd	111	-0.068	ug/L	0.101	149	243	29	1053
[	Cd	114	0.135	ug/L	0.005	3	10	939	2
[	Sb	121	0.450	ug/L	0.003	0	82	4363	3
[	Sb	123	0.443	ug/L	0.012	2	55	3219	2
[	Ba	135	48.129	ug/L	0.655	1	23	104448	2
[	Ba	137	47.990	ug/L	0.768	1	30	179710	2
[>	Tb	159		ug/L			407191	403130 ✓	2
[	Tl	205	0.006	ug/L	0.002	37	48	240	27
[	Pb	208	0.015	ug/L	0.001	5	434	1063	1
[	Bi	209		ug/L			359435	328121	2
[	Th	232	0.046	ug/L	0.006	13	453	2966	9
[	U	238	0.016	ug/L	0.000	2	69	965	4

VZ75 00694

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA78 ADUP SWN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Wednesday, January 30, 2013 15:32:07 Del
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			307716	475939	0
[	Be	9	0.050	ug/L	0.028	56	22	69	28
	C	13		mg/L			4726	5821	0
	Cl	37		mg/L			2244324	2300202	0
[>	Sc	45		ug/L			278446	341077	1
	V	51	14.475	ug/L	0.272	1	2126	223110	0
	V-1	51	14.385	ug/L	0.257	1	2969	227237	0
	Cr	52	10.306	ug/L	0.132	1	6847	147348	1
	Cr	53	10.283	ug/L	0.219	2	1043	17970	2
	Mn	55	95.935	ug/L	1.642	1	406	2178348	0
[	Co	59	5.182	ug/L	0.099	1	42	89210	1
[>	Ge	72		ug/L			329636	360352 ✓	1
	Ni	60	14.470	ug/L	0.203	1	63	47324	2
	Ni	62	17.488	ug/L	0.308	1	92	8606	2
	Cu	63	8.141	ug/L	0.104	1	260	58145	2
	Cu	65	8.392	ug/L	0.054	0	98	27918	0
	Zn	66	16.838	ug/L	0.096	0	419	36768	0
	Zn	67	16.980	ug/L	0.667	3	151	6402	5
	Zn	68	15.501	ug/L	0.084	0	7182	31101	1
	As	75	1.173	ug/L	0.022	1	350	2798	0
	As-1	75	0.370	ug/L	0.039	10	8943	10522	0
	Se	82	0.014	ug/L	0.066	469	-2	0	2573
	Se	78	-2.998	ug/L	0.101	3	9092	8247	0
[	Mo	98	0.097	ug/L	0.004	4	30	831	4
	Y	89		ug/L			335409	460531	1
	Kr	83		ug/L			211	216	7
[>	In	115		ug/L			384233	433869 ✓	0
	Ag	107	0.067	ug/L	0.002	2	42	997	3
	Cd	111	0.190	ug/L	0.012	6	243	971	4
	Cd	114	0.050	ug/L	0.005	9	10	436	8
	Sb	121	0.020	ug/L	0.002	12	82	321	8
	Sb	123	0.021	ug/L	0.003	16	55	246	13
	Ba	135	22.889	ug/L	0.538	2	23	60924	1
[	Ba	137	22.750	ug/L	0.498	2	30	104487	1
[>	Tb	159		ug/L			407191	486957 ✓	1
	Tl	205	0.020	ug/L	0.001	5	48	797	6
	Pb	208	2.751	ug/L	0.037	1	434	138488	0
	Bi	209		ug/L			359435	434203	0
	Th	232	0.412	ug/L	0.013	3	453	27614	1
[	U	238	0.124	ug/L	0.002	1	69	8467	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA78 A SWN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Wednesday, January 30, 2013 15:38:24 Del
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			307716	491309	0
⌊	Be	9	0.038	ug/L	0.016	41	22	63	17
	C	13		mg/L			4726	6135	1
	Cl	37		mg/L			2244324	2282318	0
⌈>	Sc	45		ug/L			278446	356242	1
|	V	51	14.506	ug/L	0.165	1	2126	233540	1
|	V-1	51	14.399	ug/L	0.178	1	2969	237606	1
|	Cr	52	8.749	ug/L	0.222	2	6847	131959	1
|	Cr	53	8.776	ug/L	0.253	2	1043	16211	1
|	Mn	55	90.303	ug/L	1.782	1	406	2141725	0
⌊	Co	59	5.718	ug/L	0.116	2	42	102804	1
⌈>	Ge	72		ug/L			329636	376268 ✓	0
|	Ni	60	13.207	ug/L	0.228	1	63	45100	1
|	Ni	62	16.232	ug/L	0.176	1	92	8347	1
|	Cu	63	8.181	ug/L	0.080	0	260	61006	0
|	Cu	65	8.360	ug/L	0.209	2	98	29042	2
|	Zn	66	16.063	ug/L	0.143	0	419	36646	0
|	Zn	67	16.338	ug/L	0.267	1	151	6436	1
|	Zn	68	14.585	ug/L	0.264	1	7182	31038	0
|	As	75	1.127	ug/L	0.020	1	350	2822	0
|	As-1	75	0.170	ug/L	0.041	24	8943	10567	0
|	Se	82	0.023	ug/L	0.069	293	-2	2	581
|	Se	78	-3.537	ug/L	0.093	2	9092	8294	0
⌊	Mo	98	0.104	ug/L	0.007	7	30	925	6
	Y	89		ug/L			335409	473594	0
	Kr	83		ug/L			211	224	6
⌈>	In	115		ug/L			384233	447136 ✓	0
|	Ag	107	0.127	ug/L	0.001	0	42	1921	1
|	Cd	111	0.242	ug/L	0.001	0	243	1195	0
|	Cd	114	0.067	ug/L	0.004	6	10	592	5
|	Sb	121	0.013	ug/L	0.001	7	82	250	4
|	Sb	123	0.012	ug/L	0.001	9	55	173	5
|	Ba	135	25.046	ug/L	0.630	2	23	68703	1
⌊	Ba	137	25.135	ug/L	0.603	2	30	118975	1
⌈>	Tb	159		ug/L			407191	502054	1
|	Tl	205	0.019	ug/L	0.001	3	48	778	2
|	Pb	208	2.651	ug/L	0.034	1	434	137640	0
|	Bi	209		ug/L			359435	446990	1
|	Th	232	0.397	ug/L	0.008	1	453	27490	1
⌊	U	238	0.159	ug/L	0.001	0	69	11208	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA78 ASPK SWN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Wednesday, January 30, 2013 15:44:41 Del
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			307716	499428	2
Be	9	9.288	ug/L	0.215	2	22	6929	0
C	13		mg/L			4726	5764	0
Cl	37		mg/L			2244324	2237006	0
Sc	45		ug/L			278446	351848	1
V	51	24.496	ug/L	0.383	1	2126	387643	0
V-1	51	24.379	ug/L	0.406	1	2969	394693	0
Cr	52	19.952	ug/L	0.330	1	6847	286164	0
Cr	53	19.872	ug/L	0.405	2	1043	34591	0
Mn	55	101.072	ug/L	1.099	1	406	2367621	0
Co	59	14.602	ug/L	0.119	0	42	259231	1
Ge	72		ug/L			329636	373252	1
Ni	60	24.957	ug/L	0.693	2	63	84472	2
Ni	62	28.130	ug/L	0.321	1	92	14272	0
Cu	63	21.379	ug/L	0.266	1	260	157652	0
Cu	65	21.693	ug/L	0.073	0	98	74577	0
Zn	66	52.617	ug/L	0.189	0	419	118003	1
Zn	67	49.123	ug/L	0.327	0	151	18853	1
Zn	68	49.791	ug/L	0.674	1	7182	85484	1
As	75	12.553	ug/L	0.132	1	350	27162	0
As-1	75	10.934	ug/L	0.272	2	8943	32973	1
Se	82	35.368	ug/L	0.559	1	-2	8714	0
Se	78	31.123	ug/L	1.027	3	9092	28487	1
Mo	98	0.115	ug/L	0.004	3	30	1012	4
Y	89		ug/L			335409	473640	0
Kr	83		ug/L			211	222	5
In	115		ug/L			384233	449049	0
Ag	107	14.645	ug/L	0.156	1	42	216043	1
Cd	111	11.649	ug/L	0.040	0	243	44484	0
Cd	114	11.590	ug/L	0.078	0	10	101457	0
Sb	121	0.011	ug/L	0.001	12	82	228	7
Sb	123	0.011	ug/L	0.002	13	55	165	8
Ba	135	32.448	ug/L	0.393	1	23	89385	1
Ba	137	32.454	ug/L	0.319	0	30	154272	0
Tb	159		ug/L			407191	503760	1
Tl	205	10.364	ug/L	0.245	2	48	396556	1
Pb	208	12.901	ug/L	0.192	1	434	669968	0
Bi	209		ug/L			359435	446572	1
Th	232	10.602	ug/L	0.022	0	453	721997	1
U	238	10.474	ug/L	0.083	0	69	733252	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA80 B REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 30, 2013 15:51:00
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			307716	470203	1
⌊	Be	9	0.001	ug/L	0.006	970	22	34	11
	C	13		mg/L			4726	6033	1
	Cl	37		mg/L			2244324	2156699	0
⌈>	Sc	45		ug/L			278446	353573	0
|	V	51	5.716	ug/L	0.074	1	2126	92984	1
|	V-1	51	5.602	ug/L	0.062	1	2969	94053	1
|	Cr	52	0.557	ug/L	0.029	5	6847	16487	2
|	Cr	53	0.523	ug/L	0.012	2	1043	2204	0
|	Mn	55	95.243	ug/L	1.556	1	406	2242307	1
⌊	Co	59	1.845	ug/L	0.035	1	42	32966	1
⌈>	Ge	72		ug/L			329636	347863 ✓	0
|	Ni	60	2.434	ug/L	0.034	1	63	7739	1
|	Ni	62	2.663	ug/L	0.108	4	92	1347	3
|	Cu	63	9.309	ug/L	0.145	1	260	64141	1
|	Cu	65	9.292	ug/L	0.113	1	98	29831	1
|	Zn	66	3.746	ug/L	0.019	0	419	8241	0
|	Zn	67	4.008	ug/L	0.274	6	151	1580	6
|	Zn	68	2.745	ug/L	0.096	3	7182	11554	1
|	As	75	0.471	ug/L	0.024	5	350	1306	3
|	As-1	75	-0.229	ug/L	0.038	16	8943	8991	0
|	Se	82	0.229	ug/L	0.021	9	-2	49	9
|	Se	78	-2.344	ug/L	0.066	2	9092	8318	0
⌊	Mo	98	0.892	ug/L	0.015	1	30	7126	1
	Y	89		ug/L			335409	410470	0
	Kr	83		ug/L			211	210	1
⌈>	In	115		ug/L			384233	414869 ✓	1
|	Ag	107	0.010	ug/L	0.001	10	42	182	8
|	Cd	111	0.066	ug/L	0.004	6	243	492	2
|	Cd	114	0.035	ug/L	0.001	1	10	295	2
|	Sb	121	0.061	ug/L	0.006	9	82	771	9
|	Sb	123	0.064	ug/L	0.005	7	55	598	5
|	Ba	135	4.842	ug/L	0.041	0	23	12345	1
⌊	Ba	137	4.789	ug/L	0.120	2	30	21056	1
⌈>	Tb	159		ug/L			407191	471416 ✓	0
|	Tl	205	0.004	ug/L	0.001	16	48	182	10
|	Pb	208	0.167	ug/L	0.004	2	434	8625	1
|	Bi	209		ug/L			359435	409917	0
|	Th	232	0.066	ug/L	0.003	5	453	4710	3
⌊	U	238	0.226	ug/L	0.004	1	69	14907	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA81 B REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 30, 2013 15:57:19
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			307716	470289	1
[	Be	9	-0.027	ug/L	0.002	7	22	15	8
	C	13		mg/L			4726	6091	1
	Cl	37		mg/L			2244324	2157497	0
[>	Sc	45		ug/L			278446	329735 ✓	0
[	V	51	0.176	ug/L	0.006	3	2126	5106	2
[	V-1	51	0.155	ug/L	0.009	5	2969	5849	1
[	Cr	52	0.104	ug/L	0.015	14	6847	9462	1
[	Cr	53	0.046	ug/L	0.053	115	1043	1306	5
[	Mn	55	4.007	ug/L	0.101	2	406	88427	1
[	Co	59	0.013	ug/L	0.002	14	42	265	11
[>	Ge	72		ug/L			329636	345546 ✓	0
[	Ni	60	0.487	ug/L	0.008	1	63	1591	1
[	Ni	62	0.360	ug/L	0.010	2	92	265	1
[	Cu	63	0.450	ug/L	0.013	2	260	3343	2
[	Cu	65	0.450	ug/L	0.003	0	98	1532	1
[	Zn	66	117.953	ug/L	0.965	0	419	244354	1
[	Zn	67	102.543	ug/L	1.736	1	151	36259	1
[	Zn	68	113.875	ug/L	0.405	0	7182	171308	0
[	As	75	0.025	ug/L	0.005	19	350	415	1
[	As-1	75	-0.731	ug/L	0.024	3	8943	7960	0
[	Se	82	0.020	ug/L	0.038	185	-2	2	422
[	Se	78	-2.794	ug/L	0.102	3	9092	8019	0
[	Mo	98	0.008	ug/L	0.001	7	30	95	4
	Y	89		ug/L			335409	354817	1
	Kr	83		ug/L			211	195	1
[>	In	115		ug/L			384233	405372 ✓	0
[	Ag	107	0.001	ug/L	0.001	103	42	55	19
[	Cd	111	-0.002	ug/L	0.007	455	243	251	10
[	Cd	114	0.004	ug/L	0.001	28	10	45	20
[	Sb	121	0.008	ug/L	0.000	5	82	175	2
[	Sb	123	0.010	ug/L	0.002	17	55	138	10
[	Ba	135	0.911	ug/L	0.041	4	23	2289	4
[	Ba	137	0.908	ug/L	0.020	2	30	3928	2
[>	Tb	159		ug/L			407191	460348 ✓	1
[	Tl	205	0.001	ug/L	0.000	46	48	75	13
[	Pb	208	0.245	ug/L	0.006	2	434	12088	1
[	Bi	209		ug/L			359435	409778	1
[	Th	232	0.002	ug/L	0.001	23	453	660	4
[	U	238	0.003	ug/L	0.000	9	69	255	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA81 ADUP REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 30, 2013 16:03:37
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			307716	461499	1
	Be	9	-0.026	ug/L	0.011	40	22	15	46
	C	13		mg/L			4726	5955	0
	Cl	37		mg/L			2244324	2123700	0
>	Sc	45		ug/L			278446	329412 ✓	0
	V	51	-0.006	ug/L	0.004	62	2126	2428	1
	V-1	51	-0.042	ug/L	0.004	9	2969	2886	1
	Cr	52	-0.104	ug/L	0.002	2	6847	6740	1
	Cr	53	-0.208	ug/L	0.007	3	1043	908	1
	Mn	55	39.589	ug/L	0.187	0	406	868616	0
	Co	59	0.012	ug/L	0.001	8	42	255	6
>	Ge	72		ug/L			329636	333576 ✓	0
	Ni	60	0.298	ug/L	0.014	4	63	966	4
	Ni	62	0.064	ug/L	0.055	85	92	122	19
	Cu	63	0.381	ug/L	0.014	3	260	2767	3
	Cu	65	0.360	ug/L	0.019	5	98	1203	4
	Zn	66	0.342	ug/L	0.010	2	419	1106	1
	Zn	67	1.130	ug/L	0.050	4	151	537	2
	Zn	68	0.141	ug/L	0.118	83	7182	7463	2
	As	75	6.845	ug/L	0.065	0	350	13398	1
	As-1	75	6.249	ug/L	0.095	1	8943	20720	0
	Se	82	0.018	ug/L	0.034	188	-2	1	496
	Se	78	-2.684	ug/L	0.089	3	9092	7799	0
	Mo	98	0.501	ug/L	0.004	0	30	3848	0
	Y	89		ug/L			335409	345674	0
	Kr	83		ug/L			211	196	2
>	In	115		ug/L			384233	392417 ✓	0
	Ag	107	-0.000	ug/L	0.000	8010	42	43	12
	Cd	111	-0.003	ug/L	0.003	120	243	239	3
	Cd	114	0.001	ug/L	0.000	8	10	16	2
	Sb	121	0.007	ug/L	0.001	17	82	156	7
	Sb	123	0.008	ug/L	0.001	7	55	122	4
	Ba	135	34.076	ug/L	0.420	1	23	82031	1
	Ba	137	34.643	ug/L	0.787	2	30	143904	2
>	Tb	159		ug/L			407191	454805 ✓	0
	Tl	205	-0.001	ug/L	0.000	42	48	36	20
	Pb	208	0.032	ug/L	0.001	2	434	1980	2
	Bi	209		ug/L			359435	393869	0
	Th	232	-0.000	ug/L	0.000	100	453	487	4
	U	238	0.012	ug/L	0.000	2	69	812	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA81 A REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 30, 2013 16:09:55
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth Cr
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			307716	471440	1
	Be	9	-0.021	ug/L	0.011	50	22	19	37
	C	13		mg/L			4726	6018	1
	Cl	37		mg/L			2244324	2076964	3
>	Sc	45		ug/L			278446	324029 ✓	2
	V	51	-0.015	ug/L	0.008	53	2126	2261	5
	V-1	51	-0.048	ug/L	0.005	10	2969	2743	1
	Cr	52	-0.094	ug/L	0.008	8	6847	6764	0
	Cr	53	-0.191	ug/L	0.040	21	1043	918	5
	Mn	55	39.099	ug/L	0.614	1	406	843778	1
	Co	59	0.012	ug/L	0.001	9	42	245	9
>	Ge	72		ug/L			329636	331362 ✓	0
	Ni	60	0.299	ug/L	0.021	6	63	962	5
	Ni	62	0.066	ug/L	0.033	50	92	122	12
	Cu	63	0.436	ug/L	0.011	2	260	3113	1
	Cu	65	0.411	ug/L	0.024	5	98	1350	5
	Zn	66	0.417	ug/L	0.039	9	419	1248	5
	Zn	67	1.239	ug/L	0.068	5	151	570	4
	Zn	68	0.149	ug/L	0.074	49	7182	7426	2
	As	75	6.728	ug/L	0.072	1	350	13088	0
	As-1	75	6.124	ug/L	0.106	1	8943	20351	0
	Se	82	0.052	ug/L	0.030	56	-2	8	72
	Se	78	-2.684	ug/L	0.163	6	9092	7747	0
	Mo	98	0.502	ug/L	0.013	2	30	3831	1
	Y	89		ug/L			335409	346602	0
	Kr	83		ug/L			211	191	1
>	In	115		ug/L			384233	387324 ✓	1
	Ag	107	-0.000	ug/L	0.000	97	42	40	4
	Cd	111	-0.008	ug/L	0.003	34	243	219	4
	Cd	114	0.001	ug/L	0.001	116	10	20	55
	Sb	121	0.007	ug/L	0.001	13	82	151	5
	Sb	123	0.008	ug/L	0.001	8	55	115	5
	Ba	135	34.440	ug/L	0.189	0	23	81830	0
	Ba	137	34.120	ug/L	0.905	2	30	139871	1
>	Tb	159		ug/L			407191	453053 ✓	1
	Tl	205	-0.000	ug/L	0.000	14	48	37	6
	Pb	208	0.040	ug/L	0.001	3	434	2330	1
	Bi	209		ug/L			359435	396600	1
	Th	232	-0.001	ug/L	0.000	33	453	449	3
	U	238	0.011	ug/L	0.001	8	69	747	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA81 ASPK REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, January 30, 2013 16:16:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			307716	456203	1
[	Be	9	9.181	ug/L	0.160	1	22	6260	2
	C	13		mg/L			4726	5850	2
	Cl	37		mg/L			2244324	2115877	0
[>	Sc	45		ug/L			278446	319419	1
	V	51	9.638	ug/L	0.055	0	2126	139959	1
	V-1	51	9.600	ug/L	0.067	0	2969	143187	0
	Cr	52	9.434	ug/L	0.060	0	6847	126989	0
	Cr	53	9.331	ug/L	0.103	1	1043	15382	0
	Mn	55	48.357	ug/L	0.254	0	406	1028692	0
[	Co	59	9.350	ug/L	0.153	1	42	150700	0
[>	Ge	72		ug/L			329636	325105	0
	Ni	60	10.985	ug/L	0.163	1	63	32452	0
	Ni	62	10.640	ug/L	0.118	1	92	4758	0
	Cu	63	11.062	ug/L	0.095	0	260	71181	0
	Cu	65	11.066	ug/L	0.036	0	98	33185	0
	Zn	66	34.719	ug/L	0.293	0	419	67960	1
	Zn	67	32.549	ug/L	0.332	1	151	10930	0
	Zn	68	33.590	ug/L	0.117	0	7182	52536	1
	As	75	18.210	ug/L	0.350	1	350	34164	1
	As-1	75	16.864	ug/L	0.304	1	8943	39514	0
	Se	82	36.074	ug/L	0.601	1	-2	7741	0
	Se	78	32.436	ug/L	0.696	2	9092	25483	0
[	Mo	98	10.591	ug/L	0.130	1	30	78725	1
	Y	89		ug/L			335409	338017	1
	Kr	83		ug/L			211	193	1
[>	In	115		ug/L			384233	380503	1
	Ag	107	9.767	ug/L	0.129	1	42	122116	2
	Cd	111	10.447	ug/L	0.106	1	243	33829	2
	Cd	114	10.512	ug/L	0.061	0	10	77984	2
	Sb	121	9.703	ug/L	0.107	1	82	99375	0
	Sb	123	9.797	ug/L	0.068	0	55	75436	0
	Ba	135	45.175	ug/L	0.492	1	23	105432	0
[	Ba	137	44.647	ug/L	0.889	1	30	179814	2
[>	Tb	159		ug/L			407191	444460	1
	Tl	205	10.726	ug/L	0.091	0	48	362145	0
	Pb	208	10.767	ug/L	0.050	0	434	493452	0
	Bi	209		ug/L			359435	393620	0
	Th	232	10.573	ug/L	0.147	1	453	635212	0
[	U	238	10.687	ug/L	0.177	1	69	660078	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 16:22:32
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			307716	452953	0
[	Be	9	44.009	ug/L	0.207	0	22	29669	0
	C	13		mg/L			4726	4672	1
	Cl	37		mg/L			2244324	2200768	1
[>	Sc	45		ug/L			278446	296526 ✓	0
	V	51	49.224	ug/L	0.295	0	2126	654285	0
	V-1	51	49.195	ug/L	0.451	0	2969	668124	1
	Cr	52	49.163	ug/L	0.501	1	6847	583665	0
	Cr	53	49.079	ug/L	0.555	1	1043	70379	1
	Mn	55	49.300	ug/L	0.324	0	406	973602	0
[	Co	59	48.260	ug/L	0.712	1	42	721956	1
[>	Ge	72		ug/L			329636	332413 ✓	0
	Ni	60	49.819	ug/L	0.650	1	63	150118	0
	Ni	62	49.248	ug/L	0.802	1	92	22183	1
	Cu	63	49.598	ug/L	0.976	1	260	325387	1
	Cu	65	49.637	ug/L	0.596	1	98	151838	0
	Zn	66	50.489	ug/L	1.105	2	419	100848	1
	Zn	67	49.937	ug/L	0.978	1	151	17063	1
	Zn	68	48.981	ug/L	0.562	1	7182	75009	0
	As	75	50.942	ug/L	0.561	1	350	97091	0
	As-1	75	49.940	ug/L	0.534	1	8943	101961	0
	Se	82	53.154	ug/L	1.193	2	-2	11664	1
	Se	78	49.650	ug/L	0.937	1	9092	35019	1
[	Mo	98	49.628	ug/L	0.577	1	30	377027	0
	Y	89		ug/L			335409	340135	1
	Kr	83		ug/L			211	213	4
[>	In	115		ug/L			384233	385020 ✓	0
	Ag	107	49.620	ug/L	0.417	0	42	627522	1
	Cd	111	50.287	ug/L	0.048	0	243	163838	0
	Cd	114	50.264	ug/L	0.413	0	10	377257	1
	Sb	121	50.159	ug/L	0.371	0	82	519525	1
	Sb	123	50.198	ug/L	0.465	0	55	390910	0
	Ba	135	51.447	ug/L	0.241	0	23	121507	1
[	Ba	137	52.008	ug/L	0.773	1	30	211947	0
[>	Tb	159		ug/L			407191	442116 ✓	1
	Tl	205	49.563	ug/L	0.588	1	48	1664074	1
	Pb	208	50.271	ug/L	0.445	0	434	2290054	1
	Bi	209		ug/L			359435	388811	0
	Th	232	52.287	ug/L	0.298	0	453	3123024	1
[	U	238	53.072	ug/L	0.735	1	69	3260196	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 30, 2013 16:29:10
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\013013b.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			307716	450490	1
Be	9	-0.017	ug/L	0.008	46	22	20	24
C	13		mg/L			4726	4773	1
Cl	37		mg/L			2244324	2257343	0
Sc	45		ug/L			278446	297318 ✓	0
V	51	-0.020	ug/L	0.011	55	2126	2009	6
V-1	51	-0.055	ug/L	0.001	1	2969	2425	0
Cr	52	-0.083	ug/L	0.009	10	6847	6339	0
Cr	53	-0.187	ug/L	0.025	13	1043	849	5
Mn	55	-0.003	ug/L	0.001	18	406	375	3
Co	59	0.001	ug/L	0.001	144	42	54	22
Ge	72		ug/L			329636	329628 ✓	0
Ni	60	-0.007	ug/L	0.002	29	63	43	14
Ni	62	0.007	ug/L	0.026	392	92	95	11
Cu	63	-0.004	ug/L	0.002	47	260	234	5
Cu	65	0.001	ug/L	0.006	580	98	101	16
Zn	66	-0.021	ug/L	0.011	51	419	378	5
Zn	67	-0.069	ug/L	0.019	27	151	128	4
Zn	68	-0.926	ug/L	0.115	12	7182	5911	2
As	75	-0.010	ug/L	0.009	91	350	332	5
As-1	75	-0.547	ug/L	0.038	6	8943	7932	0
Se	82	0.025	ug/L	0.081	320	-2	2	596
Se	78	-1.937	ug/L	0.169	8	9092	8092	0
Mo	98	0.007	ug/L	0.004	53	30	82	32
Y	89		ug/L			335409	341450	1
Kr	83		ug/L			211	201	8
In	115		ug/L			384233	386071 ✓	0
Ag	107	0.003	ug/L	0.001	41	42	85	20
Cd	111	-0.004	ug/L	0.007	171	243	230	9
Cd	114	0.001	ug/L	0.001	64	10	16	22
Sb	121	0.033	ug/L	0.010	30	82	425	25
Sb	123	0.033	ug/L	0.011	32	55	312	27
Ba	135	0.001	ug/L	0.001	91	23	25	5
Ba	137	0.003	ug/L	0.002	72	30	42	21
Tb	159		ug/L			407191	442190 ✓	1
Tl	205	0.005	ug/L	0.001	18	48	205	15
Pb	208	-0.000	ug/L	0.001	138	434	453	5
Bi	209		ug/L			359435	393657	0
Th	232	0.022	ug/L	0.006	27	453	1815	21
U	238	0.001	ug/L	0.001	60	69	127	25

Mercury Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: VZ75, VZ76

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: DM

Date: 1-K-13

Final Volume _____

Final Volume (Hg): 20

Sample ID V27K BSPK, MB15PK
V5PK, MB25PK

	Prepcode:			
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:			
	Vol Added (mL):			
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	TLM	CVA	1.0	0.02	20083-5
Hg MBSPK	↓	CVA	1.0	0.04	↓
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

V27K5 . 00071005

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Analyst: DM
Bath Temp: 95°C
Start Time: 0930
Matrix: water
Date: 01-16-13
End Time: 1130

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VZ7L A	1	✓	20.0	20.0	1/25 1	Y	
" B	1	✓			1		
" BDUP	1	✓			1		
" BSPK	1	✓			1		
" C	1	✓			1		
" D	1	✓			1		
" E	1	✓			1		
" F	1	✓			1		
" G	1	✓			1		
" H	1	✓			1		
" I	1	✓			1		
" J	1	✓			1		
" K	1	✓			1		
" L	1	✓			1		
" M	1	✓			1		
" N	1	✓			1		
" O	1	✓			1		
" P	1	✓			1		
" Q	1	✓			1		
" R	1	✓			1		
" S	1	✓			1		
" T	1	✓			1		
" MB1	—	✓			1		
" MB1SPK	—	✓	20.0	20.0	1	Y	
			1-16-13	DM			

Chemical/Reagent ID:

HNO_3: I7970
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2400
5% $KMnO_4$: MP2401
Digest Tube Lot: 1208057

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Analyst: DM
Bath Temp: 95°C
Start Time: 0930
End Time: 1130
Matrix: Water
Date: 01-16-13

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VZK U	1	✓	20.0	20.0	1/25 1	Y	
" V	1	✓			1		
" VDUP	1	✓			1		
" VSDK	1	✓			1		
" W	1	✓			1		
" X	1	✓			1		
" Y	1	✓			1		
" Z	1	✓			1		
" AA	1	✓			1		
" AB	1	✓			1		
" AC	1	✓			1		
" AD	1	✓			1		
" AE	1	✓			1		
" AF	1	✓			1		
" AG	1	✓			1		
" AH	1	✓			1		
" AI	1	✓			1		
" AJ	1	✓			1		
" AK	1	✓			1		
" AL	1	✓			1		
" AM	1	✓			1		
" AN	1	✓			1		
" MB2	—	✓			1		
" MB2SK	—	✓	20.0	20.0	1	Y	
			1-16-13 DM				

Chemical/Reagent ID:

HNO_3: I7970
H_2SO_4: I477
HCl: —
5% $K_2S_2O_8$: MP2400
5% $KMnO_4$: MP2401
Digest Tube Lot: 1206057

VZ75:00708

Mercury Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: VZ75, VZ76

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 01-17-13

Page: 1 of 4

ARI Sample ID	Prep Code	Dilution	QC Data (~~ppb~~) ppt	Comments
STD 0.0	THM	1x		
" 20.0				
" 50.0				
" 100.0				
" 200.0				
" 400.0				
" 1000.0				
ICV			457.94	Begin CLP %R=92 ✓
ICB			1.16	✓
CCV1			462.36	%R=92 ✓
CCB1			1.62	✓
CRA			23.96	✓
V224 MB1			-7.30	✓
" MB1SPK			183.95	%R=92 ✓
" A				
" B			5.95	
" BDUP			0.16	NO RPD Unspiked ✓
" BSPK			92.41	%R=92 ✓
" C				
" D				
" E				
CCV2			468.81	%R=94 ✓
CCB2			5.04	✓
V224 F				
" G				
" H				
" I				
" J				
" K				
" L				

Chemical/Reagent ID:
10% $SnCl_2$: MP2424

14% $NH_2OH/NaCl$: MP2398

Standard ID:
Standard: 3006-8

ICV/CCV: 3006-7

Mercury Analysis Log

1-17-13 DM

Analyst: DM

Date: ~~01~~ 01-17-13

Instrument: CETAC

Page: 2 of 4

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)ppt	Comments	
V224	M	TLM	1X			
"	N					
"	MB2			-5.10		✓
CCV3				470.48	%R=94	✓
CCB3				5.64		✓
V224	MB2SPK			188.54	%R=94	✓
"	O					
"	P			-2.79		
"	PDUP			-2.07	NO RPD: Undetected	✓
"	PSPK			93.35	%R=93	✓
"	Q					
"	R					
"	S					
"	T					
"	U					
CCV4				472.65	%R=95	✓
CCB4				5.55		✓
V224	V					
"	W					
"	X					
"	Y					
"	Z					
"	AA					
"	AB					
CCV5				474.19	%R=95	✓
CCB5				3.57		✓
V276	MB1			9.41		✓
"	MB1SPK			199.16	%R=100	✓
"	A					
"	B	↓	↓	4.04		

Chemical/Reagent ID:
10% $SnCl_2$: MP2424

14% $NH_2OH/NaCl$: MP2398

Standard ID:
Standard: 30068

ICV/CCV: 30069

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 01-17-13

Page: 3 of 4

ARI Sample ID	Prep Code	Dilution	QC Data (~~ppb~~) ppt	Comments
VZ76 BDUP	TLM	1X	4.43	NO RPD: Unbiased ✓
" BSPK			95.72	%R=96 ✓
" C				
" D				
" E				
" F				
CCV6			478.72	%R=96 ✓
CCB6			6.62	✓
VZ76 G				
" H				
" I				
" J				
" K				
" L				
" M				
" N				
" O				
" P				
CCV7			478.48	%R=96 ✓
CCB7			0.01	✓
VZ76 Q				
" R				
" S				
" T				
" MB2			-0.10	✓
" MB2SPK			198.50	%R=99 ✓
" U				
" V			-1.78	
" VDUP			-1.69	NO RPD: Unbiased ✓
" VSPK	↓	↓	89.31	%R=89 ✓

Chemical/Reagent ID:
10% $SnCl_2$: MP2424

14% $NH_2OH/NaCl$: MP2308

Standard ID:
Standard: 3006-8

ICV/CCV: 3006-9

Mercury Analysis Log

Analyst: DM

Date: 01-17-13

Instrument: CETAC

Page: 4 of 4

ARI Sample ID	Prep Code	Dilution	QC Data (ppb) ppt	Comments
CCV8	TLM	1X	478.98	%R=96 ✓
CCB8			4.51	✓
VZ76 W				
" X				
" Y				
" Z				
" AA				
" AB				
" AC				
" AD				
" AE				
" AF				
CCV9			485.87	%R=97 ✓
CCB9			2.14.	✓
VZ76 AG				
" AH				
" AI				
" AJ				
" AK				
" AL				
" AM				
" AN				
CCV10			481.97	%R=96 ✓
CCB10			1.84	END CLP ✓
		01-17-13 DM		

Chemical/Reagent ID:
10% $SnCl_2$: MP2424

14% $NH_2OH/NaCl$: MP2398

Standard ID:
Standard: 3300-8

ICV/CCV: 3300-9

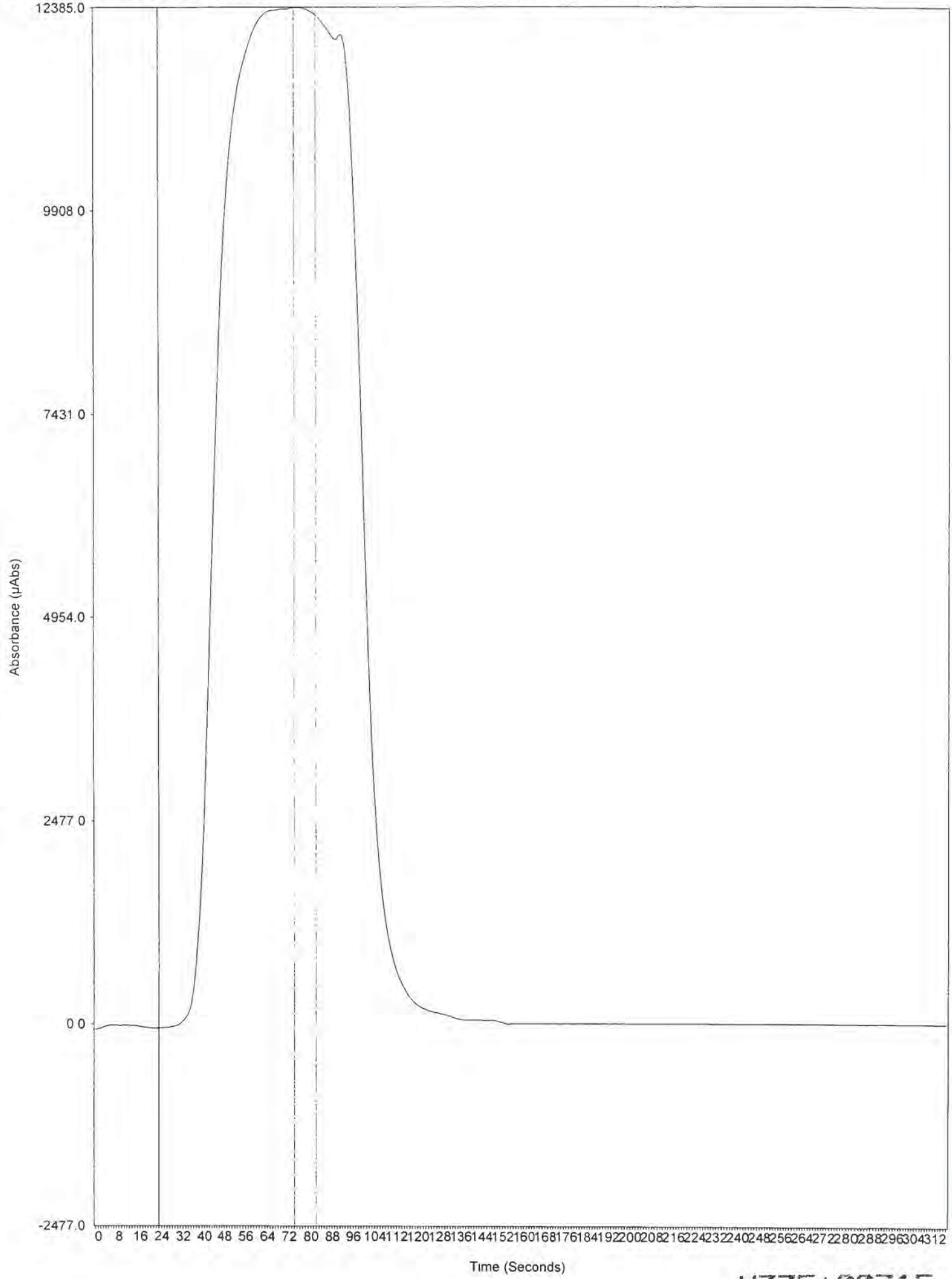
ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 01-17-13

Low Level	Analyst 1.17 DM	Peer AS 1-18	Comment
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
RSD's & SD's	✓	✓	
Internal Standards	—	—	
Carry-over	—	✓	
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	—	—	

Std Tube 6 01/17/2013, 8:11 AM



VZ75 : 00715

CETAC Hg Analysis Report - 13011700.DB - Thursday, January 17, 2013, 1:24:53 PM

1-18-13

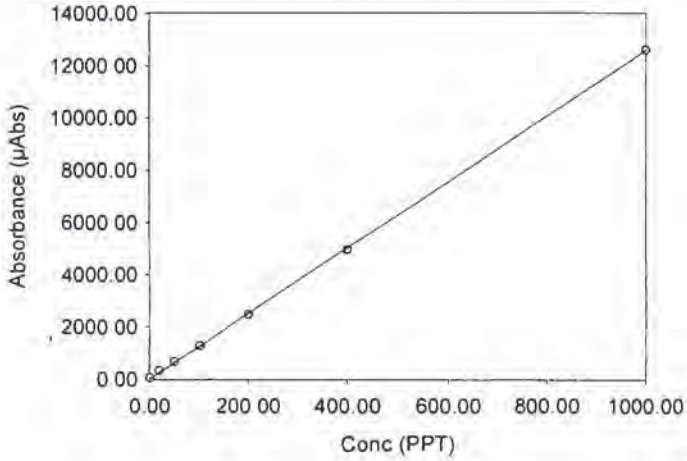
Analyst
Date Started Thursday, January 17, 2013, 08.10.41
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Std Tube 6	17-Jan-2013, 08:10	1000 00	0.24	12400 00	12437	12431	12409	12372	

Information about this calibration could not be retrieved from the Master File.

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Calibration Zero	17-Jan-2013, 08:14	0.00	23.70	63 60	82	68	58	46	
Standard #1	17-Jan-2013, 08.17	20.00	2.61	348 00	356	354	348	336	
Standard #2	17-Jan-2013, 08:20	50.00	0.97	687.00	691	693	685	678	
Standard #3	17-Jan-2013, 08:22	100 00	0.59	1290.00	1286	1289	1297	1303	
Standard #4	17-Jan-2013, 08 25	200.00	0.27	2490 00	2478	2484	2487	2494	
Standard #5	17-Jan-2013, 08:28	400.00	0.56	4970 00	4934	4968	4988	4998	
Standard #6	17-Jan-2013, 08:30	1000.00	0 21	12600 00	12586	12617	12641	12642	

Calibration Data



Int.	0 000
Slope	12.596
Correlation	0.99990

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
ICV	17-Jan-2013, 08.35	458 00	0.31	5770.00	5792	5773	5753	5756	Begin CLP
ICB	17-Jan-2013, 08:38	1.16	29 00	14.60	9	16	18	16	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	17-Jan-2013, 08:41	462.00	0.23	5820 00	5807	5821	5831	5837	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	17-Jan-2013, 08:43	1.62	22.50	20 40	27	17	18	21	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
CRA	17-Jan-2013, 08:46	24.00	0 76	302.00	304	300	300	304	
VZ24 MB1 TLM	17-Jan-2013, 08.49	-7.30	7.42	-92.00	-90	-100	-95	-84	
VZ24 MB1SPK TLM	17-Jan-2013, 08.51	184.00	0.36	2320 00	2311	2311	2320	2328	
VZ24 A TLM	17-Jan-2013, 08.54	-3.14	46.90	-39.60	-57	-50	-37	-15	
VZ24 B TLM	17-Jan-2013, 08:57	5 95	10.50	75.00	84	78	71	66	
VZ24 BDUP TLM	17-Jan-2013, 08:59	0.15	257.00	1.92	7	-1	-3	5	
VZ24 BSPK TLM	17-Jan-2013, 09:02	92.40	0 43	1160 00	1160	1169	1168	1160	
VZ24 C TLM	17-Jan-2013, 09:05	35 10	4.29	442.00	465	449	434	421	
VZ24 D TLM	17-Jan-2013, 09:08	2.16	45 40	27.20	43	31	19	16	
VZ24 E TLM	17-Jan-2013, 09:10	-0 61	119.00	-7.70	-14	-15	-7	5	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	17-Jan-2013, 09:13	469.00	0.20	5910.00	5888	5910	5915	5909	

CETAC Hg Analysis Report - 13011700.DB - Thursday, January 17, 2013, 1:24:54 PM

Analyst
Date Started Thursday, January 17, 2013, 09:16.14
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	17-Jan-2013, 09:16	5.04	9 28	63.50	69	67	60	57	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
VZ24 F TLM	17-Jan-2013, 09.18	3.10	1.69	39.00	40	39	38	39	
VZ24 G TLM	17-Jan-2013, 09.21	-1.43	43 50	-18.10	-22	-25	-18	-7	
VZ24 H TLM	17-Jan-2013, 09:24	11.90	5.93	150.00	141	145	154	160	
VZ24 I TLM	17-Jan-2013, 09:26	9 27	4.84	117.00	123	119	115	110	
VZ24 J TLM	17-Jan-2013, 09:29	-1.02	39.90	-12 80	-7	-10	-16	-18	
VZ24 K TLM	17-Jan-2013, 09:32	-0 04	1830.00	-0 56	13	1	-9	-8	
VZ24 L TLM	17-Jan-2013, 09:35	0.69	118.00	8.73	-0	2	10	23	
VZ24 M TLM	17-Jan-2013, 09:37	8.48	6.37	107 00	102	102	107	116	
VZ24 N TLM	17-Jan-2013, 09.40	3.91	15.80	49.30	38	54	53	53	
VZ24 MB2 TLM	17-Jan-2013, 09:43	-5.10	7.84	-64 20	-57	-64	-68	-67	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	17-Jan-2013, 09.45	470.00	0.30	5930.00	5936	5941	5928	5901	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	17-Jan-2013, 09:48	5.64	12.70	71.10	60	68	76	80	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
VZ24 MB2SPK TLM	17-Jan-2013, 09:51	189.00	0 25	2370.00	2369	2372	2377	2382	
VZ24 O TLM	17-Jan-2013, 09:54	-1 45	4 63	-18.30	-19	-19	-18	-17	
VZ24 P TLM	17-Jan-2013, 09.56	-2 79	5.02	-35.10	-36	-37	-35	-33	
VZ24 PDUP TLM	17-Jan-2013, 09:59	-2.07	32.20	-26.10	-36	-29	-23	-17	
VZ24 PSPK TLM	17-Jan-2013, 10:02	93.40	0 24	1180.00	1173	1175	1180	1176	
VZ24 Q TLM	17-Jan-2013, 10.04	2.75	12.60	34.70	30	32	38	39	
VZ24 R TLM	17-Jan-2013, 10.07	3.40	7 94	42 80	39	40	46	45	
VZ24 S TLM	17-Jan-2013, 10:10	-3.50	44 30	-44.10	-18	-41	-56	-61	
VZ24 T TLM	17-Jan-2013, 10.12	-2.51	52.60	-31.70	-16	-21	-36	-53	
VZ24 U TLM	17-Jan-2013, 10:15	-4.52	4.98	-56.90	-61	-56	-57	-54	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	17-Jan-2013, 10.18	473.00	0.29	5950.00	5930	5953	5967	5965	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	17-Jan-2013, 10.21	5.55	4.81	69 90	65	71	73	70	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
VZ24 V TLM	17-Jan-2013, 10:23	9.64	3.56	121.00	116	120	122	127	
VZ24 W TLM	17-Jan-2013, 10.26	-2.13	18.50	-26 90	-21	-26	-27	-33	
VZ24 X TLM	17-Jan-2013, 10:29	-5.03	7.58	-63.40	-59	-68	-67	-59	
VZ24 Y TLM	17-Jan-2013, 10.32	-4.60	7.66	-58.00	-59	-63	-58	-52	
VZ24 Z TLM	17-Jan-2013, 10.34	-1.08	15.90	-13 60	-12	-17	-13	-13	
VZ24 AA TLM	17-Jan-2013, 10:37	-0.37	65.80	-4.67	-5	-8	-6	-0	
VZ24 AB TLM	17-Jan-2013, 10.40	-2.85	7.79	-36 00	-33	-34	-37	-39	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	17-Jan-2013, 10:42	474.00	0 27	5970.00	5951	5971	5985	5985	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	17-Jan-2013, 10:45	3.37	14 70	42.50	35	40	50	45	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
VZ76 MB1 TLM	17-Jan-2013, 10.48	9 41	2.48	118 00	121	119	120	114	
VZ76 MB1SPK TLM	17-Jan-2013, 10:51	199.00	0.23	2510.00	2501	2508	2512	2514	
VZ76 A TLM	17-Jan-2013, 10:53	-1.36	40 30	-17.20	-24	-21	-14	-9	
VZ76 B TLM	17-Jan-2013, 10:56	4.04	23 30	50 90	41	44	52	67	
VZ76 BDUP TLM	17-Jan-2013, 10.59	4.43	10 30	55.80	59	62	54	49	

CETAC Hg Analysis Report - 13011700.DB - Thursday, January 17, 2013, 1:24:54 PM

Analyst
Date Started Thursday, January 17, 2013, 11:01.59
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
VZ76 BSPK TLM	17-Jan-2013, 11:01	95.70	0 70	1210.00	1204	1195	1208	1216	
VZ76 C TLM	17-Jan-2013, 11:04	-0.14	367.00	-1.80	8	-3	-5	-7	
VZ76 D TLM	17-Jan-2013, 11:07	-5.35	16.30	-67.40	-52	-66	-77	-74	
VZ76 E TLM	17-Jan-2013, 11:10	11.00	4 06	138.00	139	133	135	146	
VZ76 F TLM	17-Jan-2013, 11.12	7 97	6 63	100.00	107	104	100	91	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	17-Jan-2013, 11:15	479.00	0.41	6030.00	6001	6020	6042	6058	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	17-Jan-2013, 11:18	6.62	2.47	83.30	80	84	85	83	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
VZ76 G TLM	17-Jan-2013, 11:21	-3.15	6.56	-39.70	-44	-39	-38	-38	
VZ76 H TLM	17-Jan-2013, 11:23	-1.20	108.00	-15.10	0	-5	-20	-36	
VZ76 I TLM	17-Jan-2013, 11:26	-2.41	9 02	-30.30	-30	-32	-32	-26	
VZ76 J TLM	17-Jan-2013, 11:29	-5.23	21.20	-65.90	-47	-64	-72	-80	
VZ76 K TLM	17-Jan-2013, 11:31	1.65	34.30	20.70	31	20	17	15	
VZ76 L TLM	17-Jan-2013, 11.34	8.28	12.30	104.00	91	98	108	120	
VZ76 M TLM	17-Jan-2013, 11:37	-2 00	14.60	-25 20	-28	-28	-23	-21	
VZ76 N TLM	17-Jan-2013, 11:39	-4.78	12 20	-60 20	-50	-60	-65	-66	
VZ76 O TLM	17-Jan-2013, 11:42	-0.68	29 60	-8.58	-7	-6	-10	-12	
VZ76 P TLM	17-Jan-2013, 11.45	-1.29	14.60	-16 30	-18	-19	-15	-14	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	17-Jan-2013, 11:47	478.00	0.68	6030.00	5975	6016	6050	6067	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	17-Jan-2013, 11:50	0.01	3940.00	0 18	6	-8	-3	6	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
VZ76 Q TLM	17-Jan-2013, 11 53	6 52	3 50	82 10	78	81	84	84	
VZ76 R TLM	17-Jan-2013, 11.56	-4.26	4.46	-53.70	-51	-54	-54	-56	
VZ76 S TLM	17-Jan-2013, 11:58	-1 62	30.30	-20.50	-13	-18	-25	-26	
VZ76 T TLM	17-Jan-2013, 12:01	5.91	14.70	74.40	81	82	76	59	
VZ76 MB2 TLM	17-Jan-2013, 12:04	-0.10	417 00	-1.31	4	1	-1	-9	
VZ76 MB2SPK TLM	17-Jan-2013, 12:06	199 00	0 22	2500.00	2495	2499	2508	2500	
VZ76 U TLM	17-Jan-2013, 12:09	-0 23	203.00	-2.90	5	-2	-5	-9	
VZ76 V TLM	17-Jan-2013, 12:12	-1 78	24.90	-22.50	-30	-23	-19	-17	
VZ76 VDUP TLM	17-Jan-2013, 12:15	-1 69	16 00	-21.30	-18	-19	-25	-24	
VZ76 VSPK TLM	17-Jan-2013, 12.17	89.30	1.18	1120.00	1109	1119	1133	1139	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	17-Jan-2013, 12.20	479.00	0.35	6030 00	6005	6029	6045	6054	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	17-Jan-2013, 12:23	4.51	13 10	56.80	65	60	54	48	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
VZ76 W TLM	17-Jan-2013, 12:25	-3.33	25.60	-41.90	-53	-46	-41	-28	
VZ76 X TLM	17-Jan-2013, 12:28	-4.15	8.56	-52.30	-47	-53	-52	-58	
VZ76 Y TLM	17-Jan-2013, 12.31	13.10	4.52	165.00	176	164	161	160	
VZ76 Z TLM	17-Jan-2013, 12:34	-1.06	23.90	-13.40	-9	-16	-16	-13	
VZ76 AA TLM	17-Jan-2013, 12:36	-1.42	13 00	-17.80	-21	-15	-18	-17	
VZ76 AB TLM	17-Jan-2013, 12:39	1.22	19.60	15 30	12	19	16	14	
VZ76 AC TLM	17-Jan-2013, 12:42	-2.59	15.60	-32.60	-26	-31	-35	-38	
VZ76 AD TLM	17-Jan-2013, 12:44	-3 29	13.60	-41.50	-36	-38	-43	-48	
VZ76 AE TLM	17-Jan-2013, 12:47	-3.68	30.70	-46.30	-65	-49	-38	-33	
VZ76 AF TLM	17-Jan-2013, 12:50	2.19	27 30	27.60	22	20	31	36	

CETAC Hg Analysis Report - 13011700.DB - Thursday, January 17, 2013, 1:24:55 PM

Analyst	
Date Started	Thursday, January 17, 2013, 12.53.02
Worksheet	LOW LEVEL CALIB 20 TO 1000 PPT
Comment	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	17-Jan-2013, 12:53	484.00	0.30	6100 00	6070	6093	6109	6108	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	17-Jan-2013, 12:55	2.14	13.50	27.00	23	27	32	26	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
VZ76 AG TLM	17-Jan-2013, 12:58	-5.11	13.40	-64.40	-69	-71	-65	-52	
VZ76 AH TLM	17-Jan-2013, 13:01	-5.59	11.20	-70.40	-60	-69	-76	-77	
VZ76 AI TLM	17-Jan-2013, 13.03	-4.15	7.53	-52.30	-50	-51	-50	-58	
VZ76 AJ TLM	17-Jan-2013, 13:06	-4.58	10.60	-57.70	-65	-59	-56	-50	
VZ76 AK TLM	17-Jan-2013, 13.09	-1.38	22.90	-17.40	-18	-13	-17	-23	
VZ76 AL TLM	17-Jan-2013, 13:12	-2.03	7.83	-25.50	-25	-24	-25	-28	
VZ76 AM TLM	17-Jan-2013, 13:14	-3.46	18.90	-43 60	-54	-45	-41	-34	
VZ76 AN TLM	17-Jan-2013, 13:17	-3 71	4.73	-46 70	-45	-46	-47	-50	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	17-Jan-2013, 13:20	482.00	0.39	6070.00	6042	6063	6084	6096	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	17-Jan-2013, 13.23	1.84	52.20	23.20	9	19	30	36	END CLP

Analyst	
Date Created:	Wednesday, November 27, 2002
Worksheet	LOW LEVEL CALIB 20 TO 1000 PPT
Comment	
Sip Duration (Sec.):	55
Rinse Duration (Sec.):	100
Read Delay:	75
Integration Time/Replicate:	2.00
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	20
Baseline Point 1 End Time:	24
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	148
Baseline Point 2 End Time:	152
Gas Flow (ml/min):	30
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	2
Calibration Standard #1 Conc.:	20.00 PPT
Calibration Standard #2 Conc.:	50.00 PPT
Calibration Standard #3 Conc.:	100.00 PPT
Calibration Standard #4 Conc.:	200.00 PPT
Calibration Standard #5 Conc.:	400.00 PPT
Calibration Standard #6 Conc.:	1000.00 PPT
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5 0%, if µAbs. > 200, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 90% 110%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -20 . 20,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Digested 20.0mL

Prep Code: TLM
Analyst: NB
Bath Temp: 90°C
Start Time: 1152
Instrument: CETAC
Date: 01-15-13
End Time: 1352

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	3006-7	0.01		0.1	1
STD2		0.05		0.5	1
STD3		0.10		1.0	1
STD4		0.20		2.0	1
STD5		0.50		5.0	1
STD6		1.00		10.0	1
CRA		0.01		0.1	1
ICB/CCB	—	0.00		0.0	
ICV/LCS	56-18	0.16		8.0	1
CCV		0.08 ~~0.80~~	100.0	4.0	1

NB 01-15-13

Chemical/Reagent ID:

HNO_3: I7970 H_2SO_4: I7677 HCl: —

5% $K_2S_2O_8$: MP2400 5% $KMnO_4$: MP2401

Prep Code: TLM
Analyst: DM
Bath Temp: 95°C
Digested 20.0mL
Start Time: 1400
Instrument: CETAC
Date: 01-15-13
End Time: 1600

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	3006-8	0.02		0.02	1
STD2		0.05		0.05	1
STD3		0.10		0.1	1
STD4		0.20		0.2	1
STD5		~~0.500~~ 0.4		0.4	1
STD6		1.00		1.00	1
CRA		0.02		0.02	1
ICB/CCB	—	0.00		0.0	1
ICV/LCS	3006-9	1.0		0.5	1
CCV		1.0	100.0	0.5	1

Chemical/Reagent ID:

HNO_3: I7970 H_2SO_4: I7670 HCl: —

5% $K_2S_2O_8$: MP2400 5% $KMnO_4$: MP2401

VZ75 00721

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Analyst: DM
Bath Temp: 95°C
Start Time: 0930
End Time: 1130
Matrix: Water
Date: 01-16-13

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VZK U	1	✓	20.0	20.0	1/25 1	Y	
" V	1	✓			1		
" VDUP	1	✓			1		
" VSPK	1	✓			1		
" W	1	✓			1		
" X	1	✓			1		
" Y	1	✓			1		
" Z	1	✓			1		
" AA	1	✓			1		
" AB	1	✓			1		
" AC	1	✓			1		
" AD	1	✓			1		
" AE	1	✓			1		
" AF	1	✓			1		
" AG	1	✓			1		
" AH	1	✓			1		
" AI	1	✓			1		
" AJ	1	✓			1		
" AK	1	✓			1		
" AL	1	✓			1		
" AM	1	✓			1		
" AN	1	✓			1		
" MB2	—	✓			1		
" MB2SPK	—	✓	20.0	20.0	1	Y	
			1-16-13 DM				

Chemical/Reagent ID:

HNO_3: I7970
H_2SO_4: I7977
HCl: —
5% $K_2S_2O_8$: MP2400
5% $KMnO_4$: MP2401
Digest Tube Lot: 1206057

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Analyst: DM
Bath Temp: 95°C
Start Time: 0930
Matrix: water
Date: 01-16-13
End Time: 1130

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VZ7L A	1	✓	20.0	20.0	1/25 1	Y	
" B	1	✓			1		
" BDUP	1	✓			1		
" BSPK	1	✓			1		
" C	1	✓			1		
" D	1	✓			1		
" E	1	✓			1		
" F	1	✓			1		
" G	1	✓			1		
" H	1	✓			1		
" I	1	✓			1		
" J	1	✓			1		
" K	1	✓			1		
" L	1	✓			1		
" M	1	✓			1		
" N	1	✓			1		
" O	1	✓			1		
" P	1	✓			1		
" Q	1	✓			1		
" R	1	✓			1		
" S	1	✓			1		
" T	1	✓			1		
" MB1	—	✓			1		
" MB1SPK	—	✓	20.0	20.0	1	Y	
			1-16-13	DM			

Chemical/Reagent ID:

HNO_3: I7070
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2400
5% $KMnO_4$: MP2401
Digest Tube Lot: 1208057

Table of Contents: ARI Job WA06, WA10

Client: GeoEngineers

Project: 0504-068 Ecy-Everett Lowlands

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AV
Signature

January-24-2013
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

January 25, 2013

Garrett Leque
GeoEngineers, Inc.
1101 Fawcett, Suite 200
Tacoma, WA 98402

RE: ECY-Everett Lowlands, 0504-068-00
ARI Job Nos.: WA06 & WA10

Dear Garrett:

Please find enclosed the Chain-of-Custody record (COC), sample receipt documentation, and the data package for samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile WA06 & WA10

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: WA06, WA10

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: WA10, WA06	Turn-around Requested: Normal	Page: 1 of 1	
ARI Client Company: GEI	Phone: 253 383 4940	Date: 1/15/13	Ice Present?
Client Contact: Garrett Leque		No. of Coolers:	Cooler Temps:
Client Project Name: Ecy - Everett Lowlands			
Client Project #: 0504-068	Samplers: PDR		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	metals * total	metals * dissolved							Notes/Comments
BP04S-130115-W	1/15	1455	W	2	X	X							
BP04D-130115-W		1415			X	X							
BP05S-130115-W		1300			X	X							
BP05D-130115-W		1200			X	X							
BP05D2-130115-W		1100			X	X							
DUP03-130115-W		1140			X	X							

Analysis Requested

Comments/Special Instructions	Relinquished by (Signature)	Received by (Signature)	Relinquished by (Signature)	Received by (Signature)
* metals: As, Pb, Cd, Tl, Sb, Hg	Printed Name: Paul Robinette	Printed Name: Rich Hudson	Printed Name:	Printed Name:
	Company: GeoEngineers	Company: ARI	Company:	Company:
	Date & Time: 1/16/13 1645	Date & Time: 1/16/13 16:45	Date & Time	Date & Time

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: GeoEngineers
Project Name: Ecy Everett Lowlands
COC No(s): NA
Delivered by: Fed-Ex UPS Courier Hand Delivered Other:
Assigned ARI Job No: N.AOL
Tracking No.: NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)		MB
If cooler temperature is out of compliance fill out form 00070F	Temp Gun ID#:	40077952

Cooler Accepted by: Rich Hudson Date: 1/16/13 Time: 1800

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Was Sample Split by ARI: NA YES Date/Time: Equipment: Split by:

Samples Logged by: TS Date: 1-17-13 Time: 1030

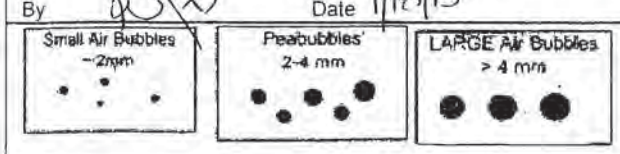
***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

Ice present in coolers but temp not recorded due to laboratory error.
All sample container Id's are missing (130115-w) per client email.

By: [signature] Date: 1/18/13



Small → "sm"	
Peabubbles → "pb"	
Large → "lg"	
Headspace → "hs"	

PRESERVATION VERIFICATION 01/17/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA06**

Inquiry Number: NONE
Analysis Requested: 01/17/13
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: TS
Sample Set Used: Yes-481
Validatable Package: LV4
Deliverables:

PC: Cheronne
VTSR: 01/16/13

Project #: 0504-068
Project: Ecy-Everett Lowlands
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1156 **WA06A**	BP04S-130115-W						TOT Pass															
13-1157 **WA06B**	BP04D-130115-W						TOT Pass															
13-1158 **WA06C**	BP05S-130115-W						TOT Pass															
13-1159 **WA06D**	BP05D-130115-W						TOT P															
13-1160 **WA06E**	BP05D2-130115-W						TOT P															
13-1161 **WA06F**	DUP03-130115-W						TOT P															
13-1162 **WA06G**	BP04S-130115-W						DIS P									Y						
13-1163 **WA06H**	BP04D-130115-W						DIS P									Y						
13-1164 **WA06I**	BP05S-130115-W						DIS P									Y						
13-1165 **WA06J**	BP05D-130115-W						DIS P									Y						
13-1166 **WA06K**	BP05D2-130115-W						DIS P									Y						
13-1167 **WA06L**	DUP03-130115-W						DIS P									Y						

Pass

Checked By TS Date 1-17-13

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: GeoEngineers

Project Name: Ecy Everest Lowlands

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other _____

Assigned ARI Job No: WA10

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)		AMB

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID# ~~40077952~~

Cooler Accepted by: Rich Hudson Date: 1/16/13 Time: 1800

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____			
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Was Sample Split by ARI: NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: TS Date: 1-17-13 Time: 1030

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

Ice present in cooler but temperature not recorded due to laboratory error. All sample ID's on container are missing (13.115 w) per client email.

By: W/TS Date: 1/18/13

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm

Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

PRESERVATION VERIFICATION 01/17/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA10**

Inquiry Number: NONE
Analysis Requested: 01/17/13
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: TS
Sample Set Used: Yes-481
Validatable Package: LV4
Deliverables:

PC: Cheronne
VTSR: 01/16/13

Project #: 0504-068
Project: Ecy-Everett Lowlands
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1168 **WA10A**	BP04S-130115-W						TOT P															
13-1169 **WA10B**	BP04D-130115-W						TOT P															
13-1170 **WA10C**	BP05S-130115-W						TOT P															
13-1171 **WA10D**	BP05D-130115-W						TOT P															
13-1172 **WA10E**	BP05D2-130115-W						TOT P															
13-1173 **WA10F**	DUP03-130115-W						TOT P															
13-1174 **WA10G**	BP04S-130115-W						DIS P									Y						
13-1175 **WA10H**	BP04D-130115-W						DIS P									Y						
13-1176 **WA10I**	BP05S-130115-W						DIS P									Y						
13-1177 **WA10J**	BP05D-130115-W						DIS P									Y						
13-1178 **WA10K**	BP05D2-130115-W						DIS P									Y						
13-1179 **WA10L**	DUP03-130115-W						DIS P									Y						

P = PASS

Checked By TS Date 1-17-13

Subject: Re: Bottle Order / labeling
From: Sue Dunnihoo <sue@arilabs.com>
Date: 1/4/2013 4:19 PM
To: "Garrett R. Leque" <gleque@geoengineers.com>
CC: Brian Anderson <banderson@geoengineers.com>, "Paul D. Robinette" <probinette@geoengineers.com>, Cheronne Oreiro <cheronneo@arilabs.com>

Login has you set up for delivery Monday and everyone says we should be fine on the naming.

Cheers - Sue

On 1/4/2013 4:11 PM, Garrett R. Leque wrote:

> Hi Sue,
>
> As we discussed please have delivered about 20 nitric-preserved bottles and labels to the Everett Lowlands project if possible Monday.
>
> Also, just want to confirm that it is okay to do the following labeling scheme:
>
> For a sample called LLMW06S-130107-W, that name will be recorded on the COC, however the sample label name will just be LLMW06S (see attached).
>
> We'd like everything to be recorded and reported and carried forward with the full name, of course...
>
> Have a good weekend, thanks!
>
> **Garrett Leque, LG**
> **Geologist | GeoEngineers**
> **t:** 253.383.4940
> **f:** 253.383.4923
> **c:** 253.312.7958
>
> Confidentiality. This message is confidential and intended solely for use of the individual or entity to whom it is addressed. If you are not the person for whom this message is intended, please delete it and notify me immediately, and please do not copy or send this message to anyone else.

--

Susan D. Dunnihoo
Director, Client Services
ANALYTICAL RESOURCES, INC.
206-695-6207
sue@arilabs.com
www.arilabs.com

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If you have received this correspondence in error, please

notify sender immediately. Thank you.

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: WA06, WA10

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Case Narrative

Client: GeoEngineers
Project: ECY-Everett Lowlands, 0504-068-00
ARI Job Nos.: WA06 & WA10

Sample Receipt

Six water samples were received on January 16, 2013 under ARI jobs WA06 and WA10. For details regarding sample receipt, refer to the Cooler Receipt Forms.

Total and Dissolved Metals by 200.8

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial and continuing calibrations were within limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

Total and Dissolved Mercury by SW7470A

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial and continuing calibrations were within limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WA06
Client: GeoEngineers
Project Event: 0504-068
Project Name: Ecy-Everett Lowlands

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	BP04S-130115-W	WA06A	13-1156	Water	01/15/13 14:55	01/16/13 16:45
2.	BP04D-130115-W	WA06B	13-1157	Water	01/15/13 14:15	01/16/13 16:45
3.	BP05S-130115-W	WA06C	13-1158	Water	01/15/13 13:00	01/16/13 16:45
4.	BP05D-130115-W	WA06D	13-1159	Water	01/15/13 12:00	01/16/13 16:45
5.	BP05D2-130115-W	WA06E	13-1160	Water	01/15/13 11:00	01/16/13 16:45
6.	DUP03-130115-W	WA06F	13-1161	Water	01/15/13 11:40	01/16/13 16:45
7.	BP04S-130115-W	WA06G	13-1162	Water	01/15/13 14:55	01/16/13 16:45
8.	BP04D-130115-W	WA06H	13-1163	Water	01/15/13 14:15	01/16/13 16:45
9.	BP05S-130115-W	WA06I	13-1164	Water	01/15/13 13:00	01/16/13 16:45
10.	BP05D-130115-W	WA06J	13-1165	Water	01/15/13 12:00	01/16/13 16:45
11.	BP05D2-130115-W	WA06K	13-1166	Water	01/15/13 11:00	01/16/13 16:45
12.	DUP03-130115-W	WA06L	13-1167	Water	01/15/13 11:40	01/16/13 16:45

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WA10
Client: GeoEngineers
Project Event: 0504-068
Project Name: Ecy-Everett Lowlands

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	BP04S-130115-W	WA10A	13-1168	Water	01/15/13 14:55	01/16/13 16:45
2.	BP04D-130115-W	WA10B	13-1169	Water	01/15/13 14:15	01/16/13 16:45
3.	BP05S-130115-W	WA10C	13-1170	Water	01/15/13 13:00	01/16/13 16:45
4.	BP05D-130115-W	WA10D	13-1171	Water	01/15/13 12:00	01/16/13 16:45
5.	BP05D2-130115-W	WA10E	13-1172	Water	01/15/13 11:00	01/16/13 16:45
6.	DUP03-130115-W	WA10F	13-1173	Water	01/15/13 11:40	01/16/13 16:45
7.	BP04S-130115-W	WA10G	13-1174	Water	01/15/13 14:55	01/16/13 16:45
8.	BP04D-130115-W	WA10H	13-1175	Water	01/15/13 14:15	01/16/13 16:45
9.	BP05S-130115-W	WA10I	13-1176	Water	01/15/13 13:00	01/16/13 16:45
10.	BP05D-130115-W	WA10J	13-1177	Water	01/15/13 12:00	01/16/13 16:45
11.	BP05D2-130115-W	WA10K	13-1178	Water	01/15/13 11:00	01/16/13 16:45
12.	DUP03-130115-W	WA10L	13-1179	Water	01/15/13 11:40	01/16/13 16:45

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Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Duplicate RPD is not within established control limits

B — Reported value is less than the CRDL but ≥ the Reporting Limit

N — Matrix Spike recovery not within established control limits

NA — Not Applicable, analyte not spiked

H — The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible

L — Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Flagged value is not within established control limits

B — Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

J — Estimated concentration when the value is less than ARI's established reporting limits

D — The spiked compound was not detected due to sample extract dilution

E — Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q — Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

WA06 : 0001U

S Indicates an analyte response that has saturated the detector The calculated concentration is not valid, a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration The reporting limit is raised due to chromatographic interference The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2 5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

Geotechnical Data

A The total of all fines fractions This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

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Quality Control Parameters for Metals Analysis ICP-MS EPA Methods 200.8 or 6020A

Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[3]	Solids[2]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium[4]	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium[4]	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume Solids LOQ based on 100% solids using 1.0 g sample 100 mL final volume.
(3) Relative Percent Difference in replicate analyzes. $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$ where C_0=Original, C_D=Duplicate
(4) ARI has no accreditation for these elements.

WA86 : 00017

Quality Control Parameters for Mercury Analysis using CVAA
EPA Methods 7470A or 245.1 for Aqueous Samples
EPA Methods 7471B or 245.5 for Solid Samples

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[2]	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.025[3]	75 – 125	80 – 120	≤ 20
	Tissue Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.005[4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

Metals Analysis
Report and Summary QC Forms

ARI Job ID: WA06, WA10

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Ecy-Everett Lowlands

SDG: WA06

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
BP04S-130115-W	WA06A	13-1156	
BP04S-130115-WD	WA06ADUP	13-1156	
BP04S-130115-WS	WA06ASPK	13-1156	
BP04D-130115-W	WA06B	13-1157	
PBW	WA06MB1	13-1157	
LCSW	WA06MB1SPK	13-1157	
BP05S-130115-W	WA06C	13-1158	
BP05D-130115-W	WA06D	13-1159	
BP05D2-130115-W	WA06E	13-1160	
DUP03-130115-W	WA06F	13-1161	
BP04S-130115-W	WA06G	13-1162	
BP04S-130115-WD	WA06GDUP	13-1162	
BP04S-130115-WS	WA06GSPK	13-1162	
BP04D-130115-W	WA06H	13-1163	
PBW	WA06MB2	13-1163	
LCSW	WA06MB2SPK	13-1163	
BP05S-130115-W	WA06I	13-1164	
BP05D-130115-W	WA06J	13-1165	
BP05D2-130115-W	WA06K	13-1166	
DUP03-130115-W	WA06L	13-1167	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 1/24/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP04S-130115-W
SAMPLE

Lab Sample ID: WA06A
LIMS ID: 13-1156
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/18/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**3.8**	
200.8	01/18/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	0.2	**30.5**	
200.8	01/18/13	200.8	01/21/13	**7440-43-9**	**Cadmium**	0.1	**0.6**	
200.8	01/18/13	200.8	01/21/13	**7439-92-1**	**Lead**	0.1	**35.5**	
200.8	01/18/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP04D-130115-W
SAMPLE

Lab Sample ID: WA06B
LIMS ID: 13-1157
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands 0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/18/13	200.8	01/21/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/18/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	10	**3,740**	
200.8	01/18/13	200.8	01/21/13	**7440-43-9**	**Cadmium**	0.1	**0.5**	
200.8	01/18/13	200.8	01/21/13	**7439-92-1**	**Lead**	0.1	**3.8**	
200.8	01/18/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP05S-130115-W
SAMPLE

Lab Sample ID: WA06C
LIMS ID: 13-1158
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/18/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**1.3**	
200.8	01/18/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	0.2	**29.9**	
200.8	01/18/13	200.8	01/21/13	**7440-43-9**	**Cadmium**	0.1	**7.9**	
200.8	01/18/13	200.8	01/21/13	**7439-92-1**	**Lead**	0.1	**1.4**	
200.8	01/18/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP05D-130115-W
SAMPLE

Lab Sample ID: WA06D
LIMS ID: 13-1159
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/18/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**0.6**	
200.8	01/18/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	20	**16,400**	
200.8	01/18/13	200.8	01/21/13	**7440-43-9**	**Cadmium**	0.1	**0.3**	
200.8	01/18/13	200.8	01/21/13	**7439-92-1**	**Lead**	0.1	**0.6**	
200.8	01/18/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP05D2-130115-W
SAMPLE

Lab Sample ID: WA06E
LIMS ID: 13-1160
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/18/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**0.7**	
200.8	01/18/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	0.2	**25.3**	
200.8	01/18/13	200.8	01/21/13	**7440-43-9**	**Cadmium**	0.1	**0.6**	
200.8	01/18/13	200.8	01/21/13	**7439-92-1**	**Lead**	0.1	**1.2**	
200.8	01/18/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: DUP03-130115-W
SAMPLE

Lab Sample ID: WA06F
LIMS ID: 13-1161
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/18/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**0.6**	
200.8	01/18/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	20	**16,500**	
200.8	01/18/13	200.8	01/21/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/18/13	200.8	01/21/13	**7439-92-1**	**Lead**	0.1	**0.8**	
200.8	01/18/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP04S-130115-W
MATRIX SPIKE

Lab Sample ID: WA06A
LIMS ID: 13-1156
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	3.8	27.4	25.0	94.4%	
Arsenic	200.8	30.5	55.1	25.0	98.4%	
Cadmium	200.8	0.6	24.9	25.0	97.2%	
Lead	200.8	35.5	60.1	25.0	98.4%	
Thallium	200.8	0.2 U	25.3	25.0	101%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked
NR-Not Recovered

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP04S-130115-W
DUPLICATE

Lab Sample ID: WA06A
LIMS ID: 13-1156
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	3.8	4.0	5.1%	+/- 20%	
Arsenic	200.8	30.5	31.4	2.9%	+/- 20%	
Cadmium	200.8	0.6	0.6	0.0%	+/- 20%	
Lead	200.8	35.5	37.2	4.7%	+/- 20%	
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP04S-130115-W
SAMPLE

Lab Sample ID: WA06G
LIMS ID: 13-1162
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/18/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**3.3**	
200.8	01/18/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	0.2	**24.3**	
200.8	01/18/13	200.8	01/21/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/18/13	200.8	01/21/13	**7439-92-1**	**Lead**	0.1	**2.2**	
200.8	01/18/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP04D-130115-W
SAMPLE

Lab Sample ID: WA06H
LIMS ID: 13-1163
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/18/13	200.8	01/21/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/18/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	10	**3,620**	
200.8	01/18/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/18/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/18/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP05S-130115-W
SAMPLE

Lab Sample ID: WA06I
LIMS ID: 13-1164
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/18/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**1.1**	
200.8	01/18/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	0.2	**26.2**	
200.8	01/18/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/18/13	200.8	01/21/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	01/18/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP05D-130115-W
SAMPLE

Lab Sample ID: WA06J
LIMS ID: 13-1165
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands 0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/18/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**0.5**	
200.8	01/18/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	20	**14,800**	
200.8	01/18/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/18/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/18/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP05D2-130115-W
SAMPLE

Lab Sample ID: WA06K
LIMS ID: 13-1166
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/18/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**0.6**	
200.8	01/18/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	0.2	**25.6**	
200.8	01/18/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/18/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/18/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: DUP03-130115-W
SAMPLE

Lab Sample ID: WA06L
LIMS ID: 13-1167
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/18/13	200.8	01/21/13	**7440-36-0**	**Antimony**	0.2	**0.6**	
200.8	01/18/13	200.8	01/21/13	**7440-38-2**	**Arsenic**	20	**16,100**	
200.8	01/18/13	200.8	01/21/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/18/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/18/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP04S-130115-W
MATRIX SPIKE

Lab Sample ID: WA06G
LIMS ID: 13-1162
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	3.3	27.9	25.0	98.4%	
Arsenic	200.8	24.3	51.3	25.0	108%	
Cadmium	200.8	0.2	25.0	25.0	99.2%	
Lead	200.8	2.2	28.3	25.0	104%	
Thallium	200.8	0.2 U	25.9	25.0	104%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP04S-130115-W
DUPLICATE

Lab Sample ID: WA06G
LIMS ID: 13-1162
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	3.3	3.4	3.0%	+/- 20%	
Arsenic	200.8	24.3	25.0	2.8%	+/- 20%	
Cadmium	200.8	0.2	0.2	0.0%	+/- 0.1	L
Lead	200.8	2.2	2.3	4.4%	+/- 20%	
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: WA06LCS
LIMS ID: 13-1157
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands 0504-068
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	24.0	25.0	96.0%	
Arsenic	200.8	25.5	25.0	102%	
Cadmium	200.8	24.9	25.0	99.6%	
Lead	200.8	26.7	25.0	107%	
Thallium	200.8	26.4	25.0	106%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: METHOD BLANK

Lab Sample ID: WA06MB
LIMS ID: 13-1157
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands 0504-068
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/18/13	200.8	01/21/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/18/13	200.8	01/21/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	01/18/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/18/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/18/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: WA06LCS
LIMS ID: 13-1163
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands 0504-068
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	24.2	25.0	96.8%	
Arsenic	200.8	27.0	25.0	108%	
Cadmium	200.8	25.1	25.0	100%	
Lead	200.8	27.2	25.0	109%	
Thallium	200.8	26.8	25.0	107%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: METHOD BLANK

Lab Sample ID: WA06MB
LIMS ID: 13-1163
Matrix: Water
Data Release Authorized:
Reported: 01/22/13

QC Report No: WA06-GeoEngineers
Project: Ecy-Everett Lowlands 0504-068
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/18/13	200.8	01/21/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/18/13	200.8	01/21/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	01/18/13	200.8	01/21/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/18/13	200.8	01/21/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/18/13	200.8	01/21/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Ecy-Everett Lowlands

SDG: WA06

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS012111	50.0	49.60	**99.2**	50.0	50.78	**101.6**	50.09	**100.2**	50.47	**100.9**	50.74	**101.5**	50.27	**100.5**
Arsenic	AS	PMS	MS012111	50.0	53.09	**106.2**	50.0	50.95	**101.9**	50.36	**100.7**	50.34	**100.7**	51.78	**103.6**	51.97	**103.9**
Cadmium	CD	PMS	MS012111	50.0	49.37	**98.7**	50.0	50.77	**101.5**	50.48	**101.0**	51.47	**102.9**	50.48	**101.0**	50.29	**100.6**
Lead	PB	PMS	MS012111	50.0	52.23	**104.5**	50.0	51.16	**102.3**	50.76	**101.5**	51.00	**102.0**	51.11	**102.2**	51.03	**102.1**
Thallium	TL	PMS	MS012111	50.0	53.33	**106.7**	50.0	51.99	**104.0**	51.96	**103.9**	53.21	**106.4**	52.81	**105.6**	52.57	**105.1**

Control Limits: Mercury 80-120; Other Metals 90-110

WA06 : 00041

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Ecy-Everett Lowlands

UNITS: ug/L

SDG: WA06

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Antimony	SB	PMS	MS012111	0.2	0.21	**105.0**										
Arsenic	AS	PMS	MS012111	0.2	0.20	**100.0**										
Cadmium	CD	PMS	MS012111	0.1	0.11	**110.0**										
Lead	PB	PMS	MS012111	0.1	0.11	**110.0**										
Thallium	TL	PMS	MS012111	0.2	0.21	**105.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

WA06 : 00042

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Ecy-Everett Lowlands

SDG: WA06

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS012111	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS012111	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS012111	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Lead	PB	PMS	MS012111	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Thallium	TL	PMS	MS012111	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

WA06 00043

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Ecy-Everett Lowlands

SDG: WA06

ICS SOURCE: I.V.

RUNID: MS012111

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.5	**97.5**						
Cadmium		20	0.2	19.4	**97.0**						
Copper		20	0.8	20.7	**103.5**						
Nickel		20	0.4	20.1	**100.5**						
Selenium			-0.2	-0.4							
Silver		20	0.0	19.8	**99.0**						
Thorium			0.2	0.1							
Zinc		20	1.1	20.6	**103.0**						

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Ecy-Everett Lowlands

SDG: WA06 UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Antimony	SB	PMS	NEXION 300D MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Cadmium	CD	PMS	NEXION 300D MS	0.00		5	0.1	4/1/2012		
Lead	PB	PMS	NEXION 300D MS	0.00		3	0.1	4/1/2012		
Thallium	TL	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Ecy-Everett Lowlands

SDG: WA06

ANALYSIS METHOD: PMS

ARI PREP CODE: REN

PREPDATE: 1/18/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
BP04S-130115-W	WA06A	0.000	50.0	25.0
BP04S-130115-WD	WA06ADUP	0.000	50.0	25.0
BP04S-130115-WS	WA06ASPK	0.000	50.0	25.0
BP04D-130115-W	WA06B	0.000	50.0	25.0
BP05S-130115-W	WA06C	0.000	50.0	25.0
BP05D-130115-W	WA06D	0.000	50.0	25.0
BP05D2-130115-W	WA06E	0.000	50.0	25.0
DUP03-130115-W	WA06F	0.000	50.0	25.0
BP04S-130115-W	WA06G	0.000	50.0	25.0
BP04S-130115-WD	WA06GDUP	0.000	50.0	25.0
BP04S-130115-WS	WA06GSPK	0.000	50.0	25.0
BP04D-130115-W	WA06H	0.000	50.0	25.0
BP05S-130115-W	WA06I	0.000	50.0	25.0
BP05D-130115-W	WA06J	0.000	50.0	25.0
BP05D2-130115-W	WA06K	0.000	50.0	25.0
DUP03-130115-W	WA06L	0.000	50.0	25.0
PBW	WA06MB1	0.000	50.0	25.0
LCSW	WA06MB1SPK	0.000	50.0	25.0
PBW	WA06MB2	0.000	50.0	25.0
LCSW	WA06MB2SPK	0.000	50.0	25.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Ecy-Everett Lowlands | INSTRUMENT ID: NEXION 300D MS | START DATE: 1/21/2013

SDG: WA06 | RUNID: MS012111 METHOD: PMS | END DATE: 1/21/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10290				X					X												X	X					X			
S1	S1	1.00	10330				X					X												X	X					X			
S2	S2	1.00	10360				X					X												X	X					X			
S3	S3	1.00	10400				X					X												X	X					X			
S4	S4	1.00	10440				X					X												X	X					X			
S5	S5	1.00	10500																														
ZZZZZZ	Rinse sampl	1.00	10560																														
ICV	MICV	1.00	11020				X					X												X	X					X			
ICB	ICB	1.00	11090				X					X												X	X					X			
CCV	MCCV1	1.00	11120				X					X												X	X					X			
CCB	CCB1	1.00	11180				X					X												X	X					X			
CRI	MCRI	1.00	11220				X					X												X	X					X			
ICSA	ICSAI	1.00	11250				X					X												X	X					X			
ICSAB	ICSABI	1.00	11310				X					X												X	X					X			
ZZZZZZ	LR200	1.00	11370																														
ZZZZZZ	B1	1.00	11440																														
ZZZZZZ	B2	1.00	11480																														
CCV	MCCV2	1.00	11530				X					X												X	X					X			
CCB	CCB2	1.00	11590				X					X												X	X					X			
PBW	WA06MB1	2.00	12050				X					X												X	X					X			
PBW	WA06MB2	2.00	12080				X					X												X	X					X			
ZZZZZZ	VZ23C	50.00	12120																														
BP04S-130115-WD	WA06ADUP	2.00	12150				X					X												X	X					X			
BP04S-130115-W	WA06A	2.00	12190				X					X												X	X					X			
BP04S-130115-WS	WA06ASPK	2.00	12220				X					X												X	X					X			
BP04S-130115-WD	WA06GDUP	2.00	12260				X					X												X	X					X			
BP04S-130115-W	WA06G	2.00	12290				X					X												X	X					X			
BP04S-130115-WS	WA06GSPK	2.00	12330				X					X												X	X					X			
LCSW	WA06MB1SPK	2.00	12360				X					X												X	X					X			
CCV	MCCV3	1.00	12410				X					X												X	X					X			
CCB	CCB3	1.00	12470				X					X												X	X					X			
BP04D-130115-W	WA06B	2.00	12530									X												X	X					X			
BP05S-130115-W	WA06C	2.00	12560				X					X												X	X					X			
BP05D-130115-W	WA06D	2.00	13000									X												X	X					X			
BP05D2-130115-W	WA06E	2.00	13030				X					X												X	X					X			

FORM XIV

1 of 5 : 00001

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Ecy-Everett Lowlands INSTRUMENT ID: NEXION 300D MS START DATE: 1/21/2013

SDG: WA06 RUNID: MS012111 METHOD: PMS END DATE: 1/21/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
DUP03-130115-W	WA06F	2.00	13070									X												X	X					X			
BP04D-130115-W	WA06H	2.00	13100									X												X	X					X			
BP05S-130115-W	WA06I	2.00	13140				X					X												X	X					X			
BP05D-130115-W	WA06J	2.00	13170									X												X	X					X			
BP05D2-130115-W	WA06K	2.00	13210				X					X												X	X					X			
LCSW	WA06MB2SPK	2.00	13250				X					X												X	X					X			
CCV	MCCV4	1.00	13290				X					X												X	X					X			
CCB	CCB4	1.00	13350				X					X												X	X					X			
BP04D-130115-W	WA06B	100.00	13450				X																										
BP05D-130115-W	WA06D	200.00	13480				X																										
DUP03-130115-W	WA06F	200.00	13520				X																										
BP04D-130115-W	WA06H	100.00	13550				X																										
BP05D-130115-W	WA06J	200.00	13590				X																										
DUP03-130115-W	WA06L	200.00	14020				X																										
DUP03-130115-W	WA06L	2.00	14060									X												X	X					X			
ZZZZZZ	B3	1.00	14100																														
CCV	MCCV5	1.00	14130				X					X												X	X					X			
CCB	CCB5	1.00	14190				X					X												X	X					X			

WA06 00048

Mercury Analysis
Report and Summary QC Forms

ARI Job ID: WA06, WA10

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Ecy-Everett Lowlands

SDG: WA10

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
BP04S-130115-W	WA10A	13-1168	
BP04S-130115-WD	WA10ADUP	13-1168	
BP04S-130115-WS	WA10ASPK	13-1168	
BP04D-130115-W	WA10B	13-1169	
PBW	WA10MB1	13-1169	
LCSW	WA10MB1SPK	13-1169	
BP05S-130115-W	WA10C	13-1170	
BP05D-130115-W	WA10D	13-1171	
BP05D2-130115-W	WA10E	13-1172	
DUP03-130115-W	WA10F	13-1173	
BP04S-130115-W	WA10G	13-1174	
BP04S-130115-WD	WA10GDUP	13-1174	
BP04S-130115-WS	WA10GSPK	13-1174	
BP04D-130115-W	WA10H	13-1175	
PBW	WA10MB2	13-1175	
LCSW	WA10MB2SPK	13-1175	
BP05S-130115-W	WA10I	13-1176	
BP05D-130115-W	WA10J	13-1177	
BP05D2-130115-W	WA10K	13-1178	
DUP03-130115-W	WA10L	13-1179	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: Jay Kuhn Name: Jay Kuhn

Date: 1/24/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Total Mercury by Method SW7470A

Data Release Authorized:
Reported: 01/24/13
Date Received: 01/16/13
Page 1 of 1

QC Report No: WA10-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
BP04S-130115-W WA10A 13-1168	01/15/13	Water	01/18/13 01/23/13	20.0	20.0 U
BP04D-130115-W WA10B 13-1169	01/15/13	Water	01/18/13 01/23/13	20.0	20.0 U
BP05S-130115-W WA10C 13-1170	01/15/13	Water	01/18/13 01/23/13	20.0	20.0 U
BP05D-130115-W WA10D 13-1171	01/15/13	Water	01/18/13 01/23/13	20.0	20.0 U
BP05D2-130115-W WA10E 13-1172	01/15/13	Water	01/18/13 01/23/13	20.0	20.0 U
DUP03-130115-W WA10F 13-1173	01/15/13	Water	01/18/13 01/23/13	20.0	20.0 U
MB-011813 Method Blank	NA	Water	01/18/13 01/23/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP04S-130115-W
MATRIX SPIKE

Lab Sample ID: WA10A
LIMS ID: 13-1168
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA10-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	101	100	101%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP04S-130115-W
DUPLICATE

Lab Sample ID: WA10A
LIMS ID: 13-1168
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA10-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: WA10LCS
LIMS ID: 13-1169
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA10-GeoEngineers
Project: Ecy-Everett Lowlands 0504-068
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	202	200	101%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Dissolved Mercury by Method SW7470A

Data Release Authorized:
Reported: 01/24/13
Date Received: 01/16/13

QC Report No238: WA10-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
BP04S-130115-W WA10G 13-1174	01/15/13	Water	01/18/13 01/23/13	20.0	20.0 U
BP04D-130115-W WA10H 13-1175	01/15/13	Water	01/18/13 01/23/13	20.0	20.0 U
BP05S-130115-W WA10I 13-1176	01/15/13	Water	01/18/13 01/23/13	20.0	20.0 U
BP05D-130115-W WA10J 13-1177	01/15/13	Water	01/18/13 01/23/13	20.0	20.0 U
BP05D2-130115-W WA10K 13-1178	01/15/13	Water	01/18/13 01/23/13	20.0	20.0 U
DUP03-130115-W WA10L 13-1179	01/15/13	Water	01/18/13 01/23/13	20.0	20.0 U
MB-011813 Method Blank	NA	Water	01/18/13 01/23/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP04S-130115-W
MATRIX SPIKE

Lab Sample ID: WA10G
LIMS ID: 13-1174
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA10-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	106	100	106%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP04S-130115-W
DUPLICATE

Lab Sample ID: WA10G
LIMS ID: 13-1174
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA10-GeoEngineers
Project: Ecy-Everett Lowlands
0504-068
Date Sampled: 01/15/13
Date Received: 01/16/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: WA10LCS
LIMS ID: 13-1175
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA10-GeoEngineers
Project: Ecy-Everett Lowlands 0504-068
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	188	200	94.0%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Ecy-Everett Lowlands

SDG: WA10

UNITS:ng/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Mercury	HG	CVL	HG012301	500.0	470.00	**94.0**	500.0	474.00	**94.8**	474.00	**94.8**	473.00	**94.6**	477.00	**95.4**		

Control Limits: Mercury 80-120; Other Metals 90-110

WA06 : 00059

CRDL Standard

CLIENT: GeoEngineers

PROJECT: Ecy-Everett Lowlands

SDG: WA10

ANALYTICAL RESOURCES INCORPORATED

UNITS:ng/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Mercury	HG	CVL	HG012301		20.0	22.40	**112.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

WA05 00060

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Ecy-Everett Lowlands

UNITS: ng/L

SDG: WA10

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Mercury	HG	CVL	HG012301	25.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U		

WA06 00061

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Ecy-Everett Lowlands

SDG: WA10

UNITS: ng/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ng/L)	ICP LR DATE
Mercury	HG	CVL	CETAC MERCURY	253.70		25	20.0	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Ecy-Everett Lowlands

SDG: WA10

ANALYSIS METHOD: CVL

ARI PREP CODE: TLM

PREPDATE: 1/18/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
BP04S-130115-W	WA10A	0.000	20.0	20.0
BP04S-130115-WD	WA10ADUP	0.000	20.0	20.0
BP04S-130115-WS	WA10ASPK	0.000	20.0	20.0
BP04D-130115-W	WA10B	0.000	20.0	20.0
BP05S-130115-W	WA10C	0.000	20.0	20.0
BP05D-130115-W	WA10D	0.000	20.0	20.0
BP05D2-130115-W	WA10E	0.000	20.0	20.0
DUP03-130115-W	WA10F	0.000	20.0	20.0
BP04S-130115-W	WA10G	0.000	20.0	20.0
BP04S-130115-WD	WA10GDUP	0.000	20.0	20.0
BP04S-130115-WS	WA10GSPK	0.000	20.0	20.0
BP04D-130115-W	WA10H	0.000	20.0	20.0
BP05S-130115-W	WA10I	0.000	20.0	20.0
BP05D-130115-W	WA10J	0.000	20.0	20.0
BP05D2-130115-W	WA10K	0.000	20.0	20.0
DUP03-130115-W	WA10L	0.000	20.0	20.0
PBW	WA10MB1	0.000	20.0	20.0
LCSW	WA10MB1SPK	0.000	20.0	20.0
PBW	WA10MB2	0.000	20.0	20.0
LCSW	WA10MB2SPK	0.000	20.0	20.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Ecy-Everett Lowlands INSTRUMENT ID: CETAC MERCURY START DATE: 1/23/2013

SDG: WA10 RUNID: HG012301 METHOD: CVL END DATE: 1/23/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	08023														X																
S20	S20	1.00	08051														X																
S50	S50	1.00	08080														X																
S100	S100	1.00	08104														X																
S200	S200	1.00	08132														X																
S400	S400	1.00	08160														X																
S1000	S1000	1.00	08185														X																
ICV	AICV	1.00	08260														X																
ICB	ICB	1.00	08284														X																
CCV	ACCV1	1.00	08312														X																
CCB	CCB1	1.00	08340														X																
CRA	CRA	1.00	08365														X																
ZZZZZZ	TEST1STD1	1.00	08393																														
ZZZZZZ	TEST2STD1	1.00	08421																														
ZZZZZZ	TEST2 STD6	1.00	08445																														
ZZZZZZ	TEST2 STD6	1.00	08473																														
ZZZZZZ	TEST1 CV	1.00	08501																														
ZZZZZZ	TEST2 CV	1.00	08525																														
ZZZZZZ	TEST3 CV	1.00	08554																														
PBW	WA10MB1	1.00	08582														X																
LCSW	WA10MB1SPK	1.00	09010														X																
CCV	ACCV2	1.00	09035														X																
CCB	CCB2	1.00	09063														X																
BP04S-130115-W	WA10A	1.00	09092														X																
BP04S-130115-WD	WA10ADUP	1.00	09120														X																
BP04S-130115-WS	WA10ASPK	1.00	09144														X																
BP04D-130115-W	WA10B	1.00	09172														X																
BP05S-130115-W	WA10C	1.00	09200														X																
BP05D-130115-W	WA10D	1.00	09224														X																
BP05D2-130115-W	WA10E	1.00	09252														X																
DUP03-130115-W	WA10F	1.00	09280														X																
PBW	WA10MB2	1.00	09305														X																
LCSW	WA10MB2SPK	1.00	09333														X																
CCV	ACCV3	1.00	09361														X																
CCB	CCB3	1.00	09390														X																

FORM XIV

WA06 00061

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Ecy-Everett Lowlands | INSTRUMENT ID: CETAC MERCURY | START DATE: 1/23/2013

SDG: WA10 | RUNID: HG012301 METHOD: CVL | END DATE: 1/23/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
BP04S-130115-W	WA10G	1.00	09414														X																
BP04S-130115-WD	WA10GDUP	1.00	09443														X																
BP04S-130115-WS	WA10GSPK	1.00	09471														X																
BP04D-130115-W	WA10H	1.00	09495														X																
BP05S-130115-W	WA10I	1.00	09523														X																
BP05D-130115-W	WA10J	1.00	09551														X																
BP05D2-130115-W	WA10K	1.00	09575														X																
DUP03-130115-W	WA10L	1.00	10003														X																
CCV	ACCV4	1.00	10032														X																
CCB	CCB4	1.00	10060														X																

WA55 : 55055

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WA06, WA10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: DM

Date: 01-15-13

Final Volume 25

Final Volume (Hg):

Sample ID WA06 PEPK, MB1SPK, GEPK, MB2SPK

	Prepcode:			
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:			
	Vol Added (mL):			
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	REN	REN	
	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
	20187-2	3001-1	
	0.05	0.05	
Ag	25		
Al			500
As	25 ✓		
Ba	25		
Be	25		
Ca			500
Cd	25 ✓		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25 ✓		
Sb		25 ✓	
Se	80		
Tl	25 ✓		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg		CVA	1.0		
Hg MBSPK		CVA	1.0		
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: DM Date: 01-18-13 Time: 0755

Matrix: Water Block ID: #12 Block Temp: 95°C Thermometer: MP46

ARI Sample ID	Btl #	pH<2	Prep Code: REN Initial ~~Wt (g)~~ Vol (mL)	Prep Code: REN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
WA06 A	1	✓	50.0	25.0			
" ADUP	1	✓					
" ASPK	1	✓					
" B	1	✓					
" C	1	✓					
" D	1	✓					
" E	1	✓					
" F	1	✓					
" MB1	—	✓					
" MB1SPK	—	✓					
" G	1	✓					
" GDUP	1	✓					
" GSPK	1	✓					
" H	1	✓					
" I	1	✓					
" J	1	✓					
" K	1	✓					
" L	1	✓					
" MB2	—	✓					
" MB2SPK	—	✓	50.0	25.0			
				01-18-13	DM		

Chemical/Reagent ID:

HNO_3: MP2416 HCl: — H_2O_2: I7845 Tube Lot #: 1208057

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WA06, WA10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-21-13 **Analyst:** M **Page:** 1 **of** 3

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2995-15
		1			2998-7
		2			3005-6
		3			-7
		4			3007-2
		5			3006-2
		Rinse Sample			
		KV			2926-7
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			
		LR200			
		B1			
		B2			
		CCV2			
		CCB2			
		WA06 MB1	REN	2	
		MB2			
		VZ23 C		50	
		WA06 ADup		2	
		A			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-21-13 **Analyst:** KT **Page:** 2 **of** 3

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WA06 Aspk	REN	2 ✓	
		GDup		✓	
		G			
		Gspk		✓	
Label		MBlspk		✓	
		CCV3			
		CCB3			Th ↑
		WA06 B	REN	2	RR As 1/100
		C			
		D			RR As 1/200
		E			
		F			RR As 1/200
		H			RR As 1/100
		I			
		J			RR As 1/200
		K			
		MB2spk		✓	
		CCV4			
		CCB4			
		WA06 B	REN	100	As
		D		200	
		F			
		H		100	
		J		200	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-21-13 **Analyst:** [illegible] **Page:** 3 **of** 3

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WA06 L	REN	200	As
		↓ L	↓	2	Cd Sb Pb Tl
		B3			
CW		CCV5			
CCB		CCB5			
		WA02 MB	REN	2	
		B			
		C			
		D			
		ADup			✓
		A			
		ASpk			✓
		↓ MBSpk	↓	↓	✓
		CCV6			
		CCB6			
		[illegible] 1-21-13			
					1-22-13
				[illegible]	

UADS : 00072

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Monday, January 21, 2013 09:45:44
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1732
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm) 0.00

Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
Be	9.0	5558.0	5557.987	85.240	1.5	Standard
Mg	24.0	37218.1	37218.076	600.106	1.6	Standard
In	114.9	73695.8	73695.799	866.346	1.2	Standard
Pb	208.0	34281.1	34281.104	278.318	0.8	Standard
U	238.1	61886.1	61886.100	708.268	1.1	Standard
CeO	155.9	926.3	0.012	0.000	3.4	Standard
Ce	139.9	79208.4	79208.413	679.938	0.9	Standard
Ce++	70.0	685.2	0.009	0.000	2.2	Standard
Bkgd	220.0	0.1	0.100	0.091	91.3	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1712.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

WA06 00073

SmartTune Wizard - Summary

timization Summary

artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

art Time: 1/21/2013 9:45:42 AM
d Time: 1/21/2013 9:48:19 AM

ily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5557.99
Obtained Intensity (Mg 23.985): 37218.08
Obtained Intensity (In 114.904): 73695.80
Obtained Intensity (Pb 207.977): 34281.10
Obtained Intensity (U 238.05): 61886.10
Obtained Intensity (Bkgd 220): 0.10
Obtained Formula (CeO 155.9 / Ce 139.905): 0.012 (=926.25 / 79208.41)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.009 (=685.23 / 79208.41)

WA06 : 00074

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/21/2013 9:48:58 AM
nd Time: 1/21/2013 9:50:07 AM

orch Alignment - [Passed]

Vertical	Horizontal	Intensity
-1.05 mm	1.68 mm	89336.31

UA06 : 00075

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/21/2013 9:50:13 AM
nd Time: 1/21/2013 9:52:26 AM

ass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.692)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.716)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.703)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.696)

WA06 : 00075

SmartTune Wizard - Summary

)ptimization Summary

,martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

,tart Time: 1/21/2013 9:53:30 AM
:nd Time: 1/21/2013 9:57:41 AM

\utoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 1.000; Intercept = -11.94

WA06 00077

SmartTune Wizard - Details

```
)ptimization Details

;martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

)ptimization Status

;tart Time: 1/21/2013 9:58:13 AM

)aily Performance Check
        Optimization Settings:
                Method: C:\NexIONData\Method\Daily Performancenew.mth.
                Intensity Criterion: Be 9.0122 > 3000
                Intensity Criterion: Mg 23.985 > 20000
                Intensity Criterion: In 114.904 > 50000
                Intensity Criterion: Pb 207.977 > 20000
                Intensity Criterion: U 238.05 > 40000
                Intensity Criterion: Bkgd 220 <= 5
                Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
                Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

        Optimization Results:
        Initial Try
                Obtained Intensity (Be 9.0122): 6717.71
                Obtained Intensity (Mg 23.985): 44833.36
                Obtained Intensity (In 114.904): 92347.22
                Obtained Intensity (Pb 207.977): 40759.64
                Obtained Intensity (U 238.05): 71956.68
                Obtained Intensity (Bkgd 220): 0.03
                Obtained Formula (CeO 155.9 / Ce 139.905): 0.014 (=1340.17 / 92568.31)
                Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.011 (=1057.27 / 92568.31)
[Passed]  Optimum value(s): N/A

Fnd Time: 1/21/2013 10:00:48 AM
```


WA06 00078

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:29:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L				128429	3
	Cl	37		ug/L				5089561	1
>	Ge	72		ug/L				689090	3
	Ni	60		ug/L				24	30
	Ni	62		ug/L				106	15
	Cu	63		ug/L				139	13
	Cu	65		ug/L				41	15
	Zn	66		ug/L				173	5
	Zn	67		ug/L				37	16
	Zn	68		ug/L				177	9
	As	75		ug/L				474	4
	As-1	75		ug/L				8932	0
	Se	82		ug/L				9	65
	Se	78		ug/L				9051	0
	Y	89		ug/L				458440	1
	Kr	83		ug/L				755	1
>	In	115		ug/L				1130079	1
	Ag	107		ug/L				21	9
	Cd	111		ug/L				80	16
	Cd	114		ug/L				30	13
	Sb	121		ug/L				41	37
	Sb	123		ug/L				28	25
>	Tb	159		ug/L				1365966	1
	Tl	205		ug/L				61	11
	Pb	208		ug/L				188	5
	Bi	209		ug/L				3069073	1
	Th	232		ug/L				47	40
	U	238		ug/L				2	43

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:33:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens	Intens RSD
	C	13		ug/L			128429	130277	2
	Cl	37		ug/L			5089561	5072938	3
>	Ge	72		ug/L			689090	682454	1
	Ni	60	0.500	ug/L	0.018	3	24	2358	2
	Ni	62	0.500	ug/L	0.020	3	106	420	1
	Cu	63	0.500	ug/L	0.007	1	139	5204	2
	Cu	65	0.500	ug/L	0.007	1	41	2218	1
	Zn	66	4.000	ug/L	0.175	4	173	10907	3
	Zn	67	4.000	ug/L	0.311	7	37	1608	6
	Zn	68	4.000	ug/L	0.083	2	177	7426	3
	As	75	0.200	ug/L	0.016	8	474	938	2
	As-1	75	0.200	ug/L	0.077	38	8932	9384	1
	Se	82	0.500	ug/L	0.032	6	9	139	4
	Se	78	0.500	ug/L	0.267	53	9051	9377	1
	Y	89		ug/L			458440	466650	0
	Kr	83		ug/L			755	766	4
>	In	115		ug/L			1130079	1131524	1
	Ag	107	0.200	ug/L	0.007	3	21	2246	2
	Cd	111	0.100	ug/L	0.005	4	80	667	3
	Cd	114	0.100	ug/L	0.005	5	30	1431	3
	Sb	121	0.200	ug/L	0.004	1	41	3128	0
	Sb	123	0.200	ug/L	0.004	1	28	2412	0
>	Tb	159		ug/L			1365966	1404556	1
	Tl	205	0.200	ug/L	0.002	0	61	8821	0
	Pb	208	0.100	ug/L	0 002	2	188	6170	1
	Bi	209		ug/L			3069073	3085954	1
	Th	232	0.200	ug/L	0.007	3	47	8716	3
	U	238	0.200	ug/L	0.004	1	2	10874	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:36:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	129658	2
	Cl	37		ug/L			5089561	5149061	1
>	Ge	72		ug/L			689090	688023	1
	Ni	60	9.999	ug/L	0.499	4	24	45495	3
	Ni	62	10.000	ug/L	0.510	5	106	6509	5
	Cu	63	9.999	ug/L	0.216	2	139	97246	1
	Cu	65	10.000	ug/L	0.114	1	41	43587	2
	Zn	66	9.946	ug/L	0.432	4	173	26197	2
	Zn	67	10.109	ug/L	0.174	1	37	4334	1
	Zn	68	10.011	ug/L	0.415	4	177	18586	2
	As	75	10.000	ug/L	0.239	2	474	23743	1
	As-1	75	9.999	ug/L	0.289	2	8932	32135	1
	Se	82	10.000	ug/L	0.281	2	9	2604	1
	Se	78	9.993	ug/L	0.493	4	9051	15583	0
	Y	89		ug/L			458440	462388	3
	Kr	83		ug/L			755	767	2
>	In	115		ug/L			1130079	1112461	0
	Ag	107	10.000	ug/L	0.100	0	21	107828	1
	Cd	111	10.000	ug/L	0.140	1	80	54916	1
	Cd	114	10.000	ug/L	0.108	1	30	137864	0
	Sb	121	10.000	ug/L	0.119	1	41	162662	0
	Sb	123	10.000	ug/L	0.160	1	28	122925	1
>	Tb	159		ug/L			1365966	1389107	1
	Tl	205	10.000	ug/L	0.174	1	61	425429	0
	Pb	208	10.000	ug/L	0.130	1	188	564374	0
	Bi	209		ug/L			3069073	3113721	4
	Th	232	10.001	ug/L	0.030	0	47	499977	1
	U	238	10.000	ug/L	0.137	1	2	543647	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:40:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	128774	1
	Cl	37		ug/L			5089561	5409704	1
>	Ge	72		ug/L			689090	721122	3
	Ni	60	19.800	ug/L	0.451	2	24	90778	1
	Ni	62	19.822	ug/L	0.127	0	106	12952	3
	Cu	63	19.849	ug/L	0.957	4	139	196118	1
	Cu	65	19.770	ug/L	0.919	4	41	86212	0
	Zn	66	19.726	ug/L	1.338	6	173	51779	3
	Zn	67	19.885	ug/L	0.812	4	37	8720	0
	Zn	68	19.829	ug/L	0 648	3	177	37296	0
	As	75	19.853	ug/L	1.235	6	474	47476	2
	As-1	75	19.819	ug/L	1.217	6	8932	55838	1
	Se	82	19.789	ug/L	1.093	5	9	5168	2
	Se	78	19.646	ug/L	1 029	5	9051	22061	0
	Y	89		ug/L			458440	473181	1
	Kr	83		ug/L			755	760	5
>	In	115		ug/L			1130079	1117336	0
	Ag	107	20.060	ug/L	0.660	3	21	219830	2
	Cd	111	19.997	ug/L	0.604	3	80	110149	3
	Cd	114	20.080	ug/L	0.342	1	30	282588	2
	Sb	121	19.969	ug/L	0.625	3	41	324180	2
	Sb	123	19.996	ug/L	0.305	1	28	246668	1
>	Tb	159		ug/L			1365966	1391237	1
	Tl	205	20.014	ug/L	0.134	0	61	855243	1
	Pb	208	19.997	ug/L	0.277	1	188	1129368	0
	Bi	209		ug/L			3069073	3040449	1
	Th	232	20.205	ug/L	0.231	1	47	1054773	1
	U	238	20.004	ug/L	0 397	1	2	1089971	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:44:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			128429	122219	2
	Cl	37		ug/L			5089561	5487872	3
>	Ge	72		ug/L			689090	678153	2
	Ni	60	50.129	ug/L	1.120	2	24	218974	0
	Ni	62	50.072	ug/L	0.405	0	106	30839	2
	Cu	63	50.087	ug/L	0.320	0	139	469758	1
	Cu	65	50.101	ug/L	1.563	3	41	207650	1
	Zn	66	50.233	ug/L	1.716	3	173	126744	1
	Zn	67	50.156	ug/L	1.340	2	37	20958	1
	Zn	68	50.271	ug/L	0.229	0	177	91110	2
	As	75	50.248	ug/L	2.125	4	474	115239	2
	As-1	75	50.296	ug/L	2.102	4	8932	123221	1
	Se	82	50.256	ug/L	1.609	3	9	12663	1
	Se	78	50.448	ug/L	1.635	3	9051	40760	0
	Y	89		ug/L			458440	457414	1
	Kr	83		ug/L			755	812	3
>	In	115		ug/L			1130079	1100823	1
	Ag	107	49.896	ug/L	0.930	1	21	533163	1
	Cd	111	49.822	ug/L	1.431	2	80	265441	1
	Cd	114	49.804	ug/L	0.962	1	30	677027	0
	Sb	121	49.952	ug/L	1.225	2	41	794965	0
	Sb	123	49.912	ug/L	1.631	3	28	601074	1
>	Tb	159		ug/L			1365966	1372084	1
	Tl	205	50.315	ug/L	0.830	1	61	2189179	1
	Pb	208	50.018	ug/L	0.625	1	188	2790865	0
	Bi	209		ug/L			3069073	2942490	0
	Th	232	50.503	ug/L	1.402	2	47	2737392	1
	U	238	50.323	ug/L	0.920	1	2	2794620	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:50:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	123911	0
	Cl	37		ug/L			5089561	5685490	2
>	Ge	72		ug/L			689090	675366	0
	Ni	60	99.521	ug/L	0 961	0	24	426232	0
	Ni	62	99.358	ug/L	3.406	3	106	59566	3
	Cu	63	99.104	ug/L	0.732	0	139	898746	0
	Cu	65	99.210	ug/L	2.834	2	41	399091	2
	Zn	66	98.426	ug/L	2.503	2	173	234992	2
	Zn	67	99.085	ug/L	4.279	4	37	39996	3
	Zn	68	98.642	ug/L	1.517	1	177	170223	1
	As	75	98.979	ug/L	2.152	2	474	218319	1
	As-1	75	98.954	ug/L	1.607	1	8932	225535	1
	Se	82	98.892	ug/L	1.544	1	9	23934	1
	Se	78	98.819	ug/L	0.521	0	9051	68682	0
	Y	89		ug/L			458440	446401	1
	Kr	83		ug/L			755	890	4
>	In	115		ug/L			1130079	1065262	0
	Ag	107	99.876	ug/L	1.862	1	21	1028546	1
	Cd	111	100.161	ug/L	2.049	2	80	519243	1
	Cd	114	99.896	ug/L	0 434	0	30	1309842	0
	Sb	121	100.248	ug/L	1.624	1	41	1557015	0
	Sb	123	100.312	ug/L	1.475	1	28	1181629	0
>	Tb	159		ug/L			1365966	1358868	0
	Tl	205	99.139	ug/L	1.163	1	61	4152910	0
	Pb	208	99.454	ug/L	1 283	1	188	5397489	0
	Bi	209		ug/L			3069073	2826329	1
	Th	232	99.886	ug/L	1.086	1	47	5342492	0
	U	238	99.611	ug/L	0.990	0	2	5408822	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 10:56:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130118.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	126510	3
	Cl	37		ug/L			5089561	5339238	1
>	Ge	72		ug/L			689090	691085	2
	Ni	60	0.007	ug/L	0.010	130	24	56	72
	Ni	62	0.068	ug/L	0.014	20	106	148	3
	Cu	63	0.014	ug/L	0.008	53	139	273	24
	Cu	65	0.010	ug/L	0.007	63	41	84	31
	Zn	66	-0.001	ug/L	0.005	996	173	172	5
	Zn	67	-0.008	ug/L	0.013	149	37	33	17
	Zn	68	0.023	ug/L	0.008	34	177	218	3
	As	75	0.006	ug/L	0.003	47	474	488	1
	As-1	75	0.005	ug/L	0.131	2514	8932	8964	1
	Se	82	-0.038	ug/L	0.058	152	9	0	1900
	Se	78	0.002	ug/L	0.473	26188	9051	9073	1
	Y	89		ug/L			458440	458575	1
	Kr	83		ug/L			755	789	2
>	In	115		ug/L			1130079	1114667	1
	Ag	107	0.007	ug/L	0.006	92	21	95	71
	Cd	111	0.013	ug/L	0.007	51	80	151	23
	Cd	114	0.006	ug/L	0.006	107	30	109	77
	Sb	121	0.067	ug/L	0 010	14	41	1135	14
	Sb	123	0.072	ug/L	0.018	24	28	921	24
>	Tb	159		ug/L			1365966	1371526	1
	Tl	205	0.023	ug/L	0.019	81	61	1032	77
	Pb	208	0.015	ug/L	0.018	119	188	1003	97
	Bi	209		ug/L			3069073	3090332	0
	Th	232	0.258	ug/L	0.022	8	47	13955	7
	U	238	0.012	ug/L	0.011	92	2	651	93

Sample Information

Sample Date/Time: Monday, January 21, 2013 10:50:16
Method File: C:\NexION Data\Method\200.8GFA+.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Ge	72							
Ni	60	**0.9999**	0.006	0.50	10	20	50	100
Ni	62	**0.9999**	0.001	0.50	10	20	50	100
Cu	63	**0.9999**	0.013	0.50	10	20	50	100
Cu	65	**0.9999**	0.006	0.50	10	20	50	100
Zn	66	**0.9996**	0.004	4.00	10	20	50	100
Zn	67	**0.9998**	0.001	4.00	10	20	50	100
Zn	68	**0.9997**	0.003	4.00	10	20	50	100
As	75	**0.9998**	0.003	0.20	10	20	50	100
As-1	75	**0.9998**	0.003	0.20	10	20	50	100
Se	82	**0.9995**	0.000	0.50	10	20	50	100
Se	78	**0.9997**	0.001	0.50	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.010	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.012	0.10	10	20	50	100
Sb	121	**1.0000**	0.015	0.20	10	20	50	100
Sb	123	**1.0000**	0.011	0.20	10	20	50	100
Tb	159							
Tl	205	**0.9999**	0.031	0.20	10	20	50	100
Pb	208	**1.0000**	0.040	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	0.039	0.20	10	20	50	100
U	238	**0.9999**	0.040	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:02:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	128647	0
	Cl	37		ug/L			5089561	5527500	1
>	Ge	72		ug/L			689090	665323	1
	Ni	60	52.974	ug/L	1.376	2	24	223519	2
	Ni	62	53.348	ug/L	1.353	2	106	31550	2
	Cu	63	52.740	ug/L	1.047	1	139	471312	3
	Cu	65	53.063	ug/L	0.639	1	41	210300	0
	Zn	66	53.038	ug/L	1.297	2	173	124839	3
	Zn	67	51.339	ug/L	0.545	1	37	20434	1
	Zn	68	51.851	ug/L	0.489	0	177	88228	1
	As	75	53.087	ug/L	0.468	0	474	115570	1
	As-1	75	52.850	ug/L	0.669	1	8932	122675	0
	Se	82	83.981	ug/L	0.628	0	9	19632	1
	Se	78	81.972	ug/L	1.651	2	9051	57595	0
	Y	89		ug/L			458440	455102	3
	Kr	83		ug/L			755	826	6
>	In	115		ug/L			1130079	1081092	0
	Ag	107	51.208	ug/L	1.106	2	21	535233	2
	Cd	111	49.374	ug/L	0.440	0	80	259824	0
	Cd	114	51.192	ug/L	0.607	1	30	681245	1
	Sb	121	49.602	ug/L	0.672	1	41	781936	1
	Sb	123	49.475	ug/L	0.620	1	28	591507	1
>	Tb	159		ug/L			1365966	1346737	0
	Tl	205	53.334	ug/L	0.724	1	61	2214398	1
	Pb	208	52.228	ug/L	0.516	0	188	2809398	0
	Bi	209		ug/L			3069073	2899450	1
	Th	232	52.900	ug/L	0.579	1	47	2804326	1
	U	238	53.835	ug/L	0 559	1	2	2897292	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:09:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	124818	2
	Cl	37		ug/L			5089561	5296767	3
>	Ge	72		ug/L			689090	680357	1
	Ni	60	0.000	ug/L	0 001	321	24	25	16
	Ni	62	0.024	ug/L	0.028	119	106	119	12
	Cu	63	0.005	ug/L	0.001	16	139	184	2
	Cu	65	0.002	ug/L	0.001	29	41	50	6
	Zn	66	-0.003	ug/L	0.002	59	173	164	1
	Zn	67	-0.002	ug/L	0.015	740	37	35	17
	Zn	68	0.015	ug/L	0.008	54	177	201	7
	As	75	0.008	ug/L	0.003	30	474	487	0
	As-1	75	0.037	ug/L	0.060	164	8932	8898	0
	Se	82	-0.078	ug/L	0.099	126	9	-8	267
	Se	78	0.115	ug/L	0.208	180	9051	9005	0
	Y	89		ug/L			458440	456220	1
	Kr	83		ug/L			755	815	8
>	In	115		ug/L			1130079	1083333	0
	Ag	107	0.001	ug/L	0 000	44	21	30	14
	Cd	111	0.005	ug/L	0.002	42	80	105	12
	Cd	114	0.001	ug/L	0.001	89	30	38	21
	Sb	121	0.017	ug/L	0.003	18	41	301	15
	Sb	123	0.017	ug/L	0.004	23	28	227	20
>	Tb	159		ug/L			1365966	1349252	1
	Tl	205	0.003	ug/L	0.001	36	61	174	23
	Pb	208	0.001	ug/L	0.000	31	188	239	6
	Bi	209		ug/L			3069073	2995457	0
	Th	232	0.143	ug/L	0.026	18	47	7650	17
	U	238	0.002	ug/L	0.000	25	2	100	23

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:12:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	121712	1
	Cl	37		ug/L			5089561	5582373	2
>	Ge	72		ug/L			689090	673003	1
	Ni	60	50.985	ug/L	0.806	1	24	217593	0
	Ni	62	50.921	ug/L	0.472	0	106	30470	1
	Cu	63	50.904	ug/L	0.779	1	139	460090	1
	Cu	65	51.852	ug/L	0.697	1	41	207871	0
	Zn	66	51.699	ug/L	2.628	5	173	123047	4
	Zn	67	51.355	ug/L	0.261	0	37	20676	0
	Zn	68	51.001	ug/L	1.299	2	177	87796	3
	As	75	50.947	ug/L	1.247	2	474	112193	1
	As-1	75	50.677	ug/L	1.330	2	8932	119339	1
	Se	82	52.825	ug/L	0.924	1	9	12493	0
	Se	78	50.842	ug/L	1.240	2	9051	39492	0
	Y	89		ug/L			458440	457723	1
	Kr	83		ug/L			755	809	4
>	In	115		ug/L			1130079	1064576	0
	Ag	107	50.762	ug/L	0.822	1	21	522468	1
	Cd	111	50.767	ug/L	1.342	2	80	263071	2
	Cd	114	51.130	ug/L	1.752	3	30	670030	3
	Sb	121	50.781	ug/L	0.306	0	41	788291	0
	Sb	123	50.441	ug/L	0.189	0	28	593841	0
>	Tb	159		ug/L			1365966	1341103	1
	Tl	205	51.993	ug/L	0 758	1	61	2149278	0
	Pb	208	51.162	ug/L	0.978	1	188	2739993	0
	Bi	209		ug/L			3069073	2882299	1
	Th	232	51.089	ug/L	1.024	2	47	2696389	0
	U	238	51.259	ug/L	1.098	2	2	2746563	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:18:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	122798	0
	Cl	37		ug/L			5089561	5322194	4
>	Ge	72		ug/L			689090	682952	2
	Ni	60	0.001	ug/L	0.002	340	24	27	31
	Ni	62	0.015	ug/L	0.005	36	106	114	2
	Cu	63	0.005	ug/L	0.004	72	139	184	17
	Cu	65	0.004	ug/L	0.003	65	41	58	18
	Zn	66	-0.004	ug/L	0.010	233	173	162	16
	Zn	67	-0.003	ug/L	0.014	460	37	35	14
	Zn	68	0.006	ug/L	0.008	147	177	185	5
	As	75	-0.001	ug/L	0.025	2161	474	467	10
	As-1	75	0.052	ug/L	0 113	215	8932	8965	0
	Se	82	-0.055	ug/L	0.102	186	9	-3	680
	Se	78	0.204	ug/L	0.410	200	9051	9091	0
	Y	89		ug/L			458440	460784	3
	Kr	83		ug/L			755	799	5
>	In	115		ug/L			1130079	1099819	1
	Ag	107	0.002	ug/L	0.000	25	21	41	13
	Cd	111	0.006	ug/L	0.002	37	80	108	10
	Cd	114	0.001	ug/L	0 001	44	30	49	18
	Sb	121	0.033	ug/L	0.002	7	41	576	7
	Sb	123	0.031	ug/L	0.003	10	28	405	10
>	Tb	159		ug/L			1365966	1363534	0
	Tl	205	0.004	ug/L	0.001	32	61	235	24
	Pb	208	0.002	ug/L	0.001	69	188	274	22
	Bi	209		ug/L			3069073	3023444	0
	Th	232	0.193	ug/L	0.021	11	47	10393	11
	U	238	0.002	ug/L	0.001	28	2	128	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:22:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	125814	0
	Cl	37		ug/L			5089561	5081699	2
>	Ge	72		ug/L			689090	695873	0
	Ni	60	0.543	ug/L	0.016	3	24	2420	3
	Ni	62	0.574	ug/L	0.041	7	106	461	5
	Cu	63	0.539	ug/L	0.020	3	139	5178	3
	Cu	65	0.550	ug/L	0.014	2	41	2320	2
	Zn	66	4.262	ug/L	0.042	0	173	10653	0
	Zn	67	4.001	ug/L	0.161	4	37	1700	3
	Zn	68	4.150	ug/L	0.050	1	177	7549	1
	As	75	0.199	ug/L	0.033	16	474	930	7
	As-1	75	0.143	ug/L	0.036	25	8932	9342	0
	Se	82	0.444	ug/L	0.093	20	9	118	19
	Se	78	0.304	ug/L	0.095	31	9051	9329	0
	Y	89		ug/L			458440	464884	1
	Kr	83		ug/L			755	815	5
>	In	115		ug/L			1130079	1104580	1
	Ag	107	0.207	ug/L	0.006	2	21	2226	1
	Cd	111	0.111	ug/L	0.006	5	80	676	2
	Cd	114	0.102	ug/L	0.003	3	30	1422	1
	Sb	121	0.205	ug/L	0.007	3	41	3349	2
	Sb	123	0.211	ug/L	0 003	1	28	2609	1
>	Tb	159		ug/L			1365966	1343427	0
	Tl	205	0.211	ug/L	0.003	1	61	8809	0
	Pb	208	0.111	ug/L	0.001	1	188	6132	0
	Bi	209		ug/L			3069073	3033821	0
	Th	232	0.232	ug/L	0.005	1	47	12299	1
	U	238	0.200	ug/L	0.004	1	2	10762	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:25:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	235344	4
	Cl	37		ug/L			5089561	14648763	0
>	Ge	72		ug/L			689090	672020	1
	Ni	60	0.354	ug/L	0.006	1	24	1530	2
	Ni	62	2.443	ug/L	0.293	11	106	1559	12
	Cu	63	0.778	ug/L	0.031	3	139	7157	5
	Cu	65	0.384	ug/L	0.007	1	41	1578	0
	Zn	66	1.137	ug/L	0.045	3	173	2868	4
	Zn	67	4.899	ug/L	0.151	3	37	2001	1
	Zn	68	0.572	ug/L	0.039	6	177	1152	4
	As	75	0.095	ug/L	0.034	36	474	670	9
	As-1	75	0.241	ug/L	0.119	49	8932	9233	1
	Se	82	-0.238	ug/L	0.104	43	9	-46	52
	Se	78	0.709	ug/L	0.335	47	9051	9252	1
	Y	89		ug/L			458440	448263	0
	Kr	83		ug/L			755	1058	2
>	In	115		ug/L			1130079	1059663	2
	Ag	107	0.021	ug/L	0.001	2	21	237	3
	Cd	111	0.160	ug/L	0.016	10	80	900	7
	Cd	114	0.257	ug/L	0.006	2	30	3379	0
	Sb	121	0.066	ug/L	0.002	3	41	1052	4
	Sb	123	0.070	ug/L	0.003	3	28	842	3
>	Tb	159		ug/L			1365966	1346705	0
	Tl	205	0.037	ug/L	0.001	2	61	1597	2
	Pb	208	0.033	ug/L	0.001	2	188	1957	1
	Bi	209		ug/L			3069073	2751370	0
	Th	232	0.150	ug/L	0.050	33	47	7990	33
	U	238	0.001	ug/L	0.000	28	2	67	27

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:31:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	245157	0
	Cl	37		ug/L			5089561	14619027	3
>	Ge	72		ug/L			689090	672502	2
	Ni	60	20.082	ug/L	0.821	4	24	85600	1
	Ni	62	22.475	ug/L	0.725	3	106	13487	0
	Cu	63	20.660	ug/L	0.498	2	139	186592	1
	Cu	65	20.205	ug/L	0 647	3	41	80921	0
	Zn	66	20.570	ug/L	1.149	5	173	48988	2
	Zn	67	22.195	ug/L	0.983	4	37	8942	1
	Zn	68	19.063	ug/L	0.986	5	177	32862	2
	As	75	19.479	ug/L	0.921	4	474	43119	1
	As-1	75	19.677	ug/L	1.058	5	8932	51598	1
	Se	82	-0.375	ug/L	0.059	15	9	-78	19
	Se	78	0.528	ug/L	0.544	103	9051	9145	0
	Y	89		ug/L			458440	444133	1
	Kr	83		ug/L			755	1132	2
>	In	115		ug/L			1130079	1082457	0
	Ag	107	19.813	ug/L	0 319	1	21	207378	2
	Cd	111	19.444	ug/L	0.251	1	80	102489	0
	Cd	114	19.737	ug/L	0 405	2	30	262973	1
	Sb	121	0.068	ug/L	0.003	4	41	1112	3
	Sb	123	0.066	ug/L	0.008	12	28	819	11
>	Tb	159		ug/L			1365966	1384865	1
	Tl	205	0.031	ug/L	0.000	1	61	1404	0
	Pb	208	0.035	ug/L	0.000	1	188	2114	1
	Bi	209		ug/L			3069073	2798961	0
	Th	232	0.056	ug/L	0 006	10	47	3118	9
	U	238	0.001	ug/L	0.000	39	2	36	37

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:37:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	130808	1
	Cl	37		ug/L			5089561	5658104	0
>	Ge	72		ug/L			689090	651297	2
	Ni	60	203.409	ug/L	8.886	4	24	839642	2
	Ni	62	205.286	ug/L	2.667	1	106	118554	1
	Cu	63	203.897	ug/L	4 190	2	139	1782535	0
	Cu	65	201.226	ug/L	4.387	2	41	780415	0
	Zn	66	198.562	ug/L	8.547	4	173	456753	2
	Zn	67	196.666	ug/L	3.264	1	37	76512	0
	Zn	68	199.182	ug/L	10.236	5	177	331070	3
	As	75	203.907	ug/L	5.762	2	474	433110	0
	As-1	75	204.107	ug/L	6.775	3	8932	439463	1
	Se	82	205.745	ug/L	2.434	1	9	47061	1
	Se	78	202.623	ug/L	6.181	3	9051	126741	0
	Y	89		ug/L			458440	430968	1
	Kr	83		ug/L			755	1120	2
>	In	115		ug/L			1130079	1051879	1
	Ag	107	218.156	ug/L	2.033	0	21	2218306	1
	Cd	111	201.640	ug/L	3.174	1	80	1032012	0
	Cd	114	210.697	ug/L	5.221	2	30	2727151	0
	Sb	121	212.112	ug/L	3.405	1	41	3252854	1
	Sb	123	213.684	ug/L	5.644	2	28	2484801	0
>	Tb	159		ug/L			1365966	1356786	1
	Tl	205	202.468	ug/L	1.811	0	61	8468475	0
	Pb	208	203.685	ug/L	1.958	0	188	11037201	0
	Bi	209		ug/L			3069073	2754514	0
	Th	232	201.989	ug/L	3.550	1	47	10786630	1
	U	238	204.629	ug/L	1.293	0	2	11094320	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:44:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	132195	0
	Cl	37		ug/L			5089561	5540511	2
>	Ge	72		ug/L			689090	688422	0
	Ni	60	1.184	ug/L	0.053	4	24	5194	4
	Ni	62	1.447	ug/L	0.111	7	106	989	7
	Cu	63	0.477	ug/L	0.053	11	139	4548	10
	Cu	65	0.454	ug/L	0.050	11	41	1905	11
	Zn	66	4.474	ug/L	0.130	2	173	11055	3
	Zn	67	3.949	ug/L	0.077	1	37	1660	1
	Zn	68	4.282	ug/L	0.091	2	177	7701	2
	As	75	0.032	ug/L	0.017	51	474	547	7
	As-1	75	0.045	ug/L	0.018	41	8932	9023	0
	Se	82	-0.013	ug/L	0.042	329	9	6	150
	Se	78	0.073	ug/L	0.014	18	9051	9087	0
	Y	89		ug/L			458440	473344	0
	Kr	83		ug/L			755	787	1
>	In	115		ug/L			1130079	1140477	0
	Ag	107	0.007	ug/L	0.007	100	21	103	80
	Cd	111	0.013	ug/L	0.005	33	80	155	17
	Cd	114	0.008	ug/L	0.006	68	30	149	55
	Sb	121	0.070	ug/L	0.005	6	41	1209	6
	Sb	123	0.071	ug/L	0.002	3	28	929	2
>	Tb	159		ug/L			1365966	1391812	0
	Tl	205	0.015	ug/L	0.000	3	61	699	2
	Pb	208	0.097	ug/L	0.002	2	188	5598	2
	Bi	209		ug/L			3069073	3096125	0
	Th	232	0.260	ug/L	0.034	12	47	14308	12
	U	238	0.026	ug/L	0.039	149	2	1465	149

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:48:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	120104	1
	Cl	37		ug/L			5089561	5351436	1
>	Ge	72		ug/L			689090	689007	2
	Ni	60	0.053	ug/L	0.002	3	24	256	2
	Ni	62	0.135	ug/L	0.014	10	106	189	4
	Cu	63	0.042	ug/L	0.001	2	139	530	3
	Cu	65	0.035	ug/L	0.001	2	41	184	0
	Zn	66	0.698	ug/L	0.010	1	173	1873	3
	Zn	67	0.614	ug/L	0.016	2	37	289	1
	Zn	68	0.713	ug/L	0.010	1	177	1431	3
	As	75	0.024	ug/L	0.027	113	474	527	11
	As-1	75	0.025	ug/L	0.059	239	8932	8985	1
	Se	82	-0.022	ug/L	0.104	477	9	4	538
	Se	78	0.049	ug/L	0.209	428	9051	9078	1
	Y	89		ug/L			458440	460159	0
	Kr	83		ug/L			755	807	2
>	In	115		ug/L			1130079	1122835	1
	Ag	107	0.001	ug/L	0.001	39	21	35	16
	Cd	111	0.007	ug/L	0.002	21	80	120	8
	Cd	114	0.002	ug/L	0.001	38	30	58	17
	Sb	121	0.022	ug/L	0.002	9	41	393	7
	Sb	123	0.023	ug/L	0.003	12	28	308	10
>	Tb	159		ug/L			1365966	1379688	0
	Tl	205	0.006	ug/L	0.001	23	61	297	19
	Pb	208	0.019	ug/L	0.001	5	188	1245	4
	Bi	209		ug/L			3069073	3084621	1
	Th	232	0.060	ug/L	0.010	16	47	3285	17
	U	238	0.001	ug/L	0.000	5	2	61	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:53:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	123649	1
	Cl	37		ug/L			5089561	5594963	1
>	Ge	72		ug/L			689090	688871	2
	Ni	60	50.206	ug/L	1.248	2	24	219266	0
	Ni	62	50.468	ug/L	0.648	1	106	30905	1
	Cu	63	51.393	ug/L	0.600	1	139	475391	1
	Cu	65	51.560	ug/L	0.993	1	41	211574	2
	Zn	66	50.798	ug/L	1.302	2	173	123767	1
	Zn	67	51.229	ug/L	1.730	3	37	21103	1
	Zn	68	51.140	ug/L	1.188	2	177	90072	1
	As	75	50.364	ug/L	0.770	1	474	113526	0
	As-1	75	50.572	ug/L	0.808	1	8932	121914	0
	Se	82	51.684	ug/L	0.792	1	9	12511	0
	Se	78	51.452	ug/L	1.057	2	9051	40796	0
	Y	89		ug/L			458440	459226	0
	Kr	83		ug/L			755	837	2
>	In	115		ug/L			1130079	1101850	1
	Ag	107	51.963	ug/L	0.718	1	21	553543	1
	Cd	111	50.480	ug/L	2.092	4	80	270651	3
	Cd	114	50.639	ug/L	0.800	1	30	686718	0
	Sb	121	50.085	ug/L	0.583	1	41	804666	1
	Sb	123	50.410	ug/L	0.899	1	28	614156	0
>	Tb	159		ug/L			1365966	1373406	1
	Tl	205	51.963	ug/L	0.839	1	61	2199918	0
	Pb	208	50.764	ug/L	0.453	0	188	2784525	0
	Bi	209		ug/L			3069073	2952266	0
	Th	232	50.628	ug/L	0.677	1	47	2736741	0
	U	238	51.215	ug/L	0 756	1	2	2810460	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 11:59:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	125267	1
	Cl	37		ug/L			5089561	5433681	3
>	Ge	72		ug/L			689090	695272	2
	Ni	60	0.002	ug/L	0.000	11	24	35	4
	Ni	62	0.050	ug/L	0.039	79	106	138	17
	Cu	63	0.007	ug/L	0.001	9	139	202	1
	Cu	65	0.005	ug/L	0.003	56	41	62	17
	Zn	66	-0.009	ug/L	0.003	32	173	154	3
	Zn	67	-0.031	ug/L	0.009	27	37	24	16
	Zn	68	0.008	ug/L	0.007	93	177	192	7
	As	75	0.019	ug/L	0.017	88	474	522	8
	As-1	75	-0.020	ug/L	0.099	483	8932	8964	1
	Se	82	-0.001	ug/L	0.072	4960	9	9	181
	Se	78	-0.090	ug/L	0.335	370	9051	9073	1
	Y	89		ug/L			458440	460300	1
	Kr	83		ug/L			755	804	4
>	In	115		ug/L			1130079	1115466	1
	Ag	107	0.001	ug/L	0.001	124	21	34	48
	Cd	111	0.006	ug/L	0.001	23	80	109	7
	Cd	114	0.001	ug/L	0 000	42	30	43	13
	Sb	121	0.035	ug/L	0 004	11	41	603	8
	Sb	123	0.035	ug/L	0.004	12	28	454	10
>	Tb	159		ug/L			1365966	1377913	0
	Tl	205	0.004	ug/L	0.001	22	61	238	17
	Pb	208	0.001	ug/L	0.000	23	188	270	6
	Bi	209		ug/L			3069073	3085514	0
	Th	232	0.179	ug/L	0.030	16	47	9739	17
	U	238	0.002	ug/L	0.000	19	2	109	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:05:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	133182	4
	Cl	37		ug/L			5089561	5309517	2
>	Ge	72		ug/L			689090	698708	2
	Ni	60	0.002	ug/L	0.002	84	24	34	21
	Ni	62	0.021	ug/L	0.010	45	106	121	4
	Cu	63	0.242	ug/L	0.010	4	139	2409	3
	Cu	65	0.242	ug/L	0.002	0	41	1048	1
	Zn	66	0.582	ug/L	0.016	2	173	1613	1
	Zn	67	0.496	ug/L	0.070	14	37	244	10
	Zn	68	0.557	ug/L	0.014	2	177	1172	0
	As	75	0.043	ug/L	0.013	28	474	580	6
	As-1	75	0.066	ug/L	0.089	134	8932	9204	1
	Se	82	0.012	ug/L	0.083	718	9	13	158
	Se	78	0.132	ug/L	0.335	253	9051	9257	1
	Y	89		ug/L			458440	473883	1
	Kr	83		ug/L			755	797	4
>	In	115		ug/L			1130079	1137115	1
	Ag	107	0.000	ug/L	0.000	35	21	24	2
	Cd	111	0.007	ug/L	0.002	28	80	118	8
	Cd	114	0.001	ug/L	0.000	69	30	39	17
	Sb	121	0.044	ug/L	0.051	115	41	767	107
	Sb	123	0.015	ug/L	0.001	3	28	219	3
>	Tb	159		ug/L			1365966	1377585	0
	Tl	205	0.010	ug/L	0 001	9	61	466	8
	Pb	208	0.008	ug/L	0.001	7	188	649	5
	Bi	209		ug/L			3069073	3012856	0
	Th	232	0.098	ug/L	0.004	3	47	5350	4
	U	238	0.001	ug/L	0.000	11	2	38	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:08:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	132527	2
	Cl	37		ug/L			5089561	5349942	2
>	Ge	72		ug/L			689090	705041	0
	Ni	60	0.003	ug/L	0.002	63	24	39	23
	Ni	62	0.001	ug/L	0.026	1954	106	110	15
	Cu	63	0.196	ug/L	0.001	0	139	2000	0
	Cu	65	0.195	ug/L	0.010	5	41	862	4
	Zn	66	0.738	ug/L	0.025	3	173	2015	2
	Zn	67	0.649	ug/L	0.042	6	37	311	4
	Zn	68	0.752	ug/L	0.031	4	177	1533	2
	As	75	0.052	ug/L	0.022	41	474	605	8
	As-1	75	0.021	ug/L	0.043	208	8932	9186	0
	Se	82	0.018	ug/L	0.050	281	9	14	84
	Se	78	-0.048	ug/L	0.151	315	9051	9230	0
	Y	89		ug/L			458440	475959	3
	Kr	83		ug/L			755	812	2
>	In	115		ug/L			1130079	1136019	1
	Ag	107	0.001	ug/L	0.000	46	21	31	13
	Cd	111	0.007	ug/L	0.003	44	80	117	14
	Cd	114	0.001	ug/L	0.001	95	30	42	25
	Sb	121	0.008	ug/L	0.001	7	41	179	4
	Sb	123	0.009	ug/L	0 001	16	28	140	11
>	Tb	159		ug/L			1365966	1378163	0
	Tl	205	0.004	ug/L	0.000	11	61	250	7
	Pb	208	0.011	ug/L	0.000	4	188	788	3
	Bi	209		ug/L			3069073	3064036	0
	Th	232	0.042	ug/L	0.002	3	47	2309	4
	U	238	0.001	ug/L	0.000	28	2	42	27

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ23 C REN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Monday, January 21, 2013 12:12:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	121008	3
	Cl	37		ug/L			5089561	14230739	3
>	Ge	72		ug/L			689090	647111	1
	Ni	60	**0.358**	ug/L	0.016	4	24	1489	3
	Ni	62	**51.489**	ug/L	17.469	33	106	29636	33
	Cu	63	**8.013**	ug/L	1.740	21	139	69763	21
	Cu	65	**0.546**	ug/L	0.025	4	41	2142	5
	Zn	66	**0.951**	ug/L	0.051	5	173	2336	4
	Zn	67	**1.489**	ug/L	0.104	6	37	610	6
	Zn	68	**1.232**	ug/L	0.021	1	177	2201	1
	As	75	**0.316**	ug/L	0.036	11	474	1112	5
	As-1	75	**0.636**	ug/L	0.105	16	8932	9722	1
	Se	82	**-0.148**	ug/L	0.096	64	9	-24	89
	Se	78	**1.460**	ug/L	0 270	18	9051	9345	1
	Y	89		ug/L			458440	440928	2
	Kr	83		ug/L			755	1045	4
>	In	115		ug/L			1130079	1048072	0
	Ag	107	**0.001**	ug/L	0.000	39	21	30	13
	Cd	111	**0.131**	ug/L	0.001	1	80	743	1
	Cd	114	**0.150**	ug/L	0.005	3	30	1961	3
	Sb	121	**0.018**	ug/L	0.001	4	41	320	4
	Sb	123	**0.019**	ug/L	0.001	7	28	241	6
>	Tb	159		ug/L			1365966	1331133	0
	Tl	205	**0.005**	ug/L	0 001	10	61	279	7
	Pb	208	**0.129**	ug/L	0.003	2	188	7021	1
	Bi	209		ug/L			3069073	2667037	0
	Th	232	**0.028**	ug/L	0.000	1	47	1513	1
	U	238	**0.031**	ug/L	0.001	2	2	1675	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:15:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	133544	4
	Cl	37		ug/L			5089561	5470698	2
>	Ge	72		ug/L			689090	674471	0
	Ni	60	4.771	ug/L	0.019	0	24	20430	0
	Ni	62	8.753	ug/L	0.986	11	106	5335	11
	Cu	63	11.925	ug/L	0.403	3	139	108123	3
	Cu	65	10.914	ug/L	0.242	2	41	43886	2
	Zn	66	108.250	ug/L	2.698	2	173	258109	2
	Zn	67	95.203	ug/L	1.569	1	37	38384	1
	Zn	68	105.463	ug/L	1.174	1	177	181734	1
	As	75	31.444	ug/L	0.232	0	474	69586	0
	As-1	75	31.718	ug/L	0.223	0	8932	78140	0
	Se	82	0.247	ug/L	0.022	8	9	68	7
	Se	78	0.829	ug/L	0.028	3	9051	9360	0
	Y	89		ug/L			458440	466719	2
	Kr	83		ug/L			755	837	1
>	In	115		ug/L			1130079	1092630	2
	Ag	107	0.053	ug/L	0.005	9	21	576	6
	Cd	111	0.637	ug/L	0 016	2	80	3461	0
	Cd	114	0.634	ug/L	0.023	3	30	8549	1
	Sb	121	3.968	ug/L	0.066	1	41	63235	0
	Sb	123	3.947	ug/L	0.098	2	28	47703	0
>	Tb	159		ug/L			1365966	1369081	1
	Tl	205	U 0.010	ug/L	0.001	5	61	487	6
	Pb	208	37.189	ug/L	0.483	1	188	2033423	0
	Bi	209		ug/L			3069073	2797356	1
	Th	232	0.086	ug/L	0.010	11	47	4710	13
	U	238	0.447	ug/L	0 009	1	2	24454	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:19:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			128429	134855	1
	Cl	37		ug/L			5089561	5445807	1
>	Ge	72		ug/L			689090	665020	1
	Ni	60	**4.737**	ug/L	0.222	4	24	19990	3
	Ni	62	**6.826**	ug/L	0.368	5	106	4122	3
	Cu	63	**11.283**	ug/L	0.084	0	139	100872	1
	Cu	65	**10.401**	ug/L	0.182	1	41	41231	0
	Zn	66	**104.048**	ug/L	1.549	1	173	244581	0
	Zn	67	**94.177**	ug/L	2.822	2	37	37428	1
	Zn	68	**102.774**	ug/L	1.388	1	177	174604	1
	As	75	**30.477**	ug/L	0.448	1	474	66504	0
	As-1	75	**30.738**	ug/L	0.489	1	8932	74918	0
	Se	82	**0.180**	ug/L	0.052	29	9	51	23
	Se	78	**0.750**	ug/L	0.289	38	9051	9180	0
	Y	89		ug/L			458440	453535	3
	Kr	83		ug/L			755	839	2
>	In	115		ug/L			1130079	1094581	1
	Ag	107	**0.044**	ug/L	0.004	9	21	490	8
	Cd	111	**0.631**	ug/L	0.005	0	80	3441	1
	Cd	114	**0.622**	ug/L	0.003	0	30	8405	0
	Sb	121	**3.814**	ug/L	0.067	1	41	60905	0
	Sb	123	**3.853**	ug/L	0.010	0	28	46661	1
>	Tb	159		ug/L			1365966	1386714	0
	Tl	205	**0.009**	ug/L	0.000	5	61	431	3
	Pb	208	**35.505**	ug/L	0.348	0	188	1966557	0
	Bi	209		ug/L			3069073	2796192	1
	Th	232	**0.060**	ug/L	0.002	3	47	3303	3
	U	238	**0.429**	ug/L	0.011	2	2	23761	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:22:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	134225	1
	Cl	37		ug/L			5089561	5661223	1
>	Ge	72		ug/L			689090	673121	1
	Ni	60	30.163	ug/L	1.121	3	24	128748	3
	Ni	62	31.938	ug/L	0.755	2	106	19150	2
	Cu	63	35.939	ug/L	0.796	2	139	324867	1
	Cu	65	36.090	ug/L	0.981	2	41	144705	1
	Zn	66	178.181	ug/L	5.763	3	173	423763	1
	Zn	67	161.126	ug/L	1.984	1	37	64803	0
	Zn	68	174.841	ug/L	1.830	1	177	300555	1
	As	75	55.101	ug/L	1.272	2	474	121327	1
	As-1	75	55.279	ug/L	0.926	1	8932	129415	1
	Se	82	79.721	ug/L	1.615	2	9	18852	0
	Se	78	79.197	ug/L	0.832	1	9051	56601	0
	Y	89		ug/L			458440	460509	2
	Kr	83		ug/L			755	836	2
>	In	115		ug/L			1130079	1099744	2
	Ag	107	26.027	ug/L	0.583	2	21	276648	0
	Cd	111	24.873	ug/L	0.509	2	80	133149	1
	Cd	114	25.102	ug/L	0.721	2	30	339657	0
	Sb	121	27.383	ug/L	0.554	2	41	439022	1
	Sb	123	27.195	ug/L	0.876	3	28	330592	1
>	Tb	159		ug/L			1365966	1380683	2
	Tl	205	25.342	ug/L	0.172	0	61	1078720	2
	Pb	208	60.128	ug/L	1.606	2	188	3314756	1
	Bi	209		ug/L			3069073	2821842	0
	Th	232	25.573	ug/L	0.354	1	47	1389597	0
	U	238	25.812	ug/L	0.409	1	2	1423893	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VW06 GDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:26:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		ug/L			128429	141840	1
Cl	37		ug/L			5089561	5697094	1
> Ge	72		ug/L			689090	656504	1
Ni	60	3.384	ug/L	0.166	4	24	14106	3
Ni	62	3.827	ug/L	0.173	4	106	2327	4
Cu	63	5.770	ug/L	0.116	2	139	50986	1
Cu	65	5.232	ug/L	0.135	2	41	20495	2
Zn	66	60.568	ug/L	1.508	2	173	140656	3
Zn	67	55.995	ug/L	1 270	2	37	21985	1
Zn	68	59.008	ug/L	1.097	1	177	99035	1
As	75	24.955	ug/L	0.387	1	474	53840	0
As-1	75	25.135	ug/L	0.450	1	8932	62028	0
Se	82	0.199	ug/L	0.029	14	9	55	10
Se	78	0.552	ug/L	0.251	45	9051	8946	0
Y	89		ug/L			458440	445412	2
Kr	83		ug/L			755	816	1
> In	115		ug/L			1130079	1089017	1
Ag	107	0.011	ug/L	0.002	17	21	139	15
Cd	111	0.170	ug/L	0.003	1	80	976	2
Cd	114	0.161	ug/L	0 002	1	30	2192	1
Sb	121	3.385	ug/L	0.043	1	41	53793	0
Sb	123	3.373	ug/L	0.086	2	28	40637	1
> Tb	159		ug/L			1365966	1377502	0
Tl	205	0.008	ug/L	0.001	6	61	421	5
Pb	208	2.332	ug/L	0.024	1	188	128474	0
Bi	209		ug/L			3069073	2823684	0
Th	232	0.159	ug/L	0.060	37	47	8696	38
U	238	0.417	ug/L	0.005	1	2	22963	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:29:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	139794	1
	Cl	37		ug/L			5089561	5653346	1
>	Ge	72		ug/L			689090	653914	1
	Ni	60	3.240	ug/L	0.059	1	24	13459	2
	Ni	62	3.489	ug/L	0.081	2	106	2122	1
	Cu	63	5.679	ug/L	0.019	0	139	49988	0
	Cu	65	4.890	ug/L	0.101	2	41	19082	0
	Zn	66	59.049	ug/L	2.089	3	173	136552	2
	Zn	67	54.586	ug/L	1.612	2	37	21347	1
	Zn	68	58.343	ug/L	0.441	0	177	97545	1
	As	75	24.321	ug/L	0.457	1	474	52275	0
	As-1	75	24.502	ug/L	0.519	2	8932	60441	0
	Se	82	0.204	ug/L	0.068	33	9	56	28
	Se	78	0.570	ug/L	0.265	46	9051	8921	0
	Y	89		ug/L			458440	445634	1
	Kr	83		ug/L			755	811	8
>	In	115		ug/L			1130079	1083823	1
	Ag	107	0.008	ug/L	0.000	2	21	108	2
	Cd	111	0.171	ug/L	0.011	6	80	979	5
	Cd	114	0.162	ug/L	0.005	3	30	2188	1
	Sb	121	3.333	ug/L	0.079	2	41	52694	0
	Sb	123	3.319	ug/L	0.088	2	28	39799	1
>	Tb	159		ug/L			1365966	1384551	0
	Tl	205	0.008	ug/L	0.000	1	61	391	1
	Pb	208	2.234	ug/L	0.032	1	188	123721	0
	Bi	209		ug/L			3069073	2819422	0
	Th	232	0.040	ug/L	0.002	6	47	2211	6
	U	238	0.405	ug/L	0.003	0	2	22388	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 GSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:33:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	134825	0
	Cl	37		ug/L			5089561	5649792	3
>	Ge	72		ug/L			689090	653578	1
	Ni	60	**29.831**	ug/L	0.930	3	24	123621	1
	Ni	62	**29.085**	ug/L	0.361	1	106	16945	2
	Cu	63	**32.559**	ug/L	0.292	0	139	285812	0
	Cu	65	**32.031**	ug/L	0.432	1	41	124725	1
	Zn	66	**141.918**	ug/L	2.874	2	173	327798	1
	Zn	67	**127.702**	ug/L	3.744	2	37	49865	1
	Zn	68	**137.160**	ug/L	3.231	2	177	228943	1
	As	75	**51.291**	ug/L	1.666	3	474	109679	2
	As-1	75	**51.424**	ug/L	1.919	3	8932	117461	2
	Se	82	**82.374**	ug/L	1.169	1	9	18915	1
	Se	78	**81.725**	ug/L	2.035	2	9051	56430	0
	Y	89		ug/L			458440	452693	0
	Kr	83		ug/L			755	802	1
>	In	115		ug/L			1130079	1077399	1
	Ag	107	**26.804**	ug/L	1.355	5	21	279103	3
	Cd	111	**24.967**	ug/L	0.363	1	80	130956	0
	Cd	114	**24.928**	ug/L	0.092	0	30	330601	1
	Sb	121	**27.882**	ug/L	0.519	1	41	437975	0
	Sb	123	**27.921**	ug/L	0.563	2	28	332616	0
>	Tb	159		ug/L			1365966	1353491	0
	Tl	205	**25.857**	ug/L	0.188	0	61	1078949	0
	Pb	208	**28.325**	ug/L	0.223	0	188	1531335	0
	Bi	209		ug/L			3069073	2772862	1
	Th	232	**25.851**	ug/L	0.476	1	47	1377234	1
	U	238	**26.516**	ug/L	0.244	0	2	1434181	1

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ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:36:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	132532	1
	Cl	37		ug/L			5089561	5666793	1
>	Ge	72		ug/L			689090	688630	2
	Ni	60	26.454	ug/L	0.477	1	24	115524	2
	Ni	62	25.581	ug/L	0.419	1	106	15711	1
	Cu	63	26.782	ug/L	0.486	1	139	247675	0
	Cu	65	26.870	ug/L	1.726	6	41	110130	3
	Zn	66	83.220	ug/L	2.917	3	173	202510	0
	Zn	67	76.520	ug/L	2.428	3	37	31491	1
	Zn	68	80.210	ug/L	0 869	1	177	141137	1
	As	75	25.477	ug/L	0.922	3	474	57618	1
	As-1	75	24.963	ug/L	1.067	4	8932	64648	1
	Se	82	80.929	ug/L	1.747	2	9	19575	0
	Se	78	78.351	ug/L	2.232	2	9051	57364	0
	Y	89		ug/L			458440	451933	1
	Kr	83		ug/L			755	813	4
>	In	115		ug/L			1130079	1115199	1
	Ag	107	26.414	ug/L	0.726	2	21	284755	2
	Cd	111	24.924	ug/L	0.687	2	80	135298	1
	Cd	114	25.048	ug/L	0.288	1	30	343827	0
	Sb	121	23.986	ug/L	0.212	0	41	390035	0
	Sb	123	24.258	ug/L	1.032	4	28	299061	2
>	Tb	159		ug/L			1365966	1365516	1
	Tl	205	26.365	ug/L	0 205	0	61	1109875	0
	Pb	208	26.740	ug/L	0.257	0	188	1458452	0
	Bi	209		ug/L			3069073	3082324	0
	Th	232	25.114	ug/L	0.508	2	47	1349708	0
	U	238	25.223	ug/L	0.216	0	2	1376276	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 12:41:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	116735	1
	Cl	37		ug/L			5089561	5840550	0
>	Ge	72		ug/L			689090	674013	1
	Ni	60	49.856	ug/L	0.365	0	24	213101	0
	Ni	62	50.585	ug/L	1.689	3	106	30310	3
	Cu	63	49.477	ug/L	1.416	2	139	447776	1
	Cu	65	50.646	ug/L	1.741	3	41	203302	2
	Zn	66	51.106	ug/L	0.835	1	173	121847	0
	Zn	67	52.006	ug/L	1.364	2	37	20967	2
	Zn	68	50.932	ug/L	0.346	0	177	87799	1
	As	75	50.340	ug/L	1.399	2	474	111022	1
	As-1	75	50.273	ug/L	1.511	3	8932	118625	1
	Se	82	51.845	ug/L	0.842	1	9	12281	1
	Se	78	50.665	ug/L	0.949	1	9051	39445	0
	Y	89		ug/L			458440	441879	3
	Kr	83		ug/L			755	856	4
>	In	115		ug/L			1130079	1081407	1
	Ag	107	51.096	ug/L	1.481	2	21	534047	1
	Cd	111	51.473	ug/L	1.356	2	80	270865	1
	Cd	114	51.309	ug/L	1.459	2	30	682888	2
	Sb	121	50.473	ug/L	1.556	3	41	795627	1
	Sb	123	50.559	ug/L	1.127	2	28	604485	0
>	Tb	159		ug/L			1365966	1355829	0
	Tl	205	53.211	ug/L	0 031	0	61	2224183	0
	Pb	208	50.997	ug/L	0.458	0	188	2761675	0
	Bi	209		ug/L			3069073	2940542	0
	Th	232	51.358	ug/L	0.149	0	47	2740993	0
	U	238	52.052	ug/L	0.278	0	2	2820142	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 12:47:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			128429	121609	1
	Cl	37		ug/L			5089561	5732225	1
>	Ge	72		ug/L			689090	684571	1
	Ni	60	0.002	ug/L	0.003	122	24	33	34
	Ni	62	0.037	ug/L	0.023	62	106	128	9
	Cu	63	0.007	ug/L	0.003	43	139	206	15
	Cu	65	0.005	ug/L	0.002	46	41	61	16
	Zn	66	-0.000	ug/L	0.002	1923	173	172	3
	Zn	67	-0.000	ug/L	0.014	4176	37	36	17
	Zn	68	0.002	ug/L	0.012	519	177	179	10
	As	75	0.020	ug/L	0.020	96	474	516	7
	As-1	75	0.001	ug/L	0.061	4357	8932	8875	0
	Se	82	-0.018	ug/L	0.114	618	9	5	505
	Se	78	-0.010	ug/L	0.205	2026	9051	8984	0
	Y	89		ug/L			458440	459160	2
	Kr	83		ug/L			755	809	3
>	In	115		ug/L			1130079	1117394	1
	Ag	107	0.003	ug/L	0.005	143	21	59	92
	Cd	111	0.018	ug/L	0.011	63	80	176	35
	Cd	114	0.007	ug/L	0.011	158	30	128	122
	Sb	121	0.039	ug/L	0.006	15	41	670	15
	Sb	123	0.036	ug/L	0.006	16	28	479	16
>	Tb	159		ug/L			1365966	1372883	0
	Tl	205	0.006	ug/L	0.006	88	61	325	72
	Pb	208	0.005	ug/L	0.005	107	188	451	62
	Bi	209		ug/L			3069073	3076210	0
	Th	232	0.203	ug/L	0.033	16	47	11026	16
	U	238	0.004	ug/L	0.004	83	2	235	82

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:53:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

RLAs

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	141098	2
	Cl	37		ug/L			5089561	7609886	2
>	Ge	72		ug/L			689090	658058	1
	Ni	60	4.754	ug/L	0.178	3	24	19860	3
	Ni	62	5.797	ug/L	0.419	7	106	3479	5
	Cu	63	6.136	ug/L	0.084	1	139	54340	0
	Cu	65	4.727	ug/L	0.125	2	41	18561	1
	Zn	66	10.070	ug/L	0.343	3	173	23569	2
	Zn	67	9.952	ug/L	0.276	2	37	3945	1
	Zn	68	11.214	ug/L	0.175	1	177	19005	2
	As	75	3602.105	ug/L	101.462	2	474	7723967	1
	As-1	75	3619.076	ug/L	101.977	2	8932	7732004	1
	Se	82	0.319	ug/L	0.046	14	9	83	11
	Se	78	0.449	ug/L	0.197	43	9051	8907	0
	Y	89		ug/L			458440	470757	0
	Kr	83		ug/L			755	868	1
>	In	115		ug/L			1130079	1067830	0
	Ag	107	0.014	ug/L	0.003	19	21	166	17
	Cd	111	0.524	ug/L	0.017	3	80	2798	2
	Cd	114	0.523	ug/L	0 010	1	30	6908	2
	Sb	121	0.184	ug/L	0.000	0	41	2906	0
	Sb	123	0.182	ug/L	0.004	2	28	2176	1
>	Tb	159		ug/L			1365966	1354541	0
	Tl	205	0.016	ug/L	0.000	0	61	717	0
	Pb	208	3.792	ug/L	0.017	0	188	205333	0
	Bi	209		ug/L			3069073	2718075	0
	Th	232	0.448	ug/L	0.043	9	47	23914	9
	U	238	0.171	ug/L	0.005	3	2	9274	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 12:56:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	132614	3
	Cl	37		ug/L			5089561	5658104	0
>	Ge	72		ug/L			689090	653052	2
	Ni	60	1.790	ug/L	0.049	2	24	7432	0
	Ni	62	2.481	ug/L	0.055	2	106	1536	1
	Cu	63	2.571	ug/L	0 022	0	139	22680	3
	Cu	65	1.666	ug/L	0.043	2	41	6517	0
	Zn	66	28.854	ug/L	1.531	5	173	66679	3
	Zn	67	28.567	ug/L	1.143	4	37	11169	2
	Zn	68	29.513	ug/L	1.052	3	177	49333	1
	As	75	29.892	ug/L	0.571	1	474	64051	0
	As-1	75	30.135	ug/L	0.656	2	8932	72281	0
	Se	82	0.002	ug/L	0.083	4419	9	9	192
	Se	78	0.583	ug/L	0.311	53	9051	8915	0
	Y	89		ug/L			458440	449702	1
	Kr	83		ug/L			755	871	3
>	In	115		ug/L			1130079	1086138	2
	Ag	107	0.020	ug/L	0.001	5	21	226	3
	Cd	111	7.929	ug/L	0.077	0	80	41981	1
	Cd	114	7.894	ug/L	0.024	0	30	105555	1
	Sb	121	1.341	ug/L	0.026	1	41	21278	1
	Sb	123	1.339	ug/L	0.035	2	28	16105	0
>	Tb	159		ug/L			1365966	1351336	0
	Tl	205	0.007	ug/L	0.000	0	61	361	0
	Pb	208	1.422	ug/L	0.009	0	188	76923	0
	Bi	209		ug/L			3069073	2789853	0
	Th	232	0.073	ug/L	0.008	11	47	3912	11
	U	238	0.204	ug/L	0.002	1	2	11018	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 13:00:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

RR AS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	135036	3
	Cl	37		ug/L			5089561	5931511	1
>	Ge	72		ug/L			689090	663866	0
	Ni	60	3.394	ug/L	0.062	1	24	14308	1
	Ni	62	3.419	ug/L	0.067	1	106	2113	1
	Cu	63	2.437	ug/L	0.060	2	139	21858	3
	Cu	65	2.226	ug/L	0.075	3	41	8840	3
	Zn	66	6.599	ug/L	0.056	0	173	15643	0
	Zn	67	7.481	ug/L	0.256	3	37	3000	2
	Zn	68	7.845	ug/L	0.242	3	177	13464	3
	As	75	14812.797	ug/L	125.340	0	474	32050712	1
	As-1	75	14882.559	ug/L	125.845	0	8932	32058644	1
	Se	82	21.573	ug/L	0.287	1	9	5038	0
	Se	78	21.264	ug/L	0.306	1	9051	21366	0
	Y	89		ug/L			458440	456289	2
	Kr	83		ug/L			755	840	2
>	In	115		ug/L			1130079	1080976	1
	Ag	107	0.003	ug/L	0.000	13	21	55	9
	Cd	111	0.309	ug/L	0.014	4	80	1703	2
	Cd	114	0.313	ug/L	0.009	2	30	4192	1
	Sb	121	0.569	ug/L	0.011	2	41	9002	1
	Sb	123	0.575	ug/L	0.005	0	28	6905	0
>	Tb	159		ug/L			1365966	1368743	0
	Tl	205	0.009	ug/L	0.001	7	61	448	6
	Pb	208	U 0.645	ug/L	0.010	1	188	35422	0
	Bi	209		ug/L			3069073	2812083	0
	Th	232	0.071	ug/L	0 001	1	47	3889	0
	U	238	0.395	ug/L	0.002	0	2	21588	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 13:03:47
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8GFA+.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	135231	1
	Cl	37		ug/L			5089561	5805055	3
>	Ge	72		ug/L			689090	673627	0
	Ni	60	3.228	ug/L	0.043	1	24	13811	1
	Ni	62	3.095	ug/L	0.140	4	106	1951	3
	Cu	63	3.467	ug/L	0.111	3	139	31490	2
	Cu	65	3.345	ug/L	0.097	2	41	13460	2
	Zn	66	7.418	ug/L	0.104	1	173	17822	1
	Zn	67	8.594	ug/L	0.025	0	37	3493	0
	Zn	68	9.359	ug/L	0.199	2	177	16264	2
	As	75	25.281	ug/L	0.734	2	474	55963	2
	As-1	75	25.384	ug/L	0.739	2	8932	64195	1
	Se	82	0.047	ug/L	0.045	97	9	20	52
	Se	78	0.163	ug/L	0.128	78	9051	8946	0
	Y	89		ug/L			458440	472775	2
	Kr	83		ug/L			755	872	3
>	In	115		ug/L			1130079	1109453	1
	Ag	107	0.007	ug/L	0.000	7	21	90	4
	Cd	111	0.640	ug/L	0.027	4	80	3531	2
	Cd	114	0.634	ug/L	0.024	3	30	8680	2
	Sb	121	0.675	ug/L	0.017	2	41	10950	1
	Sb	123	0.667	ug/L	0.016	2	28	8203	1
>	Tb	159		ug/L			1365966	1373309	0
	Tl	205	0.007	ug/L	0.001	10	61	339	8
	Pb	208	1.222	ug/L	0.012	0	188	67227	0
	Bi	209		ug/L			3069073	2867947	0
	Th	232	0.094	ug/L	0.002	1	47	5103	1
	U	238	0.380	ug/L	0.004	0	2	20872	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 13:07:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	134429	2
	Cl	37		ug/L			5089561	6004051	0
>	Ge	72		ug/L			689090	659943	2
	Ni	60	3.447	ug/L	0.101	2	24	14448	3
	Ni	62	3.260	ug/L	0.105	3	106	2007	0
	Cu	63	2.412	ug/L	0.031	1	139	21502	1
	Cu	65	2.137	ug/L	0.081	3	41	8433	1
	Zn	66	4.428	ug/L	0.172	3	173	10484	1
	Zn	67	5.757	ug/L	0.134	2	37	2303	0
	Zn	68	6.113	ug/L	0 318	5	177	10465	5
	As	75	15281.521	ug/L	468.461	3	474	32852362	0
	As-1	75	15353.515	ug/L	470.850	3	8932	32860288	0
	Se	82	22.229	ug/L	0.428	1	9	5159	1
	Se	78	22.037	ug/L	1.193	5	9051	21686	0
	Y	89		ug/L			458440	453507	2
	Kr	83		ug/L			755	863	2
>	In	115		ug/L			1130079	1078769	2
	Ag	107	0.004	ug/L	0.001	18	21	64	11
	Cd	111	0.149	ug/L	0.004	2	80	858	2
	Cd	114	0.152	ug/L	0.007	4	30	2049	2
	Sb	121	0.547	ug/L	0.012	2	41	8640	0
	Sb	123	0.544	ug/L	0.017	3	28	6508	0
>	Tb	159		ug/L			1365966	1351594	1
	Tl	205	0.006	ug/L	0.000	1	61	323	0
	Pb	208	0.797	ug/L	0 010	1	188	43188	0
	Bi	209		ug/L			3069073	2814105	0
	Th	232	0.067	ug/L	0.002	2	47	3617	1
	U	238	0.413	ug/L	0.008	1	2	22293	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 13:10:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

RL AS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	146261	2
	Cl	37		ug/L			5089561	7647077	3
>	Ge	72		ug/L			689090	654798	2
	Ni	60	0.532	ug/L	0.019	3	24	2230	1
	Ni	62	0.757	ug/L	0.139	18	106	542	17
	Cu	63	1.818	ug/L	0.067	3	139	16109	2
	Cu	65	0.366	ug/L	0.011	3	41	1467	0
	Zn	66	2.160	ug/L	0.068	3	173	5157	1
	Zn	67	2.140	ug/L	0.037	1	37	872	4
	Zn	68	3.351	ug/L	0.134	4	177	5763	1
	As	75	3500.783	ug/L	112.297	3	474	7467359	1
	As-1	75	3517.331	ug/L	112.920	3	8932	7475470	1
	Se	82	0.278	ug/L	0.083	29	9	73	23
	Se	78	0.580	ug/L	0.394	67	9051	8937	0
	Y	89		ug/L			458440	457978	1
	Kr	83		ug/L			755	844	5
>	In	115		ug/L			1130079	1058996	2
	Ag	107	0.001	ug/L	0.000	18	21	34	6
	Cd	111	0.002	ug/L	0.002	80	80	85	7
	Cd	114	0.012	ug/L	0 001	11	30	181	8
	Sb	121	0.105	ug/L	0.002	1	41	1652	2
	Sb	123	0.104	ug/L	0.004	4	28	1241	2
>	Tb	159		ug/L			1365966	1354062	0
	Tl	205	0.002	ug/L	0.000	5	61	129	3
	Pb	208	0.028	ug/L	0.000	1	188	1691	0
	Bi	209		ug/L			3069073	2731280	0
	Th	232	0.035	ug/L	0 000	0	47	1915	0
	U	238	0.042	ug/L	0.002	4	2	2278	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 I REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 13:14:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	141345	2
	Cl	37		ug/L			5089561	5663253	2
>	Ge	72		ug/L			689090	654476	0
	Ni	60	1.488	ug/L	0.026	1	24	6198	1
	Ni	62	1.413	ug/L	0.060	4	106	920	3
	Cu	63	1.505	ug/L	0.032	2	139	13353	1
	Cu	65	0.624	ug/L	0.020	3	41	2472	3
	Zn	66	5.825	ug/L	0.168	2	173	13633	3
	Zn	67	7.378	ug/L	0.103	1	37	2918	1
	Zn	68	7.774	ug/L	0.027	0	177	13154	0
	As	75	26.163	ug/L	0.363	1	474	56260	1
	As-1	75	26.332	ug/L	0 335	1	8932	64389	1
	Se	82	0.134	ug/L	0.062	46	9	40	35
	Se	78	0.431	ug/L	0.105	24	9051	8849	0
	Y	89		ug/L			458440	446862	0
	Kr	83		ug/L			755	815	3
>	In	115		ug/L			1130079	1074404	1
	Ag	107	0.006	ug/L	0.001	19	21	82	13
	Cd	111	0.053	ug/L	0.001	1	80	355	1
	Cd	114	0.047	ug/L	0.003	5	30	655	4
	Sb	121	1.125	ug/L	0.016	1	41	17663	0
	Sb	123	1.142	ug/L	0.019	1	28	13589	0
>	Tb	159		ug/L			1365966	1365400	1
	Tl	205	0.004	ug/L	0.000	8	61	220	7
	Pb	208	0.284	ug/L	0 006	2	188	15648	1
	Bi	209		ug/L			3069073	2817130	1
	Th	232	0.014	ug/L	0.001	5	47	807	3
	U	238	0.201	ug/L	0.005	2	2	10979	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 J REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 13:17:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

RRAS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	140164	1
	Cl	37		ug/L			5089561	5979030	1
>	Ge	72		ug/L			689090	658812	2
	Ni	60	**2.419**	ug/L	0.135	5	24	10118	2
	Ni	62	**2.166**	ug/L	0.053	2	106	1366	5
	Cu	63	**1.017**	ug/L	0 035	3	139	9126	2
	Cu	65	**0.783**	ug/L	0.011	1	41	3113	2
	Zn	66	**1.629**	ug/L	0.091	5	173	3952	2
	Zn	67	**2.857**	ug/L	0.055	1	37	1159	2
	Zn	68	**3.238**	ug/L	0.147	4	177	5610	2
	As	75	**14325.891**	ug/L	305.990	2	474	30747993	0
	As-1	75	**14393.386**	ug/L	307.593	2	8932	30755921	0
	Se	82	**20.721**	ug/L	0.650	3	9	4801	1
	Se	78	**20.536**	ug/L	1.293	6	9051	20760	1
	Y	89		ug/L			458440	449948	0
	Kr	83		ug/L			755	841	4
>	In	115		ug/L			1130079	1079618	0
	Ag	107	**0.000**	ug/L	0.001	177	21	24	30
	Cd	111	**0.023**	ug/L	0.002	7	80	200	4
	Cd	114	**0.031**	ug/L	0.001	4	30	444	4
	Sb	121	**0.537**	ug/L	0.007	1	41	8495	1
	Sb	123	**0.542**	ug/L	0 007	1	28	6493	1
>	Tb	159		ug/L			1365966	1363167	0
	Tl	205	**0.004**	ug/L	0.000	4	61	233	3
	Pb	208	**0.058**	ug/L	0.001	1	188	3334	0
	Bi	209		ug/L			3069073	2830417	0
	Th	232	**0.006**	ug/L	0.000	7	47	382	5
	U	238	**0.316**	ug/L	0.004	1	2	17201	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 K REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 13:21:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	137578	2
	Cl	37		ug/L			5089561	5805375	2
>	Ge	72		ug/L			689090	662241	2
	Ni	60	0.717	ug/L	0.006	0	24	3035	1
	Ni	62	0.428	ug/L	0.029	6	106	353	2
	Cu	63	1.110	ug/L	0.012	1	139	10007	3
	Cu	65	0.896	ug/L	0.025	2	41	3574	0
	Zn	66	1.309	ug/L	0 056	4	173	3227	1
	Zn	67	3.030	ug/L	0.178	5	37	1233	4
	Zn	68	3.502	ug/L	0.125	3	177	6086	1
	As	75	25.607	ug/L	0.592	2	474	55709	1
	As-1	75	25.779	ug/L	0.673	2	8932	63944	1
	Se	82	0.132	ug/L	0.040	30	9	40	20
	Se	78	0.469	ug/L	0.457	97	9051	8972	0
	Y	89		ug/L			458440	455493	1
	Kr	83		ug/L			755	840	4
>	In	115		ug/L			1130079	1095142	1
	Ag	107	0.001	ug/L	0.000	38	21	31	14
	Cd	111	0.008	ug/L	0 001	9	80	121	4
	Cd	114	0.006	ug/L	0.001	11	30	111	9
	Sb	121	0.600	ug/L	0.007	1	41	9624	0
	Sb	123	0.601	ug/L	0.008	1	28	7302	0
>	Tb	159		ug/L			1365966	1381264	0
	Tl	205	0.003	ug/L	0.000	2	61	181	2
	Pb	208	0.053	ug/L	0.001	1	188	3094	1
	Bi	209		ug/L			3069073	2889013	1
	Th	232	0.011	ug/L	0.000	2	47	636	2
	U	238	0.344	ug/L	0.001	0	2	18965	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 13:25:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	130021	1
	Cl	37		ug/L			5089561	5397751	3
>	Ge	72		ug/L			689090	691026	1
	Ni	60	27.083	ug/L	0.330	1	24	118697	1
	Ni	62	26.729	ug/L	0.385	1	106	16475	2
	Cu	63	27.806	ug/L	0.843	3	139	258083	2
	Cu	65	28.040	ug/L	0.764	2	41	115420	1
	Zn	66	87.191	ug/L	1.664	1	173	212991	0
	Zn	67	81.088	ug/L	0.713	0	37	33501	1
	Zn	68	84.085	ug/L	0.597	0	177	148485	1
	As	75	26.964	ug/L	1.236	4	474	61177	3
	As-1	75	26.688	ug/L	1.254	4	8932	68753	2
	Se	82	83.872	ug/L	1.664	1	9	20360	0
	Se	78	82.167	ug/L	1.711	2	9051	59940	0
	Y	89		ug/L			458440	473641	2
	Kr	83		ug/L			755	858	1
>	In	115		ug/L			1130079	1146210	0
	Ag	107	26.602	ug/L	0.187	0	21	294806	0
	Cd	111	25.055	ug/L	0.217	0	80	139829	0
	Cd	114	25.528	ug/L	0.077	0	30	360190	0
	Sb	121	24.226	ug/L	0.242	0	41	404920	1
	Sb	123	24.308	ug/L	0.091	0	28	308131	0
>	Tb	159		ug/L			1365966	1396164	1
	Tl	205	26.836	ug/L	0.249	0	61	1155013	0
	Pb	208	27.157	ug/L	0.516	1	188	1514204	0
	Bi	209		ug/L			3069073	3120244	1
	Th	232	25.311	ug/L	0.568	2	47	1390707	0
	U	238	25.942	ug/L	0.420	1	2	1447152	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 13:29:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	116132	1
	Cl	37		ug/L			5089561	5686534	1
>	Ge	72		ug/L			689090	669269	1
	Ni	60	50.702	ug/L	1.471	2	24	215194	2
	Ni	62	50.730	ug/L	0.433	0	106	30185	0
	Cu	63	51.112	ug/L	1.058	2	139	459410	2
	Cu	65	52.240	ug/L	1.497	2	41	208244	1
	Zn	66	52.465	ug/L	0.998	1	173	124204	1
	Zn	67	52.047	ug/L	1.264	2	37	20835	1
	Zn	68	52.238	ug/L	0.371	0	177	89405	0
	As	75	51.778	ug/L	0.751	1	474	113391	0
	As-1	75	51.823	ug/L	0.938	1	8932	121170	0
	Se	82	53.455	ug/L	0.477	0	9	12574	1
	Se	78	52.704	ug/L	0.431	0	9051	40393	0
	Y	89		ug/L			458440	447017	2
	Kr	83		ug/L			755	891	3
>	In	115		ug/L			1130079	1095423	0
	Ag	107	51.512	ug/L	1.255	2	21	545573	2
	Cd	111	50.481	ug/L	0.441	0	80	269152	0
	Cd	114	51.268	ug/L	0.623	1	30	691274	1
	Sb	121	50.736	ug/L	0.517	1	41	810366	0
	Sb	123	50.546	ug/L	0.507	1	28	612292	0
>	Tb	159		ug/L			1365966	1370160	1
	Tl	205	52.807	ug/L	0.434	0	61	2230725	1
	Pb	208	51.112	ug/L	0.699	1	188	2796982	0
	Bi	209		ug/L			3069073	2954150	0
	Th	232	51.759	ug/L	0.936	1	47	2791204	0
	U	238	52.224	ug/L	0.521	0	2	2859229	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 13:35:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	116012	1
	Cl	37		ug/L			5089561	5564140	3
>	Ge	72		ug/L			689090	666921	1
	Ni	60	0.002	ug/L	0.002	104	24	33	28
	Ni	62	-0.006	ug/L	0.014	242	106	99	6
	Cu	63	-0.001	ug/L	0.001	130	139	126	7
	Cu	65	0.004	ug/L	0.001	30	41	57	8
	Zn	66	0.006	ug/L	0.002	31	173	183	1
	Zn	67	-0.015	ug/L	0.009	63	37	30	12
	Zn	68	0.012	ug/L	0.006	47	177	192	6
	As	75	0.083	ug/L	0.029	34	474	639	8
	As-1	75	0.061	ug/L	0.104	171	8932	8773	1
	Se	82	0.015	ug/L	0.060	393	9	13	105
	Se	78	0.038	ug/L	0.334	875	9051	8780	1
	Y	89		ug/L			458440	447902	3
	Kr	83		ug/L			755	811	2
>	In	115		ug/L			1130079	1098784	0
	Ag	107	0.004	ug/L	0 006	136	21	68	94
	Cd	111	0.008	ug/L	0.006	68	80	121	23
	Cd	114	0.003	ug/L	0.004	138	30	66	76
	Sb	121	0.032	ug/L	0.004	13	41	549	11
	Sb	123	0.031	ug/L	0.004	12	28	400	11
>	Tb	159		ug/L			1365966	1348090	2
	Tl	205	0.005	ug/L	0.002	40	61	277	30
	Pb	208	0.002	ug/L	0.002	78	188	316	31
	Bi	209		ug/L			3069073	3072602	2
	Th	232	0.192	ug/L	0.034	17	47	10232	15
	U	238	0.002	ug/L	0.002	60	2	136	57

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 B REN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, January 21, 2013 13:45:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	115773	2
	Cl	37		ug/L			5089561	5388105	1
>	Ge	72		ug/L			689090	670793	3
	Ni	60	**0.102**	ug/L	0.003	3	24	457	1
	Ni	62	**0.061**	ug/L	0.031	49	106	140	15
	Cu	63	**0.117**	ug/L	0.004	3	139	1193	3
	Cu	65	**0.105**	ug/L	0.010	9	41	460	5
	Zn	66	**0.247**	ug/L	0.013	5	173	753	3
	Zn	67	**0.215**	ug/L	0.022	10	37	122	4
	Zn	68	**0.275**	ug/L	0.006	2	177	643	4
	As	75	**74.814**	ug/L	2.280	3	474	163921	0
	As-1	75	**75.118**	ug/L	2.413	3	8932	172041	0
	Se	82	**0.063**	ug/L	0.077	121	9	24	70
	Se	78	**-0.067**	ug/L	0.488	723	9051	8764	0
	Y	89		ug/L			458440	455221	0
	Kr	83		ug/L			755	772	4
>	In	115		ug/L			1130079	1120893	1
	Ag	107	**0.000**	ug/L	0.000	96	21	25	15
	Cd	111	**0.016**	ug/L	0.001	7	80	165	5
	Cd	114	**0.012**	ug/L	0.002	12	30	196	11
	Sb	121	**0.012**	ug/L	0.001	8	41	244	8
	Sb	123	**0.012**	ug/L	0.002	15	28	181	14
>	Tb	159		ug/L			1365966	1355499	0
	Tl	205	**0.004**	ug/L	0 000	8	61	230	7
	Pb	208	**0.082**	ug/L	0.001	0	188	4623	1
	Bi	209		ug/L			3069073	3037575	0
	Th	232	**0.056**	ug/L	0.011	20	47	3009	20
	U	238	**0.004**	ug/L	0.000	4	2	207	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 D REN
Sample Dil Factor: 200
Comments:
Sample Date/Time: Monday, January 21, 2013 13:48:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			128429	110950	1
	Cl	37		ug/L			5089561	5256181	2
>	Ge	72		ug/L			689090	660872	1
	Ni	60	0.041	ug/L	0.003	6	24	193	3
	Ni	62	-0.028	ug/L	0.027	96	106	86	16
	Cu	63	0.026	ug/L	0.003	13	139	362	7
	Cu	65	0.022	ug/L	0.004	17	41	125	11
	Zn	66	0.096	ug/L	0.013	13	173	389	6
	Zn	67	0.099	ug/L	0.037	37	37	74	19
	Zn	68	0.112	ug/L	0.006	5	177	358	3
	As	75	164.313	ug/L	1.866	1	474	354343	1
	As-1	75	165.122	ug/L	1.905	1	8932	362526	1
	Se	82	0.227	ug/L	0.061	26	9	62	23
	Se	78	0.479	ug/L	0.224	46	9051	8962	0
	Y	89		ug/L			458440	451910	1
	Kr	83		ug/L			755	821	5
>	In	115		ug/L			1130079	1096022	0
	Ag	107	0.000	ug/L	0.000	89	21	25	17
	Cd	111	0.007	ug/L	0.002	32	80	114	10
	Cd	114	0.005	ug/L	0.000	9	30	96	5
	Sb	121	0.009	ug/L	0.001	7	41	181	6
	Sb	123	0.010	ug/L	0.001	7	28	153	6
>	Tb	159		ug/L			1365966	1339280	0
	Tl	205	0.000	ug/L	0 000	67	61	75	12
	Pb	208	0.008	ug/L	0 000	3	188	588	2
	Bi	209		ug/L			3069073	3044372	0
	Th	232	0.021	ug/L	0.002	9	47	1147	9
	U	238	0.004	ug/L	0.000	5	2	242	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 F REN
Sample Dil Factor: 200
Comments:
Sample Date/Time: Monday, January 21, 2013 13:52:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
	C	13		ug/L			128429	112660	3
	Cl	37		ug/L			5089561	5205196	0
>	Ge	72		ug/L			689090	671021	1
	Ni	60	0.043	ug/L	0.003	6	24	206	4
	Ni	62	-0.031	ug/L	0.008	25	106	85	6
	Cu	63	0.020	ug/L	0.003	16	139	317	8
	Cu	65	0.022	ug/L	0.004	17	41	127	12
	Zn	66	0.071	ug/L	0.003	3	173	338	3
	Zn	67	0.071	ug/L	0.020	27	37	64	10
	Zn	68	0.099	ug/L	0.012	11	177	342	6
	As	75	164.559	ug/L	4.002	2	474	360262	1
	As-1	75	165.355	ug/L	4.040	2	8932	368542	0
	Se	82	0.240	ug/L	0.070	29	9	66	23
	Se	78	0.433	ug/L	0.157	36	9051	9073	0
	Y	89		ug/L			458440	451908	2
	Kr	83		ug/L			755	826	0
>	In	115		ug/L			1130079	1106354	2
	Ag	107	0.000	ug/L	0.001	1080	21	21	24
	Cd	111	0.004	ug/L	0.001	30	80	99	5
	Cd	114	0.002	ug/L	0.001	29	30	62	16
	Sb	121	0.008	ug/L	0.000	5	41	161	6
	Sb	123	0.008	ug/L	0.002	20	28	120	14
>	Tb	159		ug/L			1365966	1350224	0
	Tl	205	0.000	ug/L	0.000	49	61	81	12
	Pb	208	0.009	ug/L	0.001	8	188	649	6
	Bi	209		ug/L			3069073	3050574	0
	Th	232	0.018	ug/L	0.001	5	47	1028	5
	U	238	0.005	ug/L	0.000	5	2	268	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 H REN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, January 21, 2013 13:55:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	116485	2
	Cl	37		ug/L			5089561	5312679	1
>	Ge	72		ug/L			689090	675788	1
	Ni	60	0.022	ug/L	0.002	7	24	120	6
	Ni	62	-0.033	ug/L	0.028	83	106	84	20
	Cu	63	0.040	ug/L	0.002	3	139	502	3
	Cu	65	0.017	ug/L	0.000	2	41	111	3
	Zn	66	0.445	ug/L	0.013	2	173	1231	2
	Zn	67	0.388	ug/L	0.021	5	37	193	5
	Zn	68	0.465	ug/L	0.027	5	177	974	4
	As	75	72.325	ug/L	1.741	2	474	159711	0
	As-1	75	72.607	ug/L	1.846	2	8932	167874	0
	Se	82	-0.041	ug/L	0.075	182	9	0	122848
	Se	78	-0.126	ug/L	0.385	306	9051	8797	0
	Y	89		ug/L			458440	459148	1
	Kr	83		ug/L			755	838	2
>	In	115		ug/L			1130079	1111956	0
	Ag	107	0.000	ug/L	0.000	39	21	26	6
	Cd	111	0.004	ug/L	0.000	11	80	102	1
	Cd	114	0.002	ug/L	0.000	10	30	54	4
	Sb	121	0.004	ug/L	0.000	8	41	108	4
	Sb	123	0.004	ug/L	0.001	30	28	80	20
>	Tb	159		ug/L			1365966	1347781	0
	Tl	205	0.001	ug/L	0.000	23	61	117	10
	Pb	208	0.014	ug/L	0.001	3	188	956	2
	Bi	209		ug/L			3069073	3057060	0
	Th	232	0.015	ug/L	0.001	3	47	816	3
	U	238	0.001	ug/L	0.000	21	2	53	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 J REN
Sample Dil Factor: 200
Comments:
Sample Date/Time: Monday, January 21, 2013 13:59:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	111867	1
	Cl	37		ug/L			5089561	5143737	1
>	Ge	72		ug/L			689090	681434	1
	Ni	60	0.026	ug/L	0.003	11	24	137	8
	Ni	62	-0.020	ug/L	0.016	79	106	93	8
	Cu	63	0.005	ug/L	0.001	13	139	185	5
	Cu	65	0.006	ug/L	0.001	16	41	64	4
	Zn	66	0.036	ug/L	0.002	6	173	258	3
	Zn	67	0.029	ug/L	0.031	105	37	48	27
	Zn	68	0.063	ug/L	0.014	21	177	284	7
	As	75	148.371	ug/L	3.479	2	474	329894	0
	As-1	75	149.024	ug/L	3.552	2	8932	338154	0
	Se	82	0.220	ug/L	0 068	30	9	62	23
	Se	78	0.172	ug/L	0.260	151	9051	9053	0
	Y	89		ug/L			458440	461248	1
	Kr	83		ug/L			755	838	4
>	In	115		ug/L			1130079	1114606	2
	Ag	107	0.000	ug/L	0.000	103	21	25	14
	Cd	111	0.005	ug/L	0.002	42	80	104	11
	Cd	114	0.001	ug/L	0.001	37	30	49	14
	Sb	121	0.006	ug/L	0.002	26	41	136	19
	Sb	123	0.006	ug/L	0.001	22	28	102	17
>	Tb	159		ug/L			1365966	1335030	0
	Tl	205	0.000	ug/L	0.000	105	61	70	15
	Pb	208	0.000	ug/L	0.000	43	188	200	3
	Bi	209		ug/L			3069073	3022055	0
	Th	232	0.009	ug/L	0.001	7	47	534	7
	U	238	0.003	ug/L	0.000	7	2	181	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 L REN
Sample Dil Factor: 200
Comments:
Sample Date/Time: Monday, January 21, 2013 14:02:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	113320	3
	Cl	37		ug/L			5089561	5267742	3
>	Ge	72		ug/L			689090	680392	3
	Ni	60	0.031	ug/L	0.005	15	24	156	11
	Ni	62	-0.026	ug/L	0.007	26	106	89	5
	Cu	63	0.008	ug/L	0.001	15	139	213	5
	Cu	65	0.009	ug/L	0.001	14	41	77	9
	Zn	66	0.059	ug/L	0.007	11	173	312	4
	Zn	67	0.051	ug/L	0.013	24	37	57	5
	Zn	68	0.077	ug/L	0.008	10	177	309	7
	As	75	160.796	ug/L	3.934	2	474	356843	1
	As-1	75	161.485	ug/L	4.095	2	8932	365033	1
	Se	82	0.219	ug/L	0.063	28	9	62	23
	Se	78	0.074	ug/L	0.567	768	9051	8974	0
	Y	89		ug/L			458440	452311	0
	Kr	83		ug/L			755	827	3
>	In	115		ug/L			1130079	1100230	2
	Ag	107	0.000	ug/L	0.000	450	21	21	18
	Cd	111	0.006	ug/L	0.001	16	80	108	3
	Cd	114	0.002	ug/L	0.001	25	30	63	11
	Sb	121	0.006	ug/L	0 000	2	41	142	0
	Sb	123	0.007	ug/L	0.000	7	28	111	5
>	Tb	159		ug/L			1365966	1335237	1
	Tl	205	0.000	ug/L	0.000	49	61	72	6
	Pb	208	0.001	ug/L	0.000	23	188	237	3
	Bi	209		ug/L			3069073	3000609	1
	Th	232	0.007	ug/L	0.000	5	47	436	5
	U	238	0.004	ug/L	0.000	7	2	192	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA06 L REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 21, 2013 14:06:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			128429	141169	1
	Cl	37		ug/L			5089561	6078115	3
>	Ge	72		ug/L			689090	656805	1
	Ni	60	2.518	ug/L	0.003	0	24	10509	1
	Ni	62	2.234	ug/L	0.028	1	106	1402	2
	Cu	63	1.161	ug/L	0.012	1	139	10367	0
	Cu	65	0.898	ug/L	0.016	1	41	3554	0
	Zn	66	1.801	ug/L	0.065	3	173	4345	4
	Zn	67	3.114	ug/L	0.219	7	37	1256	7
	Zn	68	3.441	ug/L	0.055	1	177	5937	0
	As	75	15249.256	ug/L	215.988	1	474	32640907	0
	As-1	75	15321.130	ug/L	217.010	1	8932	32648871	0
	Se	82	21.601	ug/L	0.184	0	9	4991	1
	Se	78	21.558	ug/L	0.263	1	9051	21312	0
	Y	89		ug/L			458440	446227	0
	Kr	83		ug/L			755	882	5
>	In	115		ug/L			1130079	1059313	2
	Ag	107	0.003	ug/L	0.001	23	21	46	15
	Cd	111	0.165	ug/L	0.017	10	80	927	6
	Cd	114	0.175	ug/L	0.010	5	30	2312	3
	Sb	121	0.594	ug/L	0.025	4	41	9210	2
	Sb	123	0.594	ug/L	0.027	4	28	6978	1
>	Tb	159		ug/L			1365966	1333464	0
	Tl	205	0.006	ug/L	0.000	2	61	288	1
	Pb	208	0.064	ug/L	0.000	0	188	3576	0
	Bi	209		ug/L			3069073	2752626	0
	Th	232	0.033	ug/L	0.004	12	47	1783	11
	U	238	0.337	ug/L	0.007	1	2	17947	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 21, 2013 14:10:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	116064	2
	Cl	37		ug/L			5089561	5604740	4
>	Ge	72		ug/L			689090	686650	0
	Ni	60	0.056	ug/L	0.004	7	24	268	7
	Ni	62	-0.004	ug/L	0.014	369	106	104	7
	Cu	63	0.027	ug/L	0.001	2	139	388	1
	Cu	65	0.032	ug/L	0 004	13	41	171	9
	Zn	66	0.716	ug/L	0.011	1	173	1909	0
	Zn	67	0.655	ug/L	0.010	1	37	305	1
	Zn	68	0.700	ug/L	0.005	0	177	1403	1
	As	75	0.256	ug/L	0.095	36	474	1047	20
	As-1	75	0.195	ug/L	0 102	52	8932	9336	2
	Se	82	-0.038	ug/L	0.057	150	9	0	1705
	Se	78	-0.180	ug/L	0.257	142	9051	8908	1
	Y	89		ug/L			458440	456428	1
	Kr	83		ug/L			755	816	3
>	In	115		ug/L			1130079	1102539	1
	Ag	107	0.001	ug/L	0 001	71	21	28	20
	Cd	111	0.005	ug/L	0 002	36	80	103	7
	Cd	114	0.001	ug/L	0.000	33	30	44	9
	Sb	121	0.002	ug/L	0.001	47	41	75	20
	Sb	123	0.003	ug/L	0.001	43	28	59	22
>	Tb	159		ug/L			1365966	1339086	1
	Tl	205	0.001	ug/L	0.000	18	61	97	8
	Pb	208	0.018	ug/L	0.001	2	188	1172	2
	Bi	209		ug/L			3069073	3061565	0
	Th	232	0.004	ug/L	0.001	17	47	245	12
	U	238	0.000	ug/L	0.000	28	2	18	25

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor: 1-21-13
Comments:
Sample Date/Time: Monday, January 21, 2013 14:13:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	114665	1
	Cl	37		ug/L			5089561	5660903	1
>	Ge	72		ug/L			689090	662511	3
	Ni	60	50.681	ug/L	1.397	2	24	212833	2
	Ni	62	50.867	ug/L	0.385	0	106	29957	2
	Cu	63	51.641	ug/L	0.758	1	139	459336	2
	Cu	65	51.852	ug/L	2 580	4	41	204422	2
	Zn	66	52.691	ug/L	1.754	3	173	123397	1
	Zn	67	51.982	ug/L	1.903	3	37	20585	0
	Zn	68	51.011	ug/L	1 896	3	177	86357	0
	As	75	51.970	ug/L	2.001	3	474	112575	1
	As-1	75	51.876	ug/L	2.344	4	8932	119960	1
	Se	82	53.438	ug/L	1.557	2	9	12434	0
	Se	78	52.146	ug/L	2.859	5	9051	39615	0
	Y	89		ug/L			458440	447875	1
	Kr	83		ug/L			755	854	2
>	In	115		ug/L			1130079	1084524	1
	Ag	107	51.505	ug/L	0.631	1	21	540010	0
	Cd	111	50.286	ug/L	1.128	2	80	265409	1
	Cd	114	50.441	ug/L	0.503	0	30	673328	0
	Sb	121	50.270	ug/L	1.072	2	41	794825	0
	Sb	123	50.295	ug/L	1.559	3	28	603050	1
>	Tb	159		ug/L			1365966	1345471	0
	Tl	205	52.573	ug/L	0 439	0	61	2180702	0
	Pb	208	51.025	ug/L	0.338	0	188	2742110	0
	Bi	209		ug/L			3069073	2935069	0
	Th	232	51.381	ug/L	0.576	1	47	2721174	0
	U	238	52.338	ug/L	0.613	1	2	2813967	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5 B
Sample Dil Factor:
Comments: AJ 1-21-13
Sample Date/Time: Monday, January 21, 2013 14:19:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			128429	118185	2
	Cl	37		ug/L			5089561	5616547	0
>	Ge	72		ug/L			689090	669897	0
	Ni	60	0.002	ug/L	0.001	66	24	32	16
	Ni	62	-0.050	ug/L	0.009	17	106	74	7
	Cu	63	-0.004	ug/L	0.002	47	139	99	16
	Cu	65	-0.000	ug/L	0.002	358	41	38	15
	Zn	66	0.002	ug/L	0.007	374	173	173	9
	Zn	67	-0.012	ug/L	0.012	95	37	31	14
	Zn	68	0.012	ug/L	0.014	120	177	192	13
	As	75	0.087	ug/L	0 021	24	474	650	6
	As-1	75	0.053	ug/L	0.091	172	8932	8797	1
	Se	82	0.001	ug/L	0.048	3586	9	9	114
	Se	78	0.004	ug/L	0.343	8878	9051	8800	1
	Y	89		ug/L			458440	451493	1
	Kr	83		ug/L			755	828	1
>	In	115		ug/L			1130079	1108097	1
	Ag	107	0.001	ug/L	0.001	142	21	32	50
	Cd	111	0.004	ug/L	0.002	41	80	102	8
	Cd	114	0.001	ug/L	0.000	60	30	37	13
	Sb	121	0.026	ug/L	0.001	3	41	457	5
	Sb	123	0.028	ug/L	0.000	0	28	372	1
>	Tb	159		ug/L			1365966	1330575	1
	Tl	205	0.004	ug/L	0.001	28	61	223	21
	Pb	208	0.001	ug/L	0.000	30	188	225	7
	Bi	209		ug/L			3069073	3005344	1
	Th	232	0.161	ug/L	0.017	10	47	8464	10
	U	238	0.001	ug/L	0.000	13	2	76	14

Mercury Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WA06, WA10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

WA15 ABSPK, MBSPK

Analyst: DM

Date: 01-18-13

Final Volume _____

Final Volume (Hg): 20

Sample ID WA10 ABSPK, MB1SPK, GSPK, MB2SPK

	Prepcode:			
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:			
	Vol Added (mL):			
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	TLM	CVA	1.0	0.02	39088
Hg MBSPK	↓	CVA	1.0	0.04	↓
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Analyst: DM
Bath Temp: 90°C
Start Time: 1145
End Time: 1345
Matrix: Water
Date: 01-18-13

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WA10 A	1	✓	20.0	20.0	1/28 1	Y	
" AOUP	1	✓			1		
" ASPK	1	✓			1		
" B	1	✓			1		
" C	1	✓			1		
" D	1	✓			1		
" E	1	✓			1		
" F	1	✓			1		
" MB1	—	✓			1		
" MB1SPK	—	✓			1		
" G	1	✓			1		
" GOUP	1	✓			1		
" GSPK	1	✓			1		
" H	1	✓			1		
" I	1	✓			1		
" J	1	✓			1		
" K	1	✓			1		
" L	1	✓			1		
" MB2	—	✓			1		
" MB2SPK	—	✓	20.0	20.0	1	Y	
			01-18-13 DM				

Chemical/Reagent ID:

HNO_3: I7970
H_2SO_4: I7671
HCl: —
5% $K_2S_2O_8$: MP2418
5% $KMnO_4$: MP2401
Digest Tube Lot: 1208057

UA06 00135

Mercury Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WA06, WA10

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 01-29-13

Page: 1 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	TLM	1X		
" 20.0				
" 50.0				
" 100.0				
" 200.0				
" 400.0				
" 1000.0				
ICV			469.63	Begin CLP %R=94 ✓
ICB			0.58	✓
CCV1			473.63	%R=95 ✓
CCB1			1.03	✓
CRA			22.39	✓
TEST 1 STD1			22.34	%R=112 ✓
TEST 2 STD1			22.63	%R=113 ✓
TEST 1 STDL			980.21	%R=98 ✓
TEST 2 STDL			991.43	%R=99 ✓
TEST 1 CV			461.43	%R=92 ✓
" 2 CV			464.28	%R=93 ✓
" 3 CV			466.40	%R=93 ✓
WA10 MB1			1.15	✓
" MBKSPK			202.07	%R=101 ✓
CCV2			473.86	%R=95 ✓
CCB2			3.92	✓
WA10 A			4.05	
" ADUP			6.15	NO RPD: Undetected ✓
" ASPK			101.04	%R=101 ✓
" B				
" C				
" D				
" E				

Chemical/Reagent ID:
10% $SnCl_2$: MP2429

14% $NH_2OH/NaCl$: MP2308

Standard ID:
Standard: 3007-4

ICV/CCV: 3007-5

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 01·23·12

Page: 2 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)ppt	Comments
WA10 F	TLM	1X		
" MB2			4.26	✓
" MB2SPK			187.56	%R=94 ✓
CCV3			473.00	%R=95 ✓
CCB3			1.84	✓
WA10 G			4.49	
" GDUP			3.60	NO RPD: Undetected ✓
" GSPK			106.03	%R=106 ✓
" H				
" I				
" J				
" K				
" L				
CCV4			477.23	%R=95 ✓
CCB4			2.65	✓
WA10 MB1			2.39	✓
" MB1SPK			197.82	%R=99 ✓
" A			16.32	
" ADUP			17.4	NO RPD: Undetected HI RED ✓
" ASPK			114.47	%R=114 ✓
" B				
" C				
" D				
" E				
" F				
CCV5			477.48	%R=95 ✓
CCB5			3.98	✓
WA10 G				
" H				
" I				

Chemical/Reagent ID:
10% $SnCl_2$: MP2429

14% $NH_2OH/NaCl$: MP2398

Standard ID:
Standard: 3007-4

ICV/CCV: 3007-5

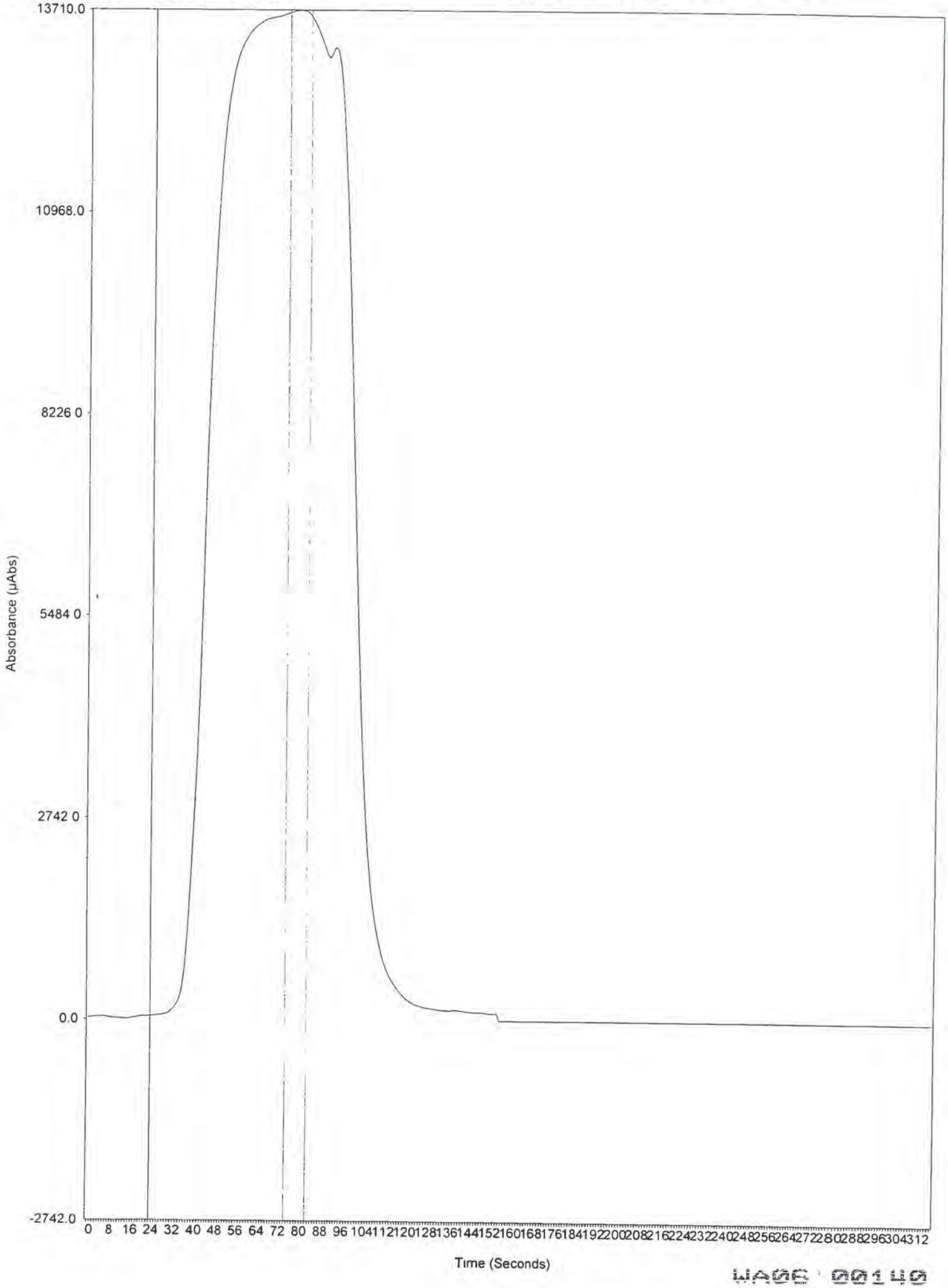
ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 01-23-13

Low level	Analyst 1-23 DM	Peer BA 1/24/13	Comment
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
RSD's & SD's	✓	✓	WAIG ADOP HI RSD
Internal Standards	—	—	
Carry-over	—	—	
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	—		

Std Tube 6 01/23/2013, 8:00 AM



CETAC Hg Analysis Report - 13012300.DB - Wednesday, January 23, 2013, 2:23:02 PM

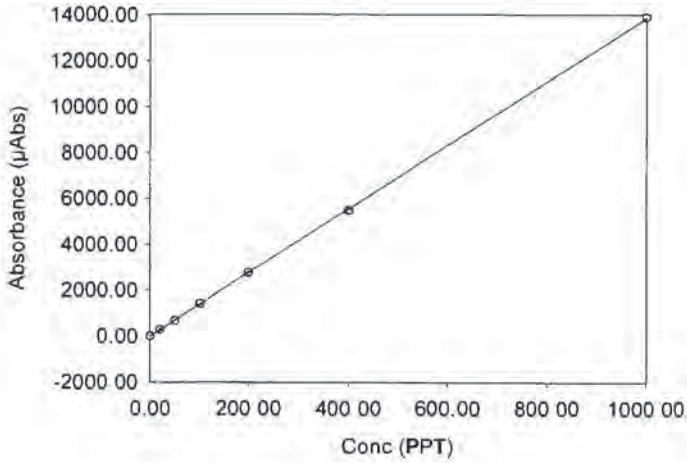
Analyst
Date Started Wednesday, January 23, 2013, 08:00.21
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Std Tube 6	23-Jan-2013, 08 00	1000.00	0.12	13700 00	13650	13670	13669	13636	

Information about this calibration could not be retrieved from the Master File.

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Calibration Zero	23-Jan-2013, 08:02	0.00	93.80	-9.85	4	-13	-14	-16	
Standard #1	23-Jan-2013, 08:05	20 00	0.08	291.00	291	291	291	291	
Standard #2	23-Jan-2013, 08:08	50.00	0.48	687.00	683	686	690	690	
Standard #3	23-Jan-2013, 08:10	100.00	0.25	1410 00	1410	1417	1416	1411	
Standard #4	23-Jan-2013, 08:13	200.00	0.22	2770.00	2761	2768	2776	2769	
Standard #5	23-Jan-2013, 08:16	400 00	0 24	5480 00	5457	5479	5487	5481	
Standard #6	23-Jan-2013, 08.18	1000.00	0.16	13900 00	13902	13935	13937	13894	

Calibration Data



Int.	0 000
Slope	13 886
Correlation	0 99997

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
ICV	23-Jan-2013, 08:26	470.00	0 06	6520 00	6527	6522	6519	6518	Begin CLP
ICB	23-Jan-2013, 08:28	0 58	132.00	8.08	21	11	4	-4	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 08.31	474.00	0.21	6580.00	6558	6577	6590	6583	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 08:34	1.03	78.20	14.40	8	6	13	31	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
CRA	23-Jan-2013, 08:36	22.40	2.12	311.00	315	315	312	301	
TEST1 STD1 TLM	23-Jan-2013, 08:39	22.30	2.18	310.00	318	313	308	302	
TEST2 STD1 TLM	23-Jan-2013, 08:42	22.60	0.88	314.00	318	314	311	315	
TEST 2 STD6 TLM	23-Jan-2013, 08.44	982.00	0.15	13600.00	13611	13636	13659	13651	
TEST 2 STD6 TLM	23-Jan-2013, 08.47	991.00	0.09	13800.00	13754	13775	13780	13760	
TEST 1 CV TLM	23-Jan-2013, 08:50	461.00	0.18	6410.00	6417	6416	6404	6393	
TEST 2 CV TLM	23-Jan-2013, 08:52	464.00	0 21	6450 00	6454	6456	6452	6427	
TEST 3 CV TLM	23-Jan-2013, 08.55	466.00	0.26	6480.00	6490	6489	6474	6454	
WA10 MB1 TLM	23-Jan-2013, 08:58	1.15	75.60	16.00	6	10	15	33	
WA10 MB1SPK TLM	23-Jan-2013, 09:01	202.00	0.31	2810.00	2796	2802	2812	2814	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 09.03	474.00	0 28	6580.00	6557	6575	6590	6598	

CETAC Hg Analysis Report - 13012300.DB - Wednesday, January 23, 2013, 2:23:03 PM

Analyst
Date Started Wednesday, January 23, 2013, 09:06:37
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 09:06	3.92	4.12	54.40	57	53	52	56	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA10 A TLM	23-Jan-2013, 09:09	4.05	13.00	56.20	66	57	52	50	
WA10 ADUP TLM	23-Jan-2013, 09:12	6.15	6.58	85.40	87	79	84	92	
WA10 ASPK TLM	23-Jan-2013, 09:14	101.00	0.56	1400.00	1392	1403	1406	1411	
WA10 B TLM	23-Jan-2013, 09:17	10.80	2.48	150.00	146	148	150	155	
WA10 C TLM	23-Jan-2013, 09:20	4.64	11.10	64.40	70	69	64	54	
WA10 D TLM	23-Jan-2013, 09:22	2.28	13.80	31.70	26	30	34	36	
WA10 E TLM	23-Jan-2013, 09:25	5.97	7.94	82.90	74	83	88	87	
WA10 F TLM	23-Jan-2013, 09:28	2.30	38.90	32.00	21	23	37	47	
WA10 MB2 TLM	23-Jan-2013, 09:30	4.26	22.40	59.10	67	68	62	40	
WA10 MB2SPK TLM	23-Jan-2013, 09:33	188.00	0.24	2610.00	2600	2608	2615	2612	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 09:36	473.00	0.18	6570.00	6555	6562	6578	6579	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 09:39	1.84	12.70	25.60	28	22	24	28	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA10 G TLM	23-Jan-2013, 09:41	4.49	3.20	62.30	65	61	60	63	
WA10 GDUP TLM	23-Jan-2013, 09:44	3.60	29.80	50.00	36	42	52	70	
WA10 GSPK TLM	23-Jan-2013, 09:47	106.00	0.32	1470.00	1476	1475	1473	1466	
WA10 H TLM	23-Jan-2013, 09:49	5.31	2.70	73.80	74	71	76	74	
WA10 I TLM	23-Jan-2013, 09:52	3.34	37.70	46.30	26	38	56	65	
WA10 J TLM	23-Jan-2013, 09:55	2.06	20.30	28.60	22	26	31	35	
WA10 K TLM	23-Jan-2013, 09:57	2.52	37.20	35.00	45	46	30	19	
WA10 L TLM	23-Jan-2013, 10:00	2.75	17.00	38.20	48	35	34	36	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 10:03	477.00	0.27	6630.00	6605	6621	6635	6647	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 10:06	2.65	37.30	36.80	54	42	26	25	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA16 MB1 TLM	23-Jan-2013, 10:09	2.39	20.60	33.20	24	33	39	37	
WA16 MB1SPK TLM	23-Jan-2013, 10:11	197.00	0.14	2740.00	2735	2743	2743	2740	
WA16 A TLM	23-Jan-2013, 10:14	16.30	2.29	227.00	220	227	232	228	
WA16 ADUP TLM	23-Jan-2013, 10:17	17.70	5.04	245.00	231	239	251	259	Q
WA16 ASPK TLM	23-Jan-2013, 10:19	114.00	0.99	1590.00	1571	1584	1596	1607	
WA16 B TLM	23-Jan-2013, 10:22	3.14	25.30	43.60	35	34	48	57	
WA16 C TLM	23-Jan-2013, 10:25	9.42	4.63	131.00	130	127	127	140	
WA16 D TLM	23-Jan-2013, 10:27	-0.69	103.00	-9.55	5	-11	-15	-17	
WA16 E TLM	23-Jan-2013, 10:30	2.83	32.60	39.30	53	47	31	26	
WA16 F TLM	23-Jan-2013, 10:33	6.38	2.06	88.80	89	87	88	91	

1-24-13

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 10:36	477.00	0.19	6630.00	6613	6630	6642	6637	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 10:38	3.98	9.47	55.30	49	53	60	59	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA16 G TLM	23-Jan-2013, 10.41	2.56	12.00	35.60	38	29	37	39	
WA16 H TLM	23-Jan-2013, 10.44	2.31	58.80	32.00	56	37	20	14	
WA16 I TLM	23-Jan-2013, 10.46	6.48	5.66	90.00	84	89	92	96	
WA16 J TLM	23-Jan-2013, 10.49	5.47	6.61	76.00	69	77	81	76	

CETAC Hg Analysis Report - 13012300.DB - Wednesday, January 23, 2013, 2:23:05 PM

Analyst	
Date Created:	Wednesday, November 27, 2002
Worksheet	LOW LEVEL CALIB 20 TO 1000 PPT
Comment	
Sip Duration (Sec.):	55
Rinse Duration (Sec.):	100
Read Delay:	75
Integration Time/Replicate:	2.00
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	20
Baseline Point 1 End Time:	24
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	148
Baseline Point 2 End Time:	152
Gas Flow (ml/min):	30
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	2
Calibration Standard #1 Conc.:	20.00 PPT
Calibration Standard #2 Conc.:	50.00 PPT
Calibration Standard #3 Conc.:	100.00 PPT
Calibration Standard #4 Conc.:	200.00 PPT
Calibration Standard #5 Conc.:	400.00 PPT
Calibration Standard #6 Conc.:	1000.00 PPT
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs > 200, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 90% .. 110%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -20 .. 20,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Digested 20.0mL

Prep Code: TLM
Instrument: CETAC
Analyst: DM
Date: 01-18-13
Bath Temp: 95°C
Start Time: 1355
End Time: 1555

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	3007-4	0.02	↓	0.02	1
STD2	↓	0.05	↓	0.05	1
STD3	↓	0.10	↓	0.1	1
STD4	↓	0.20	↓	0.2	1
STD5	↓	~~0.50~~ 0.4	↓	0.4	1
STD6	↓	1.00	↓	1.00	1
CRA	↓	0.02	↓	0.02	1
ICB/CCB	—	0.00	↓	0.0	1
ICV/LCS	3007-5	1.0	↓	0.5	1
CCV	↓	1.0	100.0	0.5	1

Chemical/Reagent ID:

HNO_3: I7970
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2418
5% $KMnO_4$: MP2401

Prep Code:
Instrument:
Analyst:
Date:
Bath Temp:
Start Time:
End Time:

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0		0.00			
STD1					
STD2		0.05			
STD3		0.10			
STD4		0.20			
STD5		0.50			
STD6		1.00			
CRA					
ICB/CCB		0.00			
ICV/LCS					
CCV					

Chemical/Reagent ID:

HNO_3:
H_2SO_4:
HCl:
5% $K_2S_2O_8$:
5% $KMnO_4$:

UA06 001UU

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Analyst: DM
Bath Temp: 90°C
Start Time: 1145
Matrix: Water
Date: 01-18-13
End Time: 1345

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WA10 A	1	✓	20.0	20.0	1/28 1	Y	
" AOUP	1	✓			1		
" ASPK	1	✓			1		
" B	1	✓			1		
" C	1	✓			1		
" D	1	✓			1		
" E	1	✓			1		
" F	1	✓			1		
" MB1	—	✓			1		
" MB1SPK	—	✓			1		
" G	1	✓			1		
" GOUP	1	✓			1		
" GSPK	1	✓			1		
" H	1	✓			1		
" I	1	✓			1		
" J	1	✓			1		
" K	1	✓			1		
" L	1	✓			1		
" MB2	—	✓			1		
" MB2SPK	—	✓	20.0	20.0	1	Y	
			01-18-13 DM				

Chemical/Reagent ID:

HNO_3: I1970
H_2SO_4: I1677
HCl: —
5% $K_2S_2O_8$: MP2418
5% $KMnO_4$: MP2401
Digest Tube Lot: 1208057

WA06 00145

Table of Contents: ARI Job WA08, WA16

Client: GeoEngineers

Project: 0504-068 ECY-Everett Lowlands

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Preparation Bench Sheets and Notes	253	256
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Signature

January-31-2013
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

January 31, 2013

Garrett Leque
GeoEngineers, Inc.
1101 Fawcett, Suite 200
Tacoma, WA 98402

RE: ECY-Everett Lowlands, 0504-068-00
ARI Job Nos.: WA08 & WA16

Dear Garrett:

Please find enclosed the Chain-of-Custody records (COCs), sample receipt documentation, and the data package for samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile WA08_WA16

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: WA08, WA16

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: WA08	Turn-around Requested: NORMAL
ARI Client Company: GeoEngineers	Phone: 253 383 4940
Client Contact: Garrett Lepue	
Client Project Name: ECY - Everett Lowlands	
Client Project #: 0504-068	Samplers: PDR

Page: 1	of 2
Date: 1/15/13	Ice Present? Y
No. of Coolers: 1	Cooler Temps: AMB

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	metals total *	metals dissolved *							Notes/Comments
BP01S-130114-W	1/14	0907	W	2	X	X							
BP01D-130114-W		0950			X	X							
BP02S-130114-W		1505			X	X							
BP02D-130114-W		1535			X	X							
BP03S-130114-W		1350			X	X							
BP03D-130114-W		1305			X	X							
BP06S-130114-W		1536			X	X							
BP06D-130114-W		1508			X	X							
BP07S-130114-W		0906			X	X							
BP07D-130114-W		944			X	X							

Analysis Requested

Comments/Special Instructions	Relinquished by (Signature)	Received by (Signature)	Relinquished by (Signature)	Received by (Signature)
* metals: As, Pb, Cd, Tl, Sb, Hg	Printed Name: Paul Robinett	Printed Name: Rich Hudson	Printed Name:	Printed Name:
	Company: GeoEngineers	Company: ARI	Company:	Company:
	Date & Time: 1/16/13 1645	Date & Time: 1/16/13 1645	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: WA08	Turn-around Requested: Normal
ARI Client Company: GeoEngineers	Phone: 253 383 4940
Client Contact: Garrett Leque	
Client Project Name: Ecy - Everett Lowlands	
Client Project #: 0504-D6B	Samplers: PDR

Page: 2 of 2

Date: 1/15/13 Ice Present? Y

No. of Coolers: 1 Cooler Temps: AMB

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	metals * total	metals * dissolved							Notes/Comments
BPD8S-130114-W	1/14	1232	W	2	X	X							
BPD8D-130114-W		1314			X	X							
BPD9S-130114-W		1100			X	X							
BPD9D-130114-W		1135			X	X							
BPD10S-130114-W		1100			X	X							
BPD10D-130114-W		1140			X	X							
DUP02-130114-W		0830											

Analysis Requested

Comments/Special Instructions
* metals
As, Pb, Cd, Tl, Sb, Hg

Relinquished by:	Received by:	Relinquished by:	Received by
(Signature) Paul Robinette	(Signature)	(Signature)	(Signature)
Printed Name: Paul Robinette	Printed Name: Rich Hudson	Printed Name	Printed Name
Company: GeoEngineers	Company: ARI	Company:	Company:
Date & Time: 1/16/13 1645	Date & Time: 1/16/13 1645	Date & Time	Date & Time

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Geo Engineers
Project Name: ECY - Everett Lowlands
COC No(s): (NA)
Delivered by: Fed-Ex UPS Courier Hand Delivered Other:
Assigned ARI Job No: WA08
Tracking No: (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6 0 °C for chemistry)		

JMB

If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID#: ~~90877952~~

Cooler Accepted by: Rich Hudson Date: 1/16/13 Time: ~~1800~~ JM 1645

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	(NA)	YES	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		YES	(NO)
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	(YES)	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

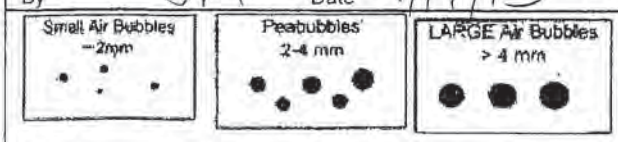
Was Sample Split by ARI: (NA) YES Date/Time: Equipment: Split by:

Samples Logged by: JM Date: 1/17/13 Time: 1125

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:
all sample IDs on containers are missing - (130114-w) per client email
ice present in coolers but temperature not recorded due to laboratory error.
By: JM Date: 1/17/13 1/18/13



Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Geo Engineers

Project Name: ECY - Everett Lowlands

COC No(s): (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other:

Assigned ARI Job No: WA16

Tracking No: (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)		

AMB

If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID#: 90877952

Cooler Accepted by: Rich Hudson Date: 1/16/13 Time: 1800

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used?	Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	(NA)	YES	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		YES	(NO)
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	(YES)	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Was Sample Split by ARI (NA) YES Date/Time _____ Equipment _____ Split by: _____

Samples Logged by: JM Date: 1/17/13 Time: 1125

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:
all sample IDs on containers are missing - (130114-w) per client email
ice present in cooler but temperature not recorded due to laboratory error.

By: JM Date: 1/17/13

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm	
			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

PRESERVATION VERIFICATION 01/17/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA08**

Inquiry Number: NONE
Analysis Requested:
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: JM
Sample Set Used: Yes-481
Validatable Package: LV4
Deliverables:

PC: Cheronne
VTSR: 01/16/13

Project #: 0504-068
Project: ECY-Everett Lowlands
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1204 **WA08A**	BP01S-130114-W						TOT P															
13-1205 **WA08B**	BP01D-130114-W						TOT P															
13-1206 **WA08C**	BP02S-130114-W						TOT P															
13-1207 **WA08D**	BP02D-130114-W						TOT P															
13-1208 **WA08E**	BP03S-130114-W						TOT P															
13-1209 **WA08F**	BP03D-130114-W						TOT P															
13-1210 **WA08G**	BP06S-130114-W						TOT P															
13-1211 **WA08H**	BP06D-130114-W						TOT P															
13-1212 **WA08I**	BP07S-130114-W						TOT P															
13-1213 **WA08J**	BP07D-130114-W						TOT P															
13-1214 **WA08K**	BP08S-130114-W						TOT P															
13-1215 **WA08L**	BP08D-130114-W						TOT P															
13-1216 **WA08M**	BP09S-130114-W						TOT P															
13-1217 **WA08N**	BP09D-130114-W						TOT P															

P = Pass

Checked By JM Date 1/17/13

PRESERVATION VERIFICATION 01/17/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA08**

Client: GeoEngineers

Project #: 0504-068
Project: ECY-Everett Lowlands

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1218 **WA08O**	BP10S-130114-W						TOT P															
13-1219 **WA08P**	BP10D-130114-W						TOT P															
13-1220 **WA08Q**	DUP02-130114-W						TOT P															
13-1221 **WA08R**	BP01S-130114-W						DIS P									Y						
13-1222 **WA08S**	BP01D-130114-W						DIS P									Y						
13-1223 **WA08T**	BP02S-130114-W						DIS P									Y						
13-1224 **WA08U**	BP02D-130114-W						DIS P									Y						
13-1225 **WA08V**	BP03S-130114-W						DIS P									Y						
13-1226 **WA08W**	BP03D-130114-W						DIS P									Y						
13-1227 **WA08X**	BP06S-130114-W						DIS P									Y						
13-1228 **WA08Y**	BP06D-130114-W						DIS P									Y						
13-1229 **WA08Z**	BP07S-130114-W						DIS P									Y						
13-1230 **WA08AA**	BP07D-130114-W						DIS P									Y						
13-1231 **WA08AB**	BP08S-130114-W						DIS P									Y						
13-1232 **WA08AC**	BP08D-130114-W						DIS P									Y						
13-1233 **WA08AD**	BP09S-130114-W						DIS P									Y						
13-1234 **WA08AE**	BP09D-130114-W						DIS P									Y						

Checked By JM Date 1/17/13

PRESERVATION VERIFICATION 01/17/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA08**

Client: GeoEngineers

Project #: 0504-068
Project: ECY-Everett Lowlands

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1235 **WA08AF**	BP10S-130114-W						DIS P									Y						
13-1236 **WA08AG**	BP10D-130114-W						DIS P									Y						
13-1237 **WA08AH**	DUP02-130114-W						DIS P									Y						

WA08 : 00009

Checked By JIN Date 1/17/13

PRESERVATION VERIFICATION 01/17/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA16**

Inquiry Number: NONE
Analysis Requested: 01/17/13
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: JM
Sample Set Used: Yes-481
Validatable Package: LV4
Deliverables:

PC: Cheronne
VTSR: 01/16/13

Project #: 0504-068
Project: ECY-Everett Lowlands
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1238 **WA16A**	BP01S-130114-W						TOT P															
13-1239 **WA16B**	BP01D-130114-W						TOT P															
13-1240 **WA16C**	BP02S-130114-W						TOT P															
13-1241 **WA16D**	BP02D-130114-W						TOT P															
13-1242 **WA16E**	BP03S-130114-W						TOT P															
13-1243 **WA16F**	BP03D-130114-W						TOT P															
13-1244 **WA16G**	BP06S-130114-W						TOT P															
13-1245 **WA16H**	BP06D-130114-W						TOT P															
13-1246 **WA16I**	BP07S-130114-W						TOT P															
13-1247 **WA16J**	BP07D-130114-W						TOT P															
13-1248 **WA16K**	BP08S-130114-W						TOT P															
13-1249 **WA16L**	BP08D-130114-W						TOT P															
13-1250 **WA16M**	BP09S-130114-W						TOT P															
13-1251 **WA16N**	BP09D-130114-W						TOT P															

P=Pass

Checked By JM Date 1/17/13

PRESERVATION VERIFICATION 01/17/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA16**

Client: GeoEngineers

Project #: 0504-068
Project: ECY-Everett Lowlands

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1252 **WA16O**	BP10S-130114-W						TOT P															
13-1253 **WA16P**	BP10D-130114-W						TOT P															
13-1254 **WA16Q**	DUP02-130114-W						TOT P															
13-1255 **WA16R**	BP01S-130114-W						DIS P									Y						
13-1256 **WA16S**	BP01D-130114-W						DIS P									Y						
13-1257 **WA16T**	BP02S-130114-W						DIS P									Y						
13-1258 **WA16U**	BP02D-130114-W						DIS P									Y						
13-1259 **WA16V**	BP03S-130114-W						DIS P									Y						
13-1260 **WA16W**	BP03D-130114-W						DIS P									Y						
13-1261 **WA16X**	BP06S-130114-W						DIS P									Y						
13-1262 **WA16Y**	BP06D-130114-W						DIS P									Y						
13-1263 **WA16Z**	BP07S-130114-W						DIS P									Y						
13-1264 **WA16AA**	BP07D-130114-W						DIS P									Y						
13-1265 **WA16AB**	BP08S-130114-W						DIS P									Y						
13-1266 **WA16AC**	BP08D-130114-W						DIS P									Y						
13-1267 **WA16AD**	BP09S-130114-W						DIS P									Y						
13-1268 **WA16AE**	BP09D-130114-W						DIS P									Y						

Checked By JM Date 1/17/13

PRESERVATION VERIFICATION 01/17/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA16**

Client: GeoEngineers

Project #: 0504-068
Project: ECY-Everett Lowlands

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1269 **WA16AF**	BP10S-130114-W						DIS P									Y						
13-1270 **WA16AG**	BP10D-130114-W						DIS P									Y						
13-1271 **WA16AH**	DUP02-130114-W						DIS P									Y						

WA08 : 000012

Checked By JM Date 1/17/13

Subject: Re: Bottle Order / labeling
From: Sue Dunnihoo <sue@arilabs.com>
Date: 1/4/2013 4:19 PM
To: "Garrett R. Leque" <gleque@geoengineers.com>
CC: Brian Anderson <banderson@geoengineers.com>, "Paul D. Robinette" <probinette@geoengineers.com>, Cheronne Oreiro <cheronneo@arilabs.com>

Login has you set up for delivery Monday and everyone says we should be fine on the naming.

Cheers - Sue

On 1/4/2013 4:11 PM, Garrett R. Leque wrote:

> Hi Sue,
>
> As we discussed please have delivered about 20 nitric-preserved bottles and labels to the Everett Lowlands project if possible Monday.
>
> Also, just want to confirm that it is okay to do the following labeling scheme:
>
> For a sample called LLMW06S-130107-W, that name will be recorded on the COC, however the sample label name will just be LLMW06S (see attached).
>
> We'd like everything to be recorded and reported and carried forward with the full name, of course...
>
> Have a good weekend, thanks!
>
> **Garrett Leque, LG**
> **Geologist | GeoEngineers**
> **t:** 253.383.4940
> **f:** 253.383.4923
> **c:** 253.312.7958
>
> ---
>
> Confidentiality. This message is confidential and intended solely for use of the individual or entity to whom it is addressed If you are not the person for whom this message is intended, please delete it and notify me immediately, and please do not copy or send this message to anyone else

--

Susan D. Dunnihoo
Director, Client Services
ANALYTICAL RESOURCES, INC.
206-695-6207
sue@arilabs.com
www.arilabs.com

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If you have received this correspondence in error, please

notify sender immediately. Thank you.

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: WA08, WA16

Case Narrative

Client: GeoEngineers
Project: ECY-Everett Lowlands, 0504-068-00
ARI Job Nos.: WA08 & WA16

Sample Receipt

Seventeen water samples were received on January 14, 2013 under ARI jobs WA08 and WA16. For details regarding sample receipt, refer to the Cooler Receipt Forms.

Total and Dissolved Metals by 200.8

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial and continuing calibrations were within limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recovery of total arsenic was outside the control limits high for sample **BP01S-130114-W**. A post digestion spike was performed and the recovery was within control limits. All relevant data have been flagged with an "N" qualifier on the appropriate Form V. No further corrective action was taken.

The duplicate RPDs were within control limits.

Total and Dissolved Mercury by SW7470A

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial and continuing calibrations were within limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WA08
Client: GeoEngineers
Project Event: 0504-068
Project Name: ECY-Everett Lowlands

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	BP01S-130114-W	WA08A	13-1204	Water	01/14/13 09:07	01/16/13 16:45
2.	BP01D-130114-W	WA08B	13-1205	Water	01/14/13 09:50	01/16/13 16:45
3.	BP02S-130114-W	WA08C	13-1206	Water	01/14/13 15:05	01/16/13 16:45
4.	BP02D-130114-W	WA08D	13-1207	Water	01/14/13 15:35	01/16/13 16:45
5.	BP03S-130114-W	WA08E	13-1208	Water	01/14/13 13:50	01/16/13 16:45
6.	BP03D-130114-W	WA08F	13-1209	Water	01/14/13 13:05	01/16/13 16:45
7.	BP06S-130114-W	WA08G	13-1210	Water	01/14/13 15:36	01/16/13 16:45
8.	BP06D-130114-W	WA08H	13-1211	Water	01/14/13 15:08	01/16/13 16:45
9.	BP07S-130114-W	WA08I	13-1212	Water	01/14/13 09:06	01/16/13 16:45
10.	BP07D-130114-W	WA08J	13-1213	Water	01/14/13 09:44	01/16/13 16:45
11.	BP08S-130114-W	WA08K	13-1214	Water	01/14/13 12:32	01/16/13 16:45
12.	BP08D-130114-W	WA08L	13-1215	Water	01/14/13 13:14	01/16/13 16:45
13.	BP09S-130114-W	WA08M	13-1216	Water	01/14/13 11:00	01/16/13 16:45
14.	BP09D-130114-W	WA08N	13-1217	Water	01/14/13 11:35	01/16/13 16:45
15.	BP10S-130114-W	WA08O	13-1218	Water	01/14/13 11:00	01/16/13 16:45
16.	BP10D-130114-W	WA08P	13-1219	Water	01/14/13 11:40	01/16/13 16:45
17.	DUP02-130114-W	WA08Q	13-1220	Water	01/14/13 08:30	01/16/13 16:45
18.	BP01S-130114-W	WA08R	13-1221	Water	01/14/13 09:07	01/16/13 16:45
19.	BP01D-130114-W	WA08S	13-1222	Water	01/14/13 09:50	01/16/13 16:45
20.	BP02S-130114-W	WA08T	13-1223	Water	01/14/13 15:05	01/16/13 16:45
21.	BP02D-130114-W	WA08U	13-1224	Water	01/14/13 15:35	01/16/13 16:45
22.	BP03S-130114-W	WA08V	13-1225	Water	01/14/13 13:50	01/16/13 16:45
23.	BP03D-130114-W	WA08W	13-1226	Water	01/14/13 13:05	01/16/13 16:45
24.	BP06S-130114-W	WA08X	13-1227	Water	01/14/13 15:36	01/16/13 16:45
25.	BP06D-130114-W	WA08Y	13-1228	Water	01/14/13 15:08	01/16/13 16:45
26.	BP07S-130114-W	WA08Z	13-1229	Water	01/14/13 09:06	01/16/13 16:45
27.	BP07D-130114-W	WA08AA	13-1230	Water	01/14/13 09:44	01/16/13 16:45
28.	BP08S-130114-W	WA08AB	13-1231	Water	01/14/13 12:32	01/16/13 16:45
29.	BP08D-130114-W	WA08AC	13-1232	Water	01/14/13 13:14	01/16/13 16:45
30.	BP09S-130114-W	WA08AD	13-1233	Water	01/14/13 11:00	01/16/13 16:45
31.	BP09D-130114-W	WA08AE	13-1234	Water	01/14/13 11:35	01/16/13 16:45
32.	BP10S-130114-W	WA08AF	13-1235	Water	01/14/13 11:00	01/16/13 16:45
33.	BP10D-130114-W	WA08AG	13-1236	Water	01/14/13 11:40	01/16/13 16:45
34.	DUP02-130114-W	WA08AH	13-1237	Water	01/14/13 08:30	01/16/13 16:45

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WA16
Client: GeoEngineers
Project Event: 0504-068
Project Name: ECY-Everett Lowlands

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	BP01S-130114-W	WA16A	13-1238	Water	01/14/13 09:07	01/16/13 16:45
2.	BP01D-130114-W	WA16B	13-1239	Water	01/14/13 09:50	01/16/13 16:45
3.	BP02S-130114-W	WA16C	13-1240	Water	01/14/13 15:05	01/16/13 16:45
4.	BP02D-130114-W	WA16D	13-1241	Water	01/14/13 15:35	01/16/13 16:45
5.	BP03S-130114-W	WA16E	13-1242	Water	01/14/13 13:50	01/16/13 16:45
6.	BP03D-130114-W	WA16F	13-1243	Water	01/14/13 13:05	01/16/13 16:45
7.	BP06S-130114-W	WA16G	13-1244	Water	01/14/13 15:36	01/16/13 16:45
8.	BP06D-130114-W	WA16H	13-1245	Water	01/14/13 15:08	01/16/13 16:45
9.	BP07S-130114-W	WA16I	13-1246	Water	01/14/13 09:06	01/16/13 16:45
10.	BP07D-130114-W	WA16J	13-1247	Water	01/14/13 09:44	01/16/13 16:45
11.	BP08S-130114-W	WA16K	13-1248	Water	01/14/13 12:32	01/16/13 16:45
12.	BP08D-130114-W	WA16L	13-1249	Water	01/14/13 13:14	01/16/13 16:45
13.	BP09S-130114-W	WA16M	13-1250	Water	01/14/13 11:00	01/16/13 16:45
14.	BP09D-130114-W	WA16N	13-1251	Water	01/14/13 11:35	01/16/13 16:45
15.	BP10S-130114-W	WA16O	13-1252	Water	01/14/13 11:00	01/16/13 16:45
16.	BP10D-130114-W	WA16P	13-1253	Water	01/14/13 11:40	01/16/13 16:45
17.	DUP02-130114-W	WA16Q	13-1254	Water	01/14/13 08:30	01/16/13 16:45
18.	BP01S-130114-W	WA16R	13-1255	Water	01/14/13 09:07	01/16/13 16:45
19.	BP01D-130114-W	WA16S	13-1256	Water	01/14/13 09:50	01/16/13 16:45
20.	BP02S-130114-W	WA16T	13-1257	Water	01/14/13 15:05	01/16/13 16:45
21.	BP02D-130114-W	WA16U	13-1258	Water	01/14/13 15:35	01/16/13 16:45
22.	BP03S-130114-W	WA16V	13-1259	Water	01/14/13 13:50	01/16/13 16:45
23.	BP03D-130114-W	WA16W	13-1260	Water	01/14/13 13:05	01/16/13 16:45
24.	BP06S-130114-W	WA16X	13-1261	Water	01/14/13 15:36	01/16/13 16:45
25.	BP06D-130114-W	WA16Y	13-1262	Water	01/14/13 15:08	01/16/13 16:45
26.	BP07S-130114-W	WA16Z	13-1263	Water	01/14/13 09:06	01/16/13 16:45
27.	BP07D-130114-W	WA16AA	13-1264	Water	01/14/13 09:44	01/16/13 16:45
28.	BP08S-130114-W	WA16AB	13-1265	Water	01/14/13 12:32	01/16/13 16:45
29.	BP08D-130114-W	WA16AC	13-1266	Water	01/14/13 13:14	01/16/13 16:45
30.	BP09S-130114-W	WA16AD	13-1267	Water	01/14/13 11:00	01/16/13 16:45
31.	BP09D-130114-W	WA16AE	13-1268	Water	01/14/13 11:35	01/16/13 16:45
32.	BP10S-130114-W	WA16AF	13-1269	Water	01/14/13 11:00	01/16/13 16:45
33.	BP10D-130114-W	WA16AG	13-1270	Water	01/14/13 11:40	01/16/13 16:45
34.	DUP02-130114-W	WA16AH	13-1271	Water	01/14/13 08:30	01/16/13 16:45

WA08 00018

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Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U Indicates that the target analyte was not detected at the reported concentration

* Duplicate RPD is not within established control limits

B Reported value is less than the CRDL but ≥ the Reporting Limit

N Matrix Spike recovery not within established control limits

NA Not Applicable, analyte not spiked

H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible

L Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U Indicates that the target analyte was not detected at the reported concentration

* Flagged value is not within established control limits

B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

J Estimated concentration when the value is less than ARI's established reporting limits

D The spiked compound was not detected due to sample extract dilution

E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid, a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

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Quality Control Parameters for Mercury Analysis using CVAA
EPA Methods 7470A or 245.1 for Aqueous Samples
EPA Methods 7471B or 245.5 for Solid Samples

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[2]	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.025[3]	75 – 125	80 – 120	≤ 20
	Tissue Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.005[4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

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Quality Control Parameters for Metals Analysis ICP-MS EPA Methods 200.8 or 6020A

Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[3]	Solids[2]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium[4]	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium[4]	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume Solids LOQ based on 100% solids using 1.0 g sample 100 mL final volume.
(3) Relative Percent Difference in replicate analyzes. $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$ where C_O=Original, C_D=Duplicate
(4) ARI has no accreditation for these elements.

Metals Analysis
Report and Summary QC Forms

ARI Job ID: WA08, WA16

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA08

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
BP01S-130114-W	WA08A	13-1204	
BP01S-130114-WD	WA08ADUP	13-1204	
BP01S-130114-WS	WA08ASPK	13-1204	
BP01D-130114-W	WA08B	13-1205	
PBW	WA08MB1	13-1205	
LCSW	WA08MB1SPK	13-1205	
BP02S-130114-W	WA08C	13-1206	
BP02D-130114-W	WA08D	13-1207	
BP03S-130114-W	WA08E	13-1208	
BP03D-130114-W	WA08F	13-1209	
BP06S-130114-W	WA08G	13-1210	
BP06D-130114-W	WA08H	13-1211	
BP07S-130114-W	WA08I	13-1212	
BP07D-130114-W	WA08J	13-1213	
BP08S-130114-W	WA08K	13-1214	
BP08D-130114-W	WA08L	13-1215	
BP09S-130114-W	WA08M	13-1216	
BP09D-130114-W	WA08N	13-1217	
BP10S-130114-W	WA08O	13-1218	
BP10D-130114-W	WA08P	13-1219	
DUP02-130114-W	WA08Q	13-1220	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: Jay Kuhn Name: Jay Kuhn

Date: 1/31/13 Title: Inorganics Director

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA08

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
BP01S-130114-W	WA08R	13-1221	
BP01S-130114-WD	WA08RDUP	13-1221	
BP01S-130114-WS	WA08RSPK	13-1221	
PBW	WA08MB2	13-1222	
LCSW	WA08MB2SPK	13-1222	
BP01D-130114-W	WA08S	13-1222	
BP02S-130114-W	WA08T	13-1223	
BP02D-130114-W	WA08U	13-1224	
BP03S-130114-W	WA08V	13-1225	
BP03D-130114-W	WA08W	13-1226	
BP06S-130114-W	WA08X	13-1227	
BP06D-130114-W	WA08Y	13-1228	
BP07S-130114-W	WA08Z	13-1229	
BP07D-130114-W	WA08AA	13-1230	
BP08S-130114-W	WA08AB	13-1231	
BP08D-130114-W	WA08AC	13-1232	
BP09S-130114-W	WA08AD	13-1233	
BP09D-130114-W	WA08AE	13-1234	
BP10S-130114-W	WA08AF	13-1235	
BP10D-130114-W	WA08AG	13-1236	
DUP02-130114-W	WA08AH	13-1237	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 1/30/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP01S-130114-W
SAMPLE

Lab Sample ID: WA08A
LIMS ID: 13-1204
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**0.7**	
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**88.4**	
200.8	01/21/13	200.8	01/23/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**11.9**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP01D-130114-W
SAMPLE

Lab Sample ID: WA08B
LIMS ID: 13-1205
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**0.5**	
200.8	01/21/13	200.8	01/23/13	**7440-43-9**	**Cadmium**	0.1	**0.5**	
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**0.4**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP02S-130114-W
SAMPLE

Lab Sample ID: WA08C
LIMS ID: 13-1206
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands 0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**132**	
200.8	01/21/13	200.8	01/23/13	**7440-43-9**	**Cadmium**	0.1	**0.1**	
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**10.1**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP02D-130114-W
SAMPLE

Lab Sample ID: WA08D
LIMS ID: 13-1207
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**1.0**	
200.8	01/21/13	200.8	01/23/13	**7440-43-9**	**Cadmium**	0.1	**0.1**	
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**0.5**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP03S-130114-W
SAMPLE

Lab Sample ID: WA08E
LIMS ID: 13-1208
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**34.4**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**0.2**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP03D-130114-W
SAMPLE

Lab Sample ID: WA08F
LIMS ID: 13-1209
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**0.9**	
200.8	01/21/13	200.8	01/23/13	**7440-43-9**	**Cadmium**	0.1	**0.7**	
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**0.6**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP06S-130114-W
SAMPLE

Lab Sample ID: WA08G
LIMS ID: 13-1210
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**59.0**	
200.8	01/21/13	200.8	01/23/13	**7440-43-9**	**Cadmium**	0.1	**0.3**	
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**1.1**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP06D-130114-W
SAMPLE

Lab Sample ID: WA08H
LIMS ID: 13-1211
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	10	**1,820**	
200.8	01/21/13	200.8	01/23/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**0.4**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP07S-130114-W
SAMPLE

Lab Sample ID: WA08I
LIMS ID: 13-1212
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**0.3**	
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**274**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**0.8**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP07D-130114-W
SAMPLE

Lab Sample ID: WA08J
LIMS ID: 13-1213
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	10	**4,940**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP08S-130114-W
SAMPLE

Lab Sample ID: WA08K
LIMS ID: 13-1214
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands 0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**71.7**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**0.1**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP08D-130114-W
SAMPLE

Lab Sample ID: WA08L
LIMS ID: 13-1215
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**0.9**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**0.2**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP09S-130114-W
SAMPLE

Lab Sample ID: WA08M
LIMS ID: 13-1216
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**1.1**	
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**279**	
200.8	01/21/13	200.8	01/23/13	**7440-43-9**	**Cadmium**	0.1	**5.6**	
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**0.9**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP09D-130114-W
SAMPLE

Lab Sample ID: WA08N
LIMS ID: 13-1217
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**23.0**	
200.8	01/21/13	200.8	01/23/13	**7440-43-9**	**Cadmium**	0.1	**0.7**	
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**0.5**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP10S-130114-W
SAMPLE

Lab Sample ID: WA080
LIMS ID: 13-1218
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**115**	
200.8	01/21/13	200.8	01/23/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**0.5**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP10D-130114-W
SAMPLE

Lab Sample ID: WA08P
LIMS ID: 13-1219
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**0.3**	
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**8.1**	
200.8	01/21/13	200.8	01/23/13	**7440-43-9**	**Cadmium**	0.1	**0.1**	
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**0.7**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: DUP02-130114-W
SAMPLE

Lab Sample ID: WA08Q
LIMS ID: 13-1220
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands 0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**0.7**	
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**90.9**	
200.8	01/21/13	200.8	01/23/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**12.1**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP01S-130114-W
MATRIX SPIKE

Lab Sample ID: WA08A
LIMS ID: 13-1204
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.7	23.8	25.0	92.4%	
Arsenic	200.8	88.4	120	25.0	126%	N
Cadmium	200.8	0.2	23.7	25.0	94.0%	
Lead	200.8	11.9	37.4	25.0	102%	
Thallium	200.8	0.2 U	25.0	25.0	100%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked
NR-Not Recovered

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP01S-130114-W
DUPLICATE

Lab Sample ID: WA08A
LIMS ID: 13-1204
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.7	0.7	0.0%	+/- 0.2	L
Arsenic	200.8	88.4	86.0	2.8%	+/- 20%	
Cadmium	200.8	0.2	0.2	0.0%	+/- 0.1	L
Lead	200.8	11.9	11.6	2.6%	+/- 20%	
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP01S-130114-W
SAMPLE

Lab Sample ID: WA08R
LIMS ID: 13-1221
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**83.8**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP01D-130114-W
SAMPLE

Lab Sample ID: WA08S
LIMS ID: 13-1222
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**0.3**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP02S-130114-W
SAMPLE

Lab Sample ID: WA08T
LIMS ID: 13-1223
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands 0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**94.5**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP02D-130114-W
SAMPLE

Lab Sample ID: WA08U
LIMS ID: 13-1224
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**0.3**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP03S-130114-W
SAMPLE

Lab Sample ID: WA08V
LIMS ID: 13-1225
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**36.8**	
200.8	01/21/13	200.8	01/23/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**9.6**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP03D-130114-W
SAMPLE

Lab Sample ID: WA08W
LIMS ID: 13-1226
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**0.3**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP06S-130114-W
SAMPLE

Lab Sample ID: WA08X
LIMS ID: 13-1227
Matrix: Water
Data Release Authorized
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**52.3**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP06D-130114-W
SAMPLE

Lab Sample ID: WA08Y
LIMS ID: 13-1228
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	10	**1,780**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP07S-130114-W
SAMPLE

Lab Sample ID: WA08Z
LIMS ID: 13-1229
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**0.2**	
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**277**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP07D-130114-W
SAMPLE

Lab Sample ID: WA08AA
LIMS ID: 13-1230
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**5,020**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP08S-130114-W
SAMPLE

Lab Sample ID: WA08AB
LIMS ID: 13-1231
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**57.5**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP08D-130114-W
SAMPLE

Lab Sample ID: WA08AC
LIMS ID: 13-1232
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**0.8**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP09S-130114-W
SAMPLE

Lab Sample ID: WA08AD
LIMS ID: 13-1233
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**0.5**	
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**164**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP09D-130114-W
SAMPLE

Lab Sample ID: WA08AE
LIMS ID: 13-1234
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**22.4**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP10S-130114-W
SAMPLE

Lab Sample ID: WA08AF
LIMS ID: 13-1235
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**94.8**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP10D-130114-W
SAMPLE

Lab Sample ID: WA08AG
LIMS ID: 13-1236
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	**7440-36-0**	**Antimony**	0.2	**0.3**	
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**8.3**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	**7439-92-1**	**Lead**	0.1	**0.1**	
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: DUP02-130114-W
SAMPLE

Lab Sample ID: WA08AH
LIMS ID: 13-1237
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	**7440-38-2**	**Arsenic**	0.2	**84.8**	
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP01S-130114-W
MATRIX SPIKE

Lab Sample ID: WA08R
LIMS ID: 13-1221
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.2 U	24.0	25.0	96.0%	
Arsenic	200.8	83.8	109	25.0	101%	
Cadmium	200.8	0.1 U	23.4	25.0	93.6%	
Lead	200.8	0.1 U	23.8	25.0	95.2%	
Thallium	200.8	0.2 U	24.1	25.0	96.4%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP01S-130114-W
DUPLICATE

Lab Sample ID: WA08R
LIMS ID: 13-1221
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Arsenic	200.8	83.8	84.1	0.4%	+/- 20%	
Cadmium	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Lead	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: WA08LCS
LIMS ID: 13-1205
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	25.1	25.0	100%	
Arsenic	200.8	28.6	25.0	114%	
Cadmium	200.8	26.2	25.0	105%	
Lead	200.8	28.0	25.0	112%	
Thallium	200.8	27.3	25.0	109%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: METHOD BLANK

Lab Sample ID: WA08MB
LIMS ID: 13-1205
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: WA08LCS
LIMS ID: 13-1222
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands 0504-068
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	24.7	25.0	98.8%	
Arsenic	200.8	27.2	25.0	109%	
Cadmium	200.8	25.2	25.0	101%	
Lead	200.8	26.8	25.0	107%	
Thallium	200.8	26.3	25.0	105%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: METHOD BLANK

Lab Sample ID: WA08MB
LIMS ID: 13-1222
Matrix: Water
Data Release Authorized:
Reported: 01/28/13

QC Report No: WA08-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/21/13	200.8	01/23/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	01/21/13	200.8	01/23/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/21/13	200.8	01/23/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA08

UNITS:ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS012311	50.0	49.14	**98.3**	50.0	50.37	**100.7**	49.87	**99.7**	49.97	**99.9**	49.95	**99.9**	49.58	**99.2**
Arsenic	AS	PMS	MS012311	50.0	51.24	**102.5**	50.0	50.36	**100.7**	50.14	**100.3**	51.50	**103.0**	51.58	**103.2**	51.32	**102.6**
Cadmium	CD	PMS	MS012311	50.0	49.38	**98.8**	50.0	50.69	**101.4**	50.49	**101.0**	50.33	**100.7**	49.58	**99.2**	49.91	**99.8**
Lead	PB	PMS	MS012311	50.0	50.37	**100.7**	50.0	50.04	**100.1**	49.60	**99.2**	49.68	**99.4**	49.46	**98.9**	49.22	**98.4**
Thallium	TL	PMS	MS012311	50.0	51.73	**103.5**	50.0	51.19	**102.4**	50.59	**101.2**	50.90	**101.8**	50.73	**101.5**	49.77	**99.5**

Control Limits: Mercury 80-120; Other Metals 90-110

WA08:00069

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA08

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	PMS	MS012311	50.0	49.41	**98.8**	49.12	**98.2**								
Arsenic	AS	PMS	MS012311	50.0	51.20	**102.4**	51.75	**103.5**								
Cadmium	CD	PMS	MS012311	50.0	49.34	**98.7**	49.56	**99.1**								
Lead	PB	PMS	MS012311	50.0	48.31	**96.6**	49.06	**98.1**								
Thallium	TL	PMS	MS012311	50.0	48.17	**96.3**	48.08	**96.2**								

Control Limits: Mercury 80-120; Other Metals 90-110

WA08 : 00070

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA08

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	PMS	MS012411	50.0	50.93	**101.9**	50.0	51.34	**102.7**	51.76	**103.5**	50.43	**100.9**				

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

WA08 000071

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA08

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Antimony	SB	PMS	MS012311	0.2	0.20	**100.0**										
Arsenic	AS	PMS	MS012311	0.2	0.21	**105.0**										
Cadmium	CD	PMS	MS012311	0.1	0.11	**110.0**										
Lead	PB	PMS	MS012311	0.1	0.11	**110.0**										
Thallium	TL	PMS	MS012311	0.2	0.21	**105.0**										
Arsenic	AS	PMS	MS012411	0.2	0.20	**100.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

WA08 000072

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA08

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS012311	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS012311	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS012311	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Lead	PB	PMS	MS012311	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Thallium	TL	PMS	MS012311	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

WA08 00073

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA08

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	PMS	MS012311	60.0	0.2	0.2	U	0.2	U								
Arsenic	AS	PMS	MS012311	10.0	0.2	0.2	U	0.2	U								
Cadmium	CD	PMS	MS012311	5.0	0.1	0.1	U	0.1	U								
Lead	PB	PMS	MS012311	3.0	0.1	0.1	U	0.1	U								
Thallium	TL	PMS	MS012311	10.0	0.2	0.2	U	0.2	U								

WA08 : 000074

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA08

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Arsenic	AS	PMS	MS012411	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				

WA08 : 00075

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA08

ICS SOURCE: I.V.

RUNID: MS012311

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	18.9	**94.5**						
Cadmium		20	0.2	19.3	**96.5**						
Copper		20	1.0	20.5	**102.5**						
Nickel		20	0.4	20.1	**100.5**						
Selenium			-0.3	-0.2							
Silver		20	0.0	18.9	**94.5**						
Zinc		20	1.1	20.3	**101.5**						

WA08 : 000075

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA08

ICS SOURCE: I.V.

RUNID: MS012411

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.9	**99.5**						
Barium			0.0	0.1							
Cadmium		20	0.1	19.3	**96.5**						
Chromium		20	0.7	20.4	**102.0**						
Cobalt		20	0.0	19.1	**95.5**						
Copper		20	1.0	21.8	**109.0**						
Manganese		20	0.1	19.4	**97.0**						
Molybdenum	400	400	412.5	424.1	**106.0**						
Nickel		20	0.4	21.0	**105.0**						
Selenium			-0.4	-0.3							
Silver		20	0.0	19.6	**98.0**						
Thorium			0.1	0.1							
Vanadium			0.1	0.1							
Zinc		20	0.9	21.0	**105.0**						

WA08 . 000077

Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

ANALYSIS METHOD: PMS

SDG: WA08

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT C	SAMPLE RESULT C	SPIKE ADDED	MATRIX	%R
Arsenic	BP01S-130114-WA	WA08APOST	MS012311	226.10	176.88	50	Water	**98.4**

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA08 UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Antimony	SB	PMS	NEXION 300D MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Cadmium	CD	PMS	NEXION 300D MS	0.00		5	0.1	4/1/2012		
Lead	PB	PMS	NEXION 300D MS	0.00		3	0.1	4/1/2012		
Thallium	TL	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA08

ANALYSIS METHOD: PMS

ARI PREP CODE: REN

PREPDATE: 1/21/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
BP01S-130114-W	WA08A	0.000	50.0	25.0
BP07D-130114-W	WA08AA	0.000	50.0	25.0
BP08S-130114-W	WA08AB	0.000	50.0	25.0
BP08D-130114-W	WA08AC	0.000	50.0	25.0
BP09S-130114-W	WA08AD	0.000	50.0	25.0
BP01S-130114-WD	WA08ADUP	0.000	50.0	25.0
BP09D-130114-W	WA08AE	0.000	50.0	25.0
BP10S-130114-W	WA08AF	0.000	50.0	25.0
BP10D-130114-W	WA08AG	0.000	50.0	25.0
DUP02-130114-W	WA08AH	0.000	50.0	25.0
BP01S-130114-WS	WA08ASPK	0.000	50.0	25.0
BP01D-130114-W	WA08B	0.000	50.0	25.0
BP02S-130114-W	WA08C	0.000	50.0	25.0
BP02D-130114-W	WA08D	0.000	50.0	25.0
BP03S-130114-W	WA08E	0.000	50.0	25.0
BP03D-130114-W	WA08F	0.000	50.0	25.0
BP06S-130114-W	WA08G	0.000	50.0	25.0
BP06D-130114-W	WA08H	0.000	50.0	25.0
BP07S-130114-W	WA08I	0.000	50.0	25.0
BP07D-130114-W	WA08J	0.000	50.0	25.0
BP08S-130114-W	WA08K	0.000	50.0	25.0
BP08D-130114-W	WA08L	0.000	50.0	25.0
BP09S-130114-W	WA08M	0.000	50.0	25.0
PBW	WA08MB1	0.000	50.0	25.0
LCSW	WA08MB1SPK	0.000	50.0	25.0
PBW	WA08MB2	0.000	50.0	25.0
LCSW	WA08MB2SPK	0.000	50.0	25.0
BP09D-130114-W	WA08N	0.000	50.0	25.0
BP10S-130114-W	WA08O	0.000	50.0	25.0
BP10D-130114-W	WA08P	0.000	50.0	25.0
DUP02-130114-W	WA08Q	0.000	50.0	25.0
BP01S-130114-W	WA08R	0.000	50.0	25.0
BP01S-130114-WD	WA08RDUP	0.000	50.0	25.0
BP01S-130114-WS	WA08RSPK	0.000	50.0	25.0
BP01D-130114-W	WA08S	0.000	50.0	25.0
BP02S-130114-W	WA08T	0.000	50.0	25.0
BP02D-130114-W	WA08U	0.000	50.0	25.0
BP03S-130114-W	WA08V	0.000	50.0	25.0
BP03D-130114-W	WA08W	0.000	50.0	25.0
BP06S-130114-W	WA08X	0.000	50.0	25.0
BP06D-130114-W	WA08Y	0.000	50.0	25.0
BP07S-130114-W	WA08Z	0.000	50.0	25.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: NEXION 300D MS START DATE: 1/23/2013

SDG: WA08 RUNID: MS012311 METHOD: PMS END DATE: 1/23/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10530				X					X												X	X					X			
S1	S1	1.00	10560				X					X												X	X					X			
S2	S2	1.00	11000				X					X												X	X					X			
S3	S3	1.00	11030				X					X												X	X					X			
S4	S4	1.00	11070				X					X												X	X					X			
S5	S5	1.00	11130																														
ZZZZZZ	Rinse sampl	1.00	11190																														
ICV	MICV	1.00	11360				X					X												X	X					X			
ICB	ICB	1.00	11420				X					X												X	X					X			
CCV	MCCV1	1.00	11460				X					X												X	X					X			
CCB	CCB1	1.00	11520				X					X												X	X					X			
CRI	MCRI	1.00	11550				X					X												X	X					X			
ICSA	ICSAI	1.00	11590				X					X												X	X					X			
ICSAB	ICSABI	1.00	12050				X					X												X	X					X			
ZZZZZZ	LR200	1.00	12110																														
ZZZZZZ	LR300	1.00	12170																														
ZZZZZZ	B1	1.00	12240																														
CCV	MCCV2	1.00	12290				X					X												X	X					X			
CCB	CCB2	1.00	12350				X					X												X	X					X			
PBW	WA08MB1	2.00	12410				X					X												X	X					X			
PBW	WA08MB2	2.00	12440				X					X												X	X					X			
BP01S-130114-WD	WA08ADUP	2.00	12480				X					X												X	X					X			
BP01S-130114-W	WA08A	2.00	12510				X					X												X	X					X			
BP01S-130114-WS	WA08ASPK	2.00	12550				X					X												X	X					X			
BP01S-130114-WD	WA08RDUP	2.00	12580				X					X												X	X					X			
BP01S-130114-W	WA08R	2.00	13020				X					X												X	X					X			
BP01S-130114-WS	WA08RSPK	2.00	13060				X					X												X	X					X			
LCSW	WA08MB1SPK	2.00	13090				X					X												X	X					X			
LCSW	WA08MB2SPK	2.00	13130				X					X												X	X					X			
CCV	MCCV3	1.00	13170				X					X												X	X					X			
CCB	CCB3	1.00	13240				X					X												X	X					X			
BP01D-130114-W	WA08B	2.00	13290				X					X												X	X					X			
BP02S-130114-W	WA08C	2.00	13320				X					X												X	X					X			
BP02D-130114-W	WA08D	2.00	13360				X					X												X	X					X			
BP03S-130114-W	WA08E	2.00	13390				X					X												X	X					X			

FORM XIV

LAB2R: 000081

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: NEXION 300D MS START DATE: 1/23/2013

SDG: WA08 RUNID: MS012311 METHOD: PMS END DATE: 1/23/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
BP03D-130114-W	WA08F	2.00	13430				X					X												X	X					X			
BP06S-130114-W	WA08G	2.00	13460				X					X												X	X					X			
BP06D-130114-W	WA08H	2.00	13500									X												X	X					X			
BP07S-130114-W	WA08I	2.00	13540				X					X												X	X					X			
BP07D-130114-W	WA08J	2.00	13580									X												X	X					X			
BP08S-130114-W	WA08K	2.00	14020				X					X												X	X					X			
CCV	MCCV4	1.00	14050				X					X												X	X					X			
CCB	CCB4	1.00	14120				X					X												X	X					X			
BP01S-130114-WA	WA08APOST	2.00	14180				X																										
BP08D-130114-W	WA08L	2.00	14220				X					X												X	X					X			
BP09S-130114-W	WA08M	2.00	14250				X					X												X	X					X			
BP09D-130114-W	WA08N	2.00	14290				X					X												X	X					X			
BP10S-130114-W	WA08O	2.00	14320				X					X												X	X					X			
BP10D-130114-W	WA08P	2.00	14360				X					X												X	X					X			
DUP02-130114-W	WA08Q	2.00	14390				X					X												X	X					X			
BP01D-130114-W	WA08S	2.00	14430				X					X												X	X					X			
BP02S-130114-W	WA08T	2.00	14460				X					X												X	X					X			
BP02D-130114-W	WA08U	2.00	14500				X					X												X	X					X			
CCV	MCCV5	1.00	14540				X					X												X	X					X			
CCB	CCB5	1.00	15010				X					X												X	X					X			
BP03D-130114-W	WA08W	2.00	15110				X					X												X	X					X			
BP06S-130114-W	WA08X	2.00	15140				X					X												X	X					X			
BP06D-130114-W	WA08Y	2.00	15180									X												X	X					X			
BP07S-130114-W	WA08Z	2.00	15210				X					X												X	X					X			
BP07D-130114-W	WA08AA	2.00	15250									X												X	X					X			
BP08S-130114-W	WA08AB	2.00	15280				X					X												X	X					X			
BP08D-130114-W	WA08AC	2.00	15320				X					X												X	X					X			
BP09S-130114-W	WA08AD	2.00	15350				X					X												X	X					X			
BP09D-130114-W	WA08AE	2.00	15390				X					X												X	X					X			
BP10S-130114-W	WA08AF	2.00	15420				X					X												X	X					X			
CCV	MCCV6	1.00	15470				X					X												X	X					X			
CCB	CCB6	1.00	15530				X					X												X	X					X			
BP10D-130114-W	WA08AG	2.00	15570				X					X												X	X					X			
DUP02-130114-W	WA08AH	2.00	16000				X					X												X	X					X			
BP03S-130114-W	WA08V	2.00	16040				X					X												X	X					X			

FORM XIV

WA08 . 000082

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: NEXION 300D MS START DATE: 1/23/2013

SDG: WA08 RUNID: MS012311 METHOD: PMS END DATE: 1/23/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
BP06D-130114-W	WA08H	100.00	16080				X																										
BP07D-130114-W	WA08J	100.00	16110				X																										
BP06D-130114-W	WA08Y	100.00	16150				X																										
BP07D-130114-W	WA08AA	100.00	16180																														
CCV	MCCV7	1.00	16220				X					X												X	X					X			
CCB	CCB7	1.00	16280				X					X												X	X					X			

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: NEXION 300D MS START DATE: 1/24/2013

SDG: WA08 RUNID: MS012411 METHOD: PMS END DATE: 1/24/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09290				X																										
S1	S1	1.00	09330				X																										
S2	S2	1.00	09370				X																										
S3	S3	1.00	09410				X																										
S4	S4	1.00	09460				X																										
S5	S5	1.00	09520																														
ZZZZZZ	Rinse sampl	1.00	09590																														
ICV	MICV	1.00	10060				X																										
ICB	ICB	1.00	10130				X																										
CCV	MCCV1	1.00	10170				X																										
CCB	CCB1	1.00	10230				X																										
CRI	MCRI	1.00	10280				X																										
ICSA	ICSAI	1.00	10320				X																										
ICSAB	ICSABI	1.00	10380				X																										
ZZZZZZ	LR200	1.00	10450																														
ZZZZZZ	B1	1.00	10520																														
ZZZZZZ	B2	1.00	10570																														
CCV	MCCV2	1.00	11020				X																										
CCB	CCB2	1.00	11090				X																										
CCV	MCCV2	1.00	11140				X																										
CCB	CCB2	1.00	11210				X																										
ZZZZZZ	WA14MB	2.00	11270																														
ZZZZZZ	VZ86MB1	2.00	11310																														
ZZZZZZ	VZ86MB2	2.00	11360																														
BP07D-130114-W	WA08AA	100.00	11400				X																										
ZZZZZZ	WA14D	2.00	11440																														
ZZZZZZ	WA14ADUP	2.00	11480																														
ZZZZZZ	WA14A	2.00	11520																														
ZZZZZZ	WA14ASPK	2.00	11560																														
ZZZZZZ	WA14MBSPK	2.00	12000																														
CCV	MCCV3	1.00	12040				X																										
CCB	CCB3	1.00	12110				X																										

Mercury Analysis
Report and Summary QC Forms

ARI Job ID: WA08, WA16

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA16

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
BP01S-130114-W	WA16A	13-1238	
BP01S-130114-WD	WA16ADUP	13-1238	
BP01S-130114-WS	WA16ASPK	13-1238	
BP01D-130114-W	WA16B	13-1239	
PBW	WA16MB1	13-1239	
LCSW	WA16MB1SPK	13-1239	
BP02S-130114-W	WA16C	13-1240	
BP02D-130114-W	WA16D	13-1241	
BP03S-130114-W	WA16E	13-1242	
BP03D-130114-W	WA16F	13-1243	
BP06S-130114-W	WA16G	13-1244	
BP06D-130114-W	WA16H	13-1245	
BP07S-130114-W	WA16I	13-1246	
BP07D-130114-W	WA16J	13-1247	
BP08S-130114-W	WA16K	13-1248	
BP08D-130114-W	WA16L	13-1249	
BP09S-130114-W	WA16M	13-1250	
BP09D-130114-W	WA16N	13-1251	
BP10S-130114-W	WA16O	13-1252	
BP10D-130114-W	WA16P	13-1253	
DUP02-130114-W	WA16Q	13-1254	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: Jay Kuhn Name: Jay Kuhn

Date: 1/24/13 Title: Inorganics Director

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA16

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
BP01S-130114-W	WA16R	13-1255	
BP01S-130114-WD	WA16RDUP	13-1255	
BP01S-130114-WS	WA16RSPK	13-1255	
PBW	WA16MB2	13-1256	
LCSW	WA16MB2SPK	13-1256	
BP01D-130114-W	WA16S	13-1256	
BP02S-130114-W	WA16T	13-1257	
BP02D-130114-W	WA16U	13-1258	
BP03S-130114-W	WA16V	13-1259	
BP03D-130114-W	WA16W	13-1260	
BP06S-130114-W	WA16X	13-1261	
BP06D-130114-W	WA16Y	13-1262	
BP07S-130114-W	WA16Z	13-1263	
BP07D-130114-W	WA16AA	13-1264	
BP08S-130114-W	WA16AB	13-1265	
BP08D-130114-W	WA16AC	13-1266	
BP09S-130114-W	WA16AD	13-1267	
BP09D-130114-W	WA16AE	13-1268	
BP10S-130114-W	WA16AF	13-1269	
BP10D-130114-W	WA16AG	13-1270	
DUP02-130114-W	WA16AH	13-1271	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 1/24/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Total Mercury by Method SW7470A

Data Release Authorized:
Reported: 01/31/13
Date Received: 01/16/13

QC Report No: WA16-GeoEngineers
Project: ECY-Everett Lowlands
0504-068

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
BP01S-130114-W WA16A 13-1238	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP01D-130114-W WA16B 13-1239	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP02S-130114-W WA16C 13-1240	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP02D-130114-W WA16D 13-1241	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP03S-130114-W WA16E 13-1242	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP03D-130114-W WA16F 13-1243	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP06S-130114-W WA16G 13-1244	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP06D-130114-W WA16H 13-1245	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP07S-130114-W WA16I 13-1246	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP07D-130114-W WA16J 13-1247	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP08S-130114-W WA16K 13-1248	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP08D-130114-W WA16L 13-1249	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP09S-130114-W WA16M 13-1250	01/14/13	Water	01/21/13 01/23/13	**20.0**	**39.4**
BP09D-130114-W WA16N 13-1251	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP10S-130114-W WA16O 13-1252	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP10D-130114-W WA16P 13-1253	01/14/13	Water	01/21/13 01/23/13	**20.0**	**23.9**
DUP02-130114-W WA16Q 13-1254	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Total Mercury by Method SW7470A

Data Release Authorized:
Reported: 01/31/13
Date Received: 01/16/13

QC Report No: WA16-GeoEngineers
Project: ECY-Everett Lowlands
0504-068

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
MB-012113 Method Blank	NA	Water	01/21/13 01/23/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP01S-130114-W
MATRIX SPIKE

Lab Sample ID: WA16A
LIMS ID: 13-1238
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA16-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	114	100	114%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: BP01S-130114-W
DUPLICATE

Lab Sample ID: WA16A
LIMS ID: 13-1238
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA16-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: WA16LCS
LIMS ID: 13-1239
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA16-GeoEngineers
Project: ECY-Everett Lowlands 0504-068
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	197	200	98.5%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Total Mercury by Method SW7470A

Data Release Authorized:
Reported: 01/24/13
Date Received: 01/16/13

QC Report No: WA16-GeoEngineers
Project: ECY-Everett Lowlands
0504-068

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
MB-012113 Method Blank	NA	Water	01/21/13 01/23/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Dissolved Mercury by Method SW7470A

Data Release Authorized:
Reported: 01/24/13
Date Received: 01/16/13

QC Report No238: WA16-GeoEngineers
Project: ECY-Everett Lowlands
0504-068

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
BP01S-130114-W WA16R 13-1255	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP01D-130114-W WA16S 13-1256	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP02S-130114-W WA16T 13-1257	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP02D-130114-W WA16U 13-1258	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP03S-130114-W WA16V 13-1259	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP03D-130114-W WA16W 13-1260	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP06S-130114-W WA16X 13-1261	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP06D-130114-W WA16Y 13-1262	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP07S-130114-W WA16Z 13-1263	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP07D-130114-W WA16AA 13-1264	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP08S-130114-W WA16AB 13-1265	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP08D-130114-W WA16AC 13-1266	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP09S-130114-W WA16AD 13-1267	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP09D-130114-W WA16AE 13-1268	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP10S-130114-W WA16AF 13-1269	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
BP10D-130114-W WA16AG 13-1270	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
DUP02-130114-W WA16AH 13-1271	01/14/13	Water	01/21/13 01/23/13	20.0	20.0 U
MB-012113 Method Blank	NA	Water	01/21/13 01/23/13	20.0	20.0 U

Reported in ng/L
FORM-I
RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP01S-130114-W
MATRIX SPIKE

Lab Sample ID: WA16R
LIMS ID: 13-1255
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA16-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	93.5	100	93.5%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: BP01S-130114-W
DUPLICATE

Lab Sample ID: WA16R
LIMS ID: 13-1255
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA16-GeoEngineers
Project: ECY-Everett Lowlands
0504-068
Date Sampled: 01/14/13
Date Received: 01/16/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: WA16LCS
LIMS ID: 13-1256
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA16-GeoEngineers
Project: ECY-Everett Lowlands 0504-068
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	188	200	94.0%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA16

UNITS:ng/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Mercury	HG	CVL	HG012301	500.0	470.00	**94.0**	500.0	474.00	**94.8**	474.00	**94.8**	473.00	**94.6**	477.00	**95.4**	477.00	**95.4**

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

WA08 . 00098

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS:ng/L

SDG: WA16

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Mercury	HG	CVL	HG012301	500.0	471.00	**94.2**	473.00	**94.6**	471.00	**94.2**	471.00	**94.2**				

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

WA08:00099

CRDL Standard

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA16

ANALYTICAL RESOURCES INCORPORATED

UNITS:ng/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Mercury	HG	CVL	HG012301		20.0	22.40	**112.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

WA08:00100

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA16

UNITS: ng/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Mercury	HG	CVL	HG012301	25.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U

UA08 : 00101

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA16

UNITS:ng/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Mercury	HG	CVL	HG012301	25.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U				

WA08 00102

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA16

UNITS: ng/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ng/L)	ICP LR DATE
Mercury	HG	CVL	CETAC MERCURY	253.70		25	20.0	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA16

ANALYSIS METHOD: CVL

ARI PREP CODE: TLM

PREPDATE: 1/21/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
BP01S-130114-W	WA16A	0.000	20.0	20.0
BP07D-130114-W	WA16AA	0.000	20.0	20.0
BP08S-130114-W	WA16AB	0.000	20.0	20.0
BP08D-130114-W	WA16AC	0.000	20.0	20.0
BP09S-130114-W	WA16AD	0.000	20.0	20.0
BP01S-130114-WD	WA16ADUP	0.000	20.0	20.0
BP09D-130114-W	WA16AE	0.000	20.0	20.0
BP10S-130114-W	WA16AF	0.000	20.0	20.0
BP10D-130114-W	WA16AG	0.000	20.0	20.0
DUP02-130114-W	WA16AH	0.000	20.0	20.0
BP01S-130114-WS	WA16ASPK	0.000	20.0	20.0
BP01D-130114-W	WA16B	0.000	20.0	20.0
BP02S-130114-W	WA16C	0.000	20.0	20.0
BP02D-130114-W	WA16D	0.000	20.0	20.0
BP03S-130114-W	WA16E	0.000	20.0	20.0
BP03D-130114-W	WA16F	0.000	20.0	20.0
BP06S-130114-W	WA16G	0.000	20.0	20.0
BP06D-130114-W	WA16H	0.000	20.0	20.0
BP07S-130114-W	WA16I	0.000	20.0	20.0
BP07D-130114-W	WA16J	0.000	20.0	20.0
BP08S-130114-W	WA16K	0.000	20.0	20.0
BP08D-130114-W	WA16L	0.000	20.0	20.0
BP09S-130114-W	WA16M	0.000	20.0	20.0
PBW	WA16MB1	0.000	20.0	20.0
LCSW	WA16MB1SPK	0.000	20.0	20.0
PBW	WA16MB2	0.000	20.0	20.0
LCSW	WA16MB2SPK	0.000	20.0	20.0
BP09D-130114-W	WA16N	0.000	20.0	20.0
BP10S-130114-W	WA16O	0.000	20.0	20.0
BP10D-130114-W	WA16P	0.000	20.0	20.0
DUP02-130114-W	WA16Q	0.000	20.0	20.0
BP01S-130114-W	WA16R	0.000	20.0	20.0
BP01S-130114-WD	WA16RDUP	0.000	20.0	20.0
BP01S-130114-WS	WA16RSPK	0.000	20.0	20.0
BP01D-130114-W	WA16S	0.000	20.0	20.0
BP02S-130114-W	WA16T	0.000	20.0	20.0
BP02D-130114-W	WA16U	0.000	20.0	20.0
BP03S-130114-W	WA16V	0.000	20.0	20.0
BP03D-130114-W	WA16W	0.000	20.0	20.0
BP06S-130114-W	WA16X	0.000	20.0	20.0
BP06D-130114-W	WA16Y	0.000	20.0	20.0
BP07S-130114-W	WA16Z	0.000	20.0	20.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: CETAC MERCURY START DATE: 1/23/2013

SDG: WA16 RUNID: HG012301 METHOD: CVL END DATE: 1/23/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	08023														X																
S20	S20	1.00	08051														X																
S50	S50	1.00	08080														X																
S100	S100	1.00	08104														X																
S200	S200	1.00	08132														X																
S400	S400	1.00	08160														X																
S1000	S1000	1.00	08185														X																
ICV	AICV	1.00	08260														X																
ICB	ICB	1.00	08284														X																
CCV	ACCV1	1.00	08312														X																
CCB	CCB1	1.00	08340														X																
CRA	CRA	1.00	08365														X																
ZZZZZZ	TEST1STD1	1.00	08393																														
ZZZZZZ	TEST2STD1	1.00	08421																														
ZZZZZZ	TEST2 STD6	1.00	08445																														
ZZZZZZ	TEST2 STD6	1.00	08473																														
ZZZZZZ	TEST1 CV	1.00	08501																														
ZZZZZZ	TEST2 CV	1.00	08525																														
ZZZZZZ	TEST3 CV	1.00	08554																														
ZZZZZZ	WA10MB1	1.00	08582																														
ZZZZZZ	WA10MB1SPK	1.00	09010																														
CCV	ACCV2	1.00	09035														X																
CCB	CCB2	1.00	09063														X																
ZZZZZZ	WA10A	1.00	09092																														
ZZZZZZ	WA10ADUP	1.00	09120																														
ZZZZZZ	WA10ASPK	1.00	09144																														
ZZZZZZ	WA10B	1.00	09172																														
ZZZZZZ	WA10C	1.00	09200																														
ZZZZZZ	WA10D	1.00	09224																														
ZZZZZZ	WA10E	1.00	09252																														
ZZZZZZ	WA10F	1.00	09280																														
ZZZZZZ	WA10MB2	1.00	09305																														
ZZZZZZ	WA10MB2SPK	1.00	09333																														
CCV	ACCV3	1.00	09361														X																
CCB	CCB3	1.00	09390														X																

FORM XIV

WA08 00105

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: CETAC MERCURY START DATE: 1/23/2013

SDG: WA16 RUNID: HG012301 METHOD: CVL END DATE: 1/23/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	WA10G	1.00	09414																														
ZZZZZZ	WA10GDUP	1.00	09443																														
ZZZZZZ	WA10GSPK	1.00	09471																														
ZZZZZZ	WA10H	1.00	09495																														
ZZZZZZ	WA10I	1.00	09523																														
ZZZZZZ	WA10J	1.00	09551																														
ZZZZZZ	WA10K	1.00	09575																														
ZZZZZZ	WA10L	1.00	10003																														
CCV	ACCV4	1.00	10032														X																
CCB	CCB4	1.00	10060														X																
PBW	WA16MB1	1.00	10091														X																
LCSW	WA16MB1SPK	1.00	10115														X																
BP01S-130114-W	WA16A	1.00	10143														X																
BP01S-130114-WD	WA16ADUP	1.00	10171														X																
BP01S-130114-WS	WA16ASPK	1.00	10195														X																
BP01D-130114-W	WA16B	1.00	10223														X																
BP02S-130114-W	WA16C	1.00	10251														X																
BP02D-130114-W	WA16D	1.00	10275														X																
BP03S-130114-W	WA16E	1.00	10303														X																
BP03D-130114-W	WA16F	1.00	10331														X																
CCV	ACCV5	1.00	10360														X																
CCB	CCB5	1.00	10384														X																
BP06S-130114-W	WA16G	1.00	10413														X																
BP06D-130114-W	WA16H	1.00	10441														X																
BP07S-130114-W	WA16I	1.00	10465														X																
BP07D-130114-W	WA16J	1.00	10493														X																
BP08S-130114-W	WA16K	1.00	10521														X																
BP08D-130114-W	WA16L	1.00	10545														X																
BP09S-130114-W	WA16M	1.00	10574														X																
BP09D-130114-W	WA16N	1.00	11002														X																
BP10S-130114-W	WA16O	1.00	11030														X																
BP10D-130114-W	WA16P	1.00	11054														X																
CCV	ACCV6	1.00	11083														X																
CCB	CCB6	1.00	11111														X																
DUP02-130114-W	WA16Q	1.00	11135														X																

FORM XIV

WA08 · 00105

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands | INSTRUMENT ID: CETAC MERCURY | START DATE: 1/23/2013

SDG: WA16 | RUNID: HG012301 METHOD: CVL | END DATE: 1/23/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
PBW	WA16MB2	1.00	11164														X																
LCSW	WA16MB2SPK	1.00	11192														X																
BP01S-130114-W	WA16R	1.00	11220														X																
BP01S-130114-WD	WA16RDUP	1.00	11245														X																
BP01S-130114-WS	WA16RSPK	1.00	11273														X																
BP01D-130114-W	WA16S	1.00	11301														X																
BP02S-130114-W	WA16T	1.00	11325														X																
BP02D-130114-W	WA16U	1.00	11353														X																
BP03S-130114-W	WA16V	1.00	11381														X																
CCV	ACCV7	1.00	11410														X																
CCB	CCB7	1.00	11434														X																
BP03D-130114-W	WA16W	1.00	11462														X																
BP06S-130114-W	WA16X	1.00	11491														X																
BP06D-130114-W	WA16Y	1.00	11515														X																
BP07S-130114-W	WA16Z	1.00	11543														X																
BP07D-130114-W	WA16AA	1.00	11572														X																
BP08S-130114-W	WA16AB	1.00	12000														X																
BP08D-130114-W	WA16AC	1.00	12024														X																
BP09S-130114-W	WA16AD	1.00	12052														X																
BP09D-130114-W	WA16AE	1.00	12080														X																
BP10S-130114-W	WA16AF	1.00	12105														X																
CCV	ACCV8	1.00	12133														X																
CCB	CCB8	1.00	12162														X																
BP10D-130114-W	WA16AG	1.00	12190														X																
DUP02-130114-W	WA16AH	1.00	12214														X																
CCV	ACCV9	1.00	12243														X																
CCB	CCB9	1.00	12271														X																

LA013 001457

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WA08, WA16

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: DM

Date: 01-21-13

Final Volume 25

Final Volume (Hg):

Sample ID WA08 RSPK, MBISPK RSPK, MBRSPK

Prepcode:				
Spike Solution:		ICP Routine	ICP No GFA	GFA
Standard No.:				
Vol Added (mL):				
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	REN ICP-MS #1	REN ICP-MS #2	ICP-MS Minerals
	2057-2	5021-1	
	0.05	0.05	
Ag	25		
Al			500
As	25 ✓		
Ba	25		
Be	25		
Ca			500
Cd	25 ✓		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25 ✓		
Sb		25 ✓	
Se	80		
Tl	25 ✓		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg		CVA	1.0		
Hg MBSPK		CVA	1.0		
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

UA0088 00015

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: DM Date: 01-21-13 Time: 0755

Matrix: Water Block ID: #2 Block Temp: 95°C Thermometer: MP46

ARI Sample ID	Btl #	pH<2	Prep Code: REN Initial ~~Wt (g)~~ Vol (mL)	Prep Code: REN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
WA08 A	1	√	50.0	25.0			
" ADUP	1	√					
" ADPK	1	√					
" B	1	√					
" C	1	√					
" D	1	√					
" E	1	√					
" F	1	√					
" G	1	√					
" H	1	√					
" I	1	√					
" J	1	√					
" K	1	√					
" L	1	√					
" M	1	√					
" N	1	√					
" O	1	√					
" P	1	√					
" Q	1	√					
" MB1	—	√					
" MB1PK	—	√	50.0	25.0			
				01-21-13 DM			

Chemical/Reagent ID:

HNO_3: MP2426 HCl: — H_2O_2: I7845 Tube Lot #: 1208057

WA08 : 00110

Digestion Log

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Analyst: DM Date: 01-21-13 Time: 0755

Matrix: WATER Block ID: #12 Block Temp: 95°- Thermometer: MP46

ARI Sample ID	Btl #	pH<2	Prep Code: REN Initial ~~Wt (g)~~ Vol (mL)	Prep Code: REN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
WA08 R	1	✓	50.0	25.0			
" ROUP	1	✓					
" RSPK	1	✓					
" S	1	✓					
" T	1	✓					
" U	1	✓					
" V	1	✓					
" W	1	✓					
" X	1	✓					
" Y	1	✓					
" Z	1	✓					
" AA	1	✓					
" AB	1	✓					
" AC	1	✓					
" AD	1	✓					
" AE	1	✓					
" AF	1	✓					
" AG	1	✓					
" AH	1	✓					
" MB2	—	✓	↓	↓			
" MB2SPK	—	✓	50.0	25.0			
				01-21-13 DM			

Chemical/Reagent ID:

HNO_3: MP2426 HCl: — H_2O_2: I7846 Tube Lot #: 1008057

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WA08, WA16

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	WA08
Unacceptable Blank:	☐	Date of Event:	1-23-13
Unacceptable Duplicate:	☐	Client ID:	GeoEngineers
Unacceptable Spike:	☑	Method/Element:	ICPMS
Unacceptable Reference:	☐	Prep Code:	RBN

Details of Problem/Recommended Corrective Action:

126% R for As in Aspk

Post spike ok

Samples Affected:

Corrective Action Taken:

Sed [signature] 1/24/13

Analyst Initials: AA

Date: 1-23-13

Supervisor:

Date:

5049F

Revision 007
6/11/10

WA08 00113

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-23-13 **Analyst:** AK **Page:** 1 **of** 4

All corrections made by analyst unless otherwise noted. AK 1-23-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD0			2999-15
		1			~~3005-6~~
	AK 1-24-13	2			3005-7
		3			~~3007-2~~
		4			~~3006-2~~
		ZZZZZZ			Air
		STD 0			2999-15
		1			~~3005-6~~ 2998-7
		2			~~3005-7~~ 3005-6
		3			~~3007-2~~ 3005-7
		4			~~3006-2~~ 3007-2
		5			3006-2
		Rinse Sample			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			(Cd high)
		LR200			
		LR300			
		B1			
		CCV2 ~~B2~~			

WA88 00114

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-23-13 **Analyst:** M **Page:** 2 **of** 4

All corrections made by analyst unless otherwise noted. 1/23/13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		CCB2			
		WA08 MB1	REN	2	
		MB2			
		ADup		✓	
		A			CAF
		Aspk			As 126%R
		RDup		✓	
		R			
		Rspk		✓	
		MB1spk		✓	
		MB2spk		✓	
		CCV3			
		CCB3			^{62}Ni ↑
		WA08 B	REN	2	
		C			
		D			
		E			
		F			
		G			
		H			RR As 1/100
		I			
		J			RR As 1/100
		K			
		CCV4			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-23-13 **Analyst:** M **Page:** 3 **of** 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		CCB4			^{62}Ni high
		WA08 APost	REN	2	As 0.06 ml Spl#1%
		L			
		M			
		N			
		O			
		P			
		Q			
		S			
		T			
U		U			
		CCV5			^{62}Ni high
		CCB5			
		WA08 W	REN	2	
		X			
		Y			RR As
		Z			
		AA			RR As
		AB			
		AC			
		AD			
		AE			
		AF			
		CCV4			^{62}Ni high

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-23-13 **Analyst:** [illegible] **Page:** 4 **of** 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		CCB4			62 Ni high
		WA08 AG	REN	2	
		AH			
		V			
		H		1:00	As
		J			
		Y			
	✓	AA			~~wrong sample?~~ doesn't agree RR
		CCV7			62 Ni high
		CCB7			
		Rinse / DI			
				1-24-13	

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 1-23-13

MZ Nelson	Analyst MZ 1-23	Peer BA 1-24-13	Comment
Logbook			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification			
ICV/CCV	✓	✓	see log
ICB/CCB	✓	✓	↓
Samples			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	see log
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	WA08
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Distribution			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysis Notes and CAF's	✓	✓	CAF WA09

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Wednesday, January 23, 2013 09:37:48
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check 1737
MassCal File: C.\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns). 60
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	5936.4	5936.381	58.138	1.0	Standard
	Mg	24.0	41878.0	41877.967	330.794	0.8	Standard
	In	114.9	84074.4	84074.392	472.287	0.6	Standard
	Pb	208.0	38706.0	38706.018	255.440	0.7	Standard
	U	238.1	67723.6	67723.634	717.672	1.1	Standard
⌈	CeO	155.9	1123.0	0.013	0.000	1.2	Standard
| >	Ce	139.9	88166.2	88166.214	303.810	0.3	Standard
⌊	Ce++	70.0	991.6	0.011	0.001	4.5	Standard
	Bkgd	220.0	0.0	0.000	0.000		Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1712.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

UA08 00119

0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

WA08 00120

SmartTune Wizard - Summary

ɔtimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/23/2013 9:37:46 AM
nd Time: 1/23/2013 9:40:21 AM

aily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5936.38
Obtained Intensity (Mg 23.985): 41877.97
Obtained Intensity (In 114.904): 84074.39
Obtained Intensity (Pb 207.977): 38706.02
Obtained Intensity (U 238.05): 67723.63
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.013 (=1123.01 / 88166.21)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.011 (=991.59 / 88166.21)

UA08 : 00121

SmartTune Wizard - Summary

)ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/23/2013 9:40:58 AM
nd Time: 1/23/2013 9:41:46 AM

orch Alignment - [Passed]

Vertical	Horizontal	Intensity
-1.16 mm	1.55 mm	88819.83

WA08 · 00122

SmartTune Wizard - Summary

timization Summary

artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

art Time: 1/23/2013 9:42:07 AM
d Time: 1/23/2013 9:44:19 AM

ss Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.690)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.712)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.699)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.699)

WA08 00123

SmartTune Wizard - Summary

ɪtimization Summary

ıartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

:art Time: 1/23/2013 9:44:54 AM
ıd Time: 1/23/2013 9:49:06 AM

ıtoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.999; Intercept = -11.98

UA08 : 00124

SmartTune Wizard - Details

```
ptimization Details

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

ptimization Status

tart Time: 1/23/2013 9:49:43 AM

aily Performance Check
      Optimization Settings:
             Method: C:\NexIONData\Method\Daily Performancenew.mth.
             Intensity Criterion: Be 9.0122 > 3000
             Intensity Criterion: Mg 23.985 > 20000
             Intensity Criterion: In 114.904 > 50000
             Intensity Criterion: Pb 207.977 > 20000
             Intensity Criterion: U 238.05 > 40000
             Intensity Criterion: Bkgd 220 <= 5
             Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
             Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

      Optimization Results:
      Initial Try
             Obtained Intensity (Be 9.0122): 6580.60
             Obtained Intensity (Mg 23.985): 44411.57
             Obtained Intensity (In 114.904): 88570.33
             Obtained Intensity (Pb 207.977): 39419.75
             Obtained Intensity (U 238.05): 70773.66
             Obtained Intensity (Bkgd 220): 0.00
             Obtained Formula (CeO 155.9 / Ce 139.905): 0.015 (=1363.78 / 88969.82)
             Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.013 (=1158.55 / 88969.82)
Passed]  Optimum value(s): N/A

nd Time: 1/23/2013 9:52:19 AM
```


WA08 00125

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 10:53:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L				124016	1
	Cl	37		ug/L				5640944	1
>	Ge	72		ug/L				684631	0
	Ni	60		ug/L				26	21
	Ni	62		ug/L				80	3
	Cu	63		ug/L				82	5
	Cu	65		ug/L				35	16
	Zn	66		ug/L				242	13
	Zn	67		ug/L				49	21
	Zn	68		ug/L				256	6
	As	75		ug/L				570	2
	As-1	75		ug/L				9404	0
	Se	82		ug/L				-7	120
	Se	78		ug/L				9527	0
	Y	89		ug/L				481047	0
	Kr	83		ug/L				940	2
>	In	115		ug/L				1066652	1
	Ag	107		ug/L				25	2
	Cd	111		ug/L				106	8
	Cd	114		ug/L				29	6
	Sb	121		ug/L				95	5
	Sb	123		ug/L				76	20
>	Tb	159		ug/L				1328955	0
	Tl	205		ug/L				109	8
	Pb	208		ug/L				220	4
	Bi	209		ug/L				2961181	0
	Th	232		ug/L				428	19
	U	238		ug/L				24	14

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 10:56:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			124016	124354	2
	Cl	37		ug/L			5640944	5660454	1
>	Ge	72		ug/L			684631	691987	1
	Ni	60	0.500	ug/L	0.019	3	26	2431	2
	Ni	62	0.500	ug/L	0.056	11	80	408	9
	Cu	63	0.500	ug/L	0.008	1	82	5098	2
	Cu	65	0.500	ug/L	0.015	3	35	2274	2
	Zn	66	4.000	ug/L	0.111	2	242	11051	1
	Zn	67	4.000	ug/L	0.192	4	49	1680	4
	Zn	68	4.000	ug/L	0.101	2	256	7720	2
	As	75	0.200	ug/L	0.021	10	570	1082	6
	As-1	75	0.200	ug/L	0.095	47	9404	9853	1
	Se	82	0.500	ug/L	0.078	15	-7	140	17
	Se	78	0.500	ug/L	0.444	88	9527	9838	0
	Y	89		ug/L			481047	480714	2
	Kr	83		ug/L			940	936	5
>	In	115		ug/L			1066652	1056187	0
	Ag	107	0.200	ug/L	0.009	4	25	2304	4
	Cd	111	0.100	ug/L	0.008	7	106	618	7
	Cd	114	0.100	ug/L	0.002	2	29	1340	2
	Sb	121	0.200	ug/L	0.008	3	95	3072	3
	Sb	123	0.200	ug/L	0.002	0	76	2362	1
>	Tb	159		ug/L			1328955	1310623	1
	Tl	205	0.200	ug/L	0.002	1	109	8652	0
	Pb	208	0.100	ug/L	0.001	1	220	6042	1
	Bi	209		ug/L			2961181	2943897	0
	Th	232	0.200	ug/L	0.003	1	428	9478	1
	U	238	0.200	ug/L	0.004	1	24	10762	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:00:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			124016	123860	1
	Cl	37		ug/L			5640944	5649372	1
>	Ge	72		ug/L			684631	696542	1
	Ni	60	10.000	ug/L	0.139	1	26	47623	1
	Ni	62	10.000	ug/L	0.131	1	80	6649	2
	Cu	63	10.000	ug/L	0.223	2	82	99996	3
	Cu	65	10.001	ug/L	0.028	0	35	46165	1
	Zn	66	10.001	ug/L	0.285	2	242	27455	1
	Zn	67	10.161	ug/L	0.396	3	49	4683	2
	Zn	68	10.046	ug/L	0.090	0	256	19689	1
	As	75	10.000	ug/L	0.269	2	570	24965	1
	As-1	75	10.001	ug/L	0.360	3	9404	33457	1
	Se	82	9.998	ug/L	0.207	2	-7	2776	0
	Se	78	10.009	ug/L	0.644	6	9527	16249	1
	Y	89		ug/L			481047	485832	1
	Kr	83		ug/L			940	928	1
>	In	115		ug/L			1066652	1074325	0
	Ag	107	10.000	ug/L	0.187	1	25	112821	1
	Cd	111	10.000	ug/L	0.167	1	106	53603	1
	Cd	114	10.000	ug/L	0 207	2	29	136174	1
	Sb	121	10.000	ug/L	0.085	0	95	155588	0
	Sb	123	10.000	ug/L	0.194	1	76	117577	1
>	Tb	159		ug/L			1328955	1336091	0
	Tl	205	10.000	ug/L	0.054	0	109	422586	0
	Pb	208	10.000	ug/L	0.092	0	220	560358	0
	Bi	209		ug/L			2961181	2927084	0
	Th	232	10.000	ug/L	0.105	1	428	507248	0
	U	238	10.000	ug/L	0.068	0	24	548961	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:03:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			124016	121600	0
	Cl	37		ug/L			5640944	5867805	1
>	Ge	72		ug/L			684631	691966	0
	Ni	60	19.927	ug/L	0.459	2	26	92909	1
	Ni	62	20.018	ug/L	0.598	2	80	13185	2
	Cu	63	19.986	ug/L	0.429	2	82	197846	2
	Cu	65	19.922	ug/L	0.312	1	35	89929	1
	Zn	66	19.987	ug/L	0.252	1	242	54157	0
	Zn	67	20.022	ug/L	0.346	1	49	9158	1
	Zn	68	19.945	ug/L	0.655	3	256	38217	2
	As	75	19.960	ug/L	0.224	1	570	48559	1
	As-1	75	20.011	ug/L	0.262	1	9404	57115	0
	Se	82	19.916	ug/L	0.316	1	-7	5413	1
	Se	78	20.115	ug/L	0.517	2	9527	23033	1
	Y	89		ug/L			481047	491642	2
	Kr	83		ug/L			940	960	1
>	In	115		ug/L			1066652	1063693	1
	Ag	107	19.907	ug/L	0.164	0	25	218278	2
	Cd	111	19.968	ug/L	0 576	2	106	105166	0
	Cd	114	20.006	ug/L	0.531	2	29	269918	0
	Sb	121	19.997	ug/L	0 735	3	95	307607	1
	Sb	123	20.039	ug/L	0.470	2	76	234965	1
>	Tb	159		ug/L			1328955	1342135	0
	Tl	205	19.963	ug/L	0.202	1	109	840982	0
	Pb	208	19.945	ug/L	0 291	1	220	1110180	0
	Bi	209		ug/L			2961181	2941949	0
	Th	232	20.076	ug/L	0.278	1	428	1038224	1
	U	238	19.995	ug/L	0.180	0	24	1101557	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:07:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	119576	1
	Cl	37		ug/L			5640944	5834298	0
>	Ge	72		ug/L			684631	686500	0
	Ni	60	49.845	ug/L	1.523	3	26	226975	2
	Ni	62	49.832	ug/L	0.634	1	80	31912	0
	Cu	63	49.744	ug/L	0.652	1	82	476280	1
	Cu	65	49.687	ug/L	0.473	0	35	215729	1
	Zn	66	49.750	ug/L	0.818	1	242	130227	1
	Zn	67	49.635	ug/L	0.753	1	49	21684	0
	Zn	68	49.858	ug/L	0.622	1	256	93121	1
	As	75	49.921	ug/L	0.648	1	570	118686	0
	As-1	75	49.930	ug/L	0.749	1	9404	126463	0
	Se	82	49.807	ug/L	0.335	0	-7	13186	0
	Se	78	49.852	ug/L	0.679	1	9527	42031	0
	Y	89		ug/L			481047	483797	1
	Kr	83		ug/L			940	999	6
>	In	115		ug/L			1066652	1060147	0
	Ag	107	49.737	ug/L	1.747	3	25	529510	2
	Cd	111	49.864	ug/L	0.552	1	106	258178	1
	Cd	114	49.716	ug/L	0.940	1	29	650191	1
	Sb	121	49.905	ug/L	0.814	1	95	758037	0
	Sb	123	49.783	ug/L	1.381	2	76	569370	2
>	Tb	159		ug/L			1328955	1315131	1
	Tl	205	50.228	ug/L	0.574	1	109	2121424	0
	Pb	208	49.857	ug/L	0.587	1	220	2680635	0
	Bi	209		ug/L			2961181	2832925	1
	Th	232	50.496	ug/L	0.665	1	428	2691383	0
	U	238	50.202	ug/L	0.933	1	24	2765653	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:13:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	121687	0
	Cl	37		ug/L			5640944	6009201	2
>	Ge	72		ug/L			684631	680542	1
	Ni	60	99.749	ug/L	2.316	2	26	446545	2
	Ni	62	99.677	ug/L	1.029	1	80	62525	0
	Cu	63	99.513	ug/L	0.769	0	82	929314	1
	Cu	65	99.582	ug/L	2.302	2	35	422620	1
	Zn	66	99.182	ug/L	1.287	1	242	250337	1
	Zn	67	99.704	ug/L	1.142	1	49	42710	0
	Zn	68	99.675	ug/L	1.867	1	256	182345	2
	As	75	99.516	ug/L	1.971	1	570	230248	0
	As-1	75	99.635	ug/L	2.173	2	9404	238047	0
	Se	82	99.340	ug/L	1.987	1	-7	25513	0
	Se	78	99.775	ug/L	2.990	2	9527	73416	1
	Y	89		ug/L			481047	473021	2
	Kr	83		ug/L			940	1069	3
>	In	115		ug/L			1066652	1043023	1
	Ag	107	100.094	ug/L	0.977	0	25	1051983	2
	Cd	111	99.696	ug/L	3.665	3	106	502441	2
	Cd	114	99.845	ug/L	1 694	1	29	1277914	0
	Sb	121	100.469	ug/L	2.359	2	95	1524938	0
	Sb	123	100.195	ug/L	1.788	1	76	1134646	0
>	Tb	159		ug/L			1328955	1318343	0
	Tl	205	99.599	ug/L	1.421	1	109	4161359	0
	Pb	208	99.909	ug/L	0 671	0	220	5368758	0
	Bi	209		ug/L			2961181	2761953	1
	Th	232	99.883	ug/L	1.608	1	428	5315895	1
	U	238	99.783	ug/L	1.841	1	24	5471326	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:19:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130121.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	124671	4
	Cl	37		ug/L			5640944	5877247	1
>	Ge	72		ug/L			684631	685639	1
	Ni	60	0.002	ug/L	0.003	125	26	36	34
	Ni	62	0.084	ug/L	0.013	15	80	133	5
	Cu	63	0.008	ug/L	0.003	38	82	154	16
	Cu	65	0.004	ug/L	0.000	2	35	53	1
	Zn	66	-0.014	ug/L	0.002	14	242	207	1
	Zn	67	-0.043	ug/L	0.010	24	49	31	14
	Zn	68	-0.013	ug/L	0.013	99	256	232	11
	As	75	0.008	ug/L	0.025	301	570	589	8
	As-1	75	-0.035	ug/L	0.031	90	9404	9337	0
	Se	82	0.038	ug/L	0.060	157	-7	1	817
	Se	78	-0.115	ug/L	0.091	78	9527	9467	1
	Y	89		ug/L			481047	489316	1
	Kr	83		ug/L			940	941	3
>	In	115		ug/L			1066652	1055798	1
	Ag	107	0.002	ug/L	0.001	57	25	48	25
	Cd	111	0.004	ug/L	0 003	83	106	125	12
	Cd	114	0.002	ug/L	0.001	41	29	50	15
	Sb	121	0.050	ug/L	0.005	9	95	861	10
	Sb	123	0.050	ug/L	0.007	14	76	643	13
>	Tb	159		ug/L			1328955	1314932	0
	Tl	205	0.011	ug/L	0.002	22	109	554	18
	Pb	208	0.001	ug/L	0.001	130	220	273	26
	Bi	209		ug/L			2961181	2951492	0
	Th	232	0.237	ug/L	0.049	20	428	12992	19
	U	238	0.003	ug/L	0.001	32	24	171	27

Sample Information

Sample Date/Time: Wednesday, January 23, 2013 11:13:29
Method File: C:\NexION Data\Method\200.8GFA+.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Ge	72							
Ni	60	**1.0000**	0.007	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**0.9999**	0.014	0.50	10	20	50	100
Cu	65	**0.9999**	0.006	0.50	10	20	50	100
Zn	66	**0.9999**	0.004	4.00	10	20	50	100
Zn	67	**0.9999**	0.001	4.00	10	20	50	100
Zn	68	**1.0000**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9997**	0.000	0.50	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.010	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.012	0.10	10	20	50	100
Sb	121	**1.0000**	0.015	0.20	10	20	50	100
Sb	123	**1.0000**	0.011	0.20	10	20	50	100
Tb	159							
Tl	205	**1.0000**	0.032	0.20	10	20	50	100
Pb	208	**1.0000**	0.041	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	0.040	0.20	10	20	50	100
U	238	**1.0000**	0.042	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:36:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	126279	1
	Cl	37		ug/L			5640944	5925927	2
>	Ge	72		ug/L			684631	685673	2
	Ni	60	51.258	ug/L	1.123	2	26	231162	0
	Ni	62	50.978	ug/L	0.909	1	80	32253	1
	Cu	63	51.838	ug/L	1.090	2	82	487706	1
	Cu	65	50.581	ug/L	2.125	4	35	216219	2
	Zn	66	50.972	ug/L	1.982	3	242	129687	2
	Zn	67	50.476	ug/L	1.908	3	49	21801	1
	Zn	68	49.423	ug/L	0.594	1	256	91214	1
	As	75	51.242	ug/L	1.792	3	570	119694	1
	As-1	75	50.982	ug/L	1.839	3	9404	127289	1
	Se	82	81.963	ug/L	2.330	2	-7	20733	0
	Se	78	79.735	ug/L	2.592	3	9527	61005	0
	Y	89		ug/L			481047	488159	1
	Kr	83		ug/L			940	986	1
>	In	115		ug/L			1066652	1056271	1
	Ag	107	50.260	ug/L	1.154	2	25	534993	3
	Cd	111	49.375	ug/L	0.768	1	106	252114	0
	Cd	114	50.395	ug/L	1.100	2	29	653254	1
	Sb	121	49.135	ug/L	0.078	0	95	755506	1
	Sb	123	49.896	ug/L	1.547	3	76	572218	1
>	Tb	159		ug/L			1328955	1343726	1
	Tl	205	51.734	ug/L	0.842	1	109	2203005	0
	Pb	208	50.370	ug/L	0.596	1	220	2758747	0
	Bi	209		ug/L			2961181	2816561	0
	Th	232	51.892	ug/L	0.883	1	428	2814949	0
	U	238	51.446	ug/L	1.314	2	24	2874911	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:42:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			124016	118547	1
	Cl	37		ug/L			5640944	5860886	2
>	Ge	72		ug/L			684631	681464	1
	Ni	60	0.003	ug/L	0.003	90	26	39	30
	Ni	62	0.041	ug/L	0.023	57	80	105	12
	Cu	63	0.005	ug/L	0.002	45	82	124	14
	Cu	65	0.002	ug/L	0.002	63	35	45	13
	Zn	66	-0.008	ug/L	0.003	29	242	219	4
	Zn	67	-0.006	ug/L	0.033	552	49	47	31
	Zn	68	-0.008	ug/L	0.011	137	256	240	8
	As	75	0.034	ug/L	0.013	38	570	647	5
	As-1	75	0.079	ug/L	0.044	55	9404	9541	0
	Se	82	0.048	ug/L	0.038	78	-7	4	220
	Se	78	0.258	ug/L	0.185	71	9527	9648	0
	Y	89		ug/L			481047	486479	2
	Kr	83		ug/L			940	978	2
>	In	115		ug/L			1066652	1060920	1
	Ag	107	0.003	ug/L	0.005	143	25	59	80
	Cd	111	0.005	ug/L	0.004	67	106	133	12
	Cd	114	0.002	ug/L	0.003	138	29	58	67
	Sb	121	0.012	ug/L	0 000	3	95	288	1
	Sb	123	0.011	ug/L	0.001	6	76	205	3
>	Tb	159		ug/L			1328955	1323438	0
	Tl	205	0.003	ug/L	0.001	32	109	224	17
	Pb	208	0.001	ug/L	0.002	213	220	261	34
	Bi	209		ug/L			2961181	2964202	0
	Th	232	0.137	ug/L	0.019	14	428	7723	12
	U	238	0.002	ug/L	0 001	59	24	125	48

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:46:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	117844	1
	Cl	37		ug/L			5640944	5937705	0
>	Ge	72		ug/L			684631	688959	2
	Ni	60	49.869	ug/L	1.024	2	26	225989	1
	Ni	62	50.655	ug/L	1.356	2	80	32214	4
	Cu	63	50.263	ug/L	2.091	4	82	475036	3
	Cu	65	49.899	ug/L	0.960	1	35	214451	3
	Zn	66	50.727	ug/L	2.247	4	242	129668	2
	Zn	67	51.089	ug/L	2.683	5	49	22166	3
	Zn	68	50.395	ug/L	1.049	2	256	93434	1
	As	75	50.361	ug/L	0.635	1	570	118245	0
	As-1	75	50.330	ug/L	0.627	1	9404	126422	1
	Se	82	51.841	ug/L	1.266	2	-7	13174	0
	Se	78	50.606	ug/L	1.274	2	9527	42410	0
	Y	89		ug/L			481047	490672	2
	Kr	83		ug/L			940	1013	3
>	In	115		ug/L			1066652	1041448	1
	Ag	107	51.384	ug/L	2.059	4	25	538991	2
	Cd	111	50.693	ug/L	0.945	1	106	255241	2
	Cd	114	51.271	ug/L	0.418	0	29	655310	0
	Sb	121	50.374	ug/L	1.248	2	95	763516	1
	Sb	123	50.953	ug/L	1.337	2	76	576159	1
>	Tb	159		ug/L			1328955	1330421	1
	Tl	205	51.186	ug/L	0.636	1	109	2158137	0
	Pb	208	50.043	ug/L	1 180	2	220	2713389	1
	Bi	209		ug/L			2961181	2833090	0
	Th	232	50.358	ug/L	0.573	1	428	2704961	1
	U	238	50.818	ug/L	0 953	1	24	2811753	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:52:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
	C	13		ug/L			124016	118961	2
	Cl	37		ug/L			5640944	5699690	1
>	Ge	72		ug/L			684631	698746	2
	Ni	60	0.002	ug/L	0.001	37	26	33	6
	Ni	62	0.038	ug/L	0.005	14	80	106	5
	Cu	63	0.004	ug/L	0 001	32	82	122	11
	Cu	65	0.002	ug/L	0.001	44	35	47	12
	Zn	66	0.001	ug/L	0.010	894	242	249	7
	Zn	67	-0.038	ug/L	0.006	16	49	34	5
	Zn	68	0.006	ug/L	0.008	133	256	272	4
	As	75	0.013	ug/L	0.019	144	570	613	7
	As-1	75	-0.079	ug/L	0.158	199	9404	9404	1
	Se	82	0.021	ug/L	0.065	302	-7	-2	710
	Se	78	-0.256	ug/L	0.543	212	9527	9549	1
	Y	89		ug/L			481047	491183	1
	Kr	83		ug/L			940	1004	3
>	In	115		ug/L			1066652	1063786	2
	Ag	107	0.001	ug/L	0.001	90	25	32	16
	Cd	111	0.001	ug/L	0.003	210	106	113	14
	Cd	114	0.001	ug/L	0.001	90	29	39	23
	Sb	121	0.024	ug/L	0.003	13	95	468	8
	Sb	123	0.024	ug/L	0.004	16	76	353	10
>	Tb	159		ug/L			1328955	1336916	1
	Tl	205	0.006	ug/L	0.002	32	109	356	23
	Pb	208	-0.000	ug/L	0.000	16	220	212	1
	Bi	209		ug/L			2961181	2975363	0
	Th	232	0.175	ug/L	0.028	16	428	9890	16
	U	238	0.001	ug/L	0.000	7	24	89	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:55:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			124016	123233	2
	Cl	37		ug/L			5640944	5700357	1
>	Ge	72		ug/L			684631	706035	0
	Ni	60	0.554	ug/L	0.015	2	26	2598	2
	Ni	62	0.621	ug/L	0.015	2	80	486	2
	Cu	63	0.536	ug/L	0.014	2	82	5278	2
	Cu	65	0.520	ug/L	0.019	3	35	2324	3
	Zn	66	4.120	ug/L	0.104	2	242	11027	2
	Zn	67	3.816	ug/L	0.078	2	49	1745	2
	Zn	68	4.003	ug/L	0.125	3	256	7851	3
	As	75	0.211	ug/L	0.015	6	570	1093	2
	As-1	75	0.084	ug/L	0.067	80	9404	9896	0
	Se	82	0.557	ug/L	0.067	12	-7	137	13
	Se	78	0.116	ug/L	0.151	129	9527	9902	0
	Y	89		ug/L			481047	491901	1
	Kr	83		ug/L			940	988	2
>	In	115		ug/L			1066652	1079383	0
	Ag	107	0.208	ug/L	0.010	4	25	2292	4
	Cd	111	0.109	ug/L	0.002	2	106	678	2
	Cd	114	0.103	ug/L	0.005	4	29	1393	3
	Sb	121	0.196	ug/L	0.009	4	95	3175	3
	Sb	123	0.200	ug/L	0.004	1	76	2421	0
>	Tb	159		ug/L			1328955	1337569	1
	Tl	205	0.207	ug/L	0.004	1	109	8885	0
	Pb	208	0.107	ug/L	0.002	1	220	6058	1
	Bi	209		ug/L			2961181	2978869	0
	Th	232	0.215	ug/L	0.002	1	428	12059	1
	U	238	0.197	ug/L	0.006	3	24	10963	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 11:59:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	234815	2
	Cl	37		ug/L			5640944	15038487	0
>	Ge	72		ug/L			684631	676542	1
	Ni	60	0.364	ug/L	0.012	3	26	1647	5
	Ni	62	4.645	ug/L	0.373	8	80	2974	9
	Cu	63	0.958	ug/L	0.037	3	82	8974	5
	Cu	65	0.399	ug/L	0.002	0	35	1717	2
	Zn	66	1.110	ug/L	0.051	4	242	3021	2
	Zn	67	5.053	ug/L	0.138	2	49	2197	1
	Zn	68	0.486	ug/L	0.018	3	256	1135	1
	As	75	0.115	ug/L	0.078	67	570	826	20
	As-1	75	0.267	ug/L	0.126	47	9404	9898	1
	Se	82	-0.327	ug/L	0.054	16	-7	-89	16
	Se	78	0.724	ug/L	0.220	30	9527	9874	0
	Y	89		ug/L			481047	485520	0
	Kr	83		ug/L			940	1341	3
>	In	115		ug/L			1066652	1032547	1
	Ag	107	0.023	ug/L	0.003	11	25	264	11
	Cd	111	0.238	ug/L	0.017	7	106	1293	8
	Cd	114	0.334	ug/L	0.015	4	29	4255	3
	Sb	121	0.061	ug/L	0.002	3	95	1016	4
	Sb	123	0.059	ug/L	0.003	4	76	733	2
>	Tb	159		ug/L			1328955	1332143	0
	Tl	205	0.036	ug/L	0.001	3	109	1646	3
	Pb	208	0.031	ug/L	0.001	2	220	1930	2
	Bi	209		ug/L			2961181	2673317	0
	Th	232	0.123	ug/L	0.044	35	428	7058	32
	U	238	0.000	ug/L	0.000	30	24	42	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:05:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	234555	1
	Cl	37		ug/L			5640944	15024620	2
>	Ge	72		ug/L			684631	682949	1
	Ni	60	20.111	ug/L	0.750	3	26	90344	2
	Ni	62	23.801	ug/L	0.298	1	80	15043	1
	Cu	63	20.470	ug/L	0.462	2	82	191856	0
	Cu	65	19.721	ug/L	0 244	1	35	84044	2
	Zn	66	20.328	ug/L	0.571	2	242	51670	1
	Zn	67	21.807	ug/L	0.787	3	49	9410	2
	Zn	68	18.860	ug/L	0.557	2	256	34820	1
	As	75	18.936	ug/L	0.182	0	570	44434	1
	As-1	75	19.147	ug/L	0.266	1	9404	53489	1
	Se	82	-0.237	ug/L	0.045	19	-7	-67	18
	Se	78	0.584	ug/L	0.322	55	9527	9878	1
	Y	89		ug/L			481047	470652	1
	Kr	83		ug/L			940	1297	0
>	In	115		ug/L			1066652	1065329	2
	Ag	107	18.946	ug/L	0.618	3	25	203354	3
	Cd	111	19.317	ug/L	0.424	2	106	99522	0
	Cd	114	19.686	ug/L	0.565	2	29	257301	0
	Sb	121	0.064	ug/L	0.003	5	95	1081	6
	Sb	123	0.062	ug/L	0.004	6	76	794	3
>	Tb	159		ug/L			1328955	1342119	0
	Tl	205	0.030	ug/L	0.001	2	109	1374	2
	Pb	208	0.034	ug/L	0.001	2	220	2065	1
	Bi	209		ug/L			2961181	2685770	0
	Th	232	0.046	ug/L	0.005	11	428	2901	8
	U	238	0.000	ug/L	0.000	195	24	30	36

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:11:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	124026	1
	Cl	37		ug/L			5640944	6019934	1
>	Ge	72		ug/L			684631	654959	1
	Ni	60	199.524	ug/L	7.076	3	26	859637	3
	Ni	62	203.257	ug/L	8.065	3	80	122614	3
	Cu	63	198.853	ug/L	6.844	3	82	1786655	2
	Cu	65	200.177	ug/L	2.204	1	35	817646	0
	Zn	66	198.053	ug/L	3.937	1	242	480849	1
	Zn	67	193.740	ug/L	0.349	0	49	79836	1
	Zn	68	191.569	ug/L	8.283	4	256	337007	4
	As	75	202.032	ug/L	2.035	1	570	449355	0
	As-1	75	202.251	ug/L	2.048	1	9404	455842	0
	Se	82	203.566	ug/L	1.534	0	-7	49214	0
	Se	78	200.008	ug/L	2.158	1	9527	132469	0
	Y	89		ug/L			481047	466716	1
	Kr	83		ug/L			940	1281	2
>	In	115		ug/L			1066652	1023007	1
	Ag	107	203.954	ug/L	7.678	3	25	2102817	5
	Cd	111	198.104	ug/L	2.061	1	106	979410	0
	Cd	114	208.785	ug/L	4.144	1	29	2620791	0
	Sb	121	209.183	ug/L	4.219	2	95	3114098	0
	Sb	123	213.209	ug/L	2.295	1	76	2368249	0
>	Tb	159		ug/L			1328955	1314198	0
	Tl	205	192.805	ug/L	0.187	0	109	8030612	0
	Pb	208	197.072	ug/L	1.900	0	220	10556186	0
	Bi	209		ug/L			2961181	2599920	0
	Th	232	198.706	ug/L	0.757	0	428	10542434	1
	U	238	198.460	ug/L	1.825	0	24	10848023	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:17:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
	C	13		ug/L			124016	125495	2
	Cl	37		ug/L			5640944	6074938	4
>	Ge	72		ug/L			684631	634107	2
	Ni	60	298.145	ug/L	8.104	2	26	1243242	0
	Ni	62	301.927	ug/L	4 511	1	80	176317	1
	Cu	63	306.838	ug/L	5 336	1	82	2669571	2
	Cu	65	288.066	ug/L	8.473	2	35	1138778	0
	Zn	66	290.309	ug/L	9.408	3	242	682076	1
	Zn	67	283.296	ug/L	11.615	4	49	112948	2
	Zn	68	278.780	ug/L	3.380	1	256	474687	0
	As	75	299.322	ug/L	8.179	2	570	644102	0
	As-1	75	299.357	ug/L	9.111	3	9404	648817	0
	Se	82	296.705	ug/L	4.779	1	-7	69444	1
	Se	78	290.524	ug/L	6.919	2	9527	182253	0
	Y	89		ug/L			481047	453659	0
	Kr	83		ug/L			940	1497	4
>	In	115		ug/L			1066652	994800	0
	Ag	107	294.333	ug/L	2.270	0	25	2950068	1
	Cd	111	286.479	ug/L	7 173	2	106	1377328	2
	Cd	114	302.408	ug/L	2.771	0	29	3692062	0
	Sb	121	307.963	ug/L	2.617	0	95	4459089	0
	Sb	123	311.121	ug/L	3.258	1	76	3360919	1
>	Tb	159		ug/L			1328955	1282340	1
	Tl	205	285.465	ug/L	3.909	1	109	11601741	1
	Pb	208	289.285	ug/L	5 258	1	220	15118744	0
	Bi	209		ug/L			2961181	2511797	0
	Th	232	292.700	ug/L	3.876	1	428	15151051	0
	U	238	292.291	ug/L	2 885	0	24	15589332	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:24:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	121556	0
	Cl	37		ug/L			5640944	5866731	2
>	Ge	72		ug/L			684631	680280	2
	Ni	60	0.343	ug/L	0.010	2	26	1560	2
	Ni	62	0.796	ug/L	0.049	6	80	578	7
	Cu	63	0.291	ug/L	0.008	2	82	2799	4
	Cu	65	0.254	ug/L	0.009	3	35	1113	2
	Zn	66	1.576	ug/L	0.062	3	242	4210	1
	Zn	67	1.371	ug/L	0.022	1	49	635	3
	Zn	68	1.508	ug/L	0.098	6	256	3004	3
	As	75	0.048	ug/L	0.026	54	570	677	10
	As-1	75	0.059	ug/L	0.073	124	9404	9476	0
	Se	82	0.022	ug/L	0.075	333	-7	-1	982
	Se	78	0.194	ug/L	0 301	155	9527	9588	0
	Y	89		ug/L			481047	481397	0
	Kr	83		ug/L			940	1041	4
>	In	115		ug/L			1066652	1088161	1
	Ag	107	0.006	ug/L	0.002	39	25	88	27
	Cd	111	0.011	ug/L	0.003	30	106	165	9
	Cd	114	0.006	ug/L	0.002	33	29	113	22
	Sb	121	0.102	ug/L	0.008	7	95	1718	8
	Sb	123	0.103	ug/L	0.006	6	76	1298	6
>	Tb	159		ug/L			1328955	1328569	1
	Tl	205	0.030	ug/L	0.008	25	109	1356	23
	Pb	208	0.038	ug/L	0.001	3	220	2282	1
	Bi	209		ug/L			2961181	2952372	1
	Th	232	0.296	ug/L	0.072	24	428	16322	23
	U	238	0.005	ug/L	0.001	18	24	286	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:29:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	115804	0
	Cl	37		ug/L			5640944	6155761	0
>	Ge	72		ug/L			684631	681192	1
	Ni	60	50.965	ug/L	2.178	4	26	228316	3
	Ni	62	49.167	ug/L	2.343	4	80	30895	2
	Cu	63	50.654	ug/L	0.285	0	82	473566	2
	Cu	65	51.057	ug/L	0.378	0	35	216951	2
	Zn	66	50.919	ug/L	0.942	1	242	128752	1
	Zn	67	50.613	ug/L	2.027	4	49	21720	2
	Zn	68	50.728	ug/L	2.271	4	256	92965	2
	As	75	50.140	ug/L	1.203	2	570	116391	1
	As-1	75	50.054	ug/L	1.688	3	9404	124340	1
	Se	82	51.953	ug/L	0.482	0	-7	13057	1
	Se	78	50.614	ug/L	1 942	3	9527	41933	1
	Y	89		ug/L			481047	487472	0
	Kr	83		ug/L			940	1074	4
>	In	115		ug/L			1066652	1059338	0
	Ag	107	49.555	ug/L	0.211	0	25	528921	0
	Cd	111	50.491	ug/L	0.627	1	106	258598	1
	Cd	114	50.594	ug/L	0.768	1	29	657810	1
	Sb	121	49.873	ug/L	0.581	1	95	769062	1
	Sb	123	50.243	ug/L	0.495	0	76	578029	1
>	Tb	159		ug/L			1328955	1343320	0
	Tl	205	50.594	ug/L	0.411	0	109	2154069	0
	Pb	208	49.598	ug/L	0.874	1	220	2715653	1
	Bi	209		ug/L			2961181	2847881	1
	Th	232	50.346	ug/L	0.923	1	428	2730568	1
	U	238	50.066	ug/L	1.053	2	24	2797166	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:35:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			124016	120454	1
	Cl	37		ug/L			5640944	5802648	0
>	Ge	72		ug/L			684631	677578	1
	Ni	60	0.009	ug/L	0.010	111	26	64	67
	Ni	62	0.217	ug/L	0 019	8	80	214	4
	Cu	63	0.029	ug/L	0.015	50	82	355	39
	Cu	65	0.012	ug/L	0.015	124	35	84	73
	Zn	66	0.041	ug/L	0.007	17	242	342	6
	Zn	67	0.036	ug/L	0.012	34	49	64	9
	Zn	68	0.034	ug/L	0.011	31	256	315	6
	As	75	0.042	ug/L	0.019	45	570	661	5
	As-1	75	0.017	ug/L	0.072	431	9404	9344	0
	Se	82	-0.019	ug/L	0.074	385	-7	-12	146
	Se	78	0.041	ug/L	0.274	670	9527	9454	0
	Y	89		ug/L			481047	482081	3
	Kr	83		ug/L			940	1053	2
>	In	115		ug/L			1066652	1065540	1
	Ag	107	0.003	ug/L	0.002	56	25	58	32
	Cd	111	0.005	ug/L	0.002	41	106	133	9
	Cd	114	0.002	ug/L	0.001	40	29	56	19
	Sb	121	0.038	ug/L	0.006	15	95	680	12
	Sb	123	0.038	ug/L	0.004	9	76	516	8
>	Tb	159		ug/L			1328955	1322610	1
	Tl	205	0.012	ug/L	0.003	27	109	601	21
	Pb	208	0.001	ug/L	0.000	41	220	268	8
	Bi	209		ug/L			2961181	2972457	1
	Th	232	0.192	ug/L	0.031	16	428	10661	14
	U	238	0.007	ug/L	0.010	136	24	429	129

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:41:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	130091	3
	Cl	37		ug/L			5640944	5616634	0
>	Ge	72		ug/L			684631	689282	2
	Ni	60	0.011	ug/L	0.002	22	26	76	16
	Ni	62	0.162	ug/L	0.004	2	80	183	3
	Cu	63	0.145	ug/L	0 003	1	82	1453	3
	Cu	65	0.129	ug/L	0.008	6	35	588	4
	Zn	66	0.689	ug/L	0.056	8	242	2001	5
	Zn	67	0.634	ug/L	0.072	11	49	324	8
	Zn	68	0.652	ug/L	0.016	2	256	1464	0
	As	75	0.064	ug/L	0.022	33	570	722	5
	As-1	75	0.033	ug/L	0.092	278	9404	9541	0
	Se	82	0.003	ug/L	0.072	2717	-7	-7	248
	Se	78	0.034	ug/L	0.308	906	9527	9611	0
	Y	89		ug/L			481047	477849	3
	Kr	83		ug/L			940	1064	3
>	In	115		ug/L			1066652	1062588	1
	Ag	107	0.007	ug/L	0.001	13	25	101	9
	Cd	111	0.011	ug/L	0.002	21	106	163	6
	Cd	114	0.007	ug/L	0.001	21	29	114	15
	Sb	121	0.022	ug/L	0.003	14	95	429	11
	Sb	123	0.023	ug/L	0.003	13	76	342	10
>	Tb	159		ug/L			1328955	1321093	1
	Tl	205	0.035	ug/L	0.005	14	109	1561	14
	Pb	208	0.012	ug/L	0.001	6	220	867	3
	Bi	209		ug/L			2961181	2953848	0
	Th	232	0.104	ug/L	0.002	1	428	5978	0
	U	238	0.006	ug/L	0.000	0	24	371	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:44:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	127562	3
	Cl	37		ug/L			5640944	5615488	2
>	Ge	72		ug/L			684631	692797	0
	Ni	60	0.006	ug/L	0.001	20	26	51	8
	Ni	62	0.148	ug/L	0.016	10	80	175	5
	Cu	63	0.132	ug/L	0.008	5	82	1339	6
	Cu	65	0.121	ug/L	0.010	8	35	560	7
	Zn	66	0.852	ug/L	0.034	3	242	2431	2
	Zn	67	0.731	ug/L	0.007	0	49	368	1
	Zn	68	0.793	ug/L	0.027	3	256	1733	3
	As	75	0.042	ug/L	0.012	28	570	676	3
	As-1	75	-0.021	ug/L	0.053	249	9404	9465	0
	Se	82	-0.033	ug/L	0.026	78	-7	-16	40
	Se	78	-0.105	ug/L	0.183	173	9527	9571	0
	Y	89		ug/L			481047	488464	1
	Kr	83		ug/L			940	1079	1
>	In	115		ug/L			1066652	1090325	1
	Ag	107	0.002	ug/L	0.001	40	25	45	17
	Cd	111	0.004	ug/L	0.002	39	106	129	6
	Cd	114	0.005	ug/L	0.001	11	29	90	8
	Sb	121	0.010	ug/L	0.001	8	95	259	5
	Sb	123	0.009	ug/L	0.002	16	76	187	10
>	Tb	159		ug/L			1328955	1323146	1
	Tl	205	0.008	ug/L	0 001	18	109	453	15
	Pb	208	0.011	ug/L	0.000	4	220	833	4
	Bi	209		ug/L			2961181	2961612	0
	Th	232	0.041	ug/L	0.001	2	428	2598	3
	U	238	0.001	ug/L	0 000	7	24	61	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:48:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	138256	3
	Cl	37		ug/L			5640944	6223035	3
>	Ge	72		ug/L			684631	639415	2
	Ni	60	2.841	ug/L	0.117	4	26	11968	2
	Ni	62	2.663	ug/L	0.148	5	80	1643	7
	Cu	63	4.022	ug/L	0.086	2	82	35353	0
	Cu	65	3.724	ug/L	0.168	4	35	14871	2
	Zn	66	15.610	ug/L	0.516	3	242	37191	0
	Zn	67	32.577	ug/L	0.858	2	49	13138	0
	Zn	68	29.972	ug/L	0.782	2	256	51661	0
	As	75	86.036	ug/L	2.521	2	570	187048	1
	As-1	75	86.375	ug/L	2.574	2	9404	195011	1
	Se	82	0.535	ug/L	0.058	10	-7	118	9
	Se	78	0.279	ug/L	0.270	96	9527	9063	0
	Y	89		ug/L			481047	466483	3
	Kr	83		ug/L			940	1044	1
>	In	115		ug/L			1066652	955500	2
	Ag	107	0.018	ug/L	0.001	7	25	198	4
	Cd	111	0.145	ug/L	0.010	7	106	765	3
	Cd	114	0.137	ug/L	0.002	1	29	1637	2
	Sb	121	0.711	ug/L	0.023	3	95	9961	1
	Sb	123	0.710	ug/L	0.043	6	76	7426	3
>	Tb	159		ug/L			1328955	1290955	0
	Tl	205	0.013	ug/L	0.000	1	109	625	2
	Pb	208	11.638	ug/L	0.160	1	220	612566	1
	Bi	209		ug/L			2961181	2408622	1
	Th	232	0.117	ug/L	0.027	23	428	6531	21
	U	238	0.077	ug/L	0.002	2	24	4155	2

WA08 001UB

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:51:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	141472	2
	Cl	37		ug/L			5640944	6344806	0
>	Ge	72		ug/L			684631	629211	1
	Ni	60	2.967	ug/L	0.128	4	26	12299	2
	Ni	62	2.911	ug/L	0.097	3	80	1760	4
	Cu	63	3.982	ug/L	0.128	3	82	34447	1
	Cu	65	3.627	ug/L	0.152	4	35	14261	2
	Zn	66	16.205	ug/L	0.764	4	242	37991	3
	Zn	67	34.455	ug/L	1.032	2	49	13674	1
	Zn	68	31.334	ug/L	0.751	2	256	53146	0
	As	75	88.442	ug/L	2.311	2	570	189239	1
	As-1	75	88.829	ug/L	2.359	2	9404	197149	1
	Se	82	0.628	ug/L	0.075	11	-7	138	13
	Se	78	0.516	ug/L	0.143	27	9527	9061	0
	Y	89		ug/L			481047	470277	0
	Kr	83		ug/L			940	1044	3
>	In	115		ug/L			1066652	956148	0
	Ag	107	0.041	ug/L	0.010	23	25	414	22
	Cd	111	0.162	ug/L	0.009	5	106	843	5
	Cd	114	0.155	ug/L	0.004	2	29	1841	2
	Sb	121	0.713	ug/L	0.013	1	95	10010	1
	Sb	123	0.722	ug/L	0.007	0	76	7568	0
>	Tb	159		ug/L			1328955	1290479	1
	Tl	205	0.018	ug/L	0.005	28	109	829	22
	Pb	208	11.901	ug/L	0.174	1	220	626124	0
	Bi	209		ug/L			2961181	2402127	1
	Th	232	0.086	ug/L	0.009	10	428	4910	7
	U	238	0.088	ug/L	0.004	4	24	4759	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:55:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	143374	1
	Cl	37		ug/L			5640944	6308384	2
>	Ge	72		ug/L			684631	616166	1
	Ni	60	29.982	ug/L	0.576	1	26	121552	2
	Ni	62	30.306	ug/L	0.666	2	80	17260	1
	Cu	63	30.407	ug/L	1.327	4	82	257078	3
	Cu	65	30.211	ug/L	0.717	2	35	116099	0
	Zn	66	95.092	ug/L	2.527	2	242	217286	1
	Zn	67	106.068	ug/L	3.373	3	49	41134	2
	Zn	68	109.534	ug/L	1.777	1	256	181371	0
	As	75	120.023	ug/L 126%	2.305	1	570	251319	0
	As-1	75	119.847	ug/L	1.980	1	9404	257544	0
	Se	82	80.559	ug/L	1.944	2	-7	18314	0
	Se	78	77.544	ug/L	0.792	1	9527	53565	0
	Y	89		ug/L			481047	463264	0
	Kr	83		ug/L			940	1070	4
>	In	115		ug/L			1066652	954611	1
	Ag	107	23.535	ug/L	0.624	2	25	226353	2
	Cd	111	23.664	ug/L	0.724	3	106	109243	1
	Cd	114	24.751	ug/L	0 360	1	29	289964	0
	Sb	121	23.840	ug/L	0.341	1	95	331293	0
	Sb	123	23.767	ug/L	0.374	1	76	246408	0
>	Tb	159		ug/L			1328955	1260541	0
	Tl	205	25.028	ug/L	0.245	0	109	999908	0
	Pb	208	37.364	ug/L	0.514	1	220	1919810	0
	Bi	209		ug/L			2961181	2373718	0
	Th	232	25.013	ug/L	0.303	1	428	1273160	0
	U	238	25.853	ug/L	0.509	1	24	1355395	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 RDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 12:58:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
	C	13		ug/L			124016	144422	1
	Cl	37		ug/L			5640944	6374251	1
>	Ge	72		ug/L			684631	612339	1
	Ni	60	1.335	ug/L	0.067	5	26	5403	6
	Ni	62	1.725	ug/L	0.179	10	80	1044	9
	Cu	63	0.804	ug/L	0.034	4	82	6827	3
	Cu	65	0.389	ug/L	0.022	5	35	1517	4
	Zn	66	1.617	ug/L	0.038	2	242	3884	2
	Zn	67	20.523	ug/L	0 412	2	49	7946	1
	Zn	68	17.839	ug/L	0.364	2	256	29557	3
	As	75	84.109	ug/L	0.837	0	570	175200	0
	As-1	75	84.587	ug/L	0.845	0	9404	183137	0
	Se	82	0.588	ug/L	0.105	17	-7	126	19
	Se	78	0.916	ug/L	0.165	18	9527	9049	0
	Y	89		ug/L			481047	463940	0
	Kr	83		ug/L			940	1035	7
>	In	115		ug/L			1066652	965455	1
	Ag	107	0.002	ug/L	0.000	0	25	45	1
	Cd	111	0.025	ug/L	0.002	9	106	213	6
	Cd	114	0.010	ug/L	0.000	3	29	146	4
	Sb	121	0.199	ug/L	0.003	1	95	2882	0
	Sb	123	0.198	ug/L	0.003	1	76	2140	1
>	Tb	159		ug/L			1328955	1288891	1
	Tl	205	0.001	ug/L	0.000	32	109	161	11
	Pb	208	0.020	ug/L	0.001	6	220	1242	6
	Bi	209		ug/L			2961181	2413577	0
	Th	232	0.064	ug/L	0.025	39	428	3773	36
	U	238	0.021	ug/L	0.001	4	24	1158	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 R REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:02:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	144497	3
	Cl	37		ug/L			5640944	6262141	2
>	Ge	72		ug/L			684631	617625	1
	Ni	60	1.330	ug/L	0.012	0	26	5428	2
	Ni	62	1.999	ug/L	0.247	12	80	1207	10
	Cu	63	0.920	ug/L	0.026	2	82	7867	2
	Cu	65	0.501	ug/L	0.019	3	35	1960	3
	Zn	66	1.796	ug/L	0.108	5	242	4325	3
	Zn	67	21.299	ug/L	0.719	3	49	8313	1
	Zn	68	17.969	ug/L	0.496	2	256	30015	2
	As	75	83.824	ug/L	2.381	2	570	176062	0
	As-1	75	84.277	ug/L	2 469	2	9404	184015	0
	Se	82	0.451	ug/L	0.071	15	-7	95	15
	Se	78	0.720	ug/L	0.316	43	9527	9011	0
	Y	89		ug/L			481047	450417	0
	Kr	83		ug/L			940	1066	4
>	In	115		ug/L			1066652	955358	0
	Ag	107	0.003	ug/L	0.001	22	25	50	12
	Cd	111	0.022	ug/L	0.003	12	106	197	6
	Cd	114	0.009	ug/L	0.002	21	29	131	17
	Sb	121	0.194	ug/L	0.001	0	95	2782	0
	Sb	123	0.190	ug/L	0.001	0	76	2036	0
>	Tb	159		ug/L			1328955	1284013	1
	Tl	205	0.001	ug/L	0.001	94	109	133	19
	Pb	208	0.028	ug/L	0.002	5	220	1685	3
	Bi	209		ug/L			2961181	2390205	0
	Th	232	0.016	ug/L	0.001	6	428	1250	5
	U	238	0.020	ug/L	0.001	5	24	1112	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 RSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:06:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			124016	143120	0
	Cl	37		ug/L			5640944	6260531	0
>	Ge	72		ug/L			684631	618068	2
	Ni	60	27.585	ug/L	1.435	5	26	112086	2
	Ni	62	28.422	ug/L	0.669	2	80	16240	1
	Cu	63	25.989	ug/L	0.472	1	82	220417	1
	Cu	65	25.780	ug/L	0.939	3	35	99355	2
	Zn	66	77.911	ug/L	1.984	2	242	178589	1
	Zn	67	91.137	ug/L	3.828	4	49	35439	1
	Zn	68	90.638	ug/L	2.958	3	256	150525	0
	As	75	108.584	ug/L	2.269	2	570	228080	0
	As-1	75	108.415	ug/L	2 908	2	9404	234439	0
	Se	82	77.980	ug/L	1.596	2	-7	17781	1
	Se	78	75.217	ug/L	3.583	4	9527	52345	1
	Y	89		ug/L			481047	451334	0
	Kr	83		ug/L			940	1070	2
>	In	115		ug/L			1066652	945706	2
	Ag	107	23.905	ug/L	0.939	3	25	227666	1
	Cd	111	23.345	ug/L	0 521	2	106	106760	1
	Cd	114	24.345	ug/L	0.471	1	29	282512	0
	Sb	121	24.020	ug/L	0.868	3	95	330547	1
	Sb	123	24.056	ug/L	0.484	2	76	247035	0
>	Tb	159		ug/L			1328955	1285595	0
	Tl	205	24.085	ug/L	0.176	0	109	981410	0
	Pb	208	23.848	ug/L	0.185	0	220	1249803	0
	Bi	209		ug/L			2961181	2378554	1
	Th	232	23.854	ug/L	0.319	1	428	1238405	1
	U	238	24.681	ug/L	0.262	1	24	1319742	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:09:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			124016	127860	3
	Cl	37		ug/L			5640944	6009215	3
>	Ge	72		ug/L			684631	659607	2
	Ni	60	28.417	ug/L	1.147	4	26	123272	2
	Ni	62	29.390	ug/L	0.785	2	80	17917	1
	Cu	63	28.680	ug/L	0.632	2	82	259633	2
	Cu	65	28.931	ug/L	0.764	2	35	119002	0
	Zn	66	89.341	ug/L	2.230	2	242	218519	0
	Zn	67	81.576	ug/L	4.667	5	49	33854	3
	Zn	68	86.145	ug/L	1.545	1	256	152735	0
	As	75	28.622	ug/L	0.779	2	570	64561	0
	As-1	75	27.849	ug/L	0.898	3	9404	71001	0
	Se	82	88.382	ug/L	1.906	2	-7	21508	0
	Se	78	84.892	ug/L	2.447	2	9527	61890	1
	Y	89		ug/L			481047	465607	1
	Kr	83		ug/L			940	1069	6
>	In	115		ug/L			1066652	1076174	0
	Ag	107	26.611	ug/L	1 178	4	25	288537	4
	Cd	111	26.187	ug/L	0 085	0	106	136305	0
	Cd	114	26.616	ug/L	0.314	1	29	351572	1
	Sb	121	25.076	ug/L	0.274	1	95	392874	1
	Sb	123	25.389	ug/L	0.247	0	76	296756	0
>	Tb	159		ug/L			1328955	1334191	1
	Tl	205	27.296	ug/L	0.577	2	109	1154083	0
	Pb	208	27.948	ug/L	0.455	1	220	1519837	0
	Bi	209		ug/L			2961181	2942338	1
	Th	232	26.167	ug/L	0.526	2	428	1409566	1
	U	238	26.093	ug/L	0.843	3	24	1447631	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:13:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			124016	128017	1
	Cl	37		ug/L			5640944	5945828	3
>	Ge	72		ug/L			684631	657878	0
	Ni	60	27.524	ug/L	0.946	3	26	119155	3
	Ni	62	27.457	ug/L	0.681	2	80	16705	2
	Cu	63	27.512	ug/L	0 276	1	82	248435	1
	Cu	65	27.676	ug/L	0 280	1	35	113588	1
	Zn	66	85.391	ug/L	2.276	2	242	208384	2
	Zn	67	77.303	ug/L	0.529	0	49	32027	1
	Zn	68	81.601	ug/L	0.542	0	256	144352	1
	As	75	27.176	ug/L	0.562	2	570	61187	1
	As-1	75	26.512	ug/L	0.687	2	9404	67870	1
	Se	82	84.469	ug/L	1.047	1	-7	20509	1
	Se	78	81.427	ug/L	1.174	1	9527	59600	0
	Y	89		ug/L			481047	472607	1
	Kr	83		ug/L			940	1078	3
>	In	115		ug/L			1066652	1073118	1
	Ag	107	25.699	ug/L	0.735	2	25	277815	1
	Cd	111	25.194	ug/L	0.204	0	106	130759	0
	Cd	114	25.608	ug/L	0.256	0	29	337277	1
	Sb	121	24.707	ug/L	0.504	2	95	385931	0
	Sb	123	24.773	ug/L	0.425	1	76	288736	1
>	Tb	159		ug/L			1328955	1324590	1
	Tl	205	26.312	ug/L	0.337	1	109	1104609	0
	Pb	208	26.758	ug/L	0.304	1	220	1444734	0
	Bi	209		ug/L			2961181	2949246	0
	Th	232	25.599	ug/L	0.060	0	428	1369294	1
	U	238	25.137	ug/L	0.026	0	24	1384999	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:17:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	117134	3
	Cl	37		ug/L			5640944	5982642	0
>	Ge	72		ug/L			684631	647075	1
	Ni	60	50.537	ug/L	0.195	0	26	215153	1
	Ni	62	50.862	ug/L	1.149	2	80	30374	2
	Cu	63	51.491	ug/L	0.211	0	82	457250	1
	Cu	65	50.301	ug/L	0.605	1	35	203038	2
	Zn	66	51.631	ug/L	0.678	1	242	124018	0
	Zn	67	50.848	ug/L	1.066	2	49	20733	1
	Zn	68	51.829	ug/L	1.142	2	256	90256	1
	As	75	51.504	ug/L	0.648	1	570	113582	1
	As-1	75	51.084	ug/L	0.713	1	9404	120392	1
	Se	82	53.756	ug/L	0.652	1	-7	12834	1
	Se	78	51.360	ug/L	1.501	2	9527	40294	1
	Y	89		ug/L			481047	465579	3
	Kr	83		ug/L			940	1153	2
>	In	115		ug/L			1066652	1044461	0
	Ag	107	48.502	ug/L	0.999	2	25	510346	1
	Cd	111	50.332	ug/L	0.883	1	106	254132	0
	Cd	114	50.837	ug/L	0.782	1	29	651715	2
	Sb	121	49.974	ug/L	1.207	2	95	759700	1
	Sb	123	51.076	ug/L	1.015	1	76	579289	1
>	Tb	159		ug/L			1328955	1327258	2
	Tl	205	50.895	ug/L	0.973	1	109	2140409	0
	Pb	208	49.684	ug/L	1.369	2	220	2687039	0
	Bi	209		ug/L			2961181	2829588	1
	Th	232	50.124	ug/L	0.568	1	428	2685626	1
	U	238	49.846	ug/L	0.944	1	24	2751120	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:24:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	117749	2
	Cl	37		ug/L			5640944	5674799	0
>	Ge	72		ug/L			684631	653673	1
	Ni	60	0.000	ug/L	0.000	89	26	26	4
	Ni	62	0.621	ug/L	0.093	15	80	449	10
	Cu	63	0.055	ug/L	0.004	7	82	572	4
	Cu	65	0.003	ug/L	0.002	66	35	47	20
	Zn	66	0.006	ug/L	0.005	91	242	244	3
	Zn	67	-0.001	ug/L	0.019	1626	49	47	18
	Zn	68	0.003	ug/L	0.003	95	256	250	1
	As	75	0.090	ug/L	0.025	27	570	743	7
	As-1	75	0.064	ug/L	0.105	163	9404	9117	1
	Se	82	0.089	ug/L	0.100	113	-7	13	176
	Se	78	0.197	ug/L	0.382	193	9527	9215	0
	Y	89		ug/L			481047	468157	3
	Kr	83		ug/L			940	1056	4
>	In	115		ug/L			1066652	1067105	1
	Ag	107	0.002	ug/L	0.001	84	25	43	36
	Cd	111	0.005	ug/L	0.003	74	106	130	12
	Cd	114	0.002	ug/L	0.000	24	29	54	11
	Sb	121	0.024	ug/L	0.003	10	95	465	10
	Sb	123	0.025	ug/L	0.003	13	76	362	12
>	Tb	159		ug/L			1328955	1318525	0
	Tl	205	0.006	ug/L	0.002	40	109	343	26
	Pb	208	-0.000	ug/L	0.000	190	220	206	11
	Bi	209		ug/L			2961181	2963611	0
	Th	232	0.175	ug/L	0.036	20	428	9757	18
	U	238	0.001	ug/L	0.000	28	24	93	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:29:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	131291	0
	Cl	37		ug/L			5640944	6972182	1
>	Ge	72		ug/L			684631	633764	0
	Ni	60	**1.562**	ug/L	0.021	1	26	6534	1
	Ni	62	**3.176**	ug/L	0.551	17	80	1928	17
	Cu	63	**2.958**	ug/L	0.013	0	82	25799	1
	Cu	65	**1.305**	ug/L	0.033	2	35	5190	2
	Zn	66	**3.837**	ug/L	0.161	4	242	9233	3
	Zn	67	**3.534**	ug/L	0.071	2	49	1454	1
	Zn	68	**4.611**	ug/L	0 169	3	256	8081	3
	As	75	**0.515**	ug/L	0.018	3	570	1634	1
	As-1	75	**0.512**	ug/L	0.045	8	9404	9799	0
	Se	82	**0.331**	ug/L	0.020	6	-7	70	6
	Se	78	**0.615**	ug/L	0.158	25	9527	9186	0
	Y	89		ug/L			481047	473969	2
	Kr	83		ug/L			940	1101	1
>	In	115		ug/L			1066652	1026124	0
	Ag	107	**0.002**	ug/L	0.001	49	25	41	19
	Cd	111	**0.517**	ug/L	0.015	2	106	2663	1
	Cd	114	**0.529**	ug/L	0.019	3	29	6694	3
	Sb	121	**0.044**	ug/L	0.004	10	95	745	7
	Sb	123	**0.044**	ug/L	0.002	4	76	561	3
>	Tb	159		ug/L			1328955	1316106	0
	Tl	205	**0.009**	ug/L	0.001	11	109	495	8
	Pb	208	**0.399**	ug/L	0.001	0	220	21615	0
	Bi	209		ug/L			2961181	2607126	0
	Th	232	**0.198**	ug/L	0.026	13	428	10937	13
	U	238	**0.038**	ug/L	0.000	1	24	2088	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:32:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			124016	139042	1
	Cl	37		ug/L			5640944	6120890	2
>	Ge	72		ug/L			684631	633968	1
	Ni	60	1.307	ug/L	0.061	4	26	5476	5
	Ni	62	1.824	ug/L	0.134	7	80	1138	5
	Cu	63	2.017	ug/L	0.013	0	82	17624	1
	Cu	65	1.714	ug/L	0.029	1	35	6808	1
	Zn	66	8.375	ug/L	0 259	3	242	19895	2
	Zn	67	25.066	ug/L	1.005	4	49	10036	3
	Zn	68	22.555	ug/L	0.179	0	256	38621	1
	As	75	132.361	ug/L	1.773	1	570	285136	0
	As-1	75	133.128	ug/L	1.826	1	9404	293403	0
	Se	82	0.202	ug/L	0.074	36	-7	39	42
	Se	78	0.628	ug/L	0.229	36	9527	9196	0
	Y	89		ug/L			481047	462463	0
	Kr	83		ug/L			940	1082	5
>	In	115		ug/L			1066652	1009675	0
	Ag	107	0.006	ug/L	0.001	14	25	88	9
	Cd	111	0.139	ug/L	0.001	0	106	779	0
	Cd	114	0.137	ug/L	0.004	2	29	1722	1
	Sb	121	0.411	ug/L	0 006	1	95	6129	0
	Sb	123	0.416	ug/L	0.006	1	76	4632	1
>	Tb	159		ug/L			1328955	1320232	0
	Tl	205	0.001	ug/L	0.001	50	109	155	14
	Pb	208	10.143	ug/L	0.125	1	220	545983	0
	Bi	209		ug/L			2961181	2554685	0
	Th	232	0.065	ug/L	0 014	21	428	3886	18
	U	238	0.013	ug/L	0.000	1	24	728	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:36:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	136390	2
	Cl	37		ug/L			5640944	6223238	1
>	Ge	72		ug/L			684631	650879	1
	Ni	60	**1.833**	ug/L	0.009	0	26	7871	2
	Ni	62	**3.050**	ug/L	0.063	2	80	1903	2
	Cu	63	**2.792**	ug/L	0.058	2	82	25009	1
	Cu	65	**1.841**	ug/L	0.064	3	35	7505	1
	Zn	66	**3.886**	ug/L	0.136	3	242	9598	2
	Zn	67	**3.438**	ug/L	0.081	2	49	1454	2
	Zn	68	**4.605**	ug/L	0.077	1	256	8289	2
	As	75	**0.953**	ug/L	0.018	1	570	2645	1
	As-1	75	**0.928**	ug/L	0 107	11	9404	10976	0
	Se	82	**0.236**	ug/L	0 008	3	-7	49	2
	Se	78	**0.402**	ug/L	0.379	94	9527	9302	0
	Y	89		ug/L			481047	479764	0
	Kr	83		ug/L			940	1105	0
>	In	115		ug/L			1066652	1066830	0
	Ag	107	**0.004**	ug/L	0.001	18	25	69	11
	Cd	111	**0.138**	ug/L	0.005	3	106	818	3
	Cd	114	**0.146**	ug/L	0.003	1	29	1947	2
	Sb	121	**0.062**	ug/L	0.001	1	95	1063	1
	Sb	123	**0.065**	ug/L	0 001	1	76	830	1
>	Tb	159		ug/L			1328955	1346319	0
	Tl	205	**0.005**	ug/L	0.001	10	109	332	7
	Pb	208	**0.496**	ug/L	0 011	2	220	27439	1
	Bi	209		ug/L			2961181	2679060	1
	Th	232	**0.089**	ug/L	0.001	1	428	5289	0
	U	238	**0.089**	ug/L	0.002	2	24	4981	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:39:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	137876	5
	Cl	37		ug/L			5640944	5766979	1
>	Ge	72		ug/L			684631	651401	1
	Ni	60	1.057	ug/L	0.030	2	26	4551	1
	Ni	62	22.082	ug/L	2.931	13	80	13306	12
	Cu	63	2.827	ug/L	0.232	8	82	25334	7
	Cu	65	0.287	ug/L	0.013	4	35	1200	3
	Zn	66	1.132	ug/L	0.008	0	242	2963	0
	Zn	67	10.027	ug/L	0.304	3	49	4153	2
	Zn	68	8.591	ug/L	0.173	2	256	15263	0
	As	75	34.424	ug/L	0 260	0	570	76601	0
	As-1	75	34.686	ug/L	0 363	1	9404	85166	0
	Se	82	0.136	ug/L	0.074	54	-7	25	70
	Se	78	0.681	ug/L	0.493	72	9527	9481	2
	Y	89		ug/L			481047	466546	1
	Kr	83		ug/L			940	1114	4
>	In	115		ug/L			1066652	1059246	0
	Ag	107	0.001	ug/L	0.000	22	25	38	7
	Cd	111	0.006	ug/L	0.002	39	106	135	9
	Cd	114	0.009	ug/L	0.001	9	29	139	7
	Sb	121	0.091	ug/L	0.002	1	95	1493	1
	Sb	123	0.092	ug/L	0.003	3	76	1130	2
>	Tb	159		ug/L			1328955	1352243	1
	Tl	205	0.000	ug/L	0.000	303	109	113	4
	Pb	208	0.150	ug/L	0 003	1	220	8465	0
	Bi	209		ug/L			2961181	2632225	1
	Th	232	0.016	ug/L	0.002	10	428	1286	8
	U	238	0.009	ug/L	0.001	8	24	547	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:43:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	136018	2
	Cl	37		ug/L			5640944	6756752	1
>	Ge	72		ug/L			684631	641648	1
	Ni	60	2.006	ug/L	0 030	1	26	8493	2
	Ni	62	3.705	ug/L	0.142	3	80	2263	4
	Cu	63	3.369	ug/L	0.043	1	82	29736	1
	Cu	65	2.026	ug/L	0.096	4	35	8138	4
	Zn	66	5.587	ug/L	0.193	3	242	13506	2
	Zn	67	5.142	ug/L	0.043	0	49	2120	0
	Zn	68	6.344	ug/L	0.195	3	256	11164	2
	As	75	0.856	ug/L	0.011	1	570	2397	1
	As-1	75	0.872	ug/L	0.047	5	9404	10701	0
	Se	82	0.212	ug/L	0.048	22	-7	42	26
	Se	78	0.589	ug/L	0.225	38	9527	9285	1
	Y	89		ug/L			481047	472076	1
	Kr	83		ug/L			940	1138	2
>	In	115		ug/L			1066652	1062159	1
	Ag	107	0.003	ug/L	0.000	4	25	62	4
	Cd	111	0.713	ug/L	0 019	2	106	3766	4
	Cd	114	0.711	ug/L	0.010	1	29	9294	1
	Sb	121	0.106	ug/L	0.004	3	95	1740	2
	Sb	123	0.106	ug/L	0.002	1	76	1300	1
>	Tb	159		ug/L			1328955	1329663	0
	Tl	205	0.006	ug/L	0.001	13	109	373	9
	Pb	208	0.654	ug/L	0.005	0	220	35655	0
	Bi	209		ug/L			2961181	2649111	0
	Th	232	0.204	ug/L	0.004	2	428	11389	2
	U	238	0.093	ug/L	0.002	1	24	5171	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:46:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	139159	1
	Cl	37		ug/L			5640944	6228156	1
>	Ge	72		ug/L			684631	641682	3
	Ni	60	**1.744**	ug/L	0.120	6	26	7373	3
	Ni	62	**24.481**	ug/L	1.497	6	80	14548	8
	Cu	63	**3.517**	ug/L	0.053	1	82	31041	3
	Cu	65	**0.699**	ug/L	0.013	1	35	2829	3
	Zn	66	**2.793**	ug/L	0.154	5	242	6859	2
	Zn	67	**6.538**	ug/L	0.476	7	49	2680	3
	Zn	68	**6.514**	ug/L	0.265	4	256	11452	2
	As	75	**58.995**	ug/L	2.506	4	570	128824	1
	As-1	75	**59.401**	ug/L	2.640	4	9404	137275	1
	Se	82	**0.285**	ug/L	0.065	22	-7	59	23
	Se	78	**0.866**	ug/L	0.660	76	9527	9444	1
	Y	89		ug/L			481047	458925	0
	Kr	83		ug/L			940	1100	2
>	In	115		ug/L			1066652	1034069	0
	Ag	107	**0.003**	ug/L	0.000	5	25	60	2
	Cd	111	**0.342**	ug/L	0.005	1	106	1812	0
	Cd	114	**0.342**	ug/L	0.009	2	29	4366	1
	Sb	121	**0.144**	ug/L	0.004	2	95	2259	1
	Sb	123	**0.143**	ug/L	0.003	1	76	1674	1
>	Tb	159		ug/L			1328955	1324258	0
	Tl	205	**0.001**	ug/L	0.000	35	109	138	7
	Pb	208	**1.120**	ug/L	0.003	0	220	60676	0
	Bi	209		ug/L			2961181	2537534	1
	Th	232	**0.019**	ug/L	0.003	17	428	1417	11
	U	238	**0.006**	ug/L	0.000	2	24	353	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:50:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

RE AS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	134605	1
	Cl	37		ug/L			5640944	6097798	1
>	Ge	72		ug/L			684631	635192	1
	Ni	60	1.593	ug/L	0 072	4	26	6677	3
	Ni	62	3.914	ug/L	0.237	6	80	2362	5
	Cu	63	1.661	ug/L	0.016	0	82	14548	0
	Cu	65	0.944	ug/L	0 033	3	35	3771	4
	Zn	66	3.420	ug/L	0.170	4	242	8270	3
	Zn	67	3.148	ug/L	0.178	5	49	1302	4
	Zn	68	4.336	ug/L	0.143	3	256	7629	3
	As	75	1776.268	ug/L	27.251	1	570	3827217	0
	As-1	75	1786.044	ug/L	27.467	1	9404	3835486	0
	Se	82	4.593	ug/L	0.086	1	-7	1069	0
	Se	78	4.993	ug/L	0.376	7	9527	11824	0
	Y	89		ug/L			481047	464943	1
	Kr	83		ug/L			940	1096	2
>	In	115		ug/L			1066652	1061621	0
	Ag	107	0.005	ug/L	0.007	142	25	76	95
	Cd	111	0.159	ug/L	0.014	8	106	924	8
	Cd	114	0.169	ug/L	0.003	1	29	2227	1
	Sb	121	0.420	ug/L	0.013	3	95	6583	3
	Sb	123	0.423	ug/L	0.005	1	76	4950	0
>	Tb	159		ug/L			1328955	1325023	1
	Tl	205	0.005	ug/L	0.003	52	109	329	34
	Pb	208	0.352	ug/L	0.013	3	220	19226	2
	Bi	209		ug/L			2961181	2640168	1
	Th	232	0.074	ug/L	0.004	4	428	4361	3
	U	238	0.378	ug/L	0.008	2	24	20834	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 I REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:54:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			124016	145326	0
	Cl	37		ug/L			5640944	6170208	1
>	Ge	72		ug/L			684631	583105	1
	Ni	60	2.089	ug/L	0.056	2	26	8036	3
	Ni	62	31.157	ug/L	3.950	12	80	16814	13
	Cu	63	5.182	ug/L	0.360	6	82	41556	8
	Cu	65	1.062	ug/L	0.038	3	35	3890	2
	Zn	66	2.394	ug/L	0.075	3	242	5378	3
	Zn	67	15.083	ug/L	0.598	3	49	5571	3
	Zn	68	13.004	ug/L	0.542	4	256	20565	2
	As	75	273.581	ug/L	7.033	2	570	541491	1
	As-1	75	275.966	ug/L	6.931	2	9404	550758	1
	Se	82	0.575	ug/L	0.088	15	-7	117	16
	Se	78	4.284	ug/L	0.560	13	9527	10470	4
	Y	89		ug/L			481047	432179	1
	Kr	83		ug/L			940	1185	4
>	In	115		ug/L			1066652	981319	2
	Ag	107	0.003	ug/L	0.001	30	25	57	17
	Cd	111	0.037	ug/L	0.003	8	106	274	3
	Cd	114	0.029	ug/L	0.003	10	29	371	8
	Sb	121	0.300	ug/L	0 008	2	95	4365	0
	Sb	123	0.299	ug/L	0.010	3	76	3258	2
>	Tb	159		ug/L			1328955	1285325	1
	Tl	205	-0.001	ug/L	0.000	10	109	79	2
	Pb	208	0.797	ug/L	0 009	1	220	41949	0
	Bi	209		ug/L			2961181	1979381	0
	Th	232	0.014	ug/L	0 002	12	428	1150	6
	U	238	0.107	ug/L	0 003	2	24	5732	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 J REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 13:58:36
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8GFA+.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\130123.cal

RLAS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	137588	1
	Cl	37		ug/L			5640944	5815224	2
>	Ge	72		ug/L			684631	627142	1
	Ni	60	2.016	ug/L	0 068	3	26	8339	3
	Ni	62	4.813	ug/L	0.285	5	80	2851	5
	Cu	63	2.013	ug/L	0.013	0	82	17394	1
	Cu	65	1.311	ug/L	0.051	3	35	5156	2
	Zn	66	3.476	ug/L	0.130	3	242	8297	2
	Zn	67	3.476	ug/L	0.065	1	49	1416	2
	Zn	68	4.322	ug/L	0.094	2	256	7509	0
	As	75	4747.334	ug/L	80.760	1	570	10098091	0
	As-1	75	4773.503	ug/L	81.285	1	9404	10106464	0
	Se	82	4.183	ug/L	0.114	2	-7	961	2
	Se	78	4.992	ug/L	0.343	6	9527	11674	0
	Y	89		ug/L			481047	451744	1
	Kr	83		ug/L			940	1123	2
>	In	115		ug/L			1066652	1059613	2
	Ag	107	0.002	ug/L	0.000	8	25	45	1
	Cd	111	0.095	ug/L	0.005	4	106	594	3
	Cd	114	0.101	ug/L	0.004	3	29	1348	1
	Sb	121	0.414	ug/L	0.017	4	95	6481	1
	Sb	123	0.425	ug/L	0.020	4	76	4964	2
>	Tb	159		ug/L			1328955	1321679	1
	Tl	205	0.001	ug/L	0.001	57	109	157	18
	Pb	208	0.326	ug/L	0.007	2	220	17795	1
	Bi	209		ug/L			2961181	2626775	1
	Th	232	0.039	ug/L	0.001	2	428	2498	2
	U	238	0.825	ug/L	0.007	0	24	45387	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 K REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:02:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	143601	0
	Cl	37		ug/L			5640944	6282042	1
>	Ge	72		ug/L			684631	570634	1
	Ni	60	3.068	ug/L	0.127	4	26	11539	4
	Ni	62	16.169	ug/L	2.493	15	80	8576	17
	Cu	63	3.251	ug/L	0.224	6	82	25540	8
	Cu	65	0.779	ug/L	0.016	2	35	2801	2
	Zn	66	3.159	ug/L	0.032	1	242	6881	1
	Zn	67	16.597	ug/L	0.389	2	49	5995	1
	Zn	68	14.351	ug/L	0.249	1	256	22192	0
	As	75	71.735	ug/L	2.082	2	570	139279	1
	As-1	75	72.438	ug/L	2.255	3	9404	147236	1
	Se	82	0.777	ug/L	0.030	3	-7	157	3
	Se	78	2.375	ug/L	0 662	27	9527	9213	2
	Y	89		ug/L			481047	440176	1
	Kr	83		ug/L			940	1118	3
>	In	115		ug/L			1066652	916137	1
	Ag	107	0.005	ug/L	0.002	34	25	66	21
	Cd	111	0.083	ug/L	0.007	8	106	457	5
	Cd	114	0.067	ug/L	0.004	5	29	777	6
	Sb	121	0.135	ug/L	0.004	2	95	1875	1
	Sb	123	0.134	ug/L	0.005	3	76	1396	2
>	Tb	159		ug/L			1328955	1230699	1
	Tl	205	0.000	ug/L	0.000	4	109	114	0
	Pb	208	0.107	ug/L	0.000	0	220	5571	1
	Bi	209		ug/L			2961181	1934998	0
	Th	232	0.011	ug/L	0.002	18	428	929	10
	U	238	0.050	ug/L	0.001	1	24	2599	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:05:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
C	13		ug/L			124016	114317	0
Cl	37		ug/L			5640944	5982555	1
> Ge	72		ug/L			684631	640915	1
Ni	60	**50.328**	ug/L	1.678	3	26	212188	3
Ni	62	**54.028**	ug/L	1 008	1	80	31955	2
Cu	63	**51.737**	ug/L	0.563	1	82	455011	0
Cu	65	**50.515**	ug/L	1.044	2	35	201907	0
Zn	66	**52.207**	ug/L	1.545	2	242	124180	1
Zn	67	**51.180**	ug/L	0.948	1	49	20668	0
Zn	68	**50.858**	ug/L	0.666	1	256	87724	0
As	75	**51.577**	ug/L	1.212	2	570	112635	0
As-1	75	**51.314**	ug/L	1.373	2	9404	119723	1
Se	82	**53.578**	ug/L	0.564	1	-7	12669	1
Se	78	**51.841**	ug/L	0.878	1	9527	40204	1
Y	89		ug/L			481047	461540	0
Kr	83		ug/L			940	1218	2
> In	115		ug/L			1066652	1058950	1
Ag	107	**48.164**	ug/L	2.311	4	25	513565	2
Cd	111	**49.575**	ug/L	1.256	2	106	253735	0
Cd	114	**50.491**	ug/L	0.452	0	29	656293	2
Sb	121	**49.954**	ug/L	1.578	3	95	769735	1
Sb	123	**50.156**	ug/L	1.406	2	76	576609	0
> Tb	159		ug/L			1328955	1325818	0
Tl	205	**50.726**	ug/L	0.574	1	109	2131536	0
Pb	208	**49.458**	ug/L	0.448	0	220	2672829	0
Bi	209		ug/L			2961181	2848990	1
Th	232	**50.081**	ug/L	0.888	1	428	2680805	1
U	238	**50.584**	ug/L	0.471	0	24	2789463	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:12:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	114250	3
	Cl	37		ug/L			5640944	5639407	2
>	Ge	72		ug/L			684631	653013	2
	Ni	60	0.000	ug/L	0.001	344	26	25	12
	Ni	62	2.234	ug/L	0.115	5	80	1420	6
	Cu	63	0.170	ug/L	0.012	7	82	1606	8
	Cu	65	0.005	ug/L	0.001	27	35	53	11
	Zn	66	0.007	ug/L	0.009	125	242	247	6
	Zn	67	-0.010	ug/L	0.021	215	49	43	18
	Zn	68	0.003	ug/L	0.011	364	256	249	6
	As	75	0.109	ug/L	0.011	10	570	785	3
	As-1	75	0.048	ug/L	0.109	228	9404	9072	1
	Se	82	0.041	ug/L	0.075	181	-7	2	696
	Se	78	0.113	ug/L	0.384	340	9527	9153	0
	Y	89		ug/L			481047	458036	2
	Kr	83		ug/L			940	1123	3
>	In	115		ug/L			1066652	1061410	0
	Ag	107	0.001	ug/L	0.000	49	25	33	12
	Cd	111	0.001	ug/L	0.001	87	106	111	4
	Cd	114	0.000	ug/L	0.001	116	29	35	19
	Sb	121	0.023	ug/L	0.002	10	95	450	7
	Sb	123	0.022	ug/L	0.002	10	76	332	7
>	Tb	159		ug/L			1328955	1310797	1
	Tl	205	0.005	ug/L	0.002	44	109	307	27
	Pb	208	-0.000	ug/L	0.000	151	220	202	9
	Bi	209		ug/L			2961181	2940592	1
	Th	232	0.127	ug/L	0.022	16	428	7130	14
	U	238	0.001	ug/L	0.000	23	24	76	14

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 APOST REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:18:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	136999	3
	Cl	37		ug/L			5640944	6396981	1
>	Ge	72		ug/L			684631	609336	2
	Ni	60	28.009	ug/L	0.512	1	26	112279	2
	Ni	62	29.832	ug/L	0.470	1	80	16802	1
	Cu	63	28.592	ug/L	0.503	1	82	239071	1
	Cu	65	27.904	ug/L	0 861	3	35	106023	0
	Zn	66	87.019	ug/L	3.987	4	242	196576	2
	Zn	67	100.053	ug/L	3.258	3	49	38361	1
	Zn	68	100.498	ug/L	0.803	0	256	164630	3
	As	75	113.045	ug/L	4.432	3	570	234016	1
	As-1	75	112.874	ug/L	4 860	4	9404	240240	1
	Se	82	74.963	ug/L	1.577	2	-7	16851	0
	Se	78	72.220	ug/L	3.068	4	9527	49894	1
	Y	89		ug/L			481047	450612	0
	Kr	83		ug/L			940	1127	2
>	In	115		ug/L			1066652	960555	0
	Ag	107	22.527	ug/L	0.264	1	25	218030	1
	Cd	111	22.304	ug/L	0 507	2	106	103623	1
	Cd	114	23.301	ug/L	0.170	0	29	274715	0
	Sb	121	0.705	ug/L	0.016	2	95	9939	1
	Sb	123	0.721	ug/L	0.010	1	76	7589	0
>	Tb	159		ug/L			1328955	1269089	0
	Tl	205	22.928	ug/L	0.348	1	109	922229	0
	Pb	208	34.783	ug/L	0.484	1	220	1799304	0
	Bi	209		ug/L			2961181	2372306	0
	Th	232	23.543	ug/L	0.360	1	428	1206444	0
	U	238	23.562	ug/L	0 283	1	24	1243726	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 L REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:22:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	139452	1
	Cl	37		ug/L			5640944	10917288	2
>	Ge	72		ug/L			684631	566979	1
	Ni	60	**0.966**	ug/L	0 025	2	26	3622	2
	Ni	62	**32.635**	ug/L	9.510	29	80	17112	29
	Cu	63	**11.580**	ug/L	0 961	8	82	90175	8
	Cu	65	**1.287**	ug/L	0.030	2	35	4578	1
	Zn	66	**2.461**	ug/L	0.072	2	242	5368	1
	Zn	67	**2.717**	ug/L	0 210	7	49	1009	6
	Zn	68	**3.628**	ug/L	0.096	2	256	5732	2
	As	75	**0.920**	ug/L	0.019	2	570	2241	3
	As-1	75	**1.668**	ug/L	0.184	11	9404	10978	3
	Se	82	**0.948**	ug/L	0.041	4	-7	192	6
	Se	78	**4.257**	ug/L	0.712	16	9527	10162	3
	Y	89		ug/L			481047	447959	1
	Kr	83		ug/L			940	1223	1
>	In	115		ug/L			1066652	920926	0
	Ag	107	**0.005**	ug/L	0.003	46	25	72	32
	Cd	111	**0.043**	ug/L	0.011	26	106	285	17
	Cd	114	**0.094**	ug/L	0.001	1	29	1084	1
	Sb	121	**0.057**	ug/L	0.002	3	95	840	2
	Sb	123	**0.058**	ug/L	0.004	7	76	648	5
>	Tb	159		ug/L			1328955	1252890	0
	Tl	205	**0.004**	ug/L	0.000	8	109	257	5
	Pb	208	**0.204**	ug/L	0 002	1	220	10622	0
	Bi	209		ug/L			2961181	2238485	1
	Th	232	**0.124**	ug/L	0.020	16	428	6652	15
	U	238	**0.060**	ug/L	0.002	3	24	3152	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 M REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:25:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		ug/L			124016	138037	0
Cl	37		ug/L			5640944	5927522	2
> Ge	72		ug/L			684631	607866	0
Ni	60	2.673	ug/L	0.086	3	26	10708	2
Ni	62	15.462	ug/L	0.881	5	80	8723	5
Cu	63	2.490	ug/L	0.077	3	82	20842	3
Cu	65	1.150	ug/L	0.028	2	35	4390	2
Zn	66	4.609	ug/L	0.091	1	242	10597	2
Zn	67	22.613	ug/L	0.411	1	49	8686	1
Zn	68	19.410	ug/L	0.310	1	256	31896	0
As	75	279.082	ug/L	2.054	0	570	575946	1
As-1	75	280.888	ug/L	2.140	0	9404	584353	1
Se	82	0.349	ug/L	0.021	6	-7	71	7
Se	78	1.751	ug/L	0.255	14	9527	9461	1
Y	89		ug/L			481047	462314	2
Kr	83		ug/L			940	1139	3
> In	115		ug/L			1066652	970518	1
Ag	107	0.004	ug/L	0.000	4	25	62	4
Cd	111	5.599	ug/L	0.132	2	106	26353	1
Cd	114	5.752	ug/L	0.150	2	29	68517	0
Sb	121	1.056	ug/L	0.009	0	95	15009	1
Sb	123	1.053	ug/L	0.025	2	76	11163	0
> Tb	159		ug/L			1328955	1290791	2
Tl	205	0.004	ug/L	0.000	9	109	254	7
Pb	208	0.863	ug/L	0.015	1	220	45629	0
Bi	209		ug/L			2961181	2463611	0
Th	232	0.053	ug/L	0.009	16	428	3179	16
U	238	0.016	ug/L	0.000	1	24	890	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 N REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:29:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	137230	1
	Cl	37		ug/L			5640944	6277879	3
>	Ge	72		ug/L			684631	602729	2
	Ni	60	2.640	ug/L	0.089	3	26	10486	1
	Ni	62	14.945	ug/L	0.074	0	80	8363	2
	Cu	63	3.476	ug/L	0.021	0	82	28819	1
	Cu	65	1.867	ug/L	0.106	5	35	7041	3
	Zn	66	3.978	ug/L	0.207	5	242	9090	2
	Zn	67	5.472	ug/L	0.275	5	49	2116	4
	Zn	68	6.123	ug/L	0.136	2	256	10128	0
	As	75	23.029	ug/L	0.515	2	570	47568	0
	As-1	75	23.414	ug/L	0.660	2	9404	55866	0
	Se	82	0.415	ug/L	0.058	13	-7	85	17
	Se	78	1.790	ug/L	0.532	29	9527	9399	0
	Y	89		ug/L			481047	480405	2
	Kr	83		ug/L			940	1153	3
>	In	115		ug/L			1066652	960453	2
	Ag	107	0.005	ug/L	0.001	23	25	70	17
	Cd	111	0.675	ug/L	0.013	1	106	3228	2
	Cd	114	0.679	ug/L	0.012	1	29	8028	0
	Sb	121	0.188	ug/L	0.001	0	95	2721	1
	Sb	123	0.193	ug/L	0.004	2	76	2084	0
>	Tb	159		ug/L			1328955	1281451	1
	Tl	205	0.005	ug/L	0.000	8	109	313	5
	Pb	208	0.456	ug/L	0.006	1	220	24032	0
	Bi	209		ug/L			2961181	2465169	0
	Th	232	0.092	ug/L	0.002	2	428	5191	0
	U	238	0.044	ug/L	0.000	0	24	2380	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 O REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:32:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas Intens.	Intens. RSD
	C	13		ug/L			124016	147885	1
	Cl	37		ug/L			5640944	5833486	1
>	Ge	72		ug/L			684631	615837	0
	Ni	60	1.350	ug/L	0.046	3	26	5493	3
	Ni	62	12.773	ug/L	0.199	1	80	7313	1
	Cu	63	2.010	ug/L	0.038	1	82	17054	1
	Cu	65	0.901	ug/L	0.013	1	35	3491	1
	Zn	66	6.906	ug/L	0.265	3	242	15975	2
	Zn	67	19.964	ug/L	0.405	2	49	7776	2
	Zn	68	17.803	ug/L	0.405	2	256	29657	1
	As	75	114.509	ug/L	2.006	1	570	239702	1
	As-1	75	115.278	ug/L	2 050	1	9404	247939	1
	Se	82	0.364	ug/L	0.089	24	-7	75	27
	Se	78	1.233	ug/L	0.244	19	9527	9284	0
	Y	89		ug/L			481047	468774	0
	Kr	83		ug/L			940	1117	1
>	In	115		ug/L			1066652	993789	1
	Ag	107	0.008	ug/L	0.000	3	25	104	0
	Cd	111	0.170	ug/L	0.009	5	106	913	5
	Cd	114	0.150	ug/L	0.007	4	29	1858	2
	Sb	121	0.371	ug/L	0.003	0	95	5461	1
	Sb	123	0.368	ug/L	0.015	4	76	4041	2
>	Tb	159		ug/L			1328955	1286272	0
	Tl	205	0.000	ug/L	0.000	92	109	113	5
	Pb	208	0.488	ug/L	0.009	1	220	25811	2
	Bi	209		ug/L			2961181	2497969	0
	Th	232	0.035	ug/L	0.001	3	428	2207	2
	U	238	0.016	ug/L	0.001	4	24	896	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 P REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:36:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			124016	151498	2
	Cl	37		ug/L			5640944	6185032	1
>	Ge	72		ug/L			684631	587617	2
	Ni	60	13.513	ug/L	0.485	3	26	52227	1
	Ni	62	33.216	ug/L	1.878	5	80	18049	7
	Cu	63	9.472	ug/L	0.052	0	82	76431	2
	Cu	65	5.717	ug/L	0.260	4	35	20965	2
	Zn	66	7.344	ug/L	0.311	4	242	16191	3
	Zn	67	8.360	ug/L	0.361	4	49	3130	3
	Zn	68	9.024	ug/L	0.190	2	256	14449	1
	As	75	8.130	ug/L	0.253	3	570	16686	0
	As-1	75	8.658	ug/L	0.298	3	9404	25225	0
	Se	82	0.664	ug/L	0.097	14	-7	137	16
	Se	78	2.915	ug/L	0.203	6	9527	9788	1
	Y	89		ug/L			481047	477037	0
	Kr	83		ug/L			940	1175	3
>	In	115		ug/L			1066652	950238	1
	Ag	107	0.005	ug/L	0.001	25	25	68	16
	Cd	111	0.111	ug/L	0.007	5	106	602	4
	Cd	114	0.106	ug/L	0.001	0	29	1267	1
	Sb	121	0.279	ug/L	0.004	1	95	3947	2
	Sb	123	0.282	ug/L	0 007	2	76	2974	2
>	Tb	159		ug/L			1328955	1260022	0
	Tl	205	0.006	ug/L	0.001	8	109	347	5
	Pb	208	0.729	ug/L	0.002	0	220	37664	1
	Bi	209		ug/L			2961181	2367567	0
	Th	232	0.091	ug/L	0.002	2	428	5023	1
	U	238	0.272	ug/L	0.006	2	24	14268	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 Q REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:39:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			124016	135189	1
	Cl	37		ug/L			5640944	6161185	1
>	Ge	72		ug/L			684631	595179	0
	Ni	60	3.016	ug/L	0.038	1	26	11830	0
	Ni	62	16.027	ug/L	0.683	4	80	8854	5
	Cu	63	5.313	ug/L	0.063	1	82	43463	2
	Cu	65	3.775	ug/L	0.059	1	35	14045	1
	Zn	66	16.469	ug/L	0 437	2	242	36525	1
	Zn	67	34.716	ug/L	0.648	1	49	13034	1
	Zn	68	32.246	ug/L	0.538	1	256	51736	1
	As	75	90.882	ug/L	2.130	2	570	183948	1
	As-1	75	91.613	ug/L	2.153	2	9404	192094	1
	Se	82	0.457	ug/L	0.043	9	-7	93	10
	Se	78	1.734	ug/L	0.088	5	9527	9254	0
	Y	89		ug/L			481047	442423	1
	Kr	83		ug/L			940	1136	2
>	In	115		ug/L			1066652	945837	0
	Ag	107	0.015	ug/L	0.001	9	25	162	8
	Cd	111	0.151	ug/L	0.007	4	106	786	3
	Cd	114	0.137	ug/L	0.003	2	29	1621	1
	Sb	121	0.712	ug/L	0 014	1	95	9890	1
	Sb	123	0.704	ug/L	0.014	1	76	7299	1
>	Tb	159		ug/L			1328955	1265476	0
	Tl	205	0.003	ug/L	0.000	14	109	216	7
	Pb	208	12.119	ug/L	0.140	1	220	625302	0
	Bi	209		ug/L			2961181	2376262	0
	Th	232	0.052	ug/L	0.001	2	428	3067	2
	U	238	0.077	ug/L	0.001	1	24	4089	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 S REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:43:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			124016	132612	1
	Cl	37		ug/L			5640944	6677916	3
>	Ge	72		ug/L			684631	603096	2
	Ni	60	0.386	ug/L	0.016	4	26	1552	2
	Ni	62	12.337	ug/L	1.007	8	80	6923	9
	Cu	63	3.013	ug/L	0.142	4	82	24996	3
	Cu	65	0.334	ug/L	0.008	2	35	1286	2
	Zn	66	0.993	ug/L	0.026	2	242	2432	0
	Zn	67	0.826	ug/L	0.013	1	49	357	1
	Zn	68	1.811	ug/L	0.038	2	256	3156	0
	As	75	0.333	ug/L	0.026	7	570	1184	5
	As-1	75	0.520	ug/L	0.042	8	9404	9341	1
	Se	82	0.300	ug/L	0.113	37	-7	59	41
	Se	78	1.369	ug/L	0.202	14	9527	9169	0
	Y	89		ug/L			481047	449445	1
	Kr	83		ug/L			940	1124	4
>	In	115		ug/L			1066652	1006472	1
	Ag	107	-0.000	ug/L	0.000	264	25	22	19
	Cd	111	0.013	ug/L	0.001	10	106	162	2
	Cd	114	0.023	ug/L	0.000	2	29	311	0
	Sb	121	0.027	ug/L	0.001	3	95	489	3
	Sb	123	0.030	ug/L	0.001	4	76	394	2
>	Tb	159		ug/L			1328955	1292428	1
	Tl	205	0.000	ug/L	0.001	370	109	113	20
	Pb	208	0.018	ug/L	0.001	5	220	1183	2
	Bi	209		ug/L			2961181	2542640	0
	Th	232	0.000	ug/L	0.001	203	428	433	7
	U	238	0.014	ug/L	0.000	2	24	770	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 T REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:46:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			124016	128868	4
	Cl	37		ug/L			5640944	6052484	2
>	Ge	72		ug/L			684631	606101	0
	Ni	60	0.928	ug/L	0.047	5	26	3723	4
	Ni	62	9.746	ug/L	0.138	1	80	5509	1
	Cu	63	1.363	ug/L	0.059	4	82	11406	4
	Cu	65	0.374	ug/L	0.005	1	35	1446	0
	Zn	66	1.521	ug/L	0.028	1	242	3630	2
	Zn	67	17.570	ug/L	0.289	1	49	6740	1
	Zn	68	14.661	ug/L	0.632	4	256	24076	3
	As	75	94.484	ug/L	1.132	1	570	194759	1
	As-1	75	95.154	ug/L	1.105	1	9404	202889	1
	Se	82	0.120	ug/L	0.047	38	-7	19	52
	Se	78	1.078	ug/L	0.243	22	9527	9049	0
	Y	89		ug/L			481047	435533	1
	Kr	83		ug/L			940	1134	3
>	In	115		ug/L			1066652	1006643	0
	Ag	107	0.000	ug/L	0.001	218	25	27	24
	Cd	111	0.026	ug/L	0.003	12	106	228	6
	Cd	114	0.022	ug/L	0.000	1	29	299	1
	Sb	121	0.111	ug/L	0.006	5	95	1710	5
	Sb	123	0.108	ug/L	0.005	4	76	1248	3
>	Tb	159		ug/L			1328955	1301305	0
	Tl	205	-0.001	ug/L	0.000	53	109	85	14
	Pb	208	0.031	ug/L	0.001	4	220	1886	4
	Bi	209		ug/L			2961181	2549176	1
	Th	232	-0.002	ug/L	0.001	25	428	293	11
	U	238	0.003	ug/L	0.000	4	24	166	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 WREN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:50:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
C	13		ug/L			124016	136348	1
Cl	37		ug/L			5640944	6148392	2
> Ge	72		ug/L			684631	595430	2
Ni	60	0.416	ug/L	0.010	2	26	1649	1
Ni	62	8.091	ug/L	0.496	6	80	4510	8
Cu	63	1.839	ug/L	0.021	1	82	15097	3
Cu	65	0.357	ug/L	0.012	3	35	1356	0
Zn	66	1.577	ug/L	0.111	7	242	3685	3
Zn	67	1.250	ug/L	0.149	11	49	510	8
Zn	68	2.622	ug/L	0.065	2	256	4411	0
As	75	0.334	ug/L	0.033	9	570	1168	3
As-1	75	0.556	ug/L	0 154	27	9404	9289	1
Se	82	0.212	ug/L	0.028	13	-7	39	18
Se	78	1.388	ug/L	0.488	35	9527	9059	1
Y	89		ug/L			481047	435166	0
Kr	83		ug/L			940	1094	1
> In	115		ug/L			1066652	1015765	2
Ag	107	0.000	ug/L	0.000	101	25	25	0
Cd	111	0.001	ug/L	0.003	215	106	108	11
Cd	114	0.007	ug/L	0.000	7	29	109	6
Sb	121	0.042	ug/L	0.003	6	95	709	4
Sb	123	0.044	ug/L	0.004	9	76	557	8
> Tb	159		ug/L			1328955	1305088	1
Tl	205	0.000	ug/L	0.001	1108	109	109	20
Pb	208	0.026	ug/L	0 001	4	220	1605	3
Bi	209		ug/L			2961181	2585542	1
Th	232	-0.002	ug/L	0.001	31	428	288	12
U	238	0.014	ug/L	0.001	5	24	762	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 14:54:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			124016	112883	2
	Cl	37		ug/L			5640944	5852705	1
>	Ge	72		ug/L			684631	623219	1
	Ni	60	50.166	ug/L	0 996	1	26	205709	2
	Ni	62	56.746	ug/L	0.492	0	80	32628	0
	Cu	63	52.275	ug/L	0.838	1	82	447111	2
	Cu	65	49.938	ug/L	1 736	3	35	194078	2
	Zn	66	51.142	ug/L	0.766	1	242	118309	0
	Zn	67	50.467	ug/L	1.443	2	49	19816	1
	Zn	68	51.075	ug/L	0.982	1	256	85661	0
	As	75	51.324	ug/L	1.342	2	570	108992	1
	As-1	75	51.098	ug/L	1.120	2	9404	115969	0
	Se	82	52.925	ug/L	1.441	2	-7	12167	1
	Se	78	51.239	ug/L	1.141	2	9527	38739	0
	Y	89		ug/L			481047	438570	0
	Kr	83		ug/L			940	1116	5
>	In	115		ug/L			1066652	1039232	1
	Ag	107	46.564	ug/L	0.446	0	25	487544	1
	Cd	111	49.909	ug/L	0.611	1	106	250747	1
	Cd	114	51.371	ug/L	0.292	0	29	655232	1
	Sb	121	49.579	ug/L	1.137	2	95	749860	1
	Sb	123	50.868	ug/L	1.021	2	76	573989	0
>	Tb	159		ug/L			1328955	1312564	0
	Tl	205	49.768	ug/L	1 773	3	109	2070613	3
	Pb	208	49.218	ug/L	0 269	0	220	2633369	0
	Bi	209		ug/L			2961181	2813463	0
	Th	232	49.938	ug/L	0.774	1	428	2646373	1
	U	238	50.156	ug/L	0.110	0	24	2738318	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:01:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	111697	1
	Cl	37		ug/L			5640944	5665821	1
>	Ge	72		ug/L			684631	616377	1
	Ni	60	0.000	ug/L	0.002	1041	26	24	26
	Ni	62	4.403	ug/L	0.134	3	80	2570	2
	Cu	63	0.336	ug/L	0 011	3	82	2912	2
	Cu	65	0.012	ug/L	0.003	23	35	78	14
	Zn	66	0.007	ug/L	0.004	52	242	235	4
	Zn	67	-0.024	ug/L	0.025	102	49	35	25
	Zn	68	-0.002	ug/L	0.008	429	256	227	7
	As	75	0.102	ug/L	0.023	22	570	725	5
	As-1	75	0.152	ug/L	0.095	62	9404	8781	1
	Se	82	0.022	ug/L	0.016	75	-7	-2	178
	Se	78	0.528	ug/L	0 321	60	9527	8882	0
	Y	89		ug/L			481047	442163	1
	Kr	83		ug/L			940	1086	1
>	In	115		ug/L			1066652	1038657	1
	Ag	107	0.000	ug/L	0.000	147	25	28	17
	Cd	111	-0.001	ug/L	0.002	251	106	100	10
	Cd	114	0.000	ug/L	0.000	82	29	32	9
	Sb	121	0.022	ug/L	0.004	18	95	427	15
	Sb	123	0.022	ug/L	0.001	6	76	325	5
>	Tb	159		ug/L			1328955	1283086	1
	Tl	205	0.005	ug/L	0.002	31	109	309	21
	Pb	208	-0.000	ug/L	0.000	63	220	188	7
	Bi	209		ug/L			2961181	2866366	0
	Th	232	0.161	ug/L	0.029	18	428	8766	18
	U	238	0.001	ug/L	0.000	27	24	74	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 W REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:11:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens	Intens. RSD
	C	13		ug/L			124016	132629	3
	Cl	37		ug/L			5640944	6494513	3
>	Ge	72		ug/L			684631	611638	1
	Ni	60	0.499	ug/L	0.015	2	26	2030	3
	Ni	62	4.189	ug/L	0.119	2	80	2430	3
	Cu	63	1.883	ug/L	0.054	2	82	15878	2
	Cu	65	0.473	ug/L	0 037	7	35	1835	6
	Zn	66	1.167	ug/L	0.057	4	242	2859	3
	Zn	67	1.084	ug/L	0.024	2	49	461	3
	Zn	68	1.943	ug/L	0.058	2	256	3418	2
	As	75	0.277	ug/L	0.044	16	570	1084	8
	As-1	75	0.298	ug/L	0.062	20	9404	9016	0
	Se	82	0.258	ug/L	0.035	13	-7	51	16
	Se	78	0.685	ug/L	0.209	30	9527	8905	0
	Y	89		ug/L			481047	450878	2
	Kr	83		ug/L			940	1100	1
>	In	115		ug/L			1066652	1037094	2
	Ag	107	0.000	ug/L	0.000	61	25	26	5
	Cd	111	0.008	ug/L	0.000	4	106	141	3
	Cd	114	0.018	ug/L	0.000	1	29	252	3
	Sb	121	0.046	ug/L	0.005	10	95	781	9
	Sb	123	0.042	ug/L	0.002	4	76	550	1
>	Tb	159		ug/L			1328955	1294387	1
	Tl	205	0.003	ug/L	0.001	23	109	250	13
	Pb	208	0.022	ug/L	0.001	6	220	1375	4
	Bi	209		ug/L			2961181	2601538	0
	Th	232	0.103	ug/L	0.009	8	428	5792	6
	U	238	0.030	ug/L	0.000	0	24	1655	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 X REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:14:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	130711	2
	Cl	37		ug/L			5640944	5878916	0
>	Ge	72		ug/L			684631	613711	0
	Ni	60	1.601	ug/L	0.012	0	26	6488	0
	Ni	62	15.514	ug/L	2.000	12	80	8839	13
	Cu	63	2.449	ug/L	0.173	7	82	20700	7
	Cu	65	0.413	ug/L	0.009	2	35	1611	1
	Zn	66	1.511	ug/L	0.051	3	242	3652	2
	Zn	67	5.047	ug/L	0.290	5	49	1991	5
	Zn	68	4.922	ug/L	0.185	3	256	8339	3
	As	75	52.255	ug/L	1 142	2	570	109288	1
	As-1	75	52.672	ug/L	1.139	2	9404	117478	1
	Se	82	0.255	ug/L	0 055	21	-7	50	24
	Se	78	1.036	ug/L	0.139	13	9527	9139	1
	Y	89		ug/L			481047	432549	0
	Kr	83		ug/L			940	1074	0
>	In	115		ug/L			1066652	994595	2
	Ag	107	0.004	ug/L	0.001	16	25	61	8
	Cd	111	S 0.027	ug/L	0.004	16	106	229	8
	Cd	114	0.021	ug/L	0.001	6	29	281	3
	Sb	121	0.119	ug/L	0.001	0	95	1818	3
	Sb	123	S 0.122	ug/L	0.004	3	76	1388	1
>	Tb	159		ug/L			1328955	1282635	1
	Tl	205	S 0.001	ug/L	0.000	32	109	128	3
	Pb	208	0.037	ug/L	0.001	2	220	2126	1
	Bi	209	S	ug/L			2961181	2481257	0
	Th	232	0.038	ug/L	0.009	23	428	2377	17
	U	238	0.004	ug/L	0.000	0	24	247	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 Y REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:18:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

RRA3

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	129888	2
	Cl	37		ug/L			5640944	6177272	0
>	Ge	72		ug/L			684631	618012	2
	Ni	60	1.075	ug/L	0.046	4	26	4391	1
	Ni	62	6.464	ug/L	0.769	11	80	3753	12
	Cu	63	1.494	ug/L	0.062	4	82	12749	5
	Cu	65	0.511	ug/L	0.012	2	35	2001	4
	Zn	66	1.449	ug/L	0.054	3	242	3534	1
	Zn	67	1.254	ug/L	0.037	2	49	532	1
	Zn	68	2.339	ug/L	0.129	5	256	4111	5
	As	75	1741.055	ug/L	57.171	3	570	3648451	0
	As-1	75	1750.688	ug/L	57 593	3	9404	3656598	0
	Se	82	4.537	ug/L	0.177	3	-7	1027	2
	Se	78	5.143	ug/L	0.560	10	9527	11589	0
	Y	89		ug/L			481047	446035	1
	Kr	83		ug/L			940	1088	3
>	In	115		ug/L			1066652	1031939	0
	Ag	107	0.001	ug/L	0 000	39	25	34	10
	Cd	111	u 0.005	ug/L	0.002	34	106	129	7
	Cd	114	0.009	ug/L	0.001	15	29	141	12
	Sb	121	0.380	ug/L	0.007	1	95	5795	1
	Sb	123	0.386	ug/L	0 015	3	76	4403	3
>	Tb	159		ug/L			1328955	1307313	1
	Tl	205	u 0.001	ug/L	0.000	26	109	155	6
	Pb	208	u 0.012	ug/L	0.001	6	220	830	3
	Bi	209		ug/L			2961181	2614313	1
	Th	232	0.008	ug/L	0.000	3	428	829	2
	U	238	0.336	ug/L	0.003	0	24	18312	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 Z REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:21:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	128512	2
	Cl	37		ug/L			5640944	6136425	0
>	Ge	72		ug/L			684631	559637	1
	Ni	60	1.734	ug/L	0.046	2	26	6403	2
	Ni	62	19.358	ug/L	4.020	20	80	10019	19
	Cu	63	3.537	ug/L	0.318	8	82	27205	7
	Cu	65	0.488	ug/L	0.029	5	35	1732	5
	Zn	66	1.245	ug/L	0.027	2	242	2778	0
	Zn	67	13.618	ug/L	0.392	2	49	4832	2
	Zn	68	11.697	ug/L	0.224	1	256	17777	0
	As	75	277.471	ug/L	4.297	1	570	527119	0
	As-1	75	279.426	ug/L	4.538	1	9404	535155	0
	Se	82	0.762	ug/L	0.036	4	-7	150	3
	Se	78	2.848	ug/L	0.862	30	9527	9285	3
	Y	89		ug/L			481047	413616	1
	Kr	83		ug/L			940	1130	3
>	In	115		ug/L			1066652	953979	1
	Ag	107	0.002	ug/L	0.001	35	25	46	16
	Cd	111	0.013	ug/L	0.004	33	106	157	13
	Cd	114	0.007	ug/L	0.001	17	29	104	13
	Sb	121	0.240	ug/L	0.005	1	95	3417	1
	Sb	123	0.244	ug/L	0.002	0	76	2599	0
>	Tb	159		ug/L			1328955	1253582	1
	Tl	205	-0.000	ug/L	0.000	70	109	92	8
	Pb	208	0.007	ug/L	0.000	6	220	589	4
	Bi	209		ug/L			2961181	1978340	0
	Th	232	0.010	ug/L	0.001	10	428	915	4
	U	238	0.103	ug/L	0.001	1	24	5382	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 AA REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:25:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

RR AS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	134478	1
	Cl	37		ug/L			5640944	5943812	2
>	Ge	72		ug/L			684631	611979	1
	Ni	60	1.136	ug/L	0.035	3	26	4594	1
	Ni	62	5.691	ug/L	0.842	14	80	3281	15
	Cu	63	1.715	ug/L	0.058	3	82	14482	4
	Cu	65	0.859	ug/L	0.030	3	35	3308	2
	Zn	66	1.650	ug/L	0.040	2	242	3957	1
	Zn	67	1.713	ug/L	0.114	6	49	703	5
	Zn	68	2.663	ug/L	0.067	2	256	4603	2
	As	75	4872.368	ug/L	55.156	1	570	10113994	0
	As-1	75	4899.151	ug/L	55.528	1	9404	10122018	0
	Se	82	3.364	ug/L	0.074	2	-7	753	2
	Se	78	3.968	ug/L	0.345	8	9527	10802	0
	Y	89		ug/L			481047	436355	0
	Kr	83		ug/L			940	1128	5
>	In	115		ug/L			1066652	1034444	1
	Ag	107	0.001	ug/L	0.001	76	25	32	17
	Cd	111	0.011	ug/L	0.001	13	106	156	3
	Cd	114	0.015	ug/L	0.002	12	29	224	10
	Sb	121	0.454	ug/L	0.007	1	95	6932	0
	Sb	123	0.467	ug/L	0.020	4	76	5312	2
>	Tb	159		ug/L			1328955	1310034	0
	Tl	205	0.000	ug/L	0.000	65	109	122	7
	Pb	208	0.043	ug/L	0.001	2	220	2495	2
	Bi	209		ug/L			2961181	2582338	1
	Th	232	-0.000	ug/L	0.001	1180	428	419	6
	U	238	0.785	ug/L	0.007	0	24	42798	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 AB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:28:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	136553	2
	Cl	37		ug/L			5640944	6228373	0
>	Ge	72		ug/L			684631	553752	1
	Ni	60	2.607	ug/L	0.057	2	26	9519	2
	Ni	62	13.846	ug/L	1.828	13	80	7119	12
	Cu	63	2.878	ug/L	0.222	7	82	21925	6
	Cu	65	0.593	ug/L	0.017	2	35	2077	1
	Zn	66	2.114	ug/L	0.076	3	242	4532	2
	Zn	67	13.296	ug/L	0.128	0	49	4669	1
	Zn	68	11.666	ug/L	0.195	1	256	17548	2
	As	75	57.543	ug/L	1.144	1	570	108534	1
	As-1	75	58.136	ug/L	1.173	2	9404	116198	1
	Se	82	0.739	ug/L	0.028	3	-7	144	5
	Se	78	2.305	ug/L	0.273	11	9527	8908	2
	Y	89		ug/L			481047	406870	0
	Kr	83		ug/L			940	1142	2
>	In	115		ug/L			1066652	896911	1
	Ag	107	0.004	ug/L	0 000	5	25	58	4
	Cd	111	0.041	ug/L	0.002	4	106	268	2
	Cd	114	0.025	ug/L	0.001	2	29	305	2
	Sb	121	0.148	ug/L	0.003	2	95	2008	0
	Sb	123	0.152	ug/L	0.009	6	76	1539	4
>	Tb	159		ug/L			1328955	1191445	0
	Tl	205	0.000	ug/L	0.000	118	109	107	9
	Pb	208	0.009	ug/L	0.000	5	220	633	3
	Bi	209		ug/L			2961181	1905130	0
	Th	232	0.007	ug/L	0.002	23	428	705	11
	U	238	0.048	ug/L	0.002	4	24	2408	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 AC REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:32:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			124016	146603	1
	Cl	37		ug/L			5640944	10438996	2
>	Ge	72		ug/L			684631	549171	0
	Ni	60	0.686	ug/L	0.015	2	26	2499	1
	Ni	62	30.910	ug/L	8.582	27	80	15678	27
	Cu	63	11.759	ug/L	1.053	8	82	88657	8
	Cu	65	1.317	ug/L	0.029	2	35	4538	1
	Zn	66	2.264	ug/L	0.038	1	242	4802	2
	Zn	67	2.572	ug/L	0.069	2	49	928	2
	Zn	68	3.357	ug/L	0.009	0	256	5154	0
	As	75	0.798	ug/L	0.091	11	570	1945	9
	As-1	75	1.698	ug/L	0.133	7	9404	10687	1
	Se	82	1.103	ug/L	0.114	10	-7	217	10
	Se	78	4.778	ug/L	0.726	15	9527	10112	3
	Y	89		ug/L			481047	427176	0
	Kr	83		ug/L			940	1072	2
>	In	115		ug/L			1066652	914881	0
	Ag	107	0.003	ug/L	0.000	17	25	47	8
	Cd	111	0.018	ug/L	0.007	38	106	13	214
	Cd	114	0.018	ug/L	0.001	7	29	229	7
	Sb	121	0.076	ug/L	0.006	8	95	1090	6
	Sb	123	0.075	ug/L	0.005	6	76	809	5
>	Tb	159		ug/L			1328955	1221666	1
	Tl	205	-0.000	ug/L	0.000	99	109	97	2
	Pb	208	0.081	ug/L	0 003	3	220	4248	1
	Bi	209		ug/L			2961181	2190212	0
	Th	232	0.029	ug/L	0.002	5	428	1830	4
	U	238	0.049	ug/L	0.001	2	24	2494	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 AD REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:35:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	131402	1
	Cl	37		ug/L			5640944	5798151	2
>	Ge	72		ug/L			684631	592451	0
	Ni	60	2.033	ug/L	0 064	3	26	7944	2
	Ni	62	17.729	ug/L	1.406	7	80	9740	8
	Cu	63	2.074	ug/L	0.113	5	82	16934	5
	Cu	65	0.492	ug/L	0.023	4	35	1848	4
	Zn	66	1.773	ug/L	0.025	1	242	4102	1
	Zn	67	15.677	ug/L	0.289	1	49	5883	1
	Zn	68	13.051	ug/L	0.382	2	256	20977	2
	As	75	164.074	ug/L	1.740	1	570	330222	1
	As-1	75	165.225	ug/L	1.735	1	9404	338370	1
	Se	82	0.344	ug/L	0.035	10	-7	68	11
	Se	78	1.606	ug/L	0.066	4	9527	9141	0
	Y	89		ug/L			481047	437925	0
	Kr	83		ug/L			940	1072	2
>	In	115		ug/L			1066652	959235	2
	Ag	107	0.002	ug/L	0.001	32	25	43	16
	Cd	111	0.031	ug/L	0 005	14	106	238	6
	Cd	114	0.023	ug/L	0.001	5	29	301	4
	Sb	121	0.487	ug/L	0.014	2	95	6875	0
	Sb	123	0.491	ug/L	0.017	3	76	5177	1
>	Tb	159		ug/L			1328955	1266596	0
	Tl	205	0.001	ug/L	0.000	50	109	139	12
	Pb	208	0.046	ug/L	0.001	1	220	2564	1
	Bi	209		ug/L			2961181	2414658	0
	Th	232	0.005	ug/L	0 002	31	428	687	12
	U	238	0.010	ug/L	0.000	0	24	549	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 AE REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:39:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			124016	138220	2
	Cl	37		ug/L			5640944	6192531	0
>	Ge	72		ug/L			684631	597806	1
	Ni	60	1.195	ug/L	0.031	2	26	4722	3
	Ni	62	15.225	ug/L	0.199	1	80	8449	2
	Cu	63	2.322	ug/L	0.047	2	82	19117	2
	Cu	65	0.581	ug/L	0.026	4	35	2195	2
	Zn	66	1.843	ug/L	0.042	2	242	4293	1
	Zn	67	3.290	ug/L	0.235	7	49	1279	5
	Zn	68	3.887	ug/L	0.013	0	256	6461	1
	As	75	22.369	ug/L	0.278	1	570	45855	1
	As-1	75	22.693	ug/L	0.322	1	9404	53971	0
	Se	82	0.400	ug/L	0.039	9	-7	81	10
	Se	78	1.511	ug/L	0.335	22	9527	9168	0
	Y	89		ug/L			481047	466541	1
	Kr	83		ug/L			940	1104	2
>	In	115		ug/L			1066652	976753	1
	Ag	107	0.002	ug/L	0.000	23	25	38	7
	Cd	111	0.024	ug/L	0.004	17	106	209	8
	Cd	114	0.010	ug/L	0.001	9	29	144	8
	Sb	121	0.174	ug/L	0.003	1	95	2555	1
	Sb	123	0.174	ug/L	0 003	1	76	1910	0
>	Tb	159		ug/L			1328955	1278790	1
	Tl	205	0.000	ug/L	0.000	211	109	109	9
	Pb	208	0.023	ug/L	0.000	1	220	1432	3
	Bi	209		ug/L			2961181	2458958	1
	Th	232	0.000	ug/L	0.000	562	428	415	3
	U	238	0.012	ug/L	0.000	2	24	674	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 AF REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:42:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	142118	1
	Cl	37		ug/L			5640944	5746194	2
>	Ge	72		ug/L			684631	601264	1
	Ni	60	1.365	ug/L	0.029	2	26	5420	1
	Ni	62	12.595	ug/L	0.494	3	80	7041	3
	Cu	63	1.547	ug/L	0.030	1	82	12830	1
	Cu	65	0.452	ug/L	0.018	3	35	1723	1
	Zn	66	4.655	ug/L	0.240	5	242	10578	3
	Zn	67	17.295	ug/L	0.311	1	49	6581	2
	Zn	68	15.033	ug/L	0.147	0	256	24485	1
	As	75	94.826	ug/L	2.795	2	570	193831	1
	As-1	75	95.539	ug/L	2.899	3	9404	201979	1
	Se	82	0.326	ug/L	0.066	20	-7	65	21
	Se	78	1.384	ug/L	0.410	29	9527	9148	0
	Y	89		ug/L			481047	442337	1
	Kr	83		ug/L			940	1091	0
>	In	115		ug/L			1066652	975416	0
	Ag	107	0.004	ug/L	0.001	20	25	64	13
	Cd	111	0.051	ug/L	0.000	0	106	338	0
	Cd	114	0.031	ug/L	0.002	6	29	396	5
	Sb	121	0.358	ug/L	0.002	0	95	5163	1
	Sb	123	0.350	ug/L	0.011	3	76	3774	2
>	Tb	159		ug/L			1328955	1275077	0
	Tl	205	-0.001	ug/L	0.000	37	109	76	14
	Pb	208	0.036	ug/L	0.000	0	220	2064	0
	Bi	209		ug/L			2961181	2486267	2
	Th	232	0.016	ug/L	0.001	3	428	1246	2
	U	238	0.013	ug/L	0.000	3	24	691	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:47:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	107377	2
	Cl	37		ug/L			5640944	5794728	0
>	Ge	72		ug/L			684631	617969	2
	Ni	60	50.677	ug/L	1.190	2	26	205960	0
	Ni	62	57.257	ug/L	2.037	3	80	32628	1
	Cu	63	50.918	ug/L	0.355	0	82	431783	1
	Cu	65	49.977	ug/L	2.367	4	35	192498	2
	Zn	66	50.367	ug/L	2.059	4	242	115479	1
	Zn	67	51.168	ug/L	1.579	3	49	19919	1
	Zn	68	50.286	ug/L	0 600	1	256	83642	2
	As	75	51.200	ug/L	1.829	3	570	107775	1
	As-1	75	50.933	ug/L	1.983	3	9404	114604	1
	Se	82	53.195	ug/L	1.246	2	-7	12125	0
	Se	78	51.392	ug/L	1.881	3	9527	38490	0
	Y	89		ug/L			481047	446180	1
	Kr	83		ug/L			940	1126	4
>	In	115		ug/L			1066652	1032469	1
	Ag	107	46.958	ug/L	0.986	2	25	488484	2
	Cd	111	49.343	ug/L	1.516	3	106	246285	2
	Cd	114	50.792	ug/L	1.259	2	29	643522	1
	Sb	121	49.406	ug/L	0.727	1	95	742475	0
	Sb	123	49.912	ug/L	1 401	2	76	559567	2
>	Tb	159		ug/L			1328955	1331271	1
	Tl	205	48.170	ug/L	2.033	4	109	2032234	3
	Pb	208	48.306	ug/L	0.758	1	220	2621156	0
	Bi	209		ug/L			2961181	2820975	0
	Th	232	49.023	ug/L	0.668	1	428	2634737	0
	U	238	48.854	ug/L	1.442	2	24	2704650	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:53:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	109334	3
	Cl	37		ug/L			5640944	5458629	3
>	Ge	72		ug/L			684631	619405	3
	Ni	60	0.001	ug/L	0.002	252	26	27	33
	Ni	62	5.470	ug/L	0.345	6	80	3187	3
	Cu	63	0.418	ug/L	0.021	5	82	3624	2
	Cu	65	0.016	ug/L	0.002	13	35	93	6
	Zn	66	0.027	ug/L	0.013	50	242	279	8
	Zn	67	-0.011	ug/L	0.004	37	49	40	5
	Zn	68	0.009	ug/L	0.004	49	256	246	0
	As	75	0.121 ✓	ug/L	0.021	17	570	769	2
	As-1	75	0.156	ug/L	0.106	68	9404	8829	0
	Se	82	0.045	ug/L	0.076	168	-7	2	596
	Se	78	0.518	ug/L	0.394	75	9527	8917	0
	Y	89		ug/L			481047	442509	2
	Kr	83		ug/L			940	1110	2
>	In	115		ug/L			1066652	1018661	1
	Ag	107	0.001	ug/L	0.000	35	25	32	7
	Cd	111	0.003	ug/L	0.003	101	106	118	12
	Cd	114	0.000	ug/L	0.000	135	29	31	12
	Sb	121	0.022	ug/L	0.002	10	95	420	9
	Sb	123	0.022	ug/L	0.003	13	76	311	11
>	Tb	159		ug/L			1328955	1281785	0
	Tl	205	0.005	ug/L	0.002	35	109	290	22
	Pb	208	0.001	ug/L	0.000	62	220	239	6
	Bi	209		ug/L			2961181	2872595	1
	Th	232	0.145	ug/L	0.029	20	428	7938	19
	U	238	0.001	ug/L	0.000	17	24	70	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 AG REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 15:57:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	142437	2
	Cl	37		ug/L			5640944	6083743	0
>	Ge	72		ug/L			684631	559675	1
	Ni	60	11.247	ug/L	0.322	2	26	41422	1
	Ni	62	27.885	ug/L	3.409	12	80	14439	12
	Cu	63	5.244	ug/L	0.348	6	82	40348	7
	Cu	65	1.862	ug/L	0 019	0	35	6528	1
	Zn	66	3.168	ug/L	0.108	3	242	6765	2
	Zn	67	4.296	ug/L	0.184	4	49	1552	3
	Zn	68	4.868	ug/L	0 092	1	256	7522	1
	As	75	8.300	ug/L	0.144	1	570	16221	1
	As-1	75	8.755	ug/L	0.154	1	9404	24216	0
	Se	82	0.719	ug/L	0.038	5	-7	142	4
	Se	78	2.734	ug/L	0.346	12	9527	9229	1
	Y	89		ug/L			481047	448728	0
	Kr	83		ug/L			940	1139	6
>	In	115		ug/L			1066652	942807	0
	Ag	107	0.004	ug/L	0.001	14	25	56	7
	Cd	111	0.020	ug/L	0.007	36	106	184	17
	Cd	114	0.017	ug/L	0.001	8	29	217	7
	Sb	121	0.277	ug/L	0 006	2	95	3880	2
	Sb	123	0.286	ug/L	0.007	2	76	2995	1
>	Tb	159		ug/L			1328955	1255495	0
	Tl	205	0.013	ug/L	0.002	12	109	604	11
	Pb	208	0.112	ug/L	0 001	0	220	5938	1
	Bi	209		ug/L			2961181	2324963	0
	Th	232	0.127	ug/L	0 046	35	428	6833	33
	U	238	0.238	ug/L	0.002	1	24	12466	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 AH REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:00:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	127486	1
	Cl	37		ug/L			5640944	6054689	0
>	Ge	72		ug/L			684631	578390	1
	Ni	60	1.291	ug/L	0.087	6	26	4932	5
	Ni	62	13.862	ug/L	0.900	6	80	7445	5
	Cu	63	1.978	ug/L	0.085	4	82	15768	4
	Cu	65	0.490	ug/L	0.029	5	35	1795	4
	Zn	66	1.490	ug/L	0.011	0	242	3397	0
	Zn	67	20.622	ug/L	0.992	4	49	7539	3
	Zn	68	17.257	ug/L	0.414	2	256	27011	3
	As	75	84.747	ug/L	1.476	1	570	166722	0
	As-1	75	85.349	ug/L	1.571	1	9404	174452	0
	Se	82	0.518	ug/L	0.072	13	-7	104	15
	Se	78	1.502	ug/L	0.355	23	9527	8865	1
	Y	89		ug/L			481047	419330	3
	Kr	83		ug/L			940	1135	2
>	In	115		ug/L			1066652	925399	0
	Ag	107	0.002	ug/L	0.001	30	25	39	12
	Cd	111	U 0.027	ug/L	0.003	9	106	215	5
	Cd	114	0.012	ug/L	0.001	12	29	164	10
	Sb	121	U 0.187	ug/L	0.010	5	95	2597	4
	Sb	123	0.179	ug/L	0.002	1	76	1866	1
>	Tb	159		ug/L			1328955	1255387	1
	Tl	205	U 0.000	ug/L	0.000	90	109	117	9
	Pb	208	U 0.021	ug/L	0.000	1	220	1296	0
	Bi	209		ug/L			2961181	2331875	1
	Th	232	0.028	ug/L	0.005	19	428	1806	17
	U	238	0.020	ug/L	0.001	4	24	1045	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 V REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:04:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	126420	1
	Cl	37		ug/L			5640944	5576759	0
>	Ge	72		ug/L			684631	597094	3
	Ni	60	1.364	ug/L	0.051	3	26	5375	1
	Ni	62	17.052	ug/L	1.248	7	80	9444	7
	Cu	63	3.981	ug/L	0 141	3	82	32681	3
	Cu	65	1.830	ug/L	0.083	4	35	6840	1
	Zn	66	8.648	ug/L	0 402	4	242	19328	2
	Zn	67	17.326	ug/L	0.870	5	49	6541	2
	Zn	68	16.028	ug/L	0.294	1	256	25905	1
	As	75	36.806	ug/L	1.255	3	570	74993	1
	As-1	75	37.298	ug/L	1.419	3	9404	83276	1
	Se	82	0.179	ug/L	0.091	51	-7	32	60
	Se	78	1.654	ug/L	0.575	34	9527	9233	1
	Y	89		ug/L			481047	438760	0
	Kr	83		ug/L			940	1133	6
>	In	115		ug/L			1066652	994671	1
	Ag	107	0.008	ug/L	0 001	16	25	108	11
	Cd	111	0.194	ug/L	0.001	0	106	1030	1
	Cd	114	0.202	ug/L	0.007	3	29	2495	1
	Sb	121	0.436	ug/L	0.008	1	95	6404	0
	Sb	123	0.436	ug/L	0.007	1	76	4784	2
>	Tb	159		ug/L			1328955	1294272	0
	Tl	205	0.000	ug/L	0.000	104	109	118	10
	Pb	208	9.552	ug/L	0.002	0	220	504149	0
	Bi	209		ug/L			2961181	2571278	0
	Th	232	0.026	ug/L	0.001	4	428	1781	3
	U	238	0.017	ug/L	0.001	4	24	948	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 H REN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:08:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			124016	104883	3
	Cl	37		ug/L			5640944	5376661	1
>	Ge	72		ug/L			684631	617546	1
	Ni	60	0.035	ug/L	0 002	6	26	164	5
	Ni	62	8.822	ug/L	0.980	11	80	5092	12
	Cu	63	0.888	ug/L	0.085	9	82	7608	10
	Cu	65	0.199	ug/L	0.002	0	35	797	2
	Zn	66	0.402	ug/L	0.025	6	242	1137	3
	Zn	67	0.333	ug/L	0.028	8	49	174	4
	Zn	68	0.401	ug/L	0.013	3	256	895	0
	As	75	36.363	ug/L	1.148	3	570	76659	1
	As-1	75	36.648	ug/L	1.168	3	9404	84804	1
	Se	82	0.131	ug/L	0.156	118	-7	22	154
	Se	78	0.853	ug/L	0.204	23	9527	9088	0
	Y	89		ug/L			481047	442201	2
	Kr	83		ug/L			940	1156	5
>	In	115		ug/L			1066652	1024486	2
	Ag	107	0.000	ug/L	0 000	417	25	25	4
	Cd	111	0.003	ug/L	0.002	76	106	117	9
	Cd	114	0.004	ug/L	0 001	12	29	81	6
	Sb	121	0.007	ug/L	0.002	21	95	202	9
	Sb	123	0.005	ug/L	0.001	25	76	133	10
>	Tb	159		ug/L			1328955	1291183	0
	Tl	205	-0.001	ug/L	0.000	21	109	51	22
	Pb	208	0.012	ug/L	0.001	4	220	839	2
	Bi	209		ug/L			2961181	2936485	1
	Th	232	-0.004	ug/L	0.001	14	428	205	13
	U	238	0.008	ug/L	0.000	2	24	431	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 J REN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:11:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			124016	105963	2
	Cl	37		ug/L			5640944	5394009	2
>	Ge	72		ug/L			684631	634474	1
	Ni	60	0.044	ug/L	0.003	6	26	207	6
	Ni	62	5.886	ug/L	0.376	6	80	3513	7
	Cu	63	0.636	ug/L	0.018	2	82	5610	3
	Cu	65	0.209	ug/L	0.007	3	35	858	2
	Zn	66	0.380	ug/L	0.040	10	242	1116	6
	Zn	67	0.281	ug/L	0.008	3	49	158	2
	Zn	68	0.353	ug/L	0.021	5	256	837	3
	As	75	98.861	ug/L	2.208	2	570	213238	0
	As-1	75	99.326	ug/L	2.313	2	9404	221258	0
	Se	82	0.178	ug/L	0 082	46	-7	34	55
	Se	78	0.226	ug/L	0.384	169	9527	8961	0
	Y	89		ug/L			481047	446226	0
	Kr	83		ug/L			940	1115	2
>	In	115		ug/L			1066652	1036177	0
	Ag	107	0.000	ug/L	0.001	221	25	27	22
	Cd	111	0.003	ug/L	0.000	5	106	119	0
	Cd	114	0.002	ug/L	0.000	16	29	53	8
	Sb	121	0.005	ug/L	0.001	12	95	174	6
	Sb	123	0.005	ug/L	0.001	18	76	132	7
>	Tb	159		ug/L			1328955	1309492	0
	Tl	205	-0.002	ug/L	0.000	11	109	42	17
	Pb	208	0.013	ug/L	0.001	3	220	888	2
	Bi	209		ug/L			2961181	2927190	1
	Th	232	-0.005	ug/L	0.000	7	428	178	9
	U	238	0.016	ug/L	0.001	4	24	922	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 Y REN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:15:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	108177	1
	Cl	37		ug/L			5640944	5403887	4
>	Ge	72		ug/L			684631	622852	1
	Ni	60	0.029	ug/L	0.003	8	26	143	6
	Ni	62	4.858	ug/L	0.158	3	80	2858	2
	Cu	63	0.550	ug/L	0.006	1	82	4777	2
	Cu	65	0.198	ug/L	0.013	6	35	801	4
	Zn	66	0.691	ug/L	0.040	5	242	1814	3
	Zn	67	0.557	ug/L	0.056	10	49	263	9
	Zn	68	0.695	ug/L	0.002	0	256	1394	1
	As	75	35.666	ug/L	0.864	2	570	75847	0
	As-1	75	35.855	ug/L	0.915	2	9404	83868	0
	Se	82	0.097	ug/L	0.053	55	-7	15	82
	Se	78	0.482	ug/L	0.203	41	9527	8949	0
	Y	89		ug/L			481047	445851	0
	Kr	83		ug/L			940	1158	3
>	In	115		ug/L			1066652	1023903	0
	Ag	107	-0.000	ug/L	0.000	210	25	23	10
	Cd	111	-0.001	ug/L	0.002	170	106	97	8
	Cd	114	0.000	ug/L	0 000	262	29	30	19
	Sb	121	0.006	ug/L	0.001	19	95	176	10
	Sb	123	0.005	ug/L	0.001	20	76	125	8
>	Tb	159		ug/L			1328955	1303907	0
	Tl	205	-0.001	ug/L	0.000	2	109	49	2
	Pb	208	0.006	ug/L	0.001	10	220	519	6
	Bi	209		ug/L			2961181	2920516	0
	Th	232	-0.006	ug/L	0.001	10	428	130	22
	U	238	0.007	ug/L	0.000	3	24	391	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 AA REN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:18:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			124016	106788	0
	Cl	37		ug/L			5640944	5590887	2
>	Ge	72		ug/L			684631	617810	1
	Ni	60	0.047	ug/L	0.010	20	26	212	16
	Ni	62	4.165	ug/L	0.010	0	80	2441	1
	Cu	63	0.519	ug/L	0.003	0	82	4474	2
	Cu	65	0.189	ug/L	0.007	3	35	759	5
	Zn	66	0.302	ug/L	0.023	7	242	909	6
	Zn	67	0.530	ug/L	0 023	4	49	251	5
	Zn	68	0.545	ug/L	0.020	3	256	1135	2
	As	75	6.023	ug/L	0.160	2	570	13133	1
	As-1	75	6.016	ug/L	0.236	3	9404	21019	0
	Se	82	0.071	ug/L	0 013	17	-7	9	31
	Se	78	0.294	ug/L	0.345	117	9527	8766	0
	Y	89		ug/L			481047	449750	0
	Kr	83		ug/L			940	1117	2
>	In	115		ug/L			1066652	1032584	0
	Ag	107	-0.001	ug/L	0.000	46	25	17	20
	Cd	111	-0.001	ug/L	0.002	114	106	96	8
	Cd	114	0.000	ug/L	0.000	193	29	30	14
	Sb	121	0.001	ug/L	0.001	132	95	104	15
	Sb	123	0.001	ug/L	0 000	17	76	85	2
>	Tb	159		ug/L			1328955	1297185	1
	Tl	205	-0.002	ug/L	0 000	5	109	37	9
	Pb	208	0.005	ug/L	0.000	5	220	477	2
	Bi	209		ug/L			2961181	2897617	0
	Th	232	-0.006	ug/L	0.000	5	428	120	13
	U	238	0.002	ug/L	0.000	8	24	126	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:22:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			124016	103362	2
	Cl	37		ug/L			5640944	5797817	0
>	Ge	72		ug/L			684631	601666	1
	Ni	60	50.672	ug/L	0.157	0	26	200578	0
	Ni	62	55.441	ug/L	1.532	2	80	30775	1
	Cu	63	52.351	ug/L	1.591	3	82	432316	3
	Cu	65	50.325	ug/L	0.522	1	35	188857	0
	Zn	66	51.295	ug/L	0.828	1	242	114565	0
	Zn	67	50.267	ug/L	1.964	3	49	19056	2
	Zn	68	50.233	ug/L	1.371	2	256	81342	1
	As	75	51.754	ug/L	0.131	0	570	106125	1
	As-1	75	51.419	ug/L	0.116	0	9404	112630	0
	Se	82	54.068	ug/L	0.515	0	-7	12003	1
	Se	78	52.054	ug/L	0.589	1	9527	37864	0
	Y	89		ug/L			481047	439148	3
	Kr	83		ug/L			940	1133	2
>	In	115		ug/L			1066652	1010228	0
	Ag	107	46.426	ug/L	0.908	1	25	472569	2
	Cd	111	49.564	ug/L	0.314	0	106	242081	0
	Cd	114	50.659	ug/L	0.460	0	29	628117	1
	Sb	121	49.123	ug/L	0.725	1	95	722406	1
	Sb	123	49.999	ug/L	0 610	1	76	548536	0
>	Tb	159		ug/L			1328955	1287966	1
	Tl	205	48.076	ug/L	0.326	0	109	1962456	0
	Pb	208	49.061	ug/L	0.920	1	220	2575469	0
	Bi	209		ug/L			2961181	2738696	1
	Th	232	49.855	ug/L	0.404	0	428	2592420	0
	U	238	49.775	ug/L	0.261	0	24	2666537	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, January 23, 2013 16:28:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\130123.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			124016	106788	2
	Cl	37		ug/L			5640944	5725843	1
>	Ge	72		ug/L			684631	598361	1
	Ni	60	**0.002**	ug/L	0.002	74	26	32	20
	Ni	62	**3.831**	ug/L	0.267	6	80	2179	6
	Cu	63	**0.283**	ug/L	0.009	3	82	2391	2
	Cu	65	**0.012**	ug/L	0.003	24	35	74	13
	Zn	66	**0.024**	ug/L	0.008	33	242	265	6
	Zn	67	**0.010**	ug/L	0.019	182	49	47	15
	Zn	68	**0.020**	ug/L	0.012	59	256	255	6
	As	75	**0.126**	ug/L	0.026	20	570	754	5
	As-1	75	**0.201**	ug/L	0.106	52	9404	8624	1
	Se	82	**0.000**	ug/L	0.105	28070	-7	-6	337
	Se	78	**0.727**	ug/L	0.379	52	9527	8735	1
	Y	89		ug/L			481047	428738	0
	Kr	83		ug/L			940	1150	2
>	In	115		ug/L			1066652	1012976	1
	Ag	107	**-0.000**	ug/L	0.000	1969	25	24	4
	Cd	111	**0.003**	ug/L	0.001	22	106	115	2
	Cd	114	**0.000**	ug/L	0.000	153	29	29	6
	Sb	121	**0.023**	ug/L	0.001	6	95	424	6
	Sb	123	**0.020**	ug/L	0.002	11	76	293	10
>	Tb	159		ug/L			1328955	1257795	0
	Tl	205	**0.004**	ug/L	0.001	34	109	273	20
	Pb	208	**0.000**	ug/L	0.000	277	220	214	6
	Bi	209		ug/L			2961181	2800803	0
	Th	232	**0.150**	ug/L	0.027	17	428	8037	16
	U	238	**0.001**	ug/L	0.000	14	24	80	10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-24-13 **Analyst:** AA / BA **Page:** 1 **of** 4

All corrections made by analyst unless otherwise noted. BA 1-24-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			8999-15
		1			3008-3
		2			3005-4
		3			↓ -7
		4			3007-2
		5			3006-2
		Rinse Sample			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			Th↑
		Low Check			
		ICSA			
		ICSAB			62 Ni↑, ~~Se~~↑
		LR200			
		B1			
		B2			
222		~~222222~~ ~~CCV2~~			Ag↓
222		~~222222~~ ~~CCB2~~			Th↑
		CCV2			Ag↓
		CCB2			Th↑
		WA14 MB	REN	2	BR Ag, Mo
		VZ86 MB1	↓	↓	
		↓ MB2	↓	↓	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-24-13 **Analyst:** BA **Page:** 2 **of** 4

All corrections made by analyst unless otherwise noted. 1-25-13 BA

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WA08 AA	REN	100	As
		WA14 D		2	RR Ag, Mo
		ADUP			
		A			
		ASPK			Cu↑ - C AF
		MBSPK			
		CCV3			Mo, Ag↓
		CCB3			^{62}Ni↑ End Pkg
		VZ86 B	REN	2	RR As
		C			
		D			
✓		ADUP			Scalping (RR 10x)
✓		A			
✓		ASPK			
✓		IDUP			
✓		I	BA 1/25/13		
✓		ISPK			
		MBISPK			RR As
		CCV4			Li, Ba, Mn, Co, Ag, Th, U↓ ^{62}Ni, ^{63}Cu, ^{82}Se, ^{78}Se, ^{135}Ba, ^{137}Ba↑
		CCB4			Li↓ V2, ^{53}Cr, ^{62}Ni, ^{63}Cu, As, ^{78}Se↑
		VZ86 E	REN	2	RR As Li, Cu↓
		F			
		G			
		J			

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA **Analysis Date:** 1-24-13

MS2	Analyst BA 1-25-13	Peer AH 1-25	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	↓
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	—	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	See log
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	WA14
Matrix Duplicates	✓	✓	VZ86
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analyst Notes and CAF's	✓	✓	CAF - WA14, VZ86 with 1-25 run

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Thursday, January 24, 2013 08:41:33
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File. C:\NexION Data\Dataset\Default\Daily Performance Check.1742
MassCal File C:\NexION Data\MassCal\Default.tun
Conditions File C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
Be	9.0	2911.0	2911.042	15.737	0.5	Standard
Mg	24.0	22149.8	22149.802	292.749	1.3	Standard
In	114.9	67336.4	67336.362	351.661	0.5	Standard
Pb	208.0	27139.4	27139.390	217.253	0.8	Standard
U	238.1	46650.4	46650.419	391.398	0.8	Standard
CeO	155.9	573.5	0.009	0.000	2.4	Standard
> Ce	139.9	64465.8	64465.798	413.585	0.6	Standard
Ce++	70.0	428.4	0.007	0.000	2.4	Standard
Bkgd	220.0	0.1	0.133	0.075	55.9	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1712.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

WA08 00206

0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

WA08 00207

SmartTune Wizard - Summary

ɔtimization Summary

nartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/24/2013 8:41:31 AM
nd Time: 1/24/2013 8:44:08 AM

aily Performance Check - [Failed]
Obtained Intensity (Be 9.0122): 2911.04 - <Target not achieved>
Obtained Intensity (Mg 23.985): 22149.80
Obtained Intensity (In 114.904): 67336.36
Obtained Intensity (Pb 207.977): 27139.39
Obtained Intensity (U 238.05): 46650.42
Obtained Intensity (Bkgd 220): 0.13
Obtained Formula (CeO 155.9 / Ce 139.905): 0.009 (=573.49 / 64465.80)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.007 (=428.41 / 64465.80)

WA08 00208

SmartTune Wizard - Details

```
ptimization Details

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

ptimization Status

tart Time: 1/24/2013 8:41:31 AM

aily Performance Check
        Optimization Settings:
                Method: C:\NexIONData\Method\Daily Performancenew.mth.
                Intensity Criterion: Be 9.0122 > 3000
                Intensity Criterion: Mg 23.985 > 20000
                Intensity Criterion: In 114.904 > 50000
                Intensity Criterion: Pb 207.977 > 20000
                Intensity Criterion: U 238.05 > 40000
                Intensity Criterion: Bkgd 220 <= 5
                Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
                Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

        Optimization Results:
        Initial Try
                Obtained Intensity (Be 9.0122): 2911.04 - <Target not achieved>
                Obtained Intensity (Mg 23.985): 22149.80
                Obtained Intensity (In 114.904): 67336.36
                Obtained Intensity (Pb 207.977): 27139.39
                Obtained Intensity (U 238.05): 46650.42
                Obtained Intensity (Bkgd 220): 0.13
                Obtained Formula (CeO 155.9 / Ce 139.905): 0.009 (=573.49 / 64465.80)
                Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.007 (=428.41 / 64465.80)
                [Failed]
[Failed]

nd Time: 1/24/2013 8:44:08 AM
```


UA08 : 00209

SmartTune Wizard - Summary

timization Summary

artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

art Time: 1/24/2013 8:45:01 AM
d Time: 1/24/2013 8:45:59 AM

rch Alignment - [Passed]

Vertical	Horizontal	Intensity
-0.98 mm	1.77 mm	88459.02

WADR 00210

SmartTune Wizard - Details

timization Details

artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

timization Status

art Time: 1/24/2013 8:45:01 AM

orch Alignment

Optimization Settings:

Method: Torch Alignment.mth.

Intensity Criterion: In 114.904 Maximum

Optimization Results:

	Vertical	Horizontal	Intensity
passed]	-0.98 mm	1.77 mm	88459.02

nd Time: 1/24/2013 8:45:59 AM

WA08 : 00211

SmartTune Wizard - Summary

ɔtimization Summary

ıartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

:art Time: 1/24/2013 8:46:21 AM
ıd Time: 1/24/2013 8:48:34 AM

ıss Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.687)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.698)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.696)

WA08 : 00212

SmartTune Wizard - Details

timization Details

artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

timization Status

art Time: 1/24/2013 8:46:21 AM

ss Calibration and Resolution

Optimization Settings:

Method: Tuning.mth.
MassCal File: Default.tun
Iterations: 6
Target accuracy (+/- amu): 0.1 for Mass Cal. and 0.03 for Resolution
Peak height (%) for Res. Opt.: 10

Optimization Results:

Initial Try

Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.687)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.698)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.696)

Passed] Optimum value(s): N/A

nd Time: 1/24/2013 8:48:34 AM

WA08 : 00213

SmartTune Wizard - Summary

timization Summary

artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

art Time: 1/24/2013 8:48:56 AM
d Time: 1/24/2013 8:53:07 AM

toLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 1.000; Intercept = -12.06

WA08 · 0021U

SmartTune Wizard - Details

ptimization Details

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

ptimization Status

tart Time: 1/24/2013 8:48:56 AM

utoLens STD/DRC

Optimization Settings:

Method: AutoLens Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Criteria:

Min.Correlation Coefficient: 0.985

Min.Intercept: -20.00

Optimization Results:

Initial Try

Passed] Optimum value(s): Correlation Coefficient = 1.000; Intercept = -12.06

Analyte	Mass	Points	DAC	MaxIntensity
Li	7.016	41	-12.5	1580.15
Mg	23.985	41	-13	34765.4
In	114.904	41	-9	92955.6
Ce	139.905	41	-7.5	87904.2
Pb	207.977	41	-5	37507.2
U	238.05	41	-4.5	67078.9

nd Time: 1/24/2013 8:53:07 AM

WA08 : 00215

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Thursday, January 24, 2013 08:53:36
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1746
MassCal File. C:\NexION Data\MassCal\Default.tun
Conditions File. C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	4553.3	4553.311	81.684	1.8	Standard
	Mg	24.0	33024.8	33024.846	288.581	0.9	Standard
	In	114.9	92502.5	92502.530	760.218	0.8	Standard
	Pb	208.0	38893.0	38893.019	265.490	0.7	Standard
	U	238.1	69338.1	69338.086	556.471	0.8	Standard
⌈	CeO	155.9	977.2	0.011	0.000	1.4	Standard
|>	Ce	139.9	89902.4	89902.351	389.576	0.4	Standard
⌊	Ce++	70.0	738.7	0.008	0.000	2.0	Standard
	Bkgd	220.0	0.0	0.000	0.000		Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1712.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

WA08 00216

0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

WA08 00217

SmartTune Wizard - Summary

ɔtimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/24/2013 8:53:34 AM
nd Time: 1/24/2013 8:56:09 AM

aily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 4553.31
Obtained Intensity (Mg 23.985): 33024.85
Obtained Intensity (In 114.904): 92502.53
Obtained Intensity (Pb 207.977): 38893.02
Obtained Intensity (U 238.05): 69338.09
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.011 (=977.19 / 89902.35)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.008 (=738.70 / 89902.35)

WA08 00218

SmartTune Wizard - Details

```
ptimization Details

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

ptimization Status

tart Time: 1/24/2013 8:53:34 AM

aily Performance Check
        Optimization Settings:
                Method: C:\NexIONData\Method\Daily Performancenew.mth.
                Intensity Criterion: Be 9.0122 > 3000
                Intensity Criterion: Mg 23.985 > 20000
                Intensity Criterion: In 114.904 > 50000
                Intensity Criterion: Pb 207.977 > 20000
                Intensity Criterion: U 238.05 > 40000
                Intensity Criterion: Bkgd 220 <= 5
                Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
                Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

        Optimization Results:
        Initial Try
                Obtained Intensity (Be 9.0122): 4553.31
                Obtained Intensity (Mg 23.985): 33024.85
                Obtained Intensity (In 114.904): 92502.53
                Obtained Intensity (Pb 207.977): 38893.02
                Obtained Intensity (U 238.05): 69338.09
                Obtained Intensity (Bkgd 220): 0.00
                Obtained Formula (CeO 155.9 / Ce 139.905): 0.011 (=977.19 / 89902.35)
                Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.008 (=738.70 / 89902.35)
 Passed]  Optimum value(s): N/A

nd Time: 1/24/2013 8:56:09 AM
```


WA08 : 00219

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 09:29:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L				1128549	1
⌊	Be	9		ug/L				17	6
	C	13		ug/L				103082	2
	Cl	37		ug/L				3450249	3
⌈>	Sc	45		ug/L				852476	2
|	V	51		ug/L				5209	1
|	V-1	51		ug/L				34	25
|	Cr	52		ug/L				15583	1
|	Cr	53		ug/L				106	8
|	Mn	55		ug/L				335	9
⌊	Co	59		ug/L				80	5
⌈>	Ge	72		ug/L				521692	1
|	Ni	60		ug/L				30	17
|	Ni	62		ug/L				40	7
|	Cu	63		ug/L				77	3
|	Cu	65		ug/L				32	7
|	Zn	66		ug/L				309	5
|	Zn	67		ug/L				55	13
|	Zn	68		ug/L				298	1
|	As	75		ug/L				350	7
|	As-1	75		ug/L				6949	1
|	Se	82		ug/L				3	57
|	Se	78		ug/L				7062	1
⌊	Mo	98		ug/L				9	20
	Y	89		ug/L				353714	0
	Kr	83		ug/L				604	2
⌈>	In	115		ug/L				1159704	0
|	Ag	107		ug/L				23	4
|	Cd	111		ug/L				99	18
|	Cd	114		ug/L				33	3
|	Sb	121		ug/L				31	20
|	Sb	123		ug/L				23	26
|	Ba	135		ug/L				11	9
⌊	Ba	137		ug/L				19	34
⌈>	Tb	159		ug/L				1415954	0
|	Tl	205		ug/L				42	19
|	Pb	208		ug/L				196	5
|	Bi	209		ug/L				3066268	1
|	Th	232		ug/L				34	56
⌊	U	238		ug/L				1	114

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 09:33:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens RSD
⌈>	Li	6		ug/L			1128549	1125035	1
⌊	Be	9	0.200	ug/L	0.007	3	17	692	4
	C	13		ug/L			103082	95307	2
	Cl	37		ug/L			3450249	3512795	2
⌈>	Sc	45		ug/L			852476	873533	2
|	V	51	0.200	ug/L	0.016	8	5209	8788	1
|	V-1	51	0.200	ug/L	0.004	2	34	3326	0
|	Cr	52	0.500	ug/L	0.043	8	15583	22954	1
|	Cr	53	0.500	ug/L	0.001	0	106	847	2
|	Mn	55	0.500	ug/L	0.019	3	335	9696	2
⌊	Co	59	0.200	ug/L	0.003	1	80	2853	2
⌈>	Ge	72		ug/L			521692	524776	1
|	Ni	60	0.500	ug/L	0.023	4	30	1583	4
|	Ni	62	0.500	ug/L	0.020	4	40	248	2
|	Cu	63	0.500	ug/L	0.023	4	77	3421	6
|	Cu	65	0.500	ug/L	0.016	3	32	1501	2
|	Zn	66	4.000	ug/L	0.052	1	309	6956	1
|	Zn	67	4.000	ug/L	0 090	2	55	1077	3
|	Zn	68	4.000	ug/L	0.135	3	298	4923	2
|	As	75	0.200	ug/L	0.040	19	350	696	10
|	As-1	75	0.200	ug/L	0.065	32	6949	7389	2
|	Se	82	0.500	ug/L	0.061	12	3	100	10
|	Se	78	0.500	ug/L	0.174	34	7062	7403	1
⌊	Mo	98	0.200	ug/L	0 012	5	9	919	3
	Y	89		ug/L			353714	359503	0
	Kr	83		ug/L			604	605	2
⌈>	In	115		ug/L			1159704	1194907	0
|	Ag	107	0.200	ug/L	0.010	5	23	2876	4
|	Cd	111	0.100	ug/L	0.008	7	99	647	5
|	Cd	114	0.100	ug/L	0.003	3	33	1400	4
|	Sb	121	0.200	ug/L	0.002	1	31	3333	1
|	Sb	123	0.200	ug/L	0.005	2	23	2568	2
|	Ba	135	0.500	ug/L	0.016	3	11	2403	2
⌊	Ba	137	0.500	ug/L	0.012	2	19	4059	1
⌈>	Tb	159		ug/L			1415954	1425369	0
|	Tl	205	0.200	ug/L	0.004	1	42	8224	2
|	Pb	208	0.100	ug/L	0.002	1	196	5613	1
|	Bi	209		ug/L			3066268	3133559	0
|	Th	232	0.200	ug/L	0.003	1	34	7929	1
⌊	U	238	0.200	ug/L	0.003	1	1	9999	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 09:37:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			1128549	1111943	2
Be	9	10.000	ug/L	0.028	0	17	32065	2
C	13		ug/L			103082	101214	1
Cl	37		ug/L			3450249	3518075	1
> Sc	45		ug/L			852476	822860	2
V	51	10.000	ug/L	0.414	4	5209	161130	1
V-1	51	10.000	ug/L	0.368	3	34	154918	1
Cr	52	10.001	ug/L	0.342	3	15583	151997	0
Cr	53	10.002	ug/L	0.190	1	106	15189	1
Mn	55	10.001	ug/L	0.503	5	335	183829	2
Co	59	10.000	ug/L	0.421	4	80	139492	1
> Ge	72		ug/L			521692	515200	1
Ni	60	10.000	ug/L	0.233	2	30	30158	1
Ni	62	10.002	ug/L	0.235	2	40	4383	2
Cu	63	10.000	ug/L	0.291	2	77	64620	1
Cu	65	10.001	ug/L	0.171	1	32	29736	1
Zn	66	10.033	ug/L	0.108	1	309	17010	1
Zn	67	10.215	ug/L	0 164	1	55	3012	1
Zn	68	10.103	ug/L	0.213	2	298	12546	1
As	75	10.000	ug/L	0.144	1	350	16989	2
As-1	75	9.999	ug/L	0.180	1	6949	23615	1
Se	82	9.998	ug/L	0.178	1	3	1785	1
Se	78	9.993	ug/L	0.636	6	7062	11612	1
Mo	98	10.000	ug/L	0.249	2	9	46748	1
Y	89		ug/L			353714	357617	2
Kr	83		ug/L			604	600	2
> In	115		ug/L			1159704	1180655	0
Ag	107	10.000	ug/L	0.354	3	23	146857	3
Cd	111	10.000	ug/L	0.118	1	99	54279	1
Cd	114	10.000	ug/L	0.221	2	33	133574	2
Sb	121	10.000	ug/L	0.109	1	31	176491	1
Sb	123	10.000	ug/L	0.183	1	23	131448	1
Ba	135	10.001	ug/L	0.214	2	11	48323	1
Ba	137	10.001	ug/L	0.157	1	19	82704	0
> Tb	159		ug/L			1415954	1441667	0
Tl	205	10.000	ug/L	0.171	1	42	407181	1
Pb	208	10.000	ug/L	0.124	1	196	532684	1
Bi	209		ug/L			3066268	3112543	0
Th	232	10.001	ug/L	0.149	1	34	466561	1
U	238	10.000	ug/L	0.113	1	1	512810	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 09:41:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1128549	1112729	2
	Be	9	19.993	ug/L	0.679	3	17	64043	3
	C	13		ug/L			103082	98544	3
	Cl	37		ug/L			3450249	3531927	3
>	Sc	45		ug/L			852476	827308	0
	V	51	19.839	ug/L	0.566	2	5209	306989	2
	V-1	51	19.868	ug/L	0.611	3	34	301708	3
	Cr	52	19.846	ug/L	0.485	2	15583	280381	2
	Cr	53	19.940	ug/L	0.707	3	106	29994	3
	Mn	55	19.890	ug/L	0.483	2	335	359698	2
	Co	59	19.867	ug/L	0.103	0	80	271527	0
>	Ge	72		ug/L			521692	515732	1
	Ni	60	19.956	ug/L	0.285	1	30	59698	1
	Ni	62	19.885	ug/L	0.541	2	40	8488	2
	Cu	63	19.994	ug/L	0.336	1	77	129105	0
	Cu	65	19.964	ug/L	0.278	1	32	58975	2
	Zn	66	20.119	ug/L	0.504	2	309	34538	2
	Zn	67	19.879	ug/L	0.142	0	55	5698	2
	Zn	68	20.019	ug/L	0.295	1	298	24681	2
	As	75	19.950	ug/L	0.148	0	350	33253	1
	As-1	75	19.931	ug/L	0.225	1	6949	39837	0
	Se	82	19.904	ug/L	0.223	1	3	3487	1
	Se	78	19.832	ug/L	0.829	4	7062	15897	1
	Mo	98	19.923	ug/L	0.742	3	9	91797	2
	Y	89		ug/L			353714	351180	0
	Kr	83		ug/L			604	602	6
>	In	115		ug/L			1159704	1199060	0
	Ag	107	19.868	ug/L	0.115	0	23	288690	0
	Cd	111	19.866	ug/L	0.032	0	99	106552	0
	Cd	114	19.932	ug/L	0.123	0	33	266728	0
	Sb	121	19.949	ug/L	0.190	0	31	353930	0
	Sb	123	19.965	ug/L	0.436	2	23	264656	1
	Ba	135	19.891	ug/L	0.289	1	11	95536	1
	Ba	137	19.917	ug/L	0.222	1	19	164544	1
>	Tb	159		ug/L			1415954	1455960	1
	Tl	205	19.957	ug/L	0.433	2	42	813544	1
	Pb	208	19.962	ug/L	0.219	1	196	1065416	0
	Bi	209		ug/L			3066268	3139614	0
	Th	232	20.181	ug/L	0.287	1	34	986377	1
	U	238	19.972	ug/L	0.296	1	1	1028498	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 09:46:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1128549	946886	1
	Be	9	49.612	ug/L	1.077	2	17	130161	1
	C	13		ug/L			103082	80266	1
	Cl	37		ug/L			3450249	3345376	0
>	Sc	45		ug/L			852476	678836	1
	V	51	50.293	ug/L	0.855	1	5209	651059	1
	V-1	51	50.355	ug/L	1.043	2	34	650376	2
	Cr	52	50.225	ug/L	1.443	2	15583	575768	2
	Cr	53	50.423	ug/L	0.410	0	106	64843	1
	Mn	55	50.390	ug/L	1.101	2	335	777386	0
	Co	59	50.648	ug/L	1.406	2	80	607239	3
>	Ge	72		ug/L			521692	479319	2
	Ni	60	49.462	ug/L	1.316	2	30	130426	0
	Ni	62	49.412	ug/L	1.817	3	40	18458	2
	Cu	63	49.662	ug/L	1.404	2	77	288135	0
	Cu	65	49.491	ug/L	1.257	2	32	129200	0
	Zn	66	49.799	ug/L	1.713	3	309	77500	2
	Zn	67	49.547	ug/L	1.189	2	55	12571	1
	Zn	68	49.659	ug/L	1.431	2	298	54664	0
	As	75	49.726	ug/L	1.089	2	350	74493	0
	As-1	75	49.616	ug/L	1.049	2	6949	79826	0
	Se	82	49.688	ug/L	1.337	2	3	7839	0
	Se	78	49.285	ug/L	1.266	2	7062	25706	0
	Mo	98	50.391	ug/L	2.775	5	9	224446	3
	Y	89		ug/L			353714	319516	0
	Kr	83		ug/L			604	609	7
>	In	115		ug/L			1159704	1084838	0
	Ag	107	50.963	ug/L	1.403	2	23	741245	2
	Cd	111	49.764	ug/L	0.613	1	99	235770	0
	Cd	114	50.115	ug/L	0.847	1	33	613714	1
	Sb	121	50.111	ug/L	0.224	0	31	813314	0
	Sb	123	50.229	ug/L	0.665	1	23	616500	0
	Ba	135	50.192	ug/L	0.648	1	11	222350	0
	Ba	137	50.213	ug/L	1.059	2	19	383452	1
>	Tb	159		ug/L			1415954	1391253	1
	Tl	205	49.962	ug/L	1.399	2	42	1938471	1
	Pb	208	49.872	ug/L	0.956	1	196	2510684	0
	Bi	209		ug/L			3066268	2955777	1
	Th	232	50.539	ug/L	1.001	1	34	2494357	0
	U	238	50.351	ug/L	1.292	2	1	2567353	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 09:52:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1128549	890942	3
	Be	9	99.651	ug/L	1.910	1	17	243134	2
	C	13		ug/L			103082	78360	5
	Cl	37		ug/L			3450249	3340880	1
>	Sc	45		ug/L			852476	660851	1
	V	51	99.794	ug/L	1.977	1	5209	1245100	0
	V-1	51	100.037	ug/L	1.836	1	34	1259285	0
	Cr	52	99.273	ug/L	1.222	1	15583	1070569	0
	Cr	53	100.075	ug/L	0.960	0	106	125510	0
	Mn	55	100.118	ug/L	2.936	2	335	1509513	2
	Co	59	100.990	ug/L	2.275	2	80	1218634	1
>	Ge	72		ug/L			521692	473575	1
	Ni	60	98.915	ug/L	1.746	1	30	248752	0
	Ni	62	99.401	ug/L	2.212	2	40	35951	2
	Cu	63	99.101	ug/L	2.405	2	77	551693	2
	Cu	65	99.630	ug/L	2.407	2	32	253935	3
	Zn	66	98.402	ug/L	1.419	1	309	143493	0
	Zn	67	99.953	ug/L	2.205	2	55	24975	2
	Zn	68	99.152	ug/L	0.452	0	298	104681	1
	As	75	99.600	ug/L	1.756	1	350	145208	1
	As-1	75	99.556	ug/L	1.554	1	6949	149819	1
	Se	82	99.311	ug/L	1.198	1	3	15136	0
	Se	78	99.116	ug/L	1.217	1	7062	43520	1
	Mo	98	99.384	ug/L	1.417	1	9	428911	2
	Y	89		ug/L			353714	305765	1
	Kr	83		ug/L			604	609	8
>	In	115		ug/L			1159704	1056708	0
	Ag	107	99.258	ug/L	2.080	2	23	1372450	2
	Cd	111	99.881	ug/L	1.040	1	99	459030	0
	Cd	114	99.598	ug/L	0.839	0	33	1172429	1
	Sb	121	100.218	ug/L	1.285	1	31	1595921	1
	Sb	123	100.210	ug/L	0.720	0	23	1206569	0
	Ba	135	100.304	ug/L	2.503	2	11	437237	2
	Ba	137	100.239	ug/L	0.436	0	19	751638	0
>	Tb	159		ug/L			1415954	1379621	0
	Tl	205	100.791	ug/L	0.909	0	42	3984026	1
	Pb	208	100.211	ug/L	0.848	0	196	5038745	0
	Bi	209		ug/L			3066268	2871445	1
	Th	232	99.763	ug/L	0.806	0	34	4845171	0
	U	238	99.452	ug/L	1.544	1	1	4939662	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 09:59:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1128549	903167	1
	Be	9	0.007	ug/L	0.013	200	17	30	105
	C	13		ug/L			103082	77745	5
	Cl	37		ug/L			3450249	3196960	2
>	Sc	45		ug/L			852476	674694	3
	V	51	0.032	ug/L	0.025	80	5209	4517	4
	V-1	51	0.005	ug/L	0.007	125	34	92	87
	Cr	52	0.098	ug/L	0.082	84	15583	13386	4
	Cr	53	0.011	ug/L	0.010	94	106	97	11
	Mn	55	0.006	ug/L	0.008	141	335	351	32
	Co	59	0.004	ug/L	0.005	139	80	108	55
>	Ge	72		ug/L			521692	474131	0
	Ni	60	0.002	ug/L	0.006	264	30	33	45
	Ni	62	0.046	ug/L	0.026	56	40	53	17
	Cu	63	0.007	ug/L	0.000	7	77	107	3
	Cu	65	0.004	ug/L	0.003	64	32	39	15
	Zn	66	0.017	ug/L	0.005	29	309	306	2
	Zn	67	-0.025	ug/L	0.004	16	55	44	2
	Zn	68	0.027	ug/L	0.019	68	298	299	5
	As	75	-0.011	ug/L	0.005	48	350	302	1
	As-1	75	0.012	ug/L	0.024	207	6949	6332	0
	Se	82	-0.012	ug/L	0.029	247	3	1	358
	Se	78	0.041	ug/L	0.081	197	7062	6434	0
	Mo	98	0.014	ug/L	0.003	18	9	70	16
	Y	89		ug/L			353714	309742	2
	Kr	83		ug/L			604	532	2
>	In	115		ug/L			1159704	1077322	0
	Ag	107	0.003	ug/L	0 001	25	23	63	16
	Cd	111	0.004	ug/L	0.001	22	99	112	3
	Cd	114	0.002	ug/L	0.002	69	33	61	34
	Sb	121	0.070	ug/L	0.014	19	31	1172	19
	Sb	123	0.074	ug/L	0.018	25	23	927	25
	Ba	135	0.016	ug/L	0.024	148	11	84	129
	Ba	137	0.014	ug/L	0.022	154	19	127	133
>	Tb	159		ug/L			1415954	1348463	0
	Tl	205	0.021	ug/L	0.015	72	42	830	68
	Pb	208	0.010	ug/L	0.015	158	196	656	112
	Bi	209		ug/L			3066268	3030805	1
	Th	232	0.277	ug/L	0.043	15	34	13187	15
	U	238	0.008	ug/L	0.009	112	1	389	111

Sample Information

Sample Date/Time: Thursday, January 24, 2013 09:52:40
Method File: C:\NexION Data\Method\200.8nomin.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**0.9999**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**1.0000**	0.019	0.20	10	20	50	100
V-1	51	**1.0000**	0.019	0.20	10	20	50	100
Cr	52	**0.9999**	0.016	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**1.0000**	0.023	0.50	10	20	50	100
Co	59	**0.9997**	0.018	0.20	10	20	50	100
Ge	72							
Ni	60	**0.9997**	0.005	0.50	10	20	50	100
Ni	62	**0.9999**	0.001	0.50	10	20	50	100
Cu	63	**0.9998**	0.012	0.50	10	20	50	100
Cu	65	**0.9999**	0.005	0.50	10	20	50	100
Zn	66	**0.9996**	0.003	4.00	10	20	50	100
Zn	67	**0.9999**	0.001	4.00	10	20	50	100
Zn	68	**0.9998**	0.002	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**0.9999**	0.003	0.20	10	20	50	100
Se	82	**0.9997**	0.000	0.50	10	20	50	100
Se	78	**0.9997**	0.001	0.50	10	20	50	100
Mo	98	**0.9999**	0.009	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**0.9997**	0.013	0.20	10	20	50	100
Cd	111	**1.0000**	0.004	0.10	10	20	50	100
Cd	114	**1.0000**	0.011	0.10	10	20	50	100
Sb	121	**1.0000**	0.015	0.20	10	20	50	100
Sb	123	**1.0000**	0.011	0.20	10	20	50	100
Ba	135	**1.0000**	0.004	0.50	10	20	50	100
Ba	137	**1.0000**	0.007	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9999**	0.029	0.20	10	20	50	100
Pb	208	**1.0000**	0.036	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	0.035	0.20	10	20	50	100
U	238	**0.9999**	0.036	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:06:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1128549	890273	3
	Be	9	50.447	ug/L	3.228	6	17	122840	2
	C	13		ug/L			103082	77836	1
	Cl	37		ug/L			3450249	3245233	1
>	Sc	45		ug/L			852476	672192	2
	V	51	52.158	ug/L	0.865	1	5209	663874	1
	V-1	51	51.389	ug/L	1.202	2	34	657916	0
	Cr	52	51.654	ug/L	0.682	1	15583	572601	2
	Cr	53	49.204	ug/L	1.183	2	106	62798	1
	Mn	55	51.440	ug/L	0.919	1	335	788943	0
	Co	59	50.369	ug/L	1.706	3	80	618080	1
>	Ge	72		ug/L			521692	477335	2
	Ni	60	52.041	ug/L	2.419	4	30	131863	2
	Ni	62	53.039	ug/L	1.854	3	40	19345	2
	Cu	63	51.953	ug/L	1.646	3	77	291444	1
	Cu	65	51.422	ug/L	0.796	1	32	132129	3
	Zn	66	50.729	ug/L	1.164	2	309	74683	0
	Zn	67	50.697	ug/L	0.777	1	55	12790	1
	Zn	68	51.037	ug/L	0.581	1	298	54436	1
	As	75	50.931	ug/L	0.413	0	350	74999	1
	As-1	75	50.939	ug/L	0.840	1	6949	80364	1
	Se	82	81.601	ug/L	0.656	0	3	12269	1
	Se	78	80.817	ug/L	1 452	1	7062	36945	1
	Mo	98	48.347	ug/L	1.210	2	9	210301	3
	Y	89		ug/L			353714	314549	1
	Kr	83		ug/L			604	554	5
>	In	115		ug/L			1159704	1073300	0
	Ag	107	49.869	ug/L	0.533	1	23	700384	1
	Cd	111	49.586	ug/L	0.188	0	99	231516	0
	Cd	114	49.798	ug/L	1.101	2	33	595425	2
	Sb	121	49.295	ug/L	0.544	1	31	797355	1
	Sb	123	49.132	ug/L	0.582	1	23	600863	0
	Ba	135	50.319	ug/L	0.887	1	11	222811	1
	Ba	137	50.998	ug/L	0.327	0	19	388414	0
>	Tb	159		ug/L			1415954	1371745	1
	Tl	205	49.790	ug/L	0.727	1	42	1956763	1
	Pb	208	51.019	ug/L	0.204	0	196	2550836	0
	Bi	209		ug/L			3066268	2914997	0
	Th	232	53.236	ug/L	0.587	1	34	2570672	0
	U	238	52.971	ug/L	0.618	1	1	2616118	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:13:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1128549	905623	1
	Be	9	0.002	ug/L	0 001	90	17	18	20
	C	13		ug/L			103082	77883	0
	Cl	37		ug/L			3450249	3254531	1
>	Sc	45		ug/L			852476	660805	1
	V	51	0.042	ug/L	0.005	12	5209	4563	1
	V-1	51	0.001	ug/L	0.000	28	34	44	12
	Cr	52	0.137	ug/L	0.007	5	15583	13543	1
	Cr	53	0.003	ug/L	0.008	315	106	85	11
	Mn	55	0.002	ug/L	0.000	9	335	297	2
	Co	59	0.001	ug/L	0.000	28	80	75	6
>	Ge	72		ug/L			521692	476231	0
	Ni	60	0.004	ug/L	0.002	42	30	37	10
	Ni	62	0.079	ug/L	0.014	17	40	65	7
	Cu	63	0.006	ug/L	0.000	6	77	102	2
	Cu	65	0.001	ug/L	0 002	183	32	32	15
	Zn	66	0.022	ug/L	0.012	52	309	315	5
	Zn	67	-0.010	ug/L	0.014	139	55	48	7
	Zn	68	0.039	ug/L	0.011	27	298	313	2
	As	75	-0.005	ug/L	0.011	241	350	313	6
	As-1	75	0.067	ug/L	0.053	80	6949	6439	0
	Se	82	-0.069	ug/L	0.095	137	3	-7	196
	Se	78	0.232	ug/L	0.248	106	7062	6534	0
	Mo	98	0.010	ug/L	0.002	16	9	53	13
	Y	89		ug/L			353714	310029	1
	Kr	83		ug/L			604	564	4
>	In	115		ug/L			1159704	1066998	1
	Ag	107	0.002	ug/L	0.001	46	23	50	28
	Cd	111	0.003	ug/L	0.002	47	99	106	5
	Cd	114	0.001	ug/L	0.001	49	33	44	13
	Sb	121	0.018	ug/L	0.004	21	31	321	21
	Sb	123	0.019	ug/L	0.003	16	23	256	17
	Ba	135	0.003	ug/L	0.001	53	11	22	29
	Ba	137	0.003	ug/L	0.001	26	19	42	16
>	Tb	159		ug/L			1415954	1326625	1
	Tl	205	0.004	ug/L	0.001	21	42	193	17
	Pb	208	0.002	ug/L	0.001	42	196	268	12
	Bi	209		ug/L			3066268	2984599	0
	Th	232	0.159-	ug/L	0.025	16	34	7448	16
	U	238	0.002	ug/L	0.000	18	1	117	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:17:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			1128549	891609	3
Be	9	49.838	ug/L	1.673	3	17	121633	0
C	13		ug/L			103082	74951	6
Cl	37		ug/L			3450249	3296828	1
Sc	45		ug/L			852476	651795	2
V	51	50.066	ug/L	1.312	2	5209	618014	1
V-1	51	49.837	ug/L	1.058	2	34	618728	1
Cr	52	50.966	ug/L	1.359	2	15583	547780	1
Cr	53	50.196	ug/L	0.578	1	106	62127	0
Mn	55	50.975	ug/L	1.055	2	335	758141	1
Co	59	50.601	ug/L	0.784	1	80	602322	2
Ge	72		ug/L			521692	464877	1
Ni	60	52.746	ug/L	0.737	1	30	130229	1
Ni	62	52.152	ug/L	1.606	3	40	18528	1
Cu	63	52.215	ug/L	0.629	1	77	285361	0
Cu	65	52.678	ug/L	1.351	2	32	131774	1
Zn	66	52.988	ug/L	0.253	0	309	75989	1
Zn	67	52.625	ug/L	0.872	1	55	12929	0
Zn	68	53.419	ug/L	1.242	2	298	55474	1
As	75	51.343	ug/L	0.955	1	350	73627	1
As-1	75	52.057	ug/L	0.982	1	6949	79850	1
Se	82	51.798	ug/L	0.810	1	3	7585	0
Se	78	53.399	ug/L	0.854	1	7062	25910	0
Mo	98	49.595	ug/L	0.546	1	9	210083	0
Y	89		ug/L			353714	308761	2
Kr	83		ug/L			604	559	5
In	115		ug/L			1159704	1054424	1
Ag	107	49.321	ug/L	1.311	2	23	680429	2
Cd	111	51.175	ug/L	1.402	2	99	234681	1
Cd	114	50.224	ug/L	0.406	0	33	589920	1
Sb	121	50.166	ug/L	0.749	1	31	797077	0
Sb	123	50.662	ug/L	0.921	1	23	608580	0
Ba	135	50.464	ug/L	0.793	1	11	219498	0
Ba	137	50.443	ug/L	0.757	1	19	377386	0
Tb	159		ug/L			1415954	1345117	0
Tl	205	49.490	ug/L	0.396	0	42	1907287	0
Pb	208	50.915	ug/L	0.431	0	196	2496176	0
Bi	209		ug/L			3066268	2915305	1
Th	232	52.513	ug/L	1.021	1	34	2486467	1
U	238	52.244	ug/L	0.443	0	1	2529840	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:23:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens.	Meas Intens.	Intens RSD
>	Li	6		ug/L			1128549	908381	2
	Be	9	0.003	ug/L	0.002	61	17	21	23
	C	13		ug/L			103082	76356	4
	Cl	37		ug/L			3450249	3191245	2
>	Sc	45		ug/L			852476	665170	0
	V	51	0.040	ug/L	0.005	12	5209	4571	0
	V-1	51	0.001	ug/L	0.001	123	34	41	44
	Cr	52	0.131	ug/L	0.020	15	15583	13562	0
	Cr	53	0.001	ug/L	0.005	458	106	84	6
	Mn	55	0.003	ug/L	0.001	26	335	303	3
	Co	59	0.001	ug/L	0.001	48	80	76	9
>	Ge	72		ug/L			521692	486221	2
	Ni	60	0.007	ug/L	0.004	54	30	47	23
	Ni	62	0.080	ug/L	0.038	47	40	67	22
	Cu	63	0.008	ug/L	0.002	21	77	120	7
	Cu	65	0.002	ug/L	0.003	166	32	35	19
	Zn	66	0.027	ug/L	0.011	41	309	329	2
	Zn	67	0.003	ug/L	0.036	1059	55	52	16
	Zn	68	0.033	ug/L	0.002	6	298	314	3
	As	75	-0.018	ug/L	0.017	96	350	299	5
	As-1	75	0.008	ug/L	0.178	2270	6949	6483	1
	Se	82	-0.055	ug/L	0.077	140	3	-5	223
	Se	78	0.018	ug/L	0.658	3702	7062	6584	1
	Mo	98	0.014	ug/L	0.009	61	9	73	56
	Y	89		ug/L			353714	308200	1
	Kr	83		ug/L			604	551	3
>	In	115		ug/L			1159704	1073940	2
	Ag	107	0.007	ug/L	0.009	121	23	124	101
	Cd	111	0.010	ug/L	0.006	61	99	138	21
	Cd	114	0.005	ug/L	0.007	139	33	94	93
	Sb	121	0.039	ug/L	0.004	9	31	654	7
	Sb	123	0.041	ug/L	0.003	8	23	527	6
	Ba	135	0.005	ug/L	0.005	101	11	33	69
	Ba	137	0.004	ug/L	0.004	87	19	48	55
>	Tb	159		ug/L			1415954	1335777	1
	Tl	205	0.010	ug/L	0.002	16	42	423	15
	Pb	208	0.002	ug/L	0.003	107	196	301	41
	Bi	209		ug/L			3066268	3016074	1
	Th	232	0.219	ug/L	0.022	10	34	10352	10
	U	238	0.003	ug/L	0.002	68	1	153	68

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:28:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1128549	888399	2
	Be	9	0.202	ug/L	0.007	3	17	504	4
	C	13		ug/L			103082	73311	0
	Cl	37		ug/L			3450249	3102053	0
>	Sc	45		ug/L			852476	642149	2
	V	51	0.243	ug/L	0.006	2	5209	6861	3
	V-1	51	0.210	ug/L	0.001	0	34	2594	1
	Cr	52	0.647	ug/L	0.033	5	15583	18452	4
	Cr	53	0.526	ug/L	0.010	1	106	720	3
	Mn	55	0.534	ug/L	0.012	2	335	8077	2
	Co	59	0.207	ug/L	0.010	4	80	2481	2
>	Ge	72		ug/L			521692	469704	2
	Ni	60	0.560	ug/L	0.012	2	30	1423	3
	Ni	62	0.579	ug/L	0.024	4	40	244	6
	Cu	63	0.539	ug/L	0.002	0	77	3042	2
	Cu	65	0.547	ug/L	0.023	4	32	1410	1
	Zn	66	4.191	ug/L	0.141	3	309	6327	3
	Zn	67	3.898	ug/L	0.067	1	55	1013	1
	Zn	68	4.068	ug/L	0.116	2	298	4515	0
	As	75	0.197	ug/L	0.028	14	350	598	5
	As-1	75	0.307	ug/L	0.113	36	6949	6693	0
	Se	82	0.499	ug/L	0.063	12	3	76	11
	Se	78	0.923	ug/L	0.404	43	7062	6699	0
	Mo	98	0.196	ug/L	0.005	2	9	845	3
	Y	89		ug/L			353714	310449	2
	Kr	83		ug/L			604	544	1
>	In	115		ug/L			1159704	1064522	0
	Ag	107	0.195	ug/L	0.004	2	23	2732	2
	Cd	111	0.111	ug/L	0.001	1	99	603	1
	Cd	114	0.103	ug/L	0.003	3	33	1251	2
	Sb	121	0.206	ug/L	0.003	1	31	3326	0
	Sb	123	0.211	ug/L	0.007	3	23	2580	3
	Ba	135	0.486	ug/L	0 018	3	11	2146	4
	Ba	137	0.494	ug/L	0.009	1	19	3749	1
>	Tb	159		ug/L			1415954	1322386	0
	Tl	205	0.209	ug/L	0.003	1	42	7970	1
	Pb	208	0.107	ug/L	0.003	2	196	5337	3
	Bi	209		ug/L			3066268	2977586	0
	Th	232	0.237	ug/L	0.003	1	34	11076	2
	U	238	0.200	ug/L	0.002	0	1	9517	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:32:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1128549	864521	2
	Be	9	0.000	ug/L	0 002	4653	17	13	30
	C	13		ug/L			103082	135233	2
	Cl	37		ug/L			3450249	8893169	2
>	Sc	45		ug/L			852476	669243	2
	V	51	0.108	ug/L	0 015	14	5209	5444	2
	V-1	51	0.970	ug/L	0.073	7	34	12391	6
	Cr	52	0.660	ug/L	0.078	11	15583	19346	2
	Cr	53	3.409	ug/L	0.252	7	106	4407	6
	Mn	55	0.060	ug/L	0.009	14	335	1177	9
	Co	59	0.021	ug/L	0.001	3	80	322	4
>	Ge	72		ug/L			521692	451853	1
	Ni	60	0.383	ug/L	0.021	5	30	944	5
	Ni	62	2.679	ug/L	0.533	19	40	956	17
	Cu	63	0.951	ug/L	0.070	7	77	5116	6
	Cu	65	0.375	ug/L	0.013	3	32	941	3
	Zn	66	0.925	ug/L	0.047	5	309	1552	4
	Zn	67	6.244	ug/L	0.120	1	55	1533	2
	Zn	68	0.343	ug/L	0.033	9	298	603	3
	As	75	0.076	ug/L	0.030	39	350	409	11
	As-1	75	0.435	ug/L	0.112	25	6949	6616	0
	Se	82	-0.356	ug/L	0.016	4	3	-47	3
	Se	78	1.408	ug/L	0.509	36	7062	6618	1
	Mo	98	412.510	ug/L	12.390	3	9	1698001	1
	Y	89		ug/L			353714	306351	0
	Kr	83		ug/L			604	700	5
>	In	115		ug/L			1159704	1058180	0
	Ag	107	0.019	ug/L	0.001	5	23	289	4
	Cd	111	0.093	ug/L	0.005	4	99	516	4
	Cd	114	0.278	ug/L	0.001	0	33	3312	0
	Sb	121	0.067	ug/L	0.003	4	31	1093	3
	Sb	123	0.067	ug/L	0 000	0	23	825	0
	Ba	135	0.049	ug/L	0.004	7	11	225	7
	Ba	137	0.046	ug/L	0.002	5	19	359	5
>	Tb	159		ug/L			1415954	1399846	0
	Tl	205	0.040	ug/L	0.003	6	42	1650	6
	Pb	208	0.030	ug/L	0.001	2	196	1723	3
	Bi	209		ug/L			3066268	2795839	0
	Th	232	0.147	ug/L	0.054	36	34	7242	35
	U	238	0.001	ug/L	0.000	16	1	42	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:38:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1128549	840713 ✓	3
	Be	9	0.001	ug/L	0.002	292	17	15	35
	C	13		ug/L			103082	135432	5
	Cl	37		ug/L			3450249	8864870	4
>	Sc	45		ug/L			852476	659084 ✓	1
	V	51	0.104	ug/L	0.318	304	5209	5358	75
	V-1	51	1.198	ug/L	0.031	2	34	15070	2
	Cr	52	20.438	ug/L	0.349	1	15583	229436	2
	Cr	53	23.165	ug/L	0.758	3	106	29032	1
	Mn	55	19.414	ug/L	0.369	1	335	292135	0
	Co	59	19.146	ug/L	0.139	0	80	230499	1
>	Ge	72		ug/L			521692	443726 ✓	1
	Ni	60	20.968	ug/L	0.383	1	30	49430	1
	Ni	62	25.422	ug/L	0.288	1	40	8639	0
	Cu	63	21.766	ug/L	0 617	2	77	113562	1
	Cu	65	20.862	ug/L	0.845	4	32	49822	2
	Zn	66	20.997	ug/L	0.824	3	309	28890	2
	Zn	67	23.702	ug/L	0.677	2	55	5583	1
	Zn	68	19.216	ug/L	0.140	0	298	19214	1
	As	75	19.890	ug/L	0.431	2	350	27406	1
	As-1	75	20.724	ug/L	0.379	1	6949	33899	0
	Se	82	-0.309	ug/L	0.085	27	3	-40	30
	Se	78	2.506	ug/L	0.373	14	7062	6886	2
	Mo	98	424.081	ug/L	7.542	1	9	1714704	1
	Y	89		ug/L			353714	299736	0
	Kr	83		ug/L			604	655	3
>	In	115		ug/L			1159704	1059984 ✓	1
	Ag	107	19.608	ug/L	0.321	1	23	271932	0
	Cd	111	19.317	ug/L	0.194	1	99	89119	1
	Cd	114	19.826	ug/L	0.574	2	33	234050	1
	Sb	121	0.066	ug/L	0.004	6	31	1082	5
	Sb	123	0.067	ug/L	0.004	5	23	826	3
	Ba	135	0.054	ug/L	0.005	9	11	247	10
	Ba	137	0.042	ug/L	0.003	6	19	333	7
>	Tb	159		ug/L			1415954	1436116 ✓	1
	Tl	205	0.033	ug/L	0.002	5	42	1396	4
	Pb	208	0.033	ug/L	0.001	3	196	1900	2
	Bi	209		ug/L			3066268	2841125	0
	Th	232	0.058	ug/L	0.003	4	34	2943	5
	U	238	0.001	ug/L	0.000	45	1	29	44

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:45:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1128549	756199	3
	Be	9	195.881	ug/L	5.721	2	17	405475	1
	C	13		ug/L			103082	70282	6
	Cl	37		ug/L			3450249	3257461	2
>	Sc	45		ug/L			852476	617453	2
	V	51	212.485	ug/L	11.467	5	5209	2471009	3
	V-1	51	207.542	ug/L	10.578	5	34	2439305	2
	Cr	52	211.424	ug/L	5.563	2	15583	2116936	1
	Cr	53	195.587	ug/L	5 960	3	106	229074	2
	Mn	55	213.305	ug/L	7.481	3	335	3003385	1
	Co	59	207.306	ug/L	6.347	3	80	2336349	0
>	Ge	72		ug/L			521692	432632	1
	Ni	60	207.199	ug/L	4.413	2	30	475984	1
	Ni	62	207.847	ug/L	5.585	2	40	68626	1
	Cu	63	207.733	ug/L	2.905	1	77	1056371	0
	Cu	65	205.113	ug/L	3 791	1	32	477468	0
	Zn	66	202.133	ug/L	3.879	1	309	268997	0
	Zn	67	200.058	ug/L	4.641	2	55	45614	1
	Zn	68	203.337	ug/L	3.982	1	298	195834	1
	As	75	202.788	ug/L	0.158	0	350	269812	1
	As-1	75	204.295	ug/L	1.339	0	6949	274802	0
	Se	82	201.877	ug/L	0.652	0	3	27508	1
	Se	78	203.273	ug/L	4.937	2	7062	75349	1
	Mo	98	201.837	ug/L	2.421	1	9	795790	2
	Y	89		ug/L			353714	284244	2
	Kr	83		ug/L			604	646	2
>	In	115		ug/L			1159704	989849	0
	Ag	107	197.966	ug/L	4.045	2	23	2563973	1
	Cd	111	199.940	ug/L	3.557	1	99	860755	2
	Cd	114	215.082	ug/L	0.659	0	33	2371595	0
	Sb	121	216.123	ug/L	6.355	2	31	3223559	2
	Sb	123	218.666	ug/L	1.012	0	23	2466150	0
	Ba	135	215.939	ug/L	2.690	1	11	881732	0
	Ba	137	220.007	ug/L	4.609	2	19	1545159	1
>	Tb	159		ug/L			1415954	1356517	0
	Tl	205	201.765	ug/L	0.837	0	42	7841743	0
	Pb	208	205.754	ug/L	1.073	0	196	10172562	0
	Bi	209		ug/L			3066268	2730858	0
	Th	232	200.610	ug/L	2.206	1	34	9580002	0
	U	238	199.198	ug/L	3.887	1	1	9727708	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:52:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1128549	806131	1
	Be	9	0.005	ug/L	0.001	29	17	22	13
	C	13		ug/L			103082	70123	2
	Cl	37		ug/L			3450249	3163743	3
>	Sc	45		ug/L			852476	636268	0
	V	51	0.051	ug/L	0.011	20	5209	4493	3
	V-1	51	0.019	ug/L	0.001	7	34	260	6
	Cr	52	0.225	ug/L	0.041	18	15583	13946	3
	Cr	53	0.118	ug/L	0.010	8	106	222	6
	Mn	55	0.044	ug/L	0.005	12	335	893	9
	Co	59	0.012	ug/L	0.014	111	80	204	79
>	Ge	72		ug/L			521692	460131	3
	Ni	60	0.245	ug/L	0.029	11	30	623	8
	Ni	62	1.210	ug/L	0.139	11	40	459	9
	Cu	63	0.331	ug/L	0.042	12	77	1855	9
	Cu	65	0.241	ug/L	0.060	24	32	622	20
	Zn	66	1.263	ug/L	0.068	5	309	2057	1
	Zn	67	1.077	ug/L	0.095	8	55	309	5
	Zn	68	1.231	ug/L	0.050	4	298	1521	1
	As	75	-0.007	ug/L	0.031	419	350	297	11
	As-1	75	0.208	ug/L	0.119	56	6949	6417	1
	Se	82	-0.013	ug/L	0.082	650	3	1	1047
	Se	78	0.739	ug/L	0.398	53	7062	6495	1
	Mo	98	0.038	ug/L	0.008	20	9	167	16
	Y	89		ug/L			353714	297705	0
	Kr	83		ug/L			604	497	4
>	In	115		ug/L			1159704	1068682	0
	Ag	107	0.005	ug/L	0.002	45	23	97	34
	Cd	111	0.007	ug/L	0.000	2	99	124	0
	Cd	114	0.005	ug/L	0.000	9	33	93	5
	Sb	121	0.082	ug/L	0.006	7	31	1349	7
	Sb	123	0.082	ug/L	0.011	12	23	1023	13
	Ba	135	0.024	ug/L	0.002	7	11	116	6
	Ba	137	0.022	ug/L	0.002	10	19	183	9
>	Tb	159		ug/L			1415954	1350496	0
	Tl	205	0.032	ug/L	0.024	76	42	1256	73
	Pb	208	0.032	ug/L	0.002	5	196	1781	4
	Bi	209		ug/L			3066268	2985029	1
	Th	232	0.296	ug/L	0.073	24	34	14062	23
	U	238	0.005	ug/L	0.001	22	1	246	22

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 10:57:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1128549	822221 ✓	3
	Be	9	0.004	ug/L	0.001	32	17	22	11
	C	13		ug/L			103082	69481	2
	Cl	37		ug/L			3450249	3055172	0
>	Sc	45		ug/L			852476	635278 ✓	3
	V	51	0.043	ug/L	0.009	21	5209	4387	1
	V-1	51	0.014	ug/L	0.001	6	34	189	6
	Cr	52	0.155	ug/L	0.039	25	15583	13194	0
	Cr	53	0.058	ug/L	0.010	16	106	148	4
	Mn	55	0.075	ug/L	0.001	1	335	1334	4
	Co	59	0.003	ug/L	0.001	53	80	92	16
>	Ge	72		ug/L			521692	455076 ✓	1
	Ni	60	0.051	ug/L	0.005	10	30	149	8
	Ni	62	0.724	ug/L	0.069	9	40	286	7
	Cu	63	0.133	ug/L	0.009	6	77	778	5
	Cu	65	0.076	ug/L	0.006	8	32	213	5
	Zn	66	0.608	ug/L	0.037	6	309	1120	3
	Zn	67	0.521	ug/L	0.060	11	55	173	9
	Zn	68	0.576	ug/L	0.028	4	298	843	1
	As	75	-0.005	ug/L	0.015	304	350	298	6
	As-1	75	0.245	ug/L	0.098	39	6949	6400	0
	Se	82	-0.071	ug/L	0.035	49	3	-7	69
	Se	78	0.943	ug/L	0.420	44	7062	6498	0
	Mo	98	0.012	ug/L	0.001	8	9	58	8
	Y	89		ug/L			353714	297424	2
	Kr	83		ug/L			604	552	1
>	In	115		ug/L			1159704	1043675 ✓	0
	Ag	107	0.003	ug/L	0.001	35	23	56	22
	Cd	111	0.001	ug/L	0.003	343	99	93	13
	Cd	114	0.003	ug/L	0.001	34	33	62	17
	Sb	121	0.026	ug/L	0.005	19	31	440	18
	Sb	123	0.027	ug/L	0.004	13	23	338	12
	Ba	135	0.037	ug/L	0.001	2	11	168	2
	Ba	137	0.035	ug/L	0.001	2	19	277	2
>	Tb	159		ug/L			1415954	1350370 ✓	0
	Tl	205	0.010	ug/L	0 004	34	42	441	31
	Pb	208	0.018	ug/L	0.000	0	196	1091	1
	Bi	209		ug/L			3066268	3042117	1
	Th	232	0.079	ug/L	0.015	18	34	3788	18
	U	238	0.002	ug/L	0.001	35	1	75	35

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~CCV2~~ ZZZZZZ
Sample Dil Factor: BA 1/24/13
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:02:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			1128549	818615 ✓	0
	Be	9	48.626	ug/L	0.589	1	17	109043	1
	C	13		ug/L			103082	68705	1
	Cl	37		ug/L			3450249	3242187	3
>	Sc	45		ug/L			852476	637500 ✓	2
	V	51	49.259	ug/L	0.262	0	5209	594937	2
	V-1	51	48.980	ug/L	0.109	0	34	594893	2
	Cr	52	50.282	ug/L	1.438	2	15583	528712	1
	Cr	53	49.346	ug/L	0.977	1	106	59730	0
	Mn	55	51.647	ug/L	0.294	0	335	751358	1
	Co	59	50.028	ug/L	1.120	2	80	582330	1
>	Ge	72		ug/L			521692	460215 ✓	0
	Ni	60	51.301	ug/L	0.677	1	30	125398	1
	Ni	62	51.856	ug/L	0.418	0	40	18243	0
	Cu	63	51.686	ug/L	1.328	2	77	279651	2
	Cu	65	50.843	ug/L	0.441	0	32	125939	1
	Zn	66	52.657	ug/L	0.943	1	309	74755	1
	Zn	67	52.114	ug/L	0.781	1	55	12677	1
	Zn	68	52.268	ug/L	1 221	2	298	53748	2
	As	75	50.537	ug/L	0.388	0	350	71757	0
	As-1	75	51.029	ug/L	0.267	0	6949	77618	0
	Se	82	51.903	ug/L	0.772	1	3	7525	1
	Se	78	52.618	ug/L	0.158	0	7062	25368	0
	Mo	98	45.878	ug/L	1.218	2	9	192411	2
	Y	89		ug/L			353714	299917	1
	Kr	83		ug/L			604	525	5
>	In	115		ug/L			1159704	1047170 ✓	1
	Ag	107	44.839	ug/L	1.988	4	23	614158	3
	Cd	111	49.822	ug/L	1.341	2	99	226897	1
	Cd	114	49.302	ug/L	1.351	2	33	574948	1
	Sb	121	50.138	ug/L	1.197	2	31	791024	0
	Sb	123	50.384	ug/L	1.168	2	23	601010	0
	Ba	135	50.863	ug/L	1.040	2	11	219699	1
	Ba	137	51.815	ug/L	1.573	3	19	384883	1
>	Tb	159		ug/L			1415954	1360536 ✓	1
	Tl	205	49.998	ug/L	0 956	1	42	1948696	0
	Pb	208	50.330	ug/L	0.770	1	196	2495531	0
	Bi	209		ug/L			3066268	2948677	1
	Th	232	51.896	ug/L	1.077	2	34	2485415	1
	U	238	51.907	ug/L	0.893	1	1	2542128	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~CCB2~~ ZZZZZZ
Sample Dil Factor: BA 1/24/13
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:09:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1128549	830332	2
	Be	9	0.000	ug/L	0.002	597	17	13	29
	C	13		ug/L			103082	68492	4
	Cl	37		ug/L			3450249	3141840	2
>	Sc	45		ug/L			852476	639058	2
	V	51	0.049	ug/L	0.020	40	5209	4488	2
	V-1	51	0.008	ug/L	0 001	15	34	122	14
	Cr	52	0.149	ug/L	0.063	42	15583	13208	2
	Cr	53	0.014	ug/L	0.008	60	106	96	12
	Mn	55	0.002	ug/L	0 001	40	335	285	2
	Co	59	0.001	ug/L	0.001	98	80	67	10
>	Ge	72		ug/L			521692	456613	0
	Ni	60	0.005	ug/L	0.002	40	30	39	13
	Ni	62	0.342	ug/L	0.032	9	40	154	6
	Cu	63	0.029	ug/L	0.003	11	77	222	7
	Cu	65	0.001	ug/L	0.002	396	32	30	18
	Zn	66	0.027	ug/L	0.010	36	309	309	4
	Zn	67	-0.013	ug/L	0.018	143	55	45	8
	Zn	68	0.037	ug/L	0.009	25	298	298	3
	As	75	-0.011	ug/L	0.021	192	350	291	9
	As-1	75	0.303	ug/L	0.082	26	6949	6503	0
	Se	82	-0.036	ug/L	0.101	282	3	-2	660
	Se	78	1.116	ug/L	0.291	26	7062	6583	0
	Mo	98	0.011	ug/L	0.003	23	9	55	20
	Y	89		ug/L			353714	299254	0
	Kr	83		ug/L			604	504	7
>	In	115		ug/L			1159704	1049277	1
	Ag	107	0.002	ug/L	0.000	16	23	46	10
	Cd	111	0.005	ug/L	0.002	43	99	112	8
	Cd	114	0.001	ug/L	0.001	160	33	40	39
	Sb	121	0.036	ug/L	0.005	12	31	604	10
	Sb	123	0.037	ug/L	0.004	12	23	460	10
	Ba	135	0.003	ug/L	0.002	50	11	23	28
	Ba	137	0.003	ug/L	0.000	13	19	38	5
>	Tb	159		ug/L			1415954	1344476	0
	Tl	205	0.010	ug/L	0.002	23	42	430	21
	Pb	208	0.001	ug/L	0.001	85	196	219	13
	Bi	209		ug/L			3066268	3011311	0
	Th	232	0.212	ug/L	0.048	22	34	10071	23
	U	238	0.002	ug/L	0.000	12	1	94	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:14:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1128549	814207	2
	Be	9	49.214	ug/L	0.483	0	17	109753	1
	C	13		ug/L			103082	66442	2
	Cl	37		ug/L			3450249	3184935	3
>	Sc	45		ug/L			852476	641844	0
	V	51	49.847	ug/L	1 542	3	5209	606066	2
	V-1	51	49.448	ug/L	1.455	2	34	604630	2
	Cr	52	50.301	ug/L	0.652	1	15583	532684	0
	Cr	53	49.001	ug/L	0.654	1	106	59734	1
	Mn	55	51.205	ug/L	0.190	0	335	750068	0
	Co	59	50.401	ug/L	1.302	2	80	590783	2
>	Ge	72		ug/L			521692	458293	3
	Ni	60	51.456	ug/L	0.520	1	30	125227	2
	Ni	62	52.225	ug/L	1.640	3	40	18284	1
	Cu	63	52.429	ug/L	1.878	3	77	282272	0
	Cu	65	52.155	ug/L	2.010	3	32	128538	1
	Zn	66	52.703	ug/L	0.237	0	309	74500	2
	Zn	67	52.423	ug/L	1.780	3	55	12689	0
	Zn	68	52.895	ug/L	1.459	2	298	54134	1
	As	75	51.758	ug/L	1.679	3	350	73128	1
	As-1	75	52.242	ug/L	2.061	3	6949	78923	0
	Se	82	52.595	ug/L	0.761	1	3	7591	2
	Se	78	53.233	ug/L	2.202	4	7062	25467	0
	Mo	98	45.937	ug/L	1.287	2	9	191735	0
	Y	89		ug/L			353714	305529	0
	Kr	83		ug/L			604	519	4
>	In	115		ug/L			1159704	1040415	3
	Ag	107	44.428	ug/L	2.191	4	23	604254	2
	Cd	111	50.949	ug/L	1.461	2	99	230469	1
	Cd	114	50.320	ug/L	1.459	2	33	582870	0
	Sb	121	50.746	ug/L	1 129	2	31	795360	1
	Sb	123	50.703	ug/L	1.778	3	23	600656	0
	Ba	135	51.662	ug/L	0.959	1	11	221665	1
	Ba	137	51.959	ug/L	1.288	2	19	383418	0
>	Tb	159		ug/L			1415954	1372501	1
	Tl	205	49.397	ug/L	0.337	0	42	1942536	2
	Pb	208	50.407	ug/L	0.743	1	196	2521237	0
	Bi	209		ug/L			3066268	2989993	1
	Th	232	51.456	ug/L	0.509	0	34	2485997	0
	U	238	51.065	ug/L	0.764	1	1	2522722	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:21:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1128549	831562	2
	Be	9	0.001	ug/L	0.002	222	17	15	32
	C	13		ug/L			103082	68402	1
	Cl	37		ug/L			3450249	3152096	0
>	Sc	45		ug/L			852476	632132	1
	V	51	0.045	ug/L	0.008	18	5209	4400	2
	V-1	51	0.006	ug/L	0.000	2	34	103	1
	Cr	52	0.149	ug/L	0.021	14	15583	13075	1
	Cr	53	0.021	ug/L	0.007	35	106	103	8
	Mn	55	0.004	ug/L	0.002	45	335	301	7
	Co	59	0.002	ug/L	0.001	29	80	79	6
>	Ge	72		ug/L			521692	471316	2
	Ni	60	0.006	ug/L	0.001	14	30	41	4
	Ni	62	0.260	ug/L	0.022	8	40	130	6
	Cu	63	0.021	ug/L	0.001	4	77	187	3
	Cu	65	0.001	ug/L	0.001	95	32	32	6
	Zn	66	0.034	ug/L	0.001	2	309	328	1
	Zn	67	0.017	ug/L	0.024	136	55	54	11
	Zn	68	0.028	ug/L	0.008	27	298	298	2
	As	75	-0.048	ug/L	0.022	46	350	247	11
	As-1	75	0.182	ug/L	0 131	71	6949	6537	1
	Se	82	-0.121	ug/L	0.028	22	3	-14	28
	Se	78	0.731	ug/L	0.473	64	7062	6650	0
	Mo	98	0.010	ug/L	0.000	4	9	50	4
	Y	89		ug/L			353714	297460	1
	Kr	83		ug/L			604	531	2
>	In	115		ug/L			1159704	1053215	1
	Ag	107	0.002	ug/L	0.001	35	23	47	17
	Cd	111	0.002	ug/L	0.000	18	99	100	3
	Cd	114	0.002	ug/L	0.001	53	33	54	21
	Sb	121	0.038	ug/L	0.003	8	31	626	9
	Sb	123	0.037	ug/L	0 005	12	23	463	13
	Ba	135	0.002	ug/L	0.001	66	11	19	29
	Ba	137	0.002	ug/L	0.000	21	19	30	8
>	Tb	159		ug/L			1415954	1335807	1
	Tl	205	0.011	ug/L	0.002	22	42	443	20
	Pb	208	0.001	ug/L	0.000	22	196	229	3
	Bi	209		ug/L			3066268	3014657	0
	Th	232	0.219	ug/L	0.049	22	34	10355	22
	U	238	0.002	ug/L	0.000	17	1	117	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA14 MB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:27:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

RR Ag, Mo

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1128549	865710	1
	Be	9	0.004	ug/L	0.001	11	17	24	4
	C	13		ug/L			103082	76922	4
	Cl	37		ug/L			3450249	3176131	1
>	Sc	45		ug/L			852476	664840	3
	V	51	0.042	ug/L	0.006	13	5209	4580	2
	V-1	51	0.007	ug/L	0.000	3	34	121	4
	Cr	52	U 0.139	ug/L	0.024	17	15583	13644	1
	Cr	53	0.026	ug/L	0 006	21	106	115	3
	Mn	55	0.035	ug/L	0.004	10	335	789	5
	Co	59	0.032	ug/L	0.003	8	80	451	5
>	Ge	72		ug/L			521692	473474	1
	Ni	60	U 0.009	ug/L	0.005	54	30	50	26
	Ni	62	0.216	ug/L	0.020	9	40	114	6
	Cu	63	U 0.230	ug/L	0.014	6	77	1351	4
	Cu	65	0.205	ug/L	0.018	8	32	552	8
	Zn	66	U 0.701	ug/L	0.042	6	309	1301	5
	Zn	67	0.558	ug/L	0.067	12	55	189	8
	Zn	68	0.667	ug/L	0.019	2	298	973	1
	As	75	U -0.021	ug/L	0.005	22	350	287	2
	As-1	75	0.251	ug/L	0.048	19	6949	6667	0
	Se	82	U -0.023	ug/L	0.049	212	3	0	2013
	Se	78	0.954	ug/L	0.223	23	7062	6766	0
	Mo	98	0.014	ug/L	0.004	29	9	71	27
	Y	89		ug/L			353714	316930	2
	Kr	83		ug/L			604	516	4
>	In	115		ug/L			1159704	1077546	2
	Ag	107	0.001	ug/L	0.001	67	23	34	25
	Cd	111	U 0.000	ug/L	0.002	460	99	94	9
	Cd	114	-0.047	ug/L	0.011	22	33	-539	25
	Sb	121	0.016	ug/L	0.002	12	31	290	11
	Sb	123	0.016	ug/L	0.002	14	23	222	14
	Ba	135	0.006	ug/L	0.001	21	11	37	13
	Ba	137	0.007	ug/L	0.003	36	19	73	25
>	Tb	159		ug/L			1415954	1377201	0
	Tl	205	0.024	ug/L	0.002	9	42	992	9
	Pb	208	U 0.005	ug/L	0 000	1	196	454	1
	Bi	209		ug/L			3066268	3028889	0
	Th	232	0.111	ug/L	0.002	1	34	5404	2
	U	238	0.001	ug/L	0.000	3	1	37	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ86 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:31:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1128549	864756	3
	Be	9	0.002	ug/L	0.002	80	17	19	22
	C	13		ug/L			103082	75966	0
	Cl	37		ug/L			3450249	3081514	2
>	Sc	45		ug/L			852476	671486	1
	V	51	0.051	ug/L	0.001	2	5209	4742	1
	V-1	51	0.007	ug/L	0.001	13	34	114	9
	Cr	52	0.182	ug/L	0.004	2	15583	14245	1
	Cr	53	0.036	ug/L	0.010	26	106	129	7
	Mn	55	0.065	ug/L	0.001	2	335	1267	2
	Co	59	0.002	ug/L	0.001	29	80	90	8
>	Ge	72		ug/L			521692	473560	2
	Ni	60	0.031	ug/L	0.004	12	30	105	7
	Ni	62	0.237	ug/L	0.047	19	40	122	11
	Cu	63	0.254	ug/L	0.004	1	77	1486	1
	Cu	65	0.241	ug/L	0.005	2	32	643	0
	Zn	66	0.729	ug/L	0.034	4	309	1341	3
	Zn	67	0.578	ug/L	0.026	4	55	194	2
	Zn	68	0.693	ug/L	0.055	7	298	999	4
	As	75	-0.012	ug/L	0.015	125	350	300	7
	As-1	75	0.271	ug/L	0.097	35	6949	6697	0
	Se	82	-0.037	ug/L	0 093	251	3	-2	580
	Se	78	1.042	ug/L	0.400	38	7062	6798	0
	Mo	98	0.007	ug/L	0.001	8	9	37	7
	Y	89		ug/L			353714	317088	2
	Kr	83		ug/L			604	543	2
>	In	115		ug/L			1159704	1077276	1
	Ag	107	0.001	ug/L	0.000	25	23	38	10
	Cd	111	0.002	ug/L	0.004	261	99	100	21
	Cd	114	0.001	ug/L	0.000	49	33	42	12
	Sb	121	0.009	ug/L	0.002	19	31	175	16
	Sb	123	0.009	ug/L	0.001	7	23	136	4
	Ba	135	0.006	ug/L	0.002	27	11	35	20
	Ba	137	0.006	ug/L	0.001	14	19	60	10
>	Tb	159		ug/L			1415954	1366074	1
	Tl	205	0.007	ug/L	0.001	8	42	329	6
	Pb	208	0.010	ug/L	0.000	4	196	666	2
	Bi	209		ug/L			3066268	3044560	0
	Th	232	0.054	ug/L	0.003	6	34	2617	5
	U	238	0.000	ug/L	0 000	21	1	25	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ86 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:36:05
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012413.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
Li	6		ug/L			1128549	872917	0
Be	9	0.005	ug/L	0 002	37	17	25	17
C	13		ug/L			103082	79097	2
Cl	37		ug/L			3450249	3105998	3
Sc	45		ug/L			852476	653438	1
V	51	0.054	ug/L	0.004	7	5209	4661	2
V-1	51	0.008	ug/L	0.001	8	34	121	7
Cr	52	0.184	ug/L	0.004	1	15583	13886	1
Cr	53	0.029	ug/L	0.009	29	106	117	7
Mn	55	0.040	ug/L	0.002	5	335	850	2
Co	59	0.002	ug/L	0.001	56	80	89	17
Ge	72		ug/L			521692	483214	1
Ni	60	0.009	ug/L	0.002	26	30	49	12
Ni	62	0.170	ug/L	0.017	9	40	100	4
Cu	63	0.213	ug/L	0.004	1	77	1279	0
Cu	65	0.206	ug/L	0.008	3	32	565	2
Zn	66	0.499	ug/L	0.029	5	309	1028	2
Zn	67	0.463	ug/L	0.033	7	55	169	3
Zn	68	0.477	ug/L	0.036	7	298	789	3
As	75	-0.019	ug/L	0.009	49	350	296	6
As-1	75	0.139	ug/L	0.019	13	6949	6641	1
Se	82	0.011	ug/L	0.078	717	3	4	244
Se	78	0.567	ug/L	0.072	12	7062	6757	1
Mo	98	0.005	ug/L	0 001	18	9	29	12
Y	89		ug/L			353714	314644	1
Kr	83		ug/L			604	535	2
In	115		ug/L			1159704	1089334	0
Ag	107	0.001	ug/L	0.000	27	23	38	11
Cd	111	0.001	ug/L	0.002	194	99	98	10
Cd	114	0.001	ug/L	0.000	71	33	38	12
Sb	121	0.006	ug/L	0.002	27	31	131	20
Sb	123	0.007	ug/L	0.001	9	23	106	7
Ba	135	0.046	ug/L	0.004	9	11	219	8
Ba	137	0.045	ug/L	0.000	1	19	363	1
Tb	159		ug/L			1415954	1370512	0
Tl	205	0.004	ug/L	0.001	18	42	217	15
Pb	208	0.008	ug/L	0.001	7	196	585	5
Bi	209		ug/L			3066268	3034055	1
Th	232	0.029	ug/L	0.001	3	34	1442	2
U	238	0.000	ug/L	0.000	17	1	24	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA08 AA REN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:40:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1128549	840425	3
	Be	9	0.004	ug/L	0.002	56	17	23	24
	C	13		ug/L			103082	69259	0
	Cl	37		ug/L			3450249	3073811	2
>	Sc	45		ug/L			852476	639852	2
	V	51	0.186	ug/L	0.019	10	5209	6147	1
	V-1	51	0.153	ug/L	0.005	3	34	1888	1
	Cr	52	0.141	ug/L	0.050	35	15583	13147	2
	Cr	53	0.036	ug/L	0.009	23	106	123	8
	Mn	55	1.119	ug/L	0.011	1	335	16591	2
	Co	59	0.017	ug/L	0.001	8	80	253	3
>	Ge	72		ug/L			521692	476300	1
	Ni	60	0.032	ug/L	0.008	25	30	107	18
	Ni	62	0.071	ug/L	0.012	17	40	62	6
	Cu	63	0.211	ug/L	0.013	5	77	1252	4
	Cu	65	0.205	ug/L	0.006	2	32	556	3
	Zn	66	0.358	ug/L	0.024	6	309	807	5
	Zn	67	0.305	ug/L	0.030	9	55	127	6
	Zn	68	0.412	ug/L	0.036	8	298	709	5
	As	75	100.320	ug/L	0.906	0	350	147102	0
	As-1	75	101.505	ug/L	0.997	0	6949	153507	0
	Se	82	-0.009	ug/L	0.123	1437	3	1	985
	Se	78	0.965	ug/L	0.334	34	7062	6810	1
	Mo	98	0.018	ug/L	0.000	2	9	86	2
	Y	89		ug/L			353714	311322	1
	Kr	83		ug/L			604	534	5
>	In	115		ug/L			1159704	1057715	1
	Ag	107	0.001	ug/L	0.000	28	23	36	13
	Cd	111	-0.001	ug/L	0.003	304	99	86	14
	Cd	114	0.002	ug/L	0.001	46	33	59	22
	Sb	121	0.014	ug/L	0.002	14	31	246	11
	Sb	123	0.014	ug/L	0.001	4	23	195	5
	Ba	135	0.089	ug/L	0.002	2	11	401	1
	Ba	137	0.093	ug/L	0.004	4	19	713	3
>	Tb	159		ug/L			1415954	1364018	1
	Tl	205	0.002	ug/L	0.000	5	42	137	2
	Pb	208	0.007	ug/L	0.000	1	196	544	1
	Bi	209		ug/L			3066268	3040403	0
	Th	232	0.007	ug/L	0.001	8	34	375	6
	U	238	0.017	ug/L	0.000	0	1	846	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA14 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:44:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

RR Ag, Mo

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1128549	840986 ✓	1
	Be	9	0.004	ug/L	0.001	31	17	23	12
	C	13		ug/L			103082	82310	4
	Cl	37		ug/L			3450249	4018502	1
>	Sc	45		ug/L			852476	688253 ✓	1
	V	51	0.635	ug/L	0.021	3	5209	12424	1
	V-1	51	0.986	ug/L	0.047	4	34	12955	3
	Cr	52	0.582	ug/L	0.052	8	15583	19040	1
	Cr	53	1.714	ug/L	0.165	9	106	2321	7
	Mn	55	11.296	ug/L	0.589	5	335	177549	3
	Co	59	0.107	ug/L	0.002	1	80	1407	2
>	Ge	72		ug/L			521692	472977 ✓	1
	Ni	60	1.498	ug/L	0.021	1	30	3788	0
	Ni	62	1.634	ug/L	0.107	6	40	625	4
	Cu	63	27.880	ug/L	0.317	1	77	155080	2
	Cu	65	26.647	ug/L	0.708	2	32	67836	1
	Zn	66	41.140	ug/L	0.287	0	309	60089	2
	Zn	67	36.635	ug/L	0.956	2	55	9172	1
	Zn	68	40.104	ug/L	0 200	0	298	42446	0
	As	75	0.784	ug/L	0.034	4	350	1456	2
	As-1	75	1.060	ug/L	0.063	5	6949	7826	0
	Se	82	u 0.193	ug/L	0.047	24	3	31	20
	Se	78	1.202	ug/L	0 183	15	7062	6851	0
	Mo	98	0.395	ug/L	0.004	0	9	1711	1
	Y	89		ug/L			353714	310699	1
	Kr	83		ug/L			604	535	1
>	In	115		ug/L			1159704	1040451 ✓	1
	Ag	107	0.053	ug/L	0.001	2	23	746	1
	Cd	111	u 0.090	ug/L	0.008	9	99	495	7
	Cd	114	0.091	ug/L	0.006	6	33	1088	5
	Sb	121	0.214	ug/L	0.005	2	31	3389	0
	Sb	123	0.215	ug/L	0.008	3	23	2564	2
	Ba	135	6.675	ug/L	0.106	1	11	28657	0
	Ba	137	6.584	ug/L	0.092	1	19	48619	0
>	Tb	159		ug/L			1415954	1393259 ✓	1
	Tl	205	0.010	ug/L	0.001	10	42	445	8
	Pb	208	0.328	ug/L	0.002	0	196	16871	1
	Bi	209		ug/L			3066268	2891667	0
	Th	232	0.055	ug/L	0.014	26	34	2741	25
	U	238	0.009	ug/L	0.000	0	1	446	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA14 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:48:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

RR Ag, Mo

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			1128549	819722	2
Be	9	0.003	ug/L	0.001	25	17	20	7
C	13		ug/L			103082	108860	3
Cl	37		ug/L			3450249	3811658	0
Sc	45		ug/L			852476	662457	2
V	51	1.317	ug/L	0.034	2	5209	20464	1
V-1	51	1.655	ug/L	0.053	3	34	20907	1
Cr	52	1.485	ug/L	0.016	1	15583	27978	2
Cr	53	2.565	ug/L	0.085	3	106	3302	0
Mn	55	33.113	ug/L	1.077	3	335	500438	1
Co	59	0.206	ug/L	0.007	3	80	2551	0
Ge	72		ug/L			521692	465728	1
Ni	60	2.280	ug/L	0.073	3	30	5664	3
Ni	62	2.680	ug/L	0.254	9	40	987	7
Cu	63	54.281	ug/L	0.741	1	77	297196	1
Cu	65	52.441	ug/L	0.671	1	32	131435	0
Zn	66	99.709	ug/L	1.079	1	309	142989	0
Zn	67	86.627	ug/L	2.016	2	55	21291	2
Zn	68	95.815	ug/L	1.847	1	298	99478	1
As	75	0.879	ug/L	0.018	1	350	1570	2
As-1	75	1.236	ug/L	0.048	3	6949	7955	0
Se	82	U 0.358	ug/L	0.052	14	3	55	12
Se	78	1.701	ug/L	0.254	14	7062	6930	0
Mo	98	0.752	ug/L	0.005	0	9	3198	2
Y	89		ug/L			353714	306523	2
Kr	83		ug/L			604	539	3
In	115		ug/L			1159704	1049858	0
Ag	107	0.151	ug/L	0.001	0	23	2089	0
Cd	111	0.327	ug/L	0.010	3	99	1581	2
Cd	114	0.343	ug/L	0.008	2	33	4044	2
Sb	121	0.429	ug/L	0.002	0	31	6813	0
Sb	123	0.424	ug/L	0.006	1	23	5087	1
Ba	135	16.271	ug/L	0.276	1	11	70482	1
Ba	137	16.445	ug/L	0.341	2	19	122521	1
Tb	159		ug/L			1415954	1393320	0
Tl	205	0.007	ug/L	0.000	3	42	326	2
Pb	208	1.349	ug/L	0.015	1	196	68681	0
Bi	209		ug/L			3066268	2996305	0
Th	232	0.027	ug/L	0.003	11	34	1360	11
U	238	0.026	ug/L	0.001	3	1	1298	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA14 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:52:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

RR Ag, Mo

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1128549	816932	4
	Be	9	0.008	ug/L	0.007	94	17	29	52
	C	13		ug/L			103082	100644	1
	Cl	37		ug/L			3450249	3779065	3
>	Sc	45		ug/L			852476	660217	2
	V	51	1.304	ug/L	0.013	0	5209	20236	3
	V-1	51	1.633	ug/L	0.023	1	34	20559	1
	Cr	52	1.595	ug/L	0.071	4	15583	29052	3
	Cr	53	2.641	ug/L	0.139	5	106	3386	3
	Mn	55	32.470	ug/L	1.048	3	335	489123	2
	Co	59	0.204	ug/L	0 007	3	80	2522	1
>	Ge	72		ug/L			521692	463172	2
	Ni	60	2.103	ug/L	0.123	5	30	5192	3
	Ni	62	3.154	ug/L	0.203	6	40	1149	5
	Cu	63	50.177	ug/L	1.988	3	77	273033	1
	Cu	65	48.168	ug/L	0.754	1	32	120047	1
	Zn	66	93.638	ug/L	2.379	2	309	133511	0
	Zn	67	83.043	ug/L	1.152	1	55	20297	1
	Zn	68	93.631	ug/L	3.745	3	298	96621	1
	As	75	0.845	ug/L	0.070	8	350	1511	3
	As-1	75	1.224	ug/L	0.236	19	6949	7889	1
	Se	82	0.376	ug/L	0.099	26	3	57	22
	Se	78	1.777	ug/L	0.728	40	7062	6915	0
	Mo	98	0.698	ug/L	0.027	3	9	2955	6
	Y	89		ug/L			353714	303162	1
	Kr	83		ug/L			604	522	2
>	In	115		ug/L			1159704	1032460	1
	Ag	107	0.493	ug/L	0.009	1	23	6677	1
	Cd	111	0.333	ug/L	0.026	7	99	1582	6
	Cd	114	0.338	ug/L	0.024	7	33	3910	6
	Sb	121	0.394	ug/L	0.009	2	31	6154	1
	Sb	123	0.396	ug/L	0.014	3	23	4682	2
	Ba	135	16.916	ug/L	0.117	0	11	72057	0
	Ba	137	17.100	ug/L	0.410	2	19	125277	1
>	Tb	159		ug/L			1415954	1377526	1
	Tl	205	0.010	ug/L	0.004	44	42	420	39
	Pb	208	1.489	ug/L	0.011	0	196	74940	0
	Bi	209		ug/L			3066268	2984924	0
	Th	232	0.019	ug/L	0.004	22	34	963	20
	U	238	0.025	ug/L	0.003	12	1	1225	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA14 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 11:56:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

RR Ag, Mo

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1128549	766711 ✓	4
	Be	9	24.611	ug/L	1.388	5	17	51608	1
	C	13		ug/L			103082	101708	6
	Cl	37		ug/L			3450249	3783083	2
>	Sc	45		ug/L			852476	645556 ✓	1
	V	51	27.562	ug/L	1.293	4	5209	338715	3
	V-1	51	27.779	ug/L	1.104	3	34	341557	2
	Cr	52	27.295	ug/L	0.997	3	15583	296094	3
	Cr	53	28.002	ug/L	0.179	0	106	34367	1
	Mn	55	61.635	ug/L	0.237	0	335	907988	0
	Co	59	26.249	ug/L	0.833	3	80	309480	2
>	Ge	72		ug/L			521692	452454 ✓	1
	Ni	60	30.111	ug/L	0.717	2	30	72359	1
	Ni	62	31.814	ug/L	0.319	1	40	11016	0
	Cu	63	83.927	ug/L	0.697	0	77	446391	0
	Cu	65	81.890	ug/L	2.128	2	32	199359	1
	Zn	66	189.442	ug/L	2.134	1	309	263688	0
	Zn	67	166.128	ug/L	3.854	2	55	39618	1
	Zn	68	180.054	ug/L	5.607	3	298	181365	2
	As	75	27.517	ug/L	0.657	2	350	38544	1
	As-1	75	28.165	ug/L	0.671	2	6949	44813	1
	Se	82	80.503	ug/L	1.750	2	3	11471	0
	Se	78	83.098	ug/L	1.682	2	7062	35835	0
	Mo	98	24.784	ug/L	0.674	2	9	102168	1
	Y	89		ug/L			353714	296799	1
	Kr	83		ug/L			604	572	4
>	In	115		ug/L			1159704	994819 ✓	0
	Ag	107	16.844	ug/L	0.186	1	23	219283	1
	Cd	111	26.557	ug/L	0.303	1	99	114976	1
	Cd	114	26.370	ug/L	0.069	0	33	292244	0
	Sb	121	23.635	ug/L	0.277	1	31	354386	1
	Sb	123	24.401	ug/L	0.476	1	23	276571	1
	Ba	135	50.608	ug/L	1.434	2	11	207674	2
	Ba	137	50.139	ug/L	0.883	1	19	353919	1
>	Tb	159		ug/L			1415954	1371566 ✓	0
	Tl	205	26.641	ug/L	0.308	1	42	1046918	1
	Pb	208	28.602	ug/L	0.221	0	196	1429898	0
	Bi	209		ug/L			3066268	2982211	0
	Th	232	1.912	ug/L	0.031	1	34	92323	0
	U	238	25.806	ug/L	0.198	0	1	1274255	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA14 MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, January 24, 2013 12:00:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

RR Ag: MO

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens RSD
Li	6		ug/L			1128549	792524 ✓	0
Be	9	24.742	ug/L	0.401	1	17	53723	1
C	13		ug/L			103082	72638	2
Cl	37		ug/L			3450249	3104867	1
Sc	45		ug/L			852476	630421 ✓	2
V	51	26.842	ug/L	0.711	2	5209	322235	0
V-1	51	26.759	ug/L	0.605	2	34	321342	1
Cr	52	26.826	ug/L	1.271	4	15583	284238	2
Cr	53	26.561	ug/L	0.974	3	106	31833	3
Mn	55	27.862	ug/L	0.440	1	335	400902	0
Co	59	27.621	ug/L	0.673	2	80	317970	1
Ge	72		ug/L			521692	457005 ✓	1
Ni	60	28.585	ug/L	0.497	1	30	69391	1
Ni	62	29.927	ug/L	0.795	2	40	10467	1
Cu	63	28.963	ug/L	1.370	4	77	155627	4
Cu	65	28.991	ug/L	0.301	1	32	71315	0
Zn	66	92.505	ug/L	3.402	3	309	130158	2
Zn	67	81.897	ug/L	1.762	2	55	19751	0
Zn	68	88.067	ug/L	2.068	2	298	89734	0
As	75	27.172	ug/L	0.035	0	350	38455	1
As-1	75	27.803	ug/L	0 362	1	6949	44763	1
Se	82	84.653	ug/L	0.862	1	3	12186	1
Se	78	87.123	ug/L	1.210	1	7062	37650	0
Mo	98	23.263	ug/L	0.296	1	9	96873	0
Y	89		ug/L			353714	293482	2
Kr	83		ug/L			604	524	3
In	115		ug/L			1159704	1042944 ✓	1
Ag	107	22.292	ug/L	0.299	1	23	304206	0
Cd	111	26.381	ug/L	0.471	1	99	119715	0
Cd	114	26.442	ug/L	0.728	2	33	307146	1
Sb	121	25.359	ug/L	0.629	2	31	398524	1
Sb	123	25.783	ug/L	0.767	2	23	306327	1
Ba	135	28.284	ug/L	0.569	2	11	121682	0
Ba	137	28.602	ug/L	0.690	2	19	211644	1
Tb	159		ug/L			1415954	1379627 ✓	1
Tl	205	27.482	ug/L	0.540	1	42	1086152	0
Pb	208	28.103	ug/L	0.357	1	196	1413153	0
Bi	209		ug/L			3066268	3076957	1
Th	232	25.809	ug/L	0.452	1	34	1253380	0
U	238	26.142	ug/L	0.333	1	1	1298316	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 12:04:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1128549	773994 ✓	1
	Be	9	47.838	ug/L	1.093	2	17	101425	2
	C	13		ug/L			103082	64127	4
	Cl	37		ug/L			3450249	3220748	2
>	Sc	45		ug/L			852476	632423 ✓	2
	V	51	49.092	ug/L	1.088	2	5209	588035	0
	V-1	51	48.959	ug/L	1.092	2	34	589753	1
	Cr	52	48.696	ug/L	2.033	4	15583	508220	2
	Cr	53	48.283	ug/L	1.072	2	106	57978	1
	Mn	55	49.851	ug/L	2.065	4	335	719100	2
	Co	59	48.828	ug/L	0.936	1	80	563896	2
>	Ge	72		ug/L			521692	448951 ✓	1
	Ni	60	50.700	ug/L	1.752	3	30	120881	3
	Ni	62	52.185	ug/L	1.314	2	40	17905	1
	Cu	63	51.227	ug/L	1.715	3	77	270323	2
	Cu	65	51.179	ug/L	1.013	1	32	123646	0
	Zn	66	51.804	ug/L	1.293	2	309	71732	1
	Zn	67	52.768	ug/L	1.688	3	55	12522	3
	Zn	68	52.608	ug/L	1.993	3	298	52764	3
	As	75	50.425	ug/L	1.589	3	350	69830	1
	As-1	75	50.981	ug/L	1.583	3	6949	75636	1
	Se	82	51.383	ug/L	1.390	2	3	7266	1
	Se	78	52.346	ug/L	1.454	2	7062	24648	1
	Mo	98	44.580	ug/L	0.938	2	9	182362	1
	Y	89		ug/L			353714	289838	3
	Kr	83		ug/L			604	515	3
>	In	115		ug/L			1159704	1014070 ✓	1
	Ag	107	40.375	ug/L	0.207	0	23	535729	1
	Cd	111	50.421	ug/L	1.065	2	99	222390	1
	Cd	114	50.163	ug/L	1.328	2	33	566549	1
	Sb	121	50.742	ug/L	0.282	0	31	775447	0
	Sb	123	50.803	ug/L	1.414	2	23	586893	1
	Ba	135	52.112	ug/L	1.510	2	11	217968	1
	Ba	137	53.086	ug/L	1.093	2	19	381936	0
>	Tb	159		ug/L			1415954	1366384 ✓	1
	Tl	205	48.908	ug/L	0.401	0	42	1914552	1
	Pb	208	50.329	ug/L	0.840	1	196	2506090	0
	Bi	209		ug/L			3066268	2945015	1
	Th	232	52.362	ug/L	1.555	2	34	2517926	1
	U	238	51.331	ug/L	1.158	2	1	2524309	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, January 24, 2013 12:11:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1128549	784139	1
	Be	9	0.001	ug/L	0.000	32	17	15	6
	C	13		ug/L			103082	65676	3
	Cl	37		ug/L			3450249	3140172	2
>	Sc	45		ug/L			852476	612555	1
	V	51	0.054	ug/L	0.013	25	5209	4362	2
	V-1	51	0.007	ug/L	0.000	3	34	104	3
	Cr	52	0.184	ug/L	0.055	30	15583	13011	2
	Cr	53	0.028	ug/L	0.013	47	106	108	13
	Mn	55	0.003	ug/L	0.001	45	335	281	4
	Co	59	0.001	ug/L	0.000	42	80	67	4
>	Ge	72		ug/L			521692	456064	1
	Ni	60	0.003	ug/L	0.003	106	30	34	25
	Ni	62	0.520	ug/L	0.037	7	40	216	6
	Cu	63	0.042	ug/L	0.010	23	77	295	18
	Cu	65	0.002	ug/L	0.002	92	32	33	13
	Zn	66	-0.043	ug/L	0.012	27	309	209	6
	Zn	67	-0.083	ug/L	0.049	59	55	28	40
	Zn	68	-0.053	ug/L	0.002	3	298	207	2
	As	75	-0.023	ug/L	0.021	88	350	273	9
	As-1	75	0.366	ug/L	0.042	11	6949	6583	1
	Se	82	-0.025	ug/L	0.079	314	3	0	1876
	Se	78	1.390	ug/L	0.160	11	7062	6675	1
	Mo	98	0.009	ug/L	0.002	21	9	44	16
	Y	89		ug/L			353714	291142	1
	Kr	83		ug/L			604	491	6
>	In	115		ug/L			1159704	1017075	0
	Ag	107	0.002	ug/L	0.001	24	23	52	15
	Cd	111	0.003	ug/L	0.002	64	99	101	8
	Cd	114	0.001	ug/L	0.000	10	33	42	3
	Sb	121	0.033	ug/L	0.002	7	31	528	6
	Sb	123	0.033	ug/L	0.003	7	23	407	7
	Ba	135	0.001	ug/L	0.000	25	11	14	7
	Ba	137	0.000	ug/L	0.001	287	19	19	35
>	Tb	159		ug/L			1415954	1341173	0
	Tl	205	0.005	ug/L	0.001	14	42	226	12
	Pb	208	-0.000	ug/L	0.001	212	196	174	14
	Bi	209		ug/L			3066268	3007548	2
	Th	232	0.190	ug/L	0.028	14	34	9025	15
	U	238	0.003	ug/L	0.000	15	1	124	15

Mercury Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WA08, WA16

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: DM

Date: 01-21-13

Final Volume _____

Final Volume (Hg): 20

Sample ID WA16 AEPK, MB1SPK, RSPK, MB2SPK

Prepcode:				
Spike Solution:		ICP Routine	ICP No GFA	GFA
Standard No.:				
Vol Added (mL):				
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	TLM	CVA	1.0	0.02	2008-8
Hg MBSPK	↓	CVA	1.0	0.04	↓
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

5033F

Revision 14, 11/21/05

1A4B8 00025H

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Analyst: DM
Bath Temp: 95°C
Start Time: 0917
Matrix: Water
Date: 01-21-13
End Time: 1117

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WAK A	1	✓	20.0	20.0	1/28 1	Y	
" AOUP	1	✓			1		
" ASPK	1	✓			1		
" B	1	✓			1		
" C	1	✓			1		
" D	1	✓			1		
" E	1	✓			1		
" F	1	✓			1		
" G	1	✓			1		
" H	1	✓			1		
" I	1	✓			1		
" J	1	✓			1		
" K	1	✓			1		
" L	1	✓			1		
" M	1	✓			1		
" N	1	✓			1		
" O	1	✓			1		
" P	1	✓			1		
" Q	1	✓			1		
" MB1	—	✓			1		
" MB1SPK	—	✓	20.0	20.0	1	Y	
				01-21-13 DM			

Chemical/Reagent ID:

HNO_3: I7970
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2418
5% $KMnO_4$: MP2401
Digest Tube Lot: 1208057

WA08 : 00255

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Matrix: water
Analyst: DM
Date: 01-21-13
Bath Temp: 95°C
Start Time: 0917
End Time: 1117

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WAIC R	1	✓	20.0	20.0	1/28 1	Y	
" RDUP	1	✓			1		
" RSPK	1	✓			1		
" S	1	✓			1		
" T	1	✓			1		
" U	1	✓			1		
" V	1	✓			1		
" W	1	✓			1		
" X	1	✓			1		
" Y	1	✓			1		
" Z	1	✓			1		
" AA	1	✓			1		
" AB	1	✓			1		
" AC	1	✓			1		
" AD	1	✓			1		
" AE	1	✓			1		
" AF	1	✓			1		
" AG	1	✓			1		
" AH	1	✓			1		
" MB2	—	✓			1		
" MBSPK	—	✓	20.0	20.0	1	Y	

01-21-13 DM

Chemical/Reagent ID:

HNO_3: I7JP
H_2SO_4: I7C77
HCl: —
5% $K_2S_2O_8$: MP2418
5% $KMnO_4$: MP2401
Digest Tube Lot: 128067

Mercury Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WA08, WA16

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 01-29-13

Page: 1 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	TLM	1X		
" 20.0				
" 50.0				
" 100.0				
" 200.0				
" 400.0				
" 1000.0				
ICV			469.63	Begin CLP %R=94 ✓
ICB			0.58	✓
CCV1			473.63	%R=95 ✓
CCB1			1.03	✓
CRA			22.39	✓
TEST 1 STD1			22.54	%R=112 ✓
TEST 2 STD1			22.63	%R=113 ✓
TEST 1 STDL			982.21	%R=98 ✓
TEST 2 STDL			991.43	%R=99 ✓
TEST 1 CV			461.43	%R=92 ✓
" 2 CV			464.28	%R=93 ✓
" 3 CV			466.40	%R=93 ✓
WA10 MB1			1.15	✓
" MBSPK			202.07	%R=101 ✓
CCV2			473.86	%R=95 ✓
CCB2			3.92	✓
WA10 A			4.05	
" ADUP			6.15	NO RPD: undetected ✓
" ASPK			101.04	%R=101 ✓
" B				
" C				
" D				
" E	↓	↓		

Chemical/Reagent ID:
10% $SnCl_2$: MP2429

14% $NH_2OH/NaCl$: MP2308

Standard ID:
Standard: 3007-4

ICV/CCV: 3007-5

WA08 : 00258

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 01·23·12

Page: 2 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (~~ppb~~)ppt	Comments
WA10 F	TLM	1X		
" MB2			4.26	✓
" MB2SPK			187.56	%R=94 ✓
CCV3			473.00	%R=95 ✓
CCB3			1.84	✓
WA10 G			4.49	
" GDUP			3.60	No RPD: Undetected ✓
" GSPK			106.03	%R=106 ✓
" H				
" I				
" J				
" K				
" L				
CCV4			477.23	%R=95 ✓
CCB4			2.65	✓
WA16 MB1			2.39	✓
" MB1SPK			197.82	%R=99 ✓
" A			16.32	
" ADUP			17.66	No RPD: Undetected Hi RED ✓
" ASPK			114.47	%R=114 ✓
" B				
" C				
" D				
" E				
" F				
CCV5			477.48	%R=95 ✓
CCB5			3.98	✓
WA16 G				
" H				
" I				

Chemical/Reagent ID:
10% $SnCl_2$: MP2429

14% $NH_2OH/NaCl$: MP2398

Standard ID:
Standard: 3007-4

ICV/CCV: 3007-5

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 01-23-13

Page: 3 of 5

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments	
WAK	J	TLM	1x			
"	K					
"	L					
"	M					
"	N					
"	O					
"	P					
CCV6				471.25	%R=94	✓
CCB6				-0.75		✓
WAK	Q					
"	MB2			-0.19		✓
"	MB2PK			188.15	%R=94	✓
"	R			3.57		
"	RDUP			2.50	NO RPD: Undetected	✓
"	RSPK			93.54	%R=94	✓
"	S					
"	T					
"	U					
"	V					
CCV7				472.80	%R=95	✓
CCB7				0.03		✓
WAK	W					
"	X					
"	Y					
"	Z					
"	AA					
"	AB					
"	AC					
"	AD					
"	AE					

Chemical/Reagent ID:
10% $SnCl_2$: MP2429

14% $NH_2OH/NaCl$: MP2398

Standard ID:
Standard: 3007-4

ICV/CCV: 3007-5

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 01-23-13

Page: 4 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
WA16 AF	TLM	1X		
CCV8			470.84	%R=94 ✓
CCB8			1.38	✓
WAK AG				
" AH				
CCV9			470.78	%R=94 ✓
CCB9			0.63	✓
WAL7 MB1			3.55	✓
" MB1SPK			204.34	%R=102 ✓
" A			4.25	
" B			5.90	
" BDUP			2.15	No RPD: Undetected ✓
" BSPK			106.09	%R=106 ✓
" C				
" D				
" E				
" F				
CCV10			469.74	%R=94 ✓
CCB10			-0.79	✓
WAL7 G				
" H				
" MB2			1.15	✓
" MB2SPK			188.69	%R=94 ✓
" I				
" J			4.36	
" JDUP			4.23	No RPD: Undetected ✓
" JSPK			107.59	%R=108 ✓
" K				
" L				
CCV11			466.73	%R=93 ✓

1-24-13

Chemical/Reagent ID:
10% $SnCl_2$: MP2429

14% $NH_2OH/NaCl$: MP2398

Standard ID:
Standard: 3007-4

ICV/CCV: 3007-5

WA08 00261

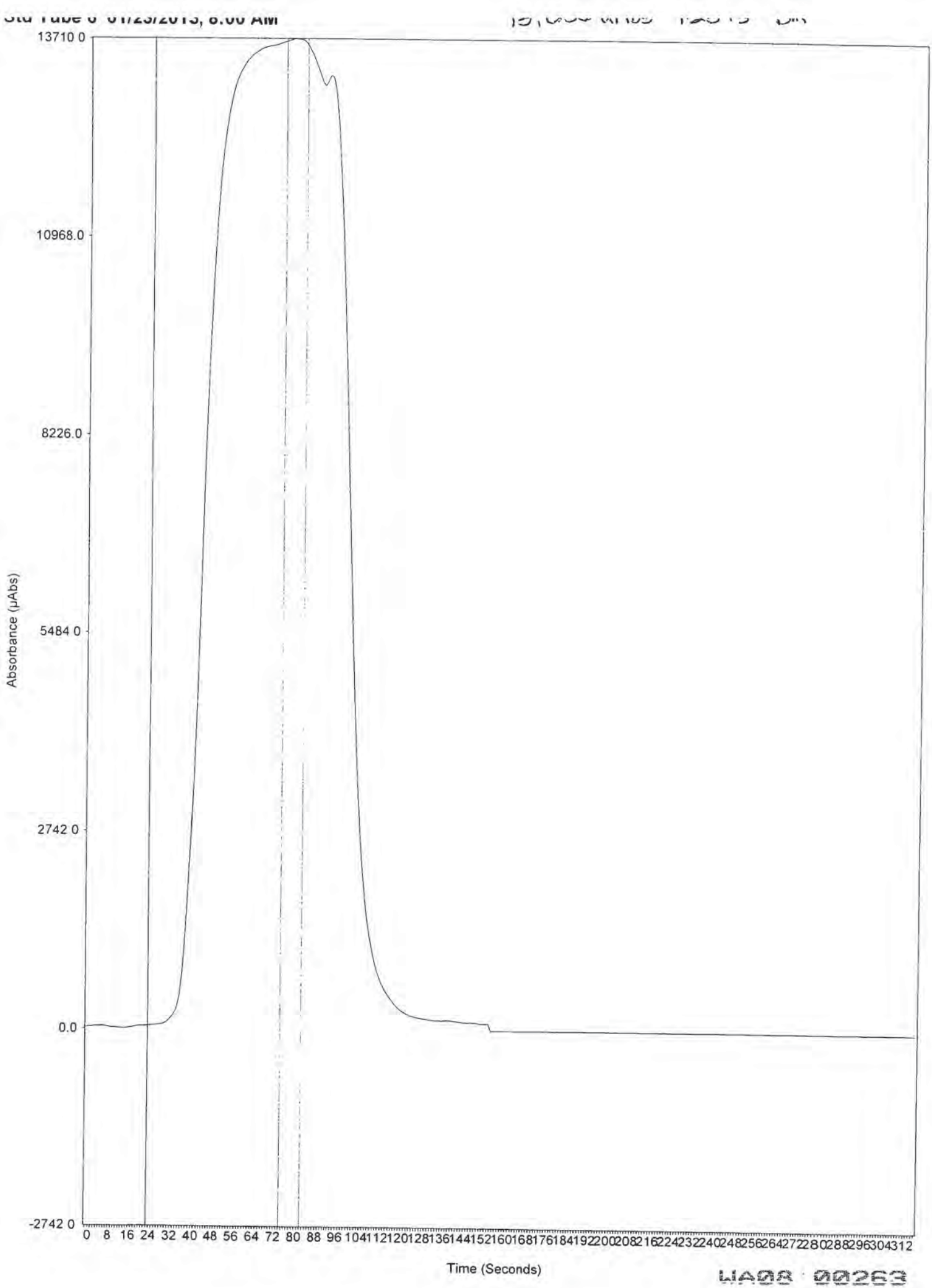
ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA

Analysis Date: 01-23-13

Low level	Analyst 1-23 DM	Peer BA 1/24/13	Comment
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
RSD's & SD's	✓	✓	WAIV ADD HI RSD
Internal Standards	—	—	
Carry-over	—	—	
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	—		


Std Tube 6 01/23/2013, 8:00 AM
13710.0
10968.0
8226.0
5484.0
2742.0
0.0
-2742.0
Absorbance (µAbs)
0 8 16 24 32 40 48 56 64 72 80 88 96 104 112 120 128 136 144 152 160 168 176 184 192 200 208 216 224 232 240 248 256 264 272 280 288 296 304 312
Time (Seconds)

CETAC Hg Analysis Report - 13012300.DB - Wednesday, January 23, 2013, 2:23:02 PM

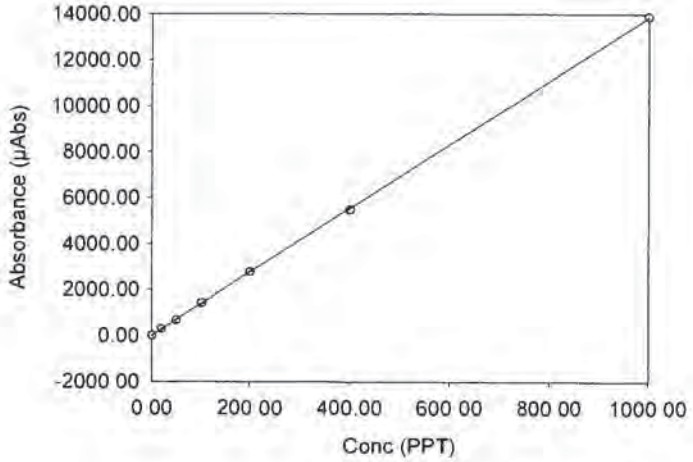
Analyst
Date Started Wednesday, January 23, 2013, 08:00:21
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Std Tube 6	23-Jan-2013, 08:00	1000.00	0.12	13700.00	13650	13670	13669	13636	

Information about this calibration could not be retrieved from the Master File.

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Calibration Zero	23-Jan-2013, 08 02	0.00	93.80	-9.85	4	-13	-14	-16	
Standard #1	23-Jan-2013, 08.05	20 00	0 08	291 00	291	291	291	291	
Standard #2	23-Jan-2013, 08:08	50.00	0.48	687.00	683	686	690	690	
Standard #3	23-Jan-2013, 08:10	100 00	0.25	1410.00	1410	1417	1416	1411	
Standard #4	23-Jan-2013, 08:13	200.00	0.22	2770 00	2761	2768	2776	2769	
Standard #5	23-Jan-2013, 08:16	400.00	0.24	5480.00	5457	5479	5487	5481	
Standard #6	23-Jan-2013, 08:18	1000 00	0.16	13900 00	13902	13935	13937	13894	

Calibration Data



Int.	0 000
Slope	13 886
Correlation	0.99997

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
ICV	23-Jan-2013, 08:26	470.00	0.06	6520 00	6527	6522	6519	6518	Begin CLP
ICB	23-Jan-2013, 08 28	0.58	132 00	8 08	21	11	4	-4	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 08.31	474.00	0.21	6580.00	6558	6577	6590	6583	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 08:34	1.03	78.20	14 40	8	6	13	31	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
CRA	23-Jan-2013, 08:36	22.40	2.12	311.00	315	315	312	301	
TEST1 STD1 TLM	23-Jan-2013, 08:39	22.30	2.18	310.00	318	313	308	302	
TEST2 STD1 TLM	23-Jan-2013, 08:42	22 60	0.88	314.00	318	314	311	315	
TEST 2 STD6 TLM	23-Jan-2013, 08:44	982 00	0.15	13600.00	13611	13636	13659	13651	
TEST 2 STD6 TLM	23-Jan-2013, 08:47	991.00	0.09	13800.00	13754	13775	13780	13760	
TEST 1 CV TLM	23-Jan-2013, 08:50	461.00	0.18	6410.00	6417	6416	6404	6393	
TEST 2 CV TLM	23-Jan-2013, 08.52	464.00	0 21	6450.00	6454	6456	6452	6427	
TEST 3 CV TLM	23-Jan-2013, 08:55	466.00	0.26	6480.00	6490	6489	6474	6454	
WA10 MB1 TLM	23-Jan-2013, 08:58	1.15	75 60	16 00	6	10	15	33	
WA10 MB1SPK TLM	23-Jan-2013, 09:01	202.00	0.31	2810.00	2796	2802	2812	2814	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 09:03	474.00	0 28	6580.00	6557	6575	6590	6598	

CETAC Hg Analysis Report - 13012300.DB - Wednesday, January 23, 2013, 2:23:03 PM

Analyst
Date Started Wednesday, January 23, 2013, 09:06:37
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 09:06	3.92	4.12	54 40	57	53	52	56	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA10 A TLM	23-Jan-2013, 09:09	4.05	13.00	56.20	66	57	52	50	
WA10 ADUP TLM	23-Jan-2013, 09:12	6.15	6.58	85.40	87	79	84	92	
WA10 ASPK TLM	23-Jan-2013, 09:14	101.00	0.56	1400 00	1392	1403	1406	1411	
WA10 B TLM	23-Jan-2013, 09:17	10.80	2.48	150 00	146	148	150	155	
WA10 C TLM	23-Jan-2013, 09:20	4.64	11.10	64.40	70	69	64	54	
WA10 D TLM	23-Jan-2013, 09.22	2.28	13.80	31 70	26	30	34	36	
WA10 E TLM	23-Jan-2013, 09.25	5.97	7.94	82.90	74	83	88	87	
WA10 F TLM	23-Jan-2013, 09:28	2.30	38.90	32.00	21	23	37	47	
WA10 MB2 TLM	23-Jan-2013, 09.30	4.26	22.40	59.10	67	68	62	40	
WA10 MB2SPK TLM	23-Jan-2013, 09:33	188.00	0.24	2610.00	2600	2608	2615	2612	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 09:36	473.00	0 18	6570 00	6555	6562	6578	6579	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 09:39	1.84	12.70	25 60	28	22	24	28	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA10 G TLM	23-Jan-2013, 09:41	4.49	3.20	62.30	65	61	60	63	
WA10 GDUP TLM	23-Jan-2013, 09:44	3.60	29.80	50.00	36	42	52	70	
WA10 GSPK TLM	23-Jan-2013, 09:47	106.00	0.32	1470 00	1476	1475	1473	1466	
WA10 H TLM	23-Jan-2013, 09:49	5.31	2.70	73 80	74	71	76	74	
WA10 I TLM	23-Jan-2013, 09:52	3.34	37.70	46.30	26	38	56	65	
WA10 J TLM	23-Jan-2013, 09:55	2.06	20.30	28 60	22	26	31	35	
WA10 K TLM	23-Jan-2013, 09.57	2.52	37.20	35.00	45	46	30	19	
WA10 L TLM	23-Jan-2013, 10:00	2.75	17.00	38.20	48	35	34	36	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 10.03	477.00	0.27	6630.00	6605	6621	6635	6647	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 10:06	2.65	37.30	36 80	54	42	26	25	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA16 MB1 TLM	23-Jan-2013, 10:09	2.39	20 60	33.20	24	33	39	37	
WA16 MB1SPK TLM	23-Jan-2013, 10:11	197.00	0.14	2740.00	2735	2743	2743	2740	
WA16 A TLM	23-Jan-2013, 10:14	16.30	2.29	227.00	220	227	232	228	
WA16 ADUP TLM	23-Jan-2013, 10.17	17.70	5.04	245.00	231	239	251	259	Q
WA16 ASPK TLM	23-Jan-2013, 10:19	114.00	0.99	1590.00	1571	1584	1596	1607	
WA16 B TLM	23-Jan-2013, 10:22	3.14	25.30	43.60	35	34	48	57	
WA16 C TLM	23-Jan-2013, 10:25	9.42	4.63	131.00	130	127	127	140	
WA16 D TLM	23-Jan-2013, 10 27	-0.69	103.00	-9.55	5	-11	-15	-17	
WA16 E TLM	23-Jan-2013, 10:30	2.83	32.60	39 30	53	47	31	26	
WA16 F TLM	23-Jan-2013, 10 33	6.39	2.06	88 80	89	87	88	91	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 10:36	477.00	0.19	6630.00	6613	6630	6642	6637	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 10.38	3.98	9.47	55.30	49	53	60	59	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA16 G TLM	23-Jan-2013, 10:41	2.56	12.00	35.60	38	29	37	39	
WA16 H TLM	23-Jan-2013, 10:44	2 31	58.80	32.00	56	37	20	14	
WA16 I TLM	23-Jan-2013, 10:46	6.48	5.66	90.00	84	89	92	96	
WA16 J TLM	23-Jan-2013, 10:49	5.47	6.61	76.00	69	77	81	76	

CETAC Hg Analysis Report - 13012300.DB - Wednesday, January 23, 2013, 2:23:04 PM

Analyst
Date Started Wednesday, January 23, 2013, 10:52:18
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA16 K TLM	23-Jan-2013, 10:52	7.69	12.80	107.00	89	103	116	119	
WA16 L TLM	23-Jan-2013, 10:54	16 30	0.65	226.00	227	227	225	224	
WA16 M TLM	23-Jan-2013, 10:57	39.40	0.72	547.00	550	550	545	542	
WA16 N TLM	23-Jan-2013, 11:00	7 09	10.20	98.40	112	100	92	90	
WA16 O TLM	23-Jan-2013, 11:03	5.61	4.02	77.80	79	73	78	81	
WA16 P TLM	23-Jan-2013, 11.05	23.90	2.61	332.00	320	334	341	332	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 11:08	471 00	0.12	6540.00	6548	6550	6545	6532	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 11:11	-0.75	118.00	-10.40	-8	-23	-17	5	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA16 Q TLM	23-Jan-2013, 11:13	12.50	1.86	173.00	175	176	172	169	
WA16 MB2 TLM	23-Jan-2013, 11:16	-0.19	759.00	-2.63	-20	-14	-1	25	
WA16 MB2SPK TLM	23-Jan-2013, 11:19	188.00	0.27	2610 00	2602	2615	2618	2615	
WA16 R TLM	23-Jan-2013, 11:22	3.57	10.80	49.60	42	53	55	49	
WA16 RDUP TLM	23-Jan-2013, 11.24	2.50	19.30	34.70	45	32	30	32	
WA16 RSPK TLM	23-Jan-2013, 11:27	93 50	0 46	1300.00	1293	1296	1300	1307	
WA16 S TLM	23-Jan-2013, 11:30	3.42	6.31	47.50	52	47	46	46	
WA16 T TLM	23-Jan-2013, 11:32	3.07	38.40	42.60	21	40	50	59	
WA16 U TLM	23-Jan-2013, 11:35	0.58	71 30	8.08	8	2	6	16	
WA16 V TLM	23-Jan-2013, 11:38	3.93	3.82	54 50	52	55	54	57	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 11:41	473 00	0.15	6570 00	6552	6565	6576	6569	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 11:43	0.03	3930.00	0 36	-6	-15	4	18	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA16 W TLM	23-Jan-2013, 11:46	5.47	8.62	75.90	78	82	77	67	
WA16 X TLM	23-Jan-2013, 11:49	0.55	116.00	7.58	-1	4	9	19	
WA16 Y TLM	23-Jan-2013, 11:51	2.29	13.90	31.80	38	32	29	28	
WA16 Z TLM	23-Jan-2013, 11.54	2.51	8.99	34.80	39	33	31	36	
WA16 AA TLM	23-Jan-2013, 11.57	2.91	40.50	40.30	61	45	29	26	
WA16 AB TLM	23-Jan-2013, 12 00	4.19	16.00	58.20	47	56	61	69	
WA16 AC TLM	23-Jan-2013, 12.02	9.80	3.74	136.00	142	139	134	130	
WA16 AD TLM	23-Jan-2013, 12:05	2.13	36.80	29.60	17	25	36	41	
WA16 AE TLM	23-Jan-2013, 12:08	3 21	7.06	44.60	42	42	48	47	
WA16 AF TLM	23-Jan-2013, 12:10	4.17	12 50	58.00	67	60	53	52	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 12:13	471.00	0.19	6540 00	6521	6537	6547	6548	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 12:16	1.38	33.60	19 10	14	15	20	28	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA16 AG TLM	23-Jan-2013, 12:19	14 70	3.58	204 00	194	202	207	211	
WA16 AH TLM	23-Jan-2013, 12:21	-0.02	2140.00	-0 34	9	-1	-9	-1	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 12:24	471.00	0.07	6540.00	6532	6540	6542	6535	

CETAC Hg Analysis Report - 13012300.DB - Wednesday, January 23, 2013, 2:23:04 PM

Analyst
Date Started Wednesday, January 23, 2013, 12:27:15
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 12.27	0.63	26.70	8.68	8	11	6	10	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA67 MB1 TLM	23-Jan-2013, 12.30	3.35	6.54	46.60	51	47	45	44	
WA67 MB1SPK TLM	23-Jan-2013, 12:32	204.00	0.12	2840 00	2838	2840	2839	2833	
WA67 A TLM	23-Jan-2013, 12:35	4.25	5.93	59.00	64	59	55	57	
WA67 B TLM	23-Jan-2013, 12:38	5.90	11.80	81.90	95	83	75	74	
WA67 BDUP TLM	23-Jan-2013, 12.40	2.15	42.50	29.90	16	24	34	46	
WA67 BSPK TLM	23-Jan-2013, 12.43	106.00	1.05	1470.00	1456	1466	1481	1491	
WA67 C TLM	23-Jan-2013, 12:46	9.32	10.80	129 00	145	136	125	112	
WA67 D TLM	23-Jan-2013, 12:49	4.98	10.70	69.20	64	66	68	80	
WA67 E TLM	23-Jan-2013, 12:51	11 40	2.51	159.00	153	160	160	162	
WA67 F TLM	23-Jan-2013, 12:54	6.33	12.80	87.90	104	87	80	81	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 12:57	470.00	0.16	6520.00	6509	6520	6531	6531	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 12:59	-0.79	51.70	-11.00	-4	-8	-16	-15	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA67 G TLM	23-Jan-2013, 13:02	8 75	2.36	122 00	121	125	121	118	
WA67 H TLM	23-Jan-2013, 13:05	59.90	0.82	831.00	835	836	832	821	
WA67 MB2 TLM	23-Jan-2013, 13:08	1.13	29.40	15 70	18	20	15	10	
WA67 MB2SPK TLM	23-Jan-2013, 13:10	189 00	0.35	2620.00	2610	2622	2630	2629	
WA67 I TLM	23-Jan-2013, 13:13	0 56	144.00	7.76	1	-2	9	23	
WA67 J TLM	23-Jan-2013, 13:16	4.36	5.32	60.50	64	62	59	57	
WA67 JDUP TLM	23-Jan-2013, 13.18	4.23	18.00	58 70	70	64	55	46	
WA67 JSPK TLM	23-Jan-2013, 13:21	108.00	0.54	1490 00	1502	1499	1491	1484	
WA67 K TLM	23-Jan-2013, 13:24	5.55	2.80	77.50	78	77	75	80	
WA67 L TLM	23-Jan-2013, 13:26	3.21	13.70	44.50	36	44	49	49	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 13.29	467.00	0.11	6480.00	6477	6488	6487	6473	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 13.32	2.27	13.10	31.60	38	31	30	28	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA67 M TLM	23-Jan-2013, 13:35	2.00	44.40	27 80	14	23	30	44	
WA67 N TLM	23-Jan-2013, 13:37	5 22	10.90	72.40	83	74	69	64	
WA67 O TLM	23-Jan-2013, 13:40	2.30	11.30	32 00	27	32	35	33	
WA67 P TLM	23-Jan-2013, 13:43	44.00	0.74	610.00	612	615	609	605	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 13:45	466.00	0.24	6480 00	6455	6481	6490	6484	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 13:48	2 83	44.50	39.30	57	48	35	17	END CLP

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA15 MB TLM	23-Jan-2013, 13:51	1.62	98.80	22.50	-4	13	35	46	
WA15 MBSPK TLM	23-Jan-2013, 13.54	189.00	0.50	2620.00	2638	2630	2617	2609	
WA15 A TLM	23-Jan-2013, 13:57	47.40	0.28	658.00	660	659	656	658	
WA15 ADUP TLM	23-Jan-2013, 13:59	59.60	1 54	828 00	840	835	826	811	
WA15 ASPK TLM	23-Jan-2013, 14:02	136.00	0.07	1880.00	1882	1885	1885	1883	
WA15 B TLM	23-Jan-2013, 14:05	10.40	5.19	144.00	136	141	146	153	
TEST 1 SPIKE 100PPT	23-Jan-2013, 14:07	91.80	0.25	1280.00	1271	1277	1278	1274	
TEST 2 SPIKE 100PPT	23-Jan-2013, 14.10	96.60	0.18	1340.00	1337	1342	1343	1342	

Analyst	
Date Created:	Wednesday, November 27, 2002
Worksheet	LOW LEVEL CALIB 20 TO 1000 PPT
Comment	
Sip Duration (Sec.):	55
Rinse Duration (Sec.):	100
Read Delay:	75
Integration Time/Replicate:	2.00
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	20
Baseline Point 1 End Time:	24
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	148
Baseline Point 2 End Time:	152
Gas Flow (ml/min):	30
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	2
Calibration Standard #1 Conc.:	20.00 PPT
Calibration Standard #2 Conc.:	50.00 PPT
Calibration Standard #3 Conc.:	100.00 PPT
Calibration Standard #4 Conc.:	200.00 PPT
Calibration Standard #5 Conc.:	400.00 PPT
Calibration Standard #6 Conc.:	1000.00 PPT
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs. > 200, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 90% .. 110%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -20 .. 20,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Digested 20.0mL

Prep Code: TLM
Instrument: CETAC
Analyst: OM
Date: 01-18-13
Bath Temp: 95°c
Start Time: 1355
End Time: 1555

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	3007-4	0.02	↓	0.02	1
STD2	↓	0.05	↓	0.05	1
STD3	↓	0.10	↓	0.1	1
STD4	↓	0.20	↓	0.2	1
STD5	↓	~~0.50~~ 0.4	↓	0.4	1
STD6	↓	1.00	↓	1.00	1
CRA	↓	0.02	↓	0.02	1
ICB/CCB	—	0.00	↓	0.0	1
ICV/LCS	3007-5	1.0	↓	0.5	1
CCV	↓	1.0	100.0	0.5	1

Chemical/Reagent ID:

HNO_3: I7970
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2418
5% $KMnO_4$: MP2401

Prep Code:
Instrument:
Analyst:
Date:
Bath Temp:
Start Time:
End Time:

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0		0.00			
STD1					
STD2		0.05			
STD3		0.10			
STD4		0.20			
STD5		0.50			
STD6		1.00			
CRA					
ICB/CCB		0.00			
ICV/LCS					
CCV					

Chemical/Reagent ID:

HNO_3:
H_2SO_4:
HCl:
5% $K_2S_2O_8$:
5% $KMnO_4$:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Matrix: Water
Analyst: DM
Date: 01-21-13
Bath Temp: 95°C
Start Time: 0917
End Time: 1117

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WAIC A	1	✓	20.0	20.0	1	Y	
" AOUP	1	✓			1		
" ASPK	1	✓			1		
" B	1	✓			1		
" C	1	✓			1		
" D	1	✓			1		
" E	1	✓			1		
" F	1	✓			1		
" G	1	✓			1		
" H	1	✓			1		
" I	1	✓			1		
" J	1	✓			1		
" K	1	✓			1		
" L	1	✓			1		
" M	1	✓			1		
" N	1	✓			1		
" O	1	✓			1		
" P	1	✓			1		
" Q	1	✓			1		
" MB1	—	✓			1		
" MB1SPK	—	✓	20.0	20.0	1	Y	
				01-21-13	DM		

Chemical/Reagent ID:

HNO_3: I7970
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2418
5% $KMnO_4$: MP2481
Digest Tube Lot: 1208051

WA08 : 00270

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Analyst: DM
Bath Temp: 95°C
Start Time: 0917
Matrix: water
Date: 01-21-13
End Time: 1117

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WAIC R	1	✓	20.0	20.0	1/28 1	Y	
" RDUP	1	✓			1		
" RSPK	1	✓			1		
" S	1	✓			1		
" T	1	✓			1		
" U	1	✓			1		
" V	1	✓			1		
" W	1	✓			1		
" X	1	✓			1		
" Y	1	✓			1		
" Z	1	✓			1		
" AA	1	✓			1		
" AB	1	✓			1		
" AC	1	✓			1		
" AD	1	✓			1		
" AE	1	✓			1		
" AF	1	✓			1		
" AG	1	✓			1		
" AH	1	✓			1		
" MB2	—	✓			1		
" MB25PK	—	✓	20.0	20.0	1	Y	
				01-21-13 DM			

Chemical/Reagent ID:

HNO_3: I797P
H_2SO_4: I7C77
HCl: —
5% $K_2S_2O_8$: MP2418
5% $KMnO_4$: MP2401
Digest Tube Lot: 1208057

WA08 00271

Table of Contents: ARI Job WA61, WA62

Client: GeoEngineers

Project: 0504-068-00 ECY-Everett Lowlands

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Metals Raw Data		
Preparation Bench Sheets and Notes	114	117
Run Logs, Calibrations, and Raw Data	118	279
Mercury Raw Data		
Preparation Bench Sheets and Notes	280	283
Run Logs, Continuing Calibrations, and Raw Data	284	296

AV

Signature

January-31-2013

Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

January 31, 2013

Garrett Leque
GeoEngineers, Inc.
1101 Fawcett, Suite 200
Tacoma, WA 98402

RE: ECY-Everett Lowlands, 0504-068-00
ARI Job Nos.: WA61 & WA62

Dear Garrett:

Please find enclosed the Chain-of-Custody records (COCs), sample receipt documentation, and the data package for samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile WA61_WA62

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: WA61, WA62

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: WA61	Turn-around Requested: NORMAL	Page: 1 of 2	
ARI Client Company: GEOENGINEERS	Phone: 253-383-4940	Date: 1/17/13	Ice Present? Y
Client Contact: GARRETT LEQUE		No. of Coolers: 1	Cooler Temps: 2.8
Client Project Name: Ecy-Everett Lowlands			
Client Project #: 0504-068-00	Samplers: PBL		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	metals total *	metals * dissolved							Notes/Comments
LLMW34S-130116-W	1/16	1425	W	2	X	X							
LLMW34D-130116-W	1/16	1500	W	2	X	X							
EV22A-130116-W	1/16	1125	W	2	X	X							
EV22B-130116-W	1/16	1035	W	2	X	X							
LLMW33D-130117-W	1/17	1015	W	2	X	X							
LLMW33S-130117-W	1/17	1055	W	2	X	X							
LLMW09S-130116-W	1/16	1140	W	2	X	X							
LLMW09D-130116-W	1/16	1222	W	2	X	X							
LLMW10S-130116-W	1/16	1345	W	2	X	X							
LLMW10D-130116-W	1/16	1311	W	2	X	X							

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
metals: As, Pb, Cd, Tl, Sb, Hg	Printed Name: Paul Robinette	Printed Name: Rich Hudson	Printed Name:	Printed Name:
	Company: GeoEngineers	Company: ARI	Company:	Company:
	Date & Time: 1/22/13 10:40AM	Date & Time: 1/22/13 1040	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

WA61 : 000003

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: WA61	Turn-around Requested: NORMAL
ARI Client Company: GEOENGINEERS	Phone: 2533234940
Client Contact: Garrett Leque	
Client Project Name: EC4-Everett Lowlands	
Client Project #: 0504-06B	Samplers: PAR, JBA

Page: 2 of 2

Date: 1/17/13 Ice Present? Y

No. of Coolers: 1 Cooler Temps: 2.8

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No Containers	metals total *	metals * DISSOLVED							Notes/Comments
LLMW12S-130116-W	1/16	1456	W	2	X	X							
LLMW12D-130116-W	1/16	1528	W	2	X	X							
LLMW13S-130116-W	1/16	1026	W	2	X	X							
LLMW13D-130116-W	1/16	0946	W	2	X	X							
PZ1B-130117-W	1/17	1112	W	2	X	X							
PZ2B-130117-W	1/17	1214	W	2	X	X							
PZ3B-130117-W	1/17	1334	W	2	X	X							
EV6A-130117-W	1/17	1440	W	2	X	X							
EV6B-130117-W	1/17	1525	W	2	X	X							

Comments/Special Instructions	Relinquished by (Signature)	Received by (Signature)	Relinquished by (Signature)	Received by (Signature)
metals: As, Pb, Cd, Tl, Sb, Hg	Paul Robinette	[signature]		
	Printed Name: Paul Robinette	Printed Name: Rich Hudson	Printed Name:	Printed Name
	Company: GeoEngineers	Company: ARI	Company:	Company
	Date & Time: 1/22/13 . 10:40AM	Date & Time: 1/22/13 1040	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Geo Engineers

Project Name: ECY-Everett Lowlands

COC No(s): _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other _____

Assigned ARI Job No: WA61

Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)		2.8

If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID# 90877952

Cooler Accepted by: _____ Date 1/22/13 Time 1125

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used?	Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other _____		
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		YES	(NO)
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	(YES)	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)	_____	

Was Sample Split by ARI (NA) YES Date/Time _____ Equipment _____ Split by _____

Samples Logged by: JM Date 1/22/13 Time: 1230

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

All sample IDs on containers are missing ~~(- 130116-W)~~ JM
per client email (- "Date" - W)

By: JM Date 1/22/13

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm	
			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Geo Engineers
COC No(s): (NA)
Assigned ARI Job No: WA62

Project Name: ECY-Everett Lowlands
Delivered by: Fed-Ex UPS Courier Hand Delivered Other
Tracking No: (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)	2.8	

If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID# 90877952

Cooler Accepted by: ____ Date: 1/22/13 Time: 1125

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		YES	(NO)
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	(YES)	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Was Sample Split by ARI (NA) YES Date/Time: ____ Equipment: ____ Split by: ____

Samples Logged by: JM Date: 1/22/13 Time: 1248

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:
All sample ID's on containers are missing (- "Date" - w) per client email.

By: JM Date: 1/22/13

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm	
			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

PRESERVATION VERIFICATION 01/22/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA61**

Client: GeoEngineers

Project #: 0504-068-00
Project: ECY-Everett Lowlands

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1531 **WA61O**	PZ1B-130117-W						~~TOT~~ P															
13-1532 **WA61P**	PZ2B-130117-W						~~TOT~~ P															
13-1533 **WA61Q**	PZ3B-130117-W						~~TOT~~ P															
13-1534 **WA61R**	EV6A-130117-W						~~TOT~~ P															
13-1535 **WA61S**	EV6B-130117-W						~~TOT~~ P															
13-1536 **WA61T**	LLMW34S-130116-W						~~DIS~~ P									Y						
13-1537 **WA61U**	LLMW34D-130116-W						~~DIS~~ P									Y						
13-1538 **WA61V**	EV22A-130116-W						~~DIS~~ P									Y						
13-1539 **WA61W**	EV22B-130116-W						~~DIS~~ P									Y		pH	<2	MP2342	2.0mL	NB 01-22-13
13-1540 **WA61X**	LLMW33D-130117-W						~~DIS~~ P									Y						
13-1541 **WA61Y**	LLMW33S-130117-W						~~DIS~~ P									Y						
13-1542 **WA61Z**	LLMW09S-130116-W						~~DIS~~ P									Y						
13-1543 **WA61AA**	LLMW09D-130116-W						~~DIS~~ P									Y						
13-1544 **WA61AB**	LLMW10S-130116-W						~~DIS~~ P									Y						
13-1545 **WA61AC**	LLMW10D-130116-W						~~DIS~~ P									Y						
13-1546 **WA61AD**	LLMW12S-130116-W						~~DIS~~ P									Y						
13-1547 **WA61AE**	LLMW12D-130116-W						~~DIS~~ P									Y						

Samples D & W preserved in lab.
-NB 01-22-13

Checked By JM Date 1/22/13

PRESERVATION VERIFICATION 01/22/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA61**

PC: Cheronne
VTSR: 01/22/13

Inquiry Number: NONE
Analysis Requested: 01/22/13
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: JM
Sample Set Used: Yes-481
Validatable Package: LV4
Deliverables:

Project #: 0504-068-00
Project: ECY-Everett Lowlands
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1517 **WA61A**	LLMW34S-130116-W						TOT P															
13-1518 **WA61B**	LLMW34D-130116-W						TOT P															
13-1519 **WA61C**	EV22A-130116-W						TOT P															
13-1520 **WA61D**	EV22B-130116-W						TOT F											pH	<2	MP23A2	2.0mL	NB 01-22-13
13-1521 **WA61E**	LLMW33D-130117-W						TOT P															
13-1522 **WA61F**	LLMW33S-130117-W						TOT P															
13-1523 **WA61G**	LLMW09S-130116-W						TOT P															
13-1524 **WA61H**	LLMW09D-130116-W						TOT P															
13-1525 **WA61I**	LLMW10S-130116-W						TOT P															
13-1526 **WA61J**	LLMW10D-130116-W						TOT P															
13-1527 **WA61K**	LLMW12S-130116-W						TOT P															
13-1528 **WA61L**	LLMW12D-130116-W						TOT P															
13-1529 **WA61M**	LLMW13S-130116-W						TOT P															
13-1530 **WA61N**	LLMW13D-130116-W						TOT P															

Samples D & W preserved in lab.
NB 01-22-13

P = Pass, F = Fail

Checked By JM Date 1/22/13

PRESERVATION VERIFICATION 01/22/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA61**

Client: GeoEngineers

Project #: 0504-068-00
Project: ECY-Everett Lowlands

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1548 **WA61AF**	LLMW13S-130116-W						DIS									Y						
13-1549 **WA61AG**	LLMW13D-130116-W						DIS									Y						
13-1550 **WA61AH**	PZ1B-130117-W						DIS									Y						
13-1551 **WA61AI**	PZ2B-130117-W						DIS									Y						
13-1552 **WA61AJ**	PZ3B-130117-W						DIS									Y						
13-1553 **WA61AK**	EV6A-130117-W						DIS									Y						
13-1554 **WA61AL**	EV6B-130117-W						DIS									Y						

Samples D & W preserved in lab.
-NB 01-22-13

Checked By JM Date 1/22/13

WA61 : 000009

PRESERVATION VERIFICATION 01/22/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA62**

Inquiry Number: NONE
Analysis Requested: 01/22/13
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: JM
Sample Set Used: Yes-481
Validatable Package: LV4
Deliverables:

PC: Cheronne
VTSR: 01/22/13

Project #: 0504-068-00
Project: ECY-Everett Lowlands
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1556 **WA62A**	LLMW34S-130116-W						TOT P															
13-1557 **WA62B**	LLMW34D-130116-W						TOT P															
13-1558 **WA62C**	EV22A-130116-W						TOT P															
13-1559 **WA62D**	EV22B-130116-W						TOT F											pH	<2	MP2342	2.0mL	NB 01-22-13
13-1560 **WA62E**	LLMW33D-130117-W						TOT P															
13-1561 **WA62F**	LLMW33S-130117-W						TOT P															
13-1562 **WA62G**	LLMW09S-130116-W						TOT P															
13-1563 **WA62H**	LLMW09D-130116-W						TOT P															
13-1564 **WA62I**	LLMW10S-130116-W						TOT P															
13-1565 **WA62J**	LLMW10D-130116-W						TOT P															
13-1566 **WA62L**	LLMW12S-130116-W						TOT P															
13-1567 **WA62M**	LLMW12D-130116-W						TOT P															
13-1568 **WA62N**	LLMW13S-130116-W						TOT P															
13-1569 **WA62O**	LLMW13D-130116-W						TOT P															

Samples D & X preserved in lab
-NB 01-22-13

P = Pass, F = Fail

Checked By JM Date 1/22/13

PRESERVATION VERIFICATION 01/22/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA62**

Client: GeoEngineers

Project #: 0504-068-00
Project: ECY-Everett Lowlands

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1570 **WA62P**	PZ1B-130117-W						TOT P															
13-1571 **WA62Q**	PZ2B-130117-W						TOT P															
13-1572 **WA62R**	PZ3B-130117-W						TOT P															
13-1573 **WA62S**	EV6A-130117-W						TOT P															
13-1574 **WA62T**	EV6B-130117-W						TOT P															
13-1575 **WA62U**	LLMW34S-130116-W						DIS P									Y						
13-1576 **WA62V**	LLMW34D-130116-W						DIS P									Y						
13-1577 **WA62W**	EV22A-130116-W						DIS P									Y						
13-1578 **WA62X**	EV22B-130116-W						DIS F									Y		pH	<2	MP2342	2.0mL	NB 01-22-13
13-1579 **WA62Y**	LLMW33D-130117-W						DIS P									Y						
13-1580 **WA62Z**	LLMW33S-130117-W						DIS P									Y						
13-1581 **WA62AA**	LLMW09S-130116-W						DIS P									Y						
13-1582 **WA62AB**	LLMW09D-130116-W						DIS P									Y						
13-1583 **WA62AC**	LLMW10S-130116-W						DIS P									Y						
13-1584 **WA62AD**	LLMW10D-130116-W						DIS P									Y						
13-1585 **WA62AE**	LLMW12S-130116-W						DIS P									Y						
13-1586 **WA62AF**	LLMW12D-130116-W						DIS P									Y						

Samples D & X preserved in lab. -NB 01-22-13

Checked By JM Date 1/22/13

PRESERVATION VERIFICATION 01/22/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA62**

Client: GeoEngineers

Project #: 0504-068-00
Project: ECY-Everett Lowlands

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1587 **WA62AG**	LLMW13S-130116-W						DIS									Y						
13-1588 **WA62AH**	LLMW13D-130116-W						DIS									Y						
13-1589 **WA62AI**	PZ1B-130117-W						DIS									Y						
13-1590 **WA62AJ**	PZ2B-130117-W						DIS									Y						
13-1591 **WA62AK**	PZ3B-130117-W						DIS									Y						
13-1592 **WA62AL**	EV6A-130117-W						DIS									Y						
13-1593 **WA62AM**	EV6B-130117-W						DIS									Y						

Samples D&X preserved in lab
-NB 01-22-13

Checked By JM Date 1/22/13

WA62 : 000012

Subject: Re: Bottle Order / labeling
From: Sue Dunnihoo <sue@arilabs.com>
Date: 1/4/2013 4:19 PM
To: "Garrett R. Leque" <gleque@geoengineers.com>
CC: Brian Anderson <banderson@geoengineers.com>, "Paul D. Robinette" <probinette@geoengineers.com>, Cheronne Oreiro <cheronneo@arilabs.com>

Login has you set up for delivery Monday and everyone says we should be fine on the naming.

Cheers - Sue

On 1/4/2013 4:11 PM, Garrett R. Leque wrote:

> Hi Sue,
>
> As we discussed please have delivered about 20 nitric-preserved bottles and labels to the Everett Lowlands project if possible Monday.
>
> Also, just want to confirm that it is okay to do the following labeling scheme:
>
> For a sample called LLMW06S-130107-W, that name will be recorded on the COC, however the sample label name will just be LLMW06S (see attached).
>
> We'd like everything to be recorded and reported and carried forward with the full name, of course...
>
> Have a good weekend, thanks!
>
> **Garrett Leque, LG**
> **Geologist | GeoEngineers**
> **t:** 253.383.4940
> **f:** 253.383.4923
> **c:** 253.312.7958
>
> Confidentiality. This message is confidential and intended solely for use of the individual or entity to whom it is addressed. If you are not the person for whom this message is intended, please delete it and notify me immediately, and please do not copy or send this message to anyone else.

--

Susan D. Dunnihoo
Director, Client Services
ANALYTICAL RESOURCES, INC.
206-695-6207
sue@arilabs.com
www.arilabs.com

This correspondence contains confidential information from Analytical Resources, Inc. The information contained herein is intended solely for the use of the individual(s) named above. If you are not the intended recipient, any copying, distribution, disclosure, or use of the text and/or attached document(s) is strictly prohibited.

If you have received this correspondence in error, please

notify sender immediately. Thank you.

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: WA61, WA62

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative

Client: GeoEngineers
Project: ECY-Everett Lowlands, 0504-068-00
ARI Job Nos.: WA61 & WA62

Sample Receipt

Nineteen water samples were received on January 22, 2013 under ARI jobs WA61 and WA62. The cooler temperature measured by IR thermometer following ARI SOP was 2.8°C. For details regarding sample receipt, refer to the Cooler Receipt Forms.

Total and Dissolved Metals by 200.8

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial and continuing calibrations were within limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

Total and Dissolved Mercury by SW7470A

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial and continuing calibrations were within limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WA61
Client: GeoEngineers
Project Event: 0504-068-00
Project Name: ECY-Everett Lowlands

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	LLMW34S-130116-W	WA61A	13-1517	Water	01/16/13 14:25	01/22/13 10:40
2.	LLMW34D-130116-W	WA61B	13-1518	Water	01/16/13 15:00	01/22/13 10:40
3.	EV22A-130116-W	WA61C	13-1519	Water	01/16/13 11:25	01/22/13 10:40
4.	EV22B-130116-W	WA61D	13-1520	Water	01/16/13 10:35	01/22/13 10:40
5.	LLMW33D-130117-W	WA61E	13-1521	Water	01/17/13 10:15	01/22/13 10:40
6.	LLMW33S-130117-W	WA61F	13-1522	Water	01/17/13 10:55	01/22/13 10:40
7.	LLMW09S-130116-W	WA61G	13-1523	Water	01/16/13 11:40	01/22/13 10:40
8.	LLMW09D-130116-W	WA61H	13-1524	Water	01/16/13 12:22	01/22/13 10:40
9.	LLMW10S-130116-W	WA61I	13-1525	Water	01/16/13 13:45	01/22/13 10:40
10.	LLMW10D-130116-W	WA61J	13-1526	Water	01/16/13 13:11	01/22/13 10:40
11.	LLMW12S-130116-W	WA61K	13-1527	Water	01/16/13 14:56	01/22/13 10:40
12.	LLMW12D-130116-W	WA61L	13-1528	Water	01/16/13 15:28	01/22/13 10:40
13.	LLMW13S-130116-W	WA61M	13-1529	Water	01/16/13 10:26	01/22/13 10:40
14.	LLMW13D-130116-W	WA61N	13-1530	Water	01/16/13 09:46	01/22/13 10:40
15.	PZ1B-130117-W	WA61O	13-1531	Water	01/17/13 11:12	01/22/13 10:40
16.	PZ2B-130117-W	WA61P	13-1532	Water	01/17/13 12:14	01/22/13 10:40
17.	PZ3B-130117-W	WA61Q	13-1533	Water	01/17/13 13:34	01/22/13 10:40
18.	EV6A-130117-W	WA61R	13-1534	Water	01/17/13 14:40	01/22/13 10:40
19.	EV6B-130117-W	WA61S	13-1535	Water	01/17/13 15:25	01/22/13 10:40
20.	LLMW34S-130116-W	WA61T	13-1536	Water	01/16/13 14:25	01/22/13 10:40
21.	LLMW34D-130116-W	WA61U	13-1537	Water	01/16/13 15:00	01/22/13 10:40
22.	EV22A-130116-W	WA61V	13-1538	Water	01/16/13 11:25	01/22/13 10:40
23.	EV22B-130116-W	WA61W	13-1539	Water	01/16/13 10:35	01/22/13 10:40
24.	LLMW33D-130117-W	WA61X	13-1540	Water	01/17/13 10:15	01/22/13 10:40
25.	LLMW33S-130117-W	WA61Y	13-1541	Water	01/17/13 10:55	01/22/13 10:40
26.	LLMW09S-130116-W	WA61Z	13-1542	Water	01/16/13 11:40	01/22/13 10:40
27.	LLMW09D-130116-W	WA61AA	13-1543	Water	01/16/13 12:22	01/22/13 10:40
28.	LLMW10S-130116-W	WA61AB	13-1544	Water	01/16/13 13:45	01/22/13 10:40
29.	LLMW10D-130116-W	WA61AC	13-1545	Water	01/16/13 13:11	01/22/13 10:40
30.	LLMW12S-130116-W	WA61AD	13-1546	Water	01/16/13 14:56	01/22/13 10:40
31.	LLMW12D-130116-W	WA61AE	13-1547	Water	01/16/13 15:28	01/22/13 10:40
32.	LLMW13S-130116-W	WA61AF	13-1548	Water	01/16/13 10:26	01/22/13 10:40
33.	LLMW13D-130116-W	WA61AG	13-1549	Water	01/16/13 09:46	01/22/13 10:40
34.	PZ1B-130117-W	WA61AH	13-1550	Water	01/17/13 11:12	01/22/13 10:40
35.	PZ2B-130117-W	WA61AI	13-1551	Water	01/17/13 12:14	01/22/13 10:40
36.	PZ3B-130117-W	WA61AJ	13-1552	Water	01/17/13 13:34	01/22/13 10:40
37.	EV6A-130117-W	WA61AK	13-1553	Water	01/17/13 14:40	01/22/13 10:40
38.	EV6B-130117-W	WA61AL	13-1554	Water	01/17/13 15:25	01/22/13 10:40

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WA62
Client: GeoEngineers
Project Event: 0504-068-00
Project Name: ECY-Everett Lowlands

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	LLMW34S-130116-W	WA62A	13-1556	Water	01/16/13 14:25	01/22/13 10:40
2.	LLMW34D-130116-W	WA62B	13-1557	Water	01/16/13 15:00	01/22/13 10:40
3.	EV22A-130116-W	WA62C	13-1558	Water	01/16/13 11:25	01/22/13 10:40
4.	EV22B-130116-W	WA62D	13-1559	Water	01/16/13 10:35	01/22/13 10:40
5.	LLMW33D-130117-W	WA62E	13-1560	Water	01/17/13 10:15	01/22/13 10:40
6.	LLMW33S-130117-W	WA62F	13-1561	Water	01/17/13 10:55	01/22/13 10:40
7.	LLMW09S-130116-W	WA62G	13-1562	Water	01/16/13 11:40	01/22/13 10:40
8.	LLMW09D-130116-W	WA62H	13-1563	Water	01/16/13 12:22	01/22/13 10:40
9.	LLMW10S-130116-W	WA62I	13-1564	Water	01/16/13 13:45	01/22/13 10:40
10.	LLMW10D-130116-W	WA62J	13-1565	Water	01/16/13 13:11	01/22/13 10:40
11.	LLMW12S-130116-W	WA62L	13-1566	Water	01/16/13 14:56	01/22/13 10:40
12.	LLMW12D-130116-W	WA62M	13-1567	Water	01/16/13 15:28	01/22/13 10:40
13.	LLMW13S-130116-W	WA62N	13-1568	Water	01/16/13 10:26	01/22/13 10:40
14.	LLMW13D-130116-W	WA62O	13-1569	Water	01/16/13 09:46	01/22/13 10:40
15.	PZ1B-130117-W	WA62P	13-1570	Water	01/17/13 11:12	01/22/13 10:40
16.	PZ2B-130117-W	WA62Q	13-1571	Water	01/17/13 12:14	01/22/13 10:40
17.	PZ3B-130117-W	WA62R	13-1572	Water	01/17/13 13:34	01/22/13 10:40
18.	EV6A-130117-W	WA62S	13-1573	Water	01/17/13 14:40	01/22/13 10:40
19.	EV6B-130117-W	WA62T	13-1574	Water	01/17/13 15:25	01/22/13 10:40
20.	LLMW34S-130116-W	WA62U	13-1575	Water	01/16/13 14:25	01/22/13 10:40
21.	LLMW34D-130116-W	WA62V	13-1576	Water	01/16/13 15:00	01/22/13 10:40
22.	EV22A-130116-W	WA62W	13-1577	Water	01/16/13 11:25	01/22/13 10:40
23.	EV22B-130116-W	WA62X	13-1578	Water	01/16/13 10:35	01/22/13 10:40
24.	LLMW33D-130117-W	WA62Y	13-1579	Water	01/17/13 10:15	01/22/13 10:40
25.	LLMW33S-130117-W	WA62Z	13-1580	Water	01/17/13 10:55	01/22/13 10:40
26.	LLMW09S-130116-W	WA62AA	13-1581	Water	01/16/13 11:40	01/22/13 10:40
27.	LLMW09D-130116-W	WA62AB	13-1582	Water	01/16/13 12:22	01/22/13 10:40
28.	LLMW10S-130116-W	WA62AC	13-1583	Water	01/16/13 13:45	01/22/13 10:40
29.	LLMW10D-130116-W	WA62AD	13-1584	Water	01/16/13 13:11	01/22/13 10:40
30.	LLMW12S-130116-W	WA62AE	13-1585	Water	01/16/13 14:56	01/22/13 10:40
31.	LLMW12D-130116-W	WA62AF	13-1586	Water	01/16/13 15:28	01/22/13 10:40
32.	LLMW13S-130116-W	WA62AG	13-1587	Water	01/16/13 10:26	01/22/13 10:40
33.	LLMW13D-130116-W	WA62AH	13-1588	Water	01/16/13 09:46	01/22/13 10:40
34.	PZ1B-130117-W	WA62AI	13-1589	Water	01/17/13 11:12	01/22/13 10:40
35.	PZ2B-130117-W	WA62AJ	13-1590	Water	01/17/13 12:14	01/22/13 10:40
36.	PZ3B-130117-W	WA62AK	13-1591	Water	01/17/13 13:34	01/22/13 10:40
37.	EV6A-130117-W	WA62AL	13-1592	Water	01/17/13 14:40	01/22/13 10:40
38.	EV6B-130117-W	WA62AM	13-1593	Water	01/17/13 15:25	01/22/13 10:40

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U Indicates that the target analyte was not detected at the reported concentration

* Duplicate RPD is not within established control limits

B Reported value is less than the CRDL but ≥ the Reporting Limit

N Matrix Spike recovery not within established control limits

NA Not Applicable, analyte not spiked

H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible

L Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U Indicates that the target analyte was not detected at the reported concentration

* Flagged value is not within established control limits

B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

J Estimated concentration when the value is less than ARI's established reporting limits

D The spiked compound was not detected due to sample extract dilution

E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

S Indicates an analyte response that has saturated the detector The calculated concentration is not valid, a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

Geotechnical Data

A The total of all fines fractions This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Quality Control Parameters for Metals Analysis ICP-MS EPA Methods 200.8 or 6020A

Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[3]	Solids[2]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium[4]	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium[4]	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume Solids LOQ based on 100% solids using 1.0 g sample 100 mL final volume.
(3) Relative Percent Difference in replicate analyzes. $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$ where C_O=Original, C_D=Duplicate
(4) ARI has no accreditation for these elements.

WAS1 00022

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Quality Control Parameters for Mercury Analysis using CVAA
EPA Methods 7470A or 245.1 for Aqueous Samples
EPA Methods 7471B or 245.5 for Solid Samples

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[2]	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.025[3]	75 – 125	80 – 120	≤ 20
	Tissue Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.005[4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

WA61 : 00023

Metals Analysis
Report and Summary QC Forms

ARI Job ID: WA61, WA62

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INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA61

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLMW34S-130116-W	WA61A	13-1517	
LLMW34S-130116-WD	WA61ADUP	13-1517	
LLMW34S-130116-WS	WA61ASPK	13-1517	
LLMW34D-130116-W	WA61B	13-1518	
PBW	WA61MB1	13-1518	
LCSW	WA61MB1SPK	13-1518	
EV22A-130116-W	WA61C	13-1519	
EV22B-130116-W	WA61D	13-1520	
LLMW33D-130117-W	WA61E	13-1521	
LLMW33S-130117-W	WA61F	13-1522	
LLMW09S-130116-W	WA61G	13-1523	
LLMW09D-130116-W	WA61H	13-1524	
LLMW10S-130116-W	WA61I	13-1525	
LLMW10D-130116-W	WA61J	13-1526	
LLMW12S-130116-W	WA61K	13-1527	
LLMW12D-130116-W	WA61L	13-1528	
LLMW13S-130116-W	WA61M	13-1529	
LLMW13D-130116-W	WA61N	13-1530	
PZ1B-130117-W	WA61O	13-1531	
PZ2B-130117-W	WA61P	13-1532	
PZ3B-130117-W	WA61Q	13-1533	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: Jay Kuhn Name: Jay Kuhn

Date: 1/31/13 Title: Inorganics Director

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INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA61

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
EV6A-130117-W	WA61R	13-1534	
EV6B-130117-W	WA61S	13-1535	
LLMW34S-130116-W	WA61T	13-1536	
LLMW34S-130116-WD	WA61TDUP	13-1536	
LLMW34S-130116-WS	WA61TSPK	13-1536	
PBW	WA61MB2	13-1537	
LCSW	WA61MB2SPK	13-1537	
LLMW34D-130116-W	WA61U	13-1537	
EV22A-130116-W	WA61V	13-1538	
EV22B-130116-W	WA61W	13-1539	
LLMW33D-130117-W	WA61X	13-1540	
LLMW33S-130117-W	WA61Y	13-1541	
LLMW09S-130116-W	WA61Z	13-1542	
LLMW09D-130116-W	WA61AA	13-1543	
LLMW10S-130116-W	WA61AB	13-1544	
LLMW10D-130116-W	WA61AC	13-1545	
LLMW12S-130116-W	WA61AD	13-1546	
LLMW12D-130116-W	WA61AE	13-1547	
LLMW13S-130116-W	WA61AF	13-1548	
LLMW13D-130116-W	WA61AG	13-1549	
PZ1B-130117-W	WA61AH	13-1550	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: Jay Kuhn Name: Jay Kuhn

Date: 1/31/13 Title: Inorganics Director

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INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA61

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
PZ2B-130117-W	WA61AI	13-1551	
PZ3B-130117-W	WA61AJ	13-1552	
EV6A-130117-W	WA61AK	13-1553	
EV6B-130117-W	WA61AL	13-1554	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 1/31/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW34S-130116-W
SAMPLE

Lab Sample ID: WA61A
LIMS ID: 13-1517
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**0.5**	
200.8	01/23/13	200.8	01/25/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.2**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW34D-130116-W
SAMPLE

Lab Sample ID: WA61B
LIMS ID: 13-1518
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**0.9**	
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**3.1**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.4**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EV22A-130116-W
SAMPLE

Lab Sample ID: WA61C
LIMS ID: 13-1519
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**0.6**	
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**11.9**	
200.8	01/23/13	200.8	01/25/13	**7440-43-9**	**Cadmium**	0.1	**0.1**	
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**6.5**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EV22B-130116-W
SAMPLE

Lab Sample ID: WA61D
LIMS ID: 13-1520
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.5	**0.6**	
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.5	**3.4**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.6**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW33D-130117-W
SAMPLE

Lab Sample ID: WA61E
LIMS ID: 13-1521
Matrix: Water
Data Release Authorized
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/17/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**1.4**	
200.8	01/23/13	200.8	01/25/13	**7440-43-9**	**Cadmium**	0.1	**0.8**	
200.8	01/23/13	200.8	01/25/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW33S-130117-W
SAMPLE

Lab Sample ID: WA61F
LIMS ID: 13-1522
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/17/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**3.1**	
200.8	01/23/13	200.8	01/25/13	**7440-43-9**	**Cadmium**	0.1	**0.4**	
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**3.5**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW09S-130116-W
SAMPLE

Lab Sample ID: WA61G
LIMS ID: 13-1523
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**0.3**	
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**61.5**	
200.8	01/23/13	200.8	01/25/13	**7440-43-9**	**Cadmium**	0.1	**2.2**	
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.6**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW09D-130116-W
SAMPLE

Lab Sample ID: WA61H
LIMS ID: 13-1524
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**1.7**	
200.8	01/23/13	200.8	01/25/13	**7440-43-9**	**Cadmium**	0.1	**2.0**	
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.9**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW10S-130116-W
SAMPLE

Lab Sample ID: WA61I
LIMS ID: 13-1525
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**0.5**	
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**4.5**	
200.8	01/23/13	200.8	01/25/13	**7440-43-9**	**Cadmium**	0.1	**0.3**	
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.7**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW10D-130116-W
SAMPLE

Lab Sample ID: WA61J
LIMS ID: 13-1526
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**3.0**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**1.7**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW12S-130116-W
SAMPLE

Lab Sample ID: WA61K
LIMS ID: 13-1527
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**20.0**	
200.8	01/23/13	200.8	01/25/13	**7440-43-9**	**Cadmium**	0.1	**5.5**	
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.2**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW12D-130116-W
SAMPLE

Lab Sample ID: WA61L
LIMS ID: 13-1528
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/28/13	**7440-38-2**	**Arsenic**	5	**1,880**	
200.8	01/23/13	200.8	01/25/13	**7440-43-9**	**Cadmium**	0.1	**0.4**	
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.4**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW13S-130116-W
SAMPLE

Lab Sample ID: WA61M
LIMS ID: 13-1529
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**27.1**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.4**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW13D-130116-W
SAMPLE

Lab Sample ID: WA61N
LIMS ID: 13-1530
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**25.4**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.6**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: PZ1B-130117-W
SAMPLE

Lab Sample ID: WA61O
LIMS ID: 13-1531
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/17/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**0.2**	
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**122**	
200.8	01/23/13	200.8	01/25/13	**7440-43-9**	**Cadmium**	0.1	**0.1**	
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: PZ2B-130117-W
SAMPLE

Lab Sample ID: WA61P
LIMS ID: 13-1532
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/17/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**21.0**	
200.8	01/23/13	200.8	01/25/13	**7440-43-9**	**Cadmium**	0.1	**0.4**	
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: PZ3B-130117-W
SAMPLE

Lab Sample ID: WA61Q
LIMS ID: 13-1533
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/17/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**1.2**	
200.8	01/23/13	200.8	01/28/13	**7440-38-2**	**Arsenic**	0.5	**6.6**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.8**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EV6A-130117-W
SAMPLE

Lab Sample ID: WA61R
LIMS ID: 13-1534
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/17/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**15.6**	
200.8	01/23/13	200.8	01/28/13	**7440-38-2**	**Arsenic**	0.5	**136**	
200.8	01/23/13	200.8	01/25/13	**7440-43-9**	**Cadmium**	0.1	**27.4**	
200.8	01/23/13	200.8	01/28/13	**7439-92-1**	**Lead**	0.2	**291**	
200.8	01/23/13	200.8	01/25/13	**7440-28-0**	**Thallium**	0.2	**0.3**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EV6B-130117-W
SAMPLE

Lab Sample ID: WA61S
LIMS ID: 13-1535
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/17/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**10.2**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**1.2**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW34S-130116-W
MATRIX SPIKE

Lab Sample ID: WA61A
LIMS ID: 13-1517
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.2 U	22.2	25.0	88.8%	
Arsenic	200.8	0.5	25.0	25.0	98.0%	
Cadmium	200.8	0.2	24.2	25.0	96.0%	
Lead	200.8	0.2	24.6	25.0	97.6%	
Thallium	200.8	0.2 U	23.9	25.0	95.6%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked
NR-Not Recovered

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW34S-130116-W
DUPLICATE

Lab Sample ID: WA61A
LIMS ID: 13-1517
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Arsenic	200.8	0.5	0.5	0.0%	+/- 0.2	L
Cadmium	200.8	0.2	0.2	0.0%	+/- 0.1	L
Lead	200.8	0.2	0.2	0.0%	+/- 0.1	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW34S-130116-W
SAMPLE

Lab Sample ID: WA61T
LIMS ID: 13-1536
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**0.5**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW34D-130116-W
SAMPLE

Lab Sample ID: WA61U
LIMS ID: 13-1537
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**1.0**	
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**2.2**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: EV22A-130116-W
SAMPLE

Lab Sample ID: WA61V
LIMS ID: 13-1538
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**0.6**	
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**11.8**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**5.2**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: EV22B-130116-W
SAMPLE

Lab Sample ID: WA61W
LIMS ID: 13-1539
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.5	**3.3**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW33D-130117-W
SAMPLE

Lab Sample ID: WA61X
LIMS ID: 13-1540
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/17/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**1.3**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW33S-130117-W
SAMPLE

Lab Sample ID: WA61Y
LIMS ID: 13-1541
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/17/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**0.3**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW09S-130116-W
SAMPLE

Lab Sample ID: WA61Z
LIMS ID: 13-1542
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**0.3**	
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**59.0**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW09D-130116-W
SAMPLE

Lab Sample ID: WA61AA
LIMS ID: 13-1543
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**0.9**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW10S-130116-W
SAMPLE

Lab Sample ID: WA61AB
LIMS ID: 13-1544
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**0.5**	
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**4.4**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.1**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW10D-130116-W
SAMPLE

Lab Sample ID: WA61AC
LIMS ID: 13-1545
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**2.4**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW12S-130116-W
SAMPLE

Lab Sample ID: WA61AD
LIMS ID: 13-1546
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**16.6**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW12D-130116-W
SAMPLE

Lab Sample ID: WA61AE
LIMS ID: 13-1547
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/28/13	**7440-38-2**	**Arsenic**	5	**1,980**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW13S-130116-W
SAMPLE

Lab Sample ID: WA61AF
LIMS ID: 13-1548
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**25.5**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW13D-130116-W
SAMPLE

Lab Sample ID: WA61AG
LIMS ID: 13-1549
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**22.4**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: PZ1B-130117-W
SAMPLE

Lab Sample ID: WA61AH
LIMS ID: 13-1550
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/17/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	**7440-36-0**	**Antimony**	0.2	**0.2**	
200.8	01/23/13	200.8	01/28/13	**7440-38-2**	**Arsenic**	0.2	**131**	
200.8	01/23/13	200.8	01/28/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/28/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: PZ2B-130117-W
SAMPLE

Lab Sample ID: WA61AI
LIMS ID: 13-1551
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/17/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**22.9**	
200.8	01/23/13	200.8	01/25/13	**7440-43-9**	**Cadmium**	0.1	**0.1**	
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.2**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: PZ3B-130117-W
SAMPLE

Lab Sample ID: WA61AJ
LIMS ID: 13-1552
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/17/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**1.2**	
200.8	01/23/13	200.8	01/28/13	**7440-38-2**	**Arsenic**	0.5	**5.8**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.1**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: EV6A-130117-W
SAMPLE

Lab Sample ID: WA61AK
LIMS ID: 13-1553
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/17/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**14.9**	
200.8	01/23/13	200.8	01/28/13	**7440-38-2**	**Arsenic**	0.5	**28.4**	
200.8	01/23/13	200.8	01/25/13	**7440-43-9**	**Cadmium**	0.1	**27.1**	
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**67.8**	
200.8	01/23/13	200.8	01/25/13	**7440-28-0**	**Thallium**	0.2	**0.3**	

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: EV6B-130117-W
SAMPLE

Lab Sample ID: WA61AL
LIMS ID: 13-1554
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/17/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	**7440-36-0**	**Antimony**	0.2	**0.3**	
200.8	01/23/13	200.8	01/25/13	**7440-38-2**	**Arsenic**	0.2	**12.6**	
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	**7439-92-1**	**Lead**	0.1	**0.1**	
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW34S-130116-W
MATRIX SPIKE

Lab Sample ID: WA61T
LIMS ID: 13-1536
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.2 U	24.5	25.0	98.0%	
Arsenic	200.8	0.5	26.0	25.0	102%	
Cadmium	200.8	0.1 U	25.6	25.0	102%	
Lead	200.8	0.1 U	26.0	25.0	104%	
Thallium	200.8	0.2 U	24.9	25.0	99.6%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW34S-130116-W
DUPLICATE

Lab Sample ID: WA61T
LIMS ID: 13-1536
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Arsenic	200.8	0.5	0.4	22.2%	+/- 0.2	L
Cadmium	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Lead	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: WA61LCS
LIMS ID: 13-1518
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	24.8	25.0	99.2%	
Arsenic	200.8	25.6	25.0	102%	
Cadmium	200.8	25.8	25.0	103%	
Lead	200.8	26.5	25.0	106%	
Thallium	200.8	25.3	25.0	101%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: METHOD BLANK

Lab Sample ID: WA61MB
LIMS ID: 13-1518
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: WA61LCS
LIMS ID: 13-1537
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	25.0	25.0	100%	
Arsenic	200.8	25.8	25.0	103%	
Cadmium	200.8	26.5	25.0	106%	
Lead	200.8	27.5	25.0	110%	
Thallium	200.8	26.1	25.0	104%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: METHOD BLANK

Lab Sample ID: WA61MB
LIMS ID: 13-1537
Matrix: Water
Data Release Authorized:
Reported: 01/30/13

QC Report No: WA61-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/25/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	01/23/13	200.8	01/25/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/25/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS: ug/L

SDG: WA61

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS012511	50.0	49.97	**99.9**	50.0	49.76	**99.5**	49.92	**99.8**	49.56	**99.1**	49.98	**100.0**	50.83	**101.7**
Arsenic	AS	PMS	MS012511	50.0	50.95	**101.9**	50.0	50.03	**100.1**	50.30	**100.6**	49.65	**99.3**	50.03	**100.1**	50.81	**101.6**
Cadmium	CD	PMS	MS012511	50.0	50.13	**100.3**	50.0	50.99	**102.0**	50.55	**101.1**	49.66	**99.3**	50.33	**100.7**	51.13	**102.3**
Lead	PB	PMS	MS012511	50.0	49.28	**98.6**	50.0	49.10	**98.2**	49.47	**98.9**	49.10	**98.2**	47.99	**96.0**	52.13	**104.3**
Thallium	TL	PMS	MS012511	50.0	51.30	**102.6**	50.0	51.47	**102.9**	51.61	**103.2**	50.19	**100.4**	45.66	**91.3**	47.65	**95.3**

Control Limits: Mercury 80-120; Other Metals 90-110

WA61 : 00074

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA61

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	PMS	MS012511	50.0	50.85	**101.7**	50.75	**101.5**	50.41	**100.8**	51.44	**102.9**				
Arsenic	AS	PMS	MS012511	50.0	51.25	**102.5**	50.79	**101.6**	50.98	**102.0**	51.73	**103.5**				
Cadmium	CD	PMS	MS012511	50.0	51.44	**102.9**	50.57	**101.1**	50.13	**100.3**	52.05	**104.1**				
Lead	PB	PMS	MS012511	50.0	50.07	**100.1**	50.54	**101.1**	50.16	**100.3**	51.34	**102.7**				
Thallium	TL	PMS	MS012511	50.0	47.51	**95.0**	48.00	**96.0**	47.96	**95.9**	49.36	**98.7**				

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

WAS1 : 59975

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS:ug/L

SDG: WA61

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS012813	50.0	49.86	**99.7**	50.0	49.98	**100.0**	48.44	**96.9**	49.30	**98.6**	49.50	**99.0**	49.55	**99.1**
Arsenic	AS	PMS	MS012813	50.0	52.28	**104.6**	50.0	52.55	**105.1**	52.62	**105.2**	53.80	**107.6**	54.97	**109.9**	53.63	**107.3**
Cadmium	CD	PMS	MS012813	50.0	50.48	**101.0**	50.0	50.46	**100.9**	50.25	**100.5**	50.80	**101.6**	51.37	**102.7**	51.34	**102.7**
Lead	PB	PMS	MS012813	50.0	49.61	**99.2**	50.0	48.74	**97.5**	47.94	**95.9**	48.73	**97.5**	48.80	**97.6**	48.84	**97.7**
Thallium	TL	PMS	MS012813	50.0	52.39	**104.8**	50.0	51.11	**102.2**	50.84	**101.7**	51.28	**102.6**	51.26	**102.5**	51.58	**103.2**

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

UAS1 00075

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS: ug/L

SDG: WA61

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS012511	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS012511	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS012511	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Lead	PB	PMS	MS012511	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Thallium	TL	PMS	MS012511	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

PAGE 1 . 000077

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS: ug/L

SDG: WA61

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	PMS	MS012511	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				
Arsenic	AS	PMS	MS012511	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				
Cadmium	CD	PMS	MS012511	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U				
Lead	PB	PMS	MS012511	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U				
Thallium	TL	PMS	MS012511	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				

WAS1 : 000578

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS: ug/L

SDG: WA61

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS012813	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS012813	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS012813	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Lead	PB	PMS	MS012813	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Thallium	TL	PMS	MS012813	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

WA61 : 000079

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS: ug/L

SDG: WA61

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Antimony	SB	PMS	MS012511	0.2	0.19	**95.0**										
Arsenic	AS	PMS	MS012511	0.2	0.22	**110.0**										
Cadmium	CD	PMS	MS012511	0.1	0.10	**100.0**										
Lead	PB	PMS	MS012511	0.1	0.10	**100.0**										
Thallium	TL	PMS	MS012511	0.2	0.19	**95.0**										
Antimony	SB	PMS	MS012813	0.2	0.19	**95.0**										
Arsenic	AS	PMS	MS012813	0.2	0.23	**115.0**										
Cadmium	CD	PMS	MS012813	0.1	0.11	**110.0**										
Lead	PB	PMS	MS012813	0.1	0.11	**110.0**										
Thallium	TL	PMS	MS012813	0.2	0.19	**95.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

WA61 : 00080

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA61

ICS SOURCE: I.V.

RUNID: MS012511

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.5	**97.5**						
Barium			0.0	0.1							
Cadmium		20	0.2	19.5	**97.5**						
Chromium		20	0.6	20.8	**104.0**						
Cobalt		20	0.0	18.7	**93.5**						
Copper		20	1.4	21.4	**107.0**						
Manganese		20	0.1	19.7	**98.5**						
Molybdenum	400	400	374.1	396.2	**99.1**						
Nickel		20	0.4	20.4	**102.0**						
Selenium			-0.3	-0.2							
Silver		20	0.0	19.5	**97.5**						
Vanadium			0.2	0.1							
Zinc		20	1.0	20.8	**104.0**						

WA61:00081

ICP Interference
Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA61

ICS SOURCE: I.V.

RUNID: MS012813

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.2	20.4	**102.0**						
Barium			0.1	0.1							
Cadmium		20	0.1	19.4	**97.0**						
Chromium		20	0.6	18.7	**93.5**						
Cobalt		20	0.0	19.6	**98.0**						
Copper		20	1.4	22.3	**111.5**						
Manganese		20	0.1	19.7	**98.5**						
Molybdenum	400	400	471.0	492.4	**123.1**						
Nickel		20	0.5	21.4	**107.0**						
Selenium			-0.4	-0.3							
Silver		20	0.0	22.5	**112.5**						
Zinc		20	1.3	21.0	**105.0**						

WA61 : 00082

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA61 UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Antimony	SB	PMS	NEXION 300D MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Cadmium	CD	PMS	NEXION 300D MS	0.00		5	0.1	4/1/2012		
Lead	PB	PMS	NEXION 300D MS	0.00		3	0.1	4/1/2012		
Thallium	TL	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA61

ANALYSIS METHOD: PMS

ARI PREP CODE: REN

PREPDATE: 1/23/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
LLMW34S-130116-W	WA61A	0.000	50.0	25.0
LLMW09D-130116-W	WA61AA	0.000	50.0	25.0
LLMW10S-130116-W	WA61AB	0.000	50.0	25.0
LLMW10D-130116-W	WA61AC	0.000	50.0	25.0
LLMW12S-130116-W	WA61AD	0.000	50.0	25.0
LLMW34S-130116-WD	WA61ADUP	0.000	50.0	25.0
LLMW12D-130116-W	WA61AE	0.000	50.0	25.0
LLMW13S-130116-W	WA61AF	0.000	50.0	25.0
LLMW13D-130116-W	WA61AG	0.000	50.0	25.0
PZ1B-130117-W	WA61AH	0.000	50.0	25.0
PZ2B-130117-W	WA61AI	0.000	50.0	25.0
PZ3B-130117-W	WA61AJ	0.000	50.0	25.0
EV6A-130117-W	WA61AK	0.000	50.0	25.0
EV6B-130117-W	WA61AL	0.000	50.0	25.0
LLMW34S-130116-WS	WA61ASPK	0.000	50.0	25.0
LLMW34D-130116-W	WA61B	0.000	50.0	25.0
EV22A-130116-W	WA61C	0.000	50.0	25.0
EV22B-130116-W	WA61D	0.000	50.0	25.0
LLMW33D-130117-W	WA61E	0.000	50.0	25.0
LLMW33S-130117-W	WA61F	0.000	50.0	25.0
LLMW09S-130116-W	WA61G	0.000	50.0	25.0
LLMW09D-130116-W	WA61H	0.000	50.0	25.0
LLMW10S-130116-W	WA61I	0.000	50.0	25.0
LLMW10D-130116-W	WA61J	0.000	50.0	25.0
LLMW12S-130116-W	WA61K	0.000	50.0	25.0
LLMW12D-130116-W	WA61L	0.000	50.0	25.0
LLMW13S-130116-W	WA61M	0.000	50.0	25.0
PBW	WA61MB1	0.000	50.0	25.0
LCSW	WA61MB1SPK	0.000	50.0	25.0
PBW	WA61MB2	0.000	50.0	25.0
LCSW	WA61MB2SPK	0.000	50.0	25.0
LLMW13D-130116-W	WA61N	0.000	50.0	25.0
PZ1B-130117-W	WA61O	0.000	50.0	25.0
PZ2B-130117-W	WA61P	0.000	50.0	25.0
PZ3B-130117-W	WA61Q	0.000	50.0	25.0
EV6A-130117-W	WA61R	0.000	50.0	25.0
EV6B-130117-W	WA61S	0.000	50.0	25.0
LLMW34S-130116-W	WA61T	0.000	50.0	25.0
LLMW34S-130116-WD	WA61TDUP	0.000	50.0	25.0
LLMW34S-130116-WS	WA61TSPK	0.000	50.0	25.0
LLMW34D-130116-W	WA61U	0.000	50.0	25.0
EV22A-130116-W	WA61V	0.000	50.0	25.0
EV22B-130116-W	WA61W	0.000	50.0	25.0
LLMW33D-130117-W	WA61X	0.000	50.0	25.0
LLMW33S-130117-W	WA61Y	0.000	50.0	25.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA61

ANALYSIS METHOD: PMS

ARI PREP CODE: REN

PREPDATE: 1/23/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
LLMW09S-130116-W	WA61Z	0.000	50.0	25.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: NEXION 300D MS START DATE: 1/25/2013

SDG: WA61 RUNID: MS012511 METHOD: PMS END DATE: 1/25/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10160				X					X												X	X					X			
S1	S1	1.00	10210				X					X												X	X					X			
S2	S2	1.00	10250				X					X												X	X					X			
S3	S3	1.00	10290				X					X												X	X					X			
S4	S4	1.00	10340				X					X												X	X					X			
S5	S5	1.00	10400																														
ZZZZZZ	Rinse sampl	1.00	10470																														
S0	S0	1.00	10590				X					X												X	X					X			
ICV	MICV	1.00	11030				X					X												X	X					X			
ICB	ICB	1.00	11100				X					X												X	X					X			
CCV	MCCV1	1.00	11260				X					X												X	X					X			
CCB	CCB1	1.00	11330				X					X												X	X					X			
CRI	MCRI	1.00	11370				X					X												X	X					X			
ICSA	ICSAI	1.00	11410				X					X												X	X					X			
ICSAB	ICSABI	1.00	11470				X					X												X	X					X			
ZZZZZZ	LR200	1.00	11540																														
ZZZZZZ	B1	1.00	12010																														
ZZZZZZ	B2	1.00	12060																														
CCV	MCCV2	1.00	12110				X					X												X	X					X			
CCB	CCB2	1.00	12180				X					X												X	X					X			
ZZZZZZ	WA14MB	2.00	12300																														
ZZZZZZ	VZ86E	2.00	12340																														
ZZZZZZ	VZ86F	2.00	12380																														
ZZZZZZ	VZ86G	2.00	12420																														
ZZZZZZ	VZ86J	2.00	12460																														
ZZZZZZ	WA14D	2.00	12510																														
ZZZZZZ	WA14ADUP	2.00	12550																														
ZZZZZZ	WA14A	2.00	12590																														
ZZZZZZ	WA14ASPK	2.00	13030																														
ZZZZZZ	WA14MBSPK	2.00	13070																														
CCV	MCCV3	1.00	13120				X					X												X	X					X			
CCB	CCB3	1.00	13190				X					X												X	X					X			
LLMW34D-130116-W	WA61B	2.00	13290				X					X												X	X					X			
EV22A-130116-W	WA61C	2.00	13330				X					X												X	X					X			
EV22B-130116-W	WA61D	2.00	13370																					X						X			

FORM XIV

WA61 : 00086

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: NEXION 300D MS START DATE: 1/25/2013

SDG: WA61 RUNID: MS012511 METHOD: PMS END DATE: 1/25/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
LLMW33D-130117-W	WA61E	2.00	13420				X					X												X	X					X			
ZZZZZZ	VZ86K	2.00	13460																														
ZZZZZZ	VZ86L	2.00	13500																														
ZZZZZZ	VZ86M	2.00	13540																														
ZZZZZZ	VZ86N	2.00	13580																														
ZZZZZZ	VZ86O	2.00	14020																														
ZZZZZZ	VZ86MB2SPK	2.00	14060																														
CCV	MCCV4	1.00	14120				X					X												X	X					X			
CCB	CCB4	1.00	14180				X					X												X	X					X			
PBW	WA61MB1	2.00	14270				X					X												X	X					X			
LLMW34S-130116-WD	WA61ADUP	2.00	14310				X					X												X	X					X			
LLMW34S-130116-W	WA61A	2.00	14350				X					X												X	X					X			
LLMW34S-130116-WS	WA61ASPK	2.00	14390				X					X												X	X					X			
ZZZZZZ	ZZZZZZ	2.00	14440																														
LLMW34S-130116-WD	WA61TDUP	2.00	14480				X					X												X	X					X			
LLMW34S-130116-W	WA61T	2.00	14520				X					X												X	X					X			
LLMW34S-130116-WS	WA61TSPK	2.00	14560				X					X												X	X					X			
ZZZZZZ	ZZZZZZ	2.00	15000																														
LCSW	WA61MB1SPK	2.00	15040				X					X												X	X					X			
CCV	MCCV5	1.00	15090				X					X												X	X					X			
CCB	CCB5	1.00	15160				X					X												X	X					X			
PBW	WA61MB2	2.00	15290				X					X												X	X					X			
LLMW33S-130117-W	WA61F	2.00	15330				X					X												X	X					X			
LLMW09S-130116-W	WA61G	2.00	15370				X					X												X	X					X			
LLMW09D-130116-W	WA61H	2.00	15420				X					X												X	X					X			
LLMW10S-130116-W	WA61I	2.00	15460				X					X												X	X					X			
LLMW10D-130116-W	WA61J	2.00	15500				X					X												X	X					X			
LLMW12S-130116-W	WA61K	2.00	15540				X					X												X	X					X			
LLMW12D-130116-W	WA61L	2.00	15580									X												X	X					X			
LLMW13S-130116-W	WA61M	2.00	16020				X					X												X	X					X			
LCSW	WA61MB2SPK	2.00	16060				X					X												X	X					X			
CCV	MCCV6	1.00	16120				X					X												X	X					X			
CCB	CCB6	1.00	16180				X					X												X	X					X			
LLMW13D-130116-W	WA61N	2.00	16230				X					X												X	X					X			
PZ1B-130117-W	WA61O	2.00	16270				X					X												X	X					X			

FORM XIV

WA61 . 00087

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: NEXION 300D MS START DATE: 1/25/2013

SDG: WA61 RUNID: MS012511 METHOD: PMS END DATE: 1/25/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
PZ2B-130117-W	WA61P	2.00	16310				X					X												X	X					X			
PZ3B-130117-W	WA61Q	2.00	16350									X												X	X					X			
EV6A-130117-W	WA61R	2.00	16390									X													X					X			
EV6B-130117-W	WA61S	2.00	16430				X					X												X	X					X			
LLMW34D-130116-W	WA61U	2.00	16470				X					X												X	X					X			
EV22A-130116-W	WA61V	2.00	16510				X					X												X	X					X			
EV22B-130116-W	WA61W	2.00	16560									X												X	X					X			
LLMW33D-130117-W	WA61X	2.00	17000				X					X												X	X					X			
CCV	MCCV7	1.00	17050				X					X												X	X					X			
CCB	CCB7	1.00	17120				X					X												X	X					X			
LLMW33S-130117-W	WA61Y	2.00	17160				X					X												X	X					X			
LLMW09S-130116-W	WA61Z	2.00	17200				X					X												X	X					X			
LLMW09D-130116-W	WA61AA	2.00	17240				X					X												X	X					X			
LLMW10S-130116-W	WA61AB	2.00	17280				X					X												X	X					X			
LLMW10D-130116-W	WA61AC	2.00	17320				X					X												X	X					X			
LLMW12S-130116-W	WA61AD	2.00	17370				X					X												X	X					X			
LLMW12D-130116-W	WA61AE	2.00	17410									X												X	X					X			
LLMW13S-130116-W	WA61AF	2.00	17450				X					X												X	X					X			
LLMW13D-130116-W	WA61AG	2.00	17490				X					X												X	X					X			
PZ1B-130117-W	WA61AH	2.00	17530																														
CCV	MCCV8	1.00	17580				X					X												X	X					X			
CCB	CCB8	1.00	18050				X					X												X	X					X			
PZ2B-130117-W	WA61AI	2.00	18090				X					X												X	X					X			
PZ3B-130117-W	WA61AJ	2.00	18130									X												X	X					X			
EV6A-130117-W	WA61AK	2.00	18180									X												X	X					X			
EV6B-130117-W	WA61AL	2.00	18220				X					X												X	X					X			
EV22B-130116-W	WA61D	5.00	18260				X					X													X								
EV22B-130116-W	WA61W	5.00	18300				X																										
CCV	MCCV9	1.00	18340				X					X												X	X					X			
CCB	CCB9	1.00	18410				X					X												X	X					X			

WA61 · 00088

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: NEXION 300D MS START DATE: 1/28/2013

SDG: WA61 RUNID: MS012813 METHOD: PMS END DATE: 1/28/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10450				X					X												X	X					X			
S1	S1	1.00	10500				X					X												X	X					X			
S2	S2	1.00	10540				X					X												X	X					X			
S3	S3	1.00	10580				X					X												X	X					X			
S4	S4	1.00	11030				X					X												X	X					X			
S5	S5	1.00	11090																														
ZZZZZZ	Rinse sampl	1.00	11160																														
ICV	MICV	1.00	11230				X					X												X	X					X			
ICB	ICB	1.00	11290				X					X												X	X					X			
CCV	MCCV1	1.00	11340				X					X												X	X					X			
CCB	CCB1	1.00	11400				X					X												X	X					X			
ZZZZZZ	ZZZZZZ	1.00	11440																														
ZZZZZZ	ZZZZZZ	1.00	11480																														
ZZZZZZ	ZZZZZZ	1.00	11550																														
ZZZZZZ	LR200	1.00	12020																														
ZZZZZZ	B1	1.00	12090																														
ZZZZZZ	B2	1.00	12140																														
CCV	MCCV2	1.00	12190				X					X												X	X					X			
CCB	CCB2	1.00	12260				X					X												X	X					X			
S0	S0	1.00	12320				X					X												X	X					X			
CCV	MCCV3	1.00	12360				X					X												X	X					X			
CCB	CCB3	1.00	12430				X					X												X	X					X			
CRI	MCRI	1.00	12470				X					X												X	X					X			
ICSA	ICSAI	1.00	12510				X					X												X	X					X			
ICSAB	ICSABI	1.00	12580				X					X												X	X					X			
ZZZZZZ	B3	1.00	13050																														
CCV	MCCV4	1.00	13100				X					X												X	X					X			
CCB	CCB4	1.00	13170				X					X												X	X					X			
ZZZZZZ	DI CHECK	1.00	13320																														
ZZZZZZ	ERAP197	10.00	13360																														
ZZZZZZ	VZ86I	20.00	13400																														
LLMW12D-130116-W	WA61L	50.00	13440				X																										
PZ3B-130117-W	WA61Q	5.00	13480				X																										
EV6A-130117-W	WA61R	5.00	13520				X																	X									
LLMW12D-130116-W	WA61AE	50.00	13560				X																										

FORM XIV

WA61 : 00089

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: NEXION 300D MS START DATE: 1/28/2013

SDG: WA61 RUNID: MS012813 METHOD: PMS END DATE: 1/28/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
PZ1B-130117-W	WA61AH	2.00	14000				X					X												X	X					X			
PZ3B-130117-W	WA61AJ	5.00	14050				X																										
EV6A-130117-W	WA61AK	5.00	14090				X																										
CCV	MCCV5	1.00	14140				X					X												X	X					X			
CCB	CCB5	1.00	14210				X					X												X	X					X			

WA61 : 00090

Mercury Analysis
Report and Summary QC Forms

ARI Job ID: WA61, WA62

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA62

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLMW34S-130116-W	WA62A	13-1556	
LLMW34D-130116-W	WA62B	13-1557	
LLMW34D-130116-WD	WA62BDUP	13-1557	
LLMW34D-130116-WS	WA62BSPK	13-1557	
EV22A-130116-W	WA62C	13-1558	
PBW	WA62MB1	13-1558	
LCSW	WA62MB1SPK	13-1558	
EV22B-130116-W	WA62D	13-1559	
LLMW33D-130117-W	WA62E	13-1560	
LLMW33S-130117-W	WA62F	13-1561	
LLMW09S-130116-W	WA62G	13-1562	
LLMW09D-130116-W	WA62H	13-1563	
LLMW10S-130116-W	WA62I	13-1564	
LLMW10D-130116-W	WA62J	13-1565	
LLMW12S-130116-W	WA62L	13-1566	
LLMW12D-130116-W	WA62M	13-1567	
LLMW13S-130116-W	WA62N	13-1568	
LLMW13D-130116-W	WA62O	13-1569	
PZ1B-130117-W	WA62P	13-1570	
PZ2B-130117-W	WA62Q	13-1571	
PZ3B-130117-W	WA62R	13-1572	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 1/23/13 Title: Inorganics Director

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA62

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
EV6A-130117-W	WA62S	13-1573	
EV6B-130117-W	WA62T	13-1574	
LLMW34S-130116-W	WA62U	13-1575	
LLMW34D-130116-W	WA62V	13-1576	
LLMW34D-130116-WD	WA62VDUP	13-1576	
LLMW34D-130116-WS	WA62VSPK	13-1576	
PBW	WA62MB2	13-1577	
LCSW	WA62MB2SPK	13-1577	
EV22A-130116-W	WA62W	13-1577	
EV22B-130116-W	WA62X	13-1578	
LLMW33D-130117-W	WA62Y	13-1579	
LLMW33S-130117-W	WA62Z	13-1580	
LLMW09S-130116-W	WA62AA	13-1581	
LLMW09D-130116-W	WA62AB	13-1582	
LLMW10S-130116-W	WA62AC	13-1583	
LLMW10D-130116-W	WA62AD	13-1584	
LLMW12S-130116-W	WA62AE	13-1585	
LLMW12D-130116-W	WA62AF	13-1586	
LLMW13S-130116-W	WA62AG	13-1587	
LLMW13D-130116-W	WA62AH	13-1588	
PZ1B-130117-W	WA62AI	13-1589	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 1/23/13 Title: Inorganics Director

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA62

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
PZ2B-130117-W	WA62AJ	13-1590	
PZ3B-130117-W	WA62AK	13-1591	
EV6A-130117-W	WA62AL	13-1592	
EV6B-130117-W	WA62AM	13-1593	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: Jay Kuhn Name: Jay Kuhn

Date: 1/25/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Total Mercury by Method SW7470A

Data Release Authorized:
Reported: 01/25/13
Date Received: 01/22/13

QC Report No: WA62-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
LLMW34S-130116-W WA62A 13-1556	01/16/13	Water	01/23/13 01/25/13	**20.0**	**27.5**
LLMW34D-130116-W WA62B 13-1557	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
EV22A-130116-W WA62C 13-1558	01/16/13	Water	01/23/13 01/25/13	**20.0**	**36.6**
EV22B-130116-W WA62D 13-1559	01/16/13	Water	01/23/13 01/25/13	**20.0**	**51.8**
LLMW33D-130117-W WA62E 13-1560	01/17/13	Water	01/23/13 01/25/13	20.0	20.0 U
LLMW33S-130117-W WA62F 13-1561	01/17/13	Water	01/23/13 01/25/13	**20.0**	**32.8**
LLMW09S-130116-W WA62G 13-1562	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
LLMW09D-130116-W WA62H 13-1563	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
LLMW10S-130116-W WA62I 13-1564	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
LLMW10D-130116-W WA62J 13-1565	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
LLMW12S-130116-W WA62L 13-1566	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
LLMW12D-130116-W WA62M 13-1567	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
LLMW13S-130116-W WA62N 13-1568	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
LLMW13D-130116-W WA62O 13-1569	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
PZ1B-130117-W WA62P 13-1570	01/17/13	Water	01/23/13 01/25/13	20.0	20.0 U
PZ2B-130117-W WA62Q 13-1571	01/17/13	Water	01/23/13 01/25/13	20.0	20.0 U
PZ3B-130117-W WA62R 13-1572	01/17/13	Water	01/23/13 01/25/13	20.0	20.0 U
EV6A-130117-W WA62S 13-1573	01/17/13	Water	01/23/13 01/25/13	**20.0**	**40.4**

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Total Mercury by Method SW7470A

Data Release Authorized:
Reported: 01/25/13
Date Received: 01/22/13

QC Report No: WA62-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
EV6B-130117-W WA62T 13-1574	01/17/13	Water	01/23/13 01/25/13	20.0	20.0 U
MB-012313 Method Blank	NA	Water	01/23/13 01/25/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW34D-130116-W
MATRIX SPIKE

Lab Sample ID: WA62B
LIMS ID: 13-1557
Matrix: Water
Data Release Authorized:
Reported: 01/25/13

QC Report No: WA62-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	112	100	112%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW34D-130116-W
DUPLICATE

Lab Sample ID: WA62B
LIMS ID: 13-1557
Matrix: Water
Data Release Authorized:
Reported: 01/25/13

QC Report No: WA62-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: WA62LCS
LIMS ID: 13-1558
Matrix: Water
Data Release Authorized:
Reported: 01/25/13

QC Report No: WA62-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	231	200	116%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Dissolved Mercury by Method SW7470A

Data Release Authorized:
Reported: 01/25/13
Date Received: 01/22/13

QC Report No238: WA62-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
LLMW34S-130116-W WA62U 13-1575	01/16/13	Water	01/23/13 01/25/13	**20.0**	**22.2**
LLMW34D-130116-W WA62V 13-1576	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
EV22A-130116-W WA62W 13-1577	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
EV22B-130116-W WA62X 13-1578	01/16/13	Water	01/23/13 01/25/13	**20.0**	**37.1**
LLMW33D-130117-W WA62Y 13-1579	01/17/13	Water	01/23/13 01/25/13	20.0	20.0 U
LLMW33S-130117-W WA62Z 13-1580	01/17/13	Water	01/23/13 01/25/13	20.0	20.0 U
LLMW09S-130116-W WA62AA 13-1581	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
LLMW09D-130116-W WA62AB 13-1582	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
LLMW10S-130116-W WA62AC 13-1583	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
LLMW10D-130116-W WA62AD 13-1584	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
LLMW12S-130116-W WA62AE 13-1585	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
LLMW12D-130116-W WA62AF 13-1586	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
LLMW13S-130116-W WA62AG 13-1587	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
LLMW13D-130116-W WA62AH 13-1588	01/16/13	Water	01/23/13 01/25/13	20.0	20.0 U
PZ1B-130117-W WA62AI 13-1589	01/17/13	Water	01/23/13 01/25/13	20.0	20.0 U
PZ2B-130117-W WA62AJ 13-1590	01/17/13	Water	01/23/13 01/25/13	20.0	20.0 U
PZ3B-130117-W WA62AK 13-1591	01/17/13	Water	01/23/13 01/25/13	20.0	20.0 U
EV6A-130117-W WA62AL 13-1592	01/17/13	Water	01/23/13 01/25/13	20.0	20.0 U
EV6B-130117-W WA62AM 13-1593	01/17/13	Water	01/23/13 01/25/13	20.0	20.0 U
MB-012313	NA	Water	01/23/13	20.0	20.0 U

FORM-I

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW34D-130116-W
MATRIX SPIKE

Lab Sample ID: WA62V
LIMS ID: 13-1576
Matrix: Water
Data Release Authorized:
Reported: 01/25/13

QC Report No: WA62-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	119	100	119%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW34D-130116-W
DUPLICATE

Lab Sample ID: WA62V
LIMS ID: 13-1576
Matrix: Water
Data Release Authorized:
Reported: 01/25/13

QC Report No: WA62-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/16/13
Date Received: 01/22/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: WA62LCS
LIMS ID: 13-1577
Matrix: Water
Data Release Authorized:
Reported: 01/25/13

QC Report No: WA62-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	235	200	118%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS: ng/L

SDG: WA62

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Mercury	HG	CVL	HG012501	500.0	493.00	**98.6**	500.0	510.00	**102.0**	515.00	**103.0**	523.00	**104.6**	520.00	**104.0**	519.00	**103.8**

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

WA61 . 00104

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS:ng/L

SDG: WA62

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Mercury	HG	CVL	HG012501	500.0	524.00	**104.8**										

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

WA61 00105

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS:ng/L

SDG: WA62

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Mercury	HG	CVL	HG012501	20.0	18.90	**94.5**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

WA61 00106

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA62

UNITS:ng/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Mercury	HG	CVL	HG012501	25.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U

WAG1 : 00107

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS:ng/L

SDG: WA62

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Mercury	HG	CVL	HG012501	25.0	20.0	20.0	U										

WA61:00108

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA62

UNITS: ng/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ng/L)	ICP LR DATE
Mercury	HG	CVL	CETAC MERCURY	253.70		25	20.0	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA62

ANALYSIS METHOD: CVL

ARI PREP CODE: TLM

PREPDATE: 1/23/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
LLMW34S-130116-W	WA62A	0.000	20.0	20.0
LLMW09S-130116-W	WA62AA	0.000	20.0	20.0
LLMW09D-130116-W	WA62AB	0.000	20.0	20.0
LLMW10S-130116-W	WA62AC	0.000	20.0	20.0
LLMW10D-130116-W	WA62AD	0.000	20.0	20.0
LLMW12S-130116-W	WA62AE	0.000	20.0	20.0
LLMW12D-130116-W	WA62AF	0.000	20.0	20.0
LLMW13S-130116-W	WA62AG	0.000	20.0	20.0
LLMW13D-130116-W	WA62AH	0.000	20.0	20.0
PZ1B-130117-W	WA62AI	0.000	20.0	20.0
PZ2B-130117-W	WA62AJ	0.000	20.0	20.0
PZ3B-130117-W	WA62AK	0.000	20.0	20.0
EV6A-130117-W	WA62AL	0.000	20.0	20.0
EV6B-130117-W	WA62AM	0.000	20.0	20.0
LLMW34D-130116-W	WA62B	0.000	20.0	20.0
LLMW34D-130116-WD	WA62BDUP	0.000	20.0	20.0
LLMW34D-130116-WS	WA62BSPK	0.000	20.0	20.0
EV22A-130116-W	WA62C	0.000	20.0	20.0
EV22B-130116-W	WA62D	0.000	20.0	20.0
LLMW33D-130117-W	WA62E	0.000	20.0	20.0
LLMW33S-130117-W	WA62F	0.000	20.0	20.0
LLMW09S-130116-W	WA62G	0.000	20.0	20.0
LLMW09D-130116-W	WA62H	0.000	20.0	20.0
LLMW10S-130116-W	WA62I	0.000	20.0	20.0
LLMW10D-130116-W	WA62J	0.000	20.0	20.0
LLMW12S-130116-W	WA62L	0.000	20.0	20.0
LLMW12D-130116-W	WA62M	0.000	20.0	20.0
PBW	WA62MB1	0.000	20.0	20.0
LCSW	WA62MB1SPK	0.000	20.0	20.0
PBW	WA62MB2	0.000	20.0	20.0
LCSW	WA62MB2SPK	0.000	20.0	20.0
LLMW13S-130116-W	WA62N	0.000	20.0	20.0
LLMW13D-130116-W	WA62O	0.000	20.0	20.0
PZ1B-130117-W	WA62P	0.000	20.0	20.0
PZ2B-130117-W	WA62Q	0.000	20.0	20.0
PZ3B-130117-W	WA62R	0.000	20.0	20.0
EV6A-130117-W	WA62S	0.000	20.0	20.0
EV6B-130117-W	WA62T	0.000	20.0	20.0
LLMW34S-130116-W	WA62U	0.000	20.0	20.0
LLMW34D-130116-W	WA62V	0.000	20.0	20.0
LLMW34D-130116-WD	WA62VDUP	0.000	20.0	20.0
LLMW34D-130116-WS	WA62VSPK	0.000	20.0	20.0
EV22A-130116-W	WA62W	0.000	20.0	20.0
EV22B-130116-W	WA62X	0.000	20.0	20.0
LLMW33D-130117-W	WA62Y	0.000	20.0	20.0

FORM XIII

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA62

ANALYSIS METHOD: CVL

ARI PREP CODE: TLM

PREPDATE: 1/23/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
LLMW33S-130117-W	WA62Z	0.000	20.0	20.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: CETAC MERCURY START DATE: 1/25/2013

SDG: WA62 RUNID: HG012501 METHOD: CVL END DATE: 1/25/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10365														X																
S20	S20	1.00	10393														X																
S50	S50	1.00	10421														X																
S100	S100	1.00	10445														X																
S200	S200	1.00	10473														X																
S400	S400	1.00	10502														X																
S1000	S1000	1.00	10530														X																
ICV	AICV	1.00	10574														X																
ICB	ICB	1.00	11002														X																
CCV	ACCV1	1.00	11031														X																
CCB	CCB1	1.00	11055														X																
CRA	CRA	1.00	11083														X																
PBW	WA62MB1	1.00	11112														X																
LCSW	WA62MB1SPK	1.00	11140														X																
LLMW34S-130116-W	WA62A	1.00	11164														X																
LLMW34D-130116-W	WA62B	1.00	11192														X																
LLMW34D-130116-WD	WA62BDUP	1.00	11220														X																
LLMW34D-130116-WS	WA62BSPK	1.00	11244														X																
EV22A-130116-W	WA62C	1.00	11272														X																
EV22B-130116-W	WA62D	1.00	11301														X																
LLMW33D-130117-W	WA62E	1.00	11325														X																
CCV	ACCV2	1.00	11353														X																
CCB	CCB2	1.00	11382														X																
LLMW33S-130117-W	WA62F	1.00	11410														X																
LLMW09S-130116-W	WA62G	1.00	11434														X																
LLMW09D-130116-W	WA62H	1.00	11462														X																
LLMW10S-130116-W	WA62I	1.00	11490														X																
LLMW10D-130116-W	WA62J	1.00	11514														X																
LLMW12S-130116-W	WA62L	1.00	11543														X																
LLMW12D-130116-W	WA62M	1.00	11571														X																
LLMW13S-130116-W	WA62N	1.00	11595														X																
LLMW13D-130116-W	WA62O	1.00	12023														X																
PZ1B-130117-W	WA62P	1.00	12052														X																
CCV	ACCV3	1.00	12080														X																
CCB	CCB3	1.00	12105														X																

FORM XIV

HAG1 . 0G1112

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: CETAC MERCURY START DATE: 1/25/2013

SDG: WA62 RUNID: HG012501 METHOD: CVL END DATE: 1/25/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
PZ2B-130117-W	WA62Q	1.00	12133														X																
PZ3B-130117-W	WA62R	1.00	12161														X																
EV6A-130117-W	WA62S	1.00	12190														X																
EV6B-130117-W	WA62T	1.00	12214														X																
PBW	WA62MB2	1.00	12242														X																
LCSW	WA62MB2SPK	1.00	12270														X																
LLMW34S-130116-W	WA62U	1.00	12294														X																
LLMW34D-130116-W	WA62V	1.00	12322														X																
LLMW34D-130116-WD	WA62VDUP	1.00	12350														X																
LLMW34D-130116-WS	WA62VSPK	1.00	12375														X																
CCV	ACCV4	1.00	12403														X																
CCB	CCB4	1.00	12432														X																
EV22A-130116-W	WA62W	1.00	12460														X																
EV22B-130116-W	WA62X	1.00	12484														X																
LLMW33D-130117-W	WA62Y	1.00	12513														X																
LLMW33S-130117-W	WA62Z	1.00	12541														X																
LLMW09S-130116-W	WA62AA	1.00	12565														X																
LLMW09D-130116-W	WA62AB	1.00	12593														X																
LLMW10S-130116-W	WA62AC	1.00	13021														X																
LLMW10D-130116-W	WA62AD	1.00	13045														X																
LLMW12S-130116-W	WA62AE	1.00	13074														X																
LLMW12D-130116-W	WA62AF	1.00	13102														X																
CCV	ACCV5	1.00	13130														X																
CCB	CCB5	1.00	13155														X																
LLMW13S-130116-W	WA62AG	1.00	13183														X																
LLMW13D-130116-W	WA62AH	1.00	13212														X																
PZ1B-130117-W	WA62AI	1.00	13240														X																
PZ2B-130117-W	WA62AJ	1.00	13264														X																
PZ3B-130117-W	WA62AK	1.00	13293														X																
EV6A-130117-W	WA62AL	1.00	13321														X																
EV6B-130117-W	WA62AM	1.00	13345														X																
CCV	ACCV6	1.00	13374														X																
CCB	CCB6	1.00	13402														X																

WA61 : 00113

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WA61, WA62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: CB

Date: 01-23-13

Final Volume 25.0

Final Volume (Hg):

Sample ID WA66 ASPK, MB1SPK, ISPK, MB2SPK
WA61 ASPK, MB1SPK, TSPK, MB2SPK

	Prepcode:			
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:			
	Vol Added (mL):			
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	REN ICP-MS #1	REN ICP-MS #2	ICP-MS Minerals
	2987-2	3001-4	
	0.05	0.05	
Ag	25		
Al			500
As	25 ✓		
Ba	25		
Be	25		
Ca			500
Cd	25 ✓		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25 ✓		
Sb		25 ✓	
Se	80		
Tl	25 ✓		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg		CVA	1.0		
Hg MBSPK		CVA	1.0		
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

WA61 : 00115

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: CB **Date:** 01-23-13 **Time:** 0900

Matrix: WATER **Block ID:** #12 **Block Temp:** 95°C **Thermometer:** MP46

ARI Sample ID	Btl #	pH<2	Prep Code: REN Initial ~~Wt (g)~~ Vol (mL)	Prep Code: REN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
CB 01/23/13 WA01 ~~WA10~~ A	1	✓	50.0	25.0			
" A010	1	✓					
" A50K	1	✓					
" B	1	✓					
" C	1	✓					
" D	1	–					Preserve in lab
" E	1	✓					
" F	1	✓					
" G	1	✓					
" H	1	✓					
" I	1	✓					
" J	1	✓					
" K	1	✓					
" L	1	✓					
" M	1	✓					
" N	1	✓					
" O	1	✓					
" P	1	✓					
" Q	1	✓					
" R	1	✓					
" S	1	✓					
" MB1	–	–					
" MB1SPK	–	–	50.0	25.0			
				CB 01/23/13			

Chemical/Reagent ID:

HNO_3: MP2420 MP2342 **HCl:** – **H_2O_2:** I7845 **Tube Lot #:** 1208057

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: CB

Matrix: WATER Block ID: #12 Date: 01-23-13 Time: 0900

Block Temp: 95°C Thermometer: mp46

ARI Sample ID	Btl #	pH<2	Prep Code: REN Initial Wt (g) Vol (mL)	Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Final Vol (mL)	Comments
WA61 T	1	J	50.0	25.0			
" TDup	1	J					
" TSpK	1	J					
" U	1	J					
" V	1	J					
" W	1	J					
" X	1	J					Preserve in lab
" Y	1	J					
" Z	1	J					
" AA	1	J					
" AB	1	J					
" AC	1	J					
" AD	1	J					
" AE	1	J					
" AF	1	J					
" AG	1	J					
" AH	1	J					
" AI	1	J					
" AJ	1	J					
" AK	1	J					
" AL	1	J					
" mB2	–	–					
" mB2SpK	–	–	50.0	25.0			
			CB 01/23/13				

Chemical/Reagent ID:

HNO_3: mp2426 HCl: – H_2O_2: I7845 Tube Lot #: 1208057

5061F mp2342

Version 005
1/10/12

WA61 : 00117

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WA61, WA62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-25-13 **Analyst:** MT **Page:** 1 **of** 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2999-5
		1			3008-3
		2			3005-6
		3			↓ -7
		4			3007-2
		5			3006-2
		Rinse Sample			
		STD0			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			62 Ni high
		LRZW0			Mo Ag high
		B1			
		B2			
		CCV2			
		CCB2			62 Ni ↓
		WA14 MB	REN	2	Ag Mo
		VZ86 E			As
		F			
		G			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-25-13 **Analyst:** M **Page:** 2 **of** 5

All corrections made by analyst unless otherwise noted. M 1-25-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VZ86 J	REN	2	~~Ag~~ As
		WA14 D			Ag, Mo
		ADup		✓	, Cu Ag high RPD
		A			CAF
		Aspk		✓	
		MBspk		✓	
		CCV3			
		CCB3			
		WA61 B	REN	2	
		C			
		D			Ro2 CdSb(Int), As
		E			
		VZ86 K			As
		L			
		M			
		N			
		O			
		MB2spk		✓	
		CCV4			^{62}Ni high
		CCB4			^{62}Ni ^{63}Cu As2 ^{78}Se high
		WA61 MB1	REN	2	
		ADup		✓	
		A			
		Aspk		✓	

WA61 : 00120

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-25-13 **Analyst:** KA **Page:** 3 **of** 5

All corrections made by analyst unless otherwise noted. KA 1-25-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
zzz		WA61 ~~APost~~ zzzzzz	REN	2	
		TDup			✓
		T			
		TSpk			✓
zzz		~~TPost~~ zzzzzz			
		MBLspk			✓
		CCV 5			
		CCB5			^{62}Ni As^{75} Se^{78} high
		WA61 MB2	REN	2	
		F			
61		G			
		H			
		I			
		J			
		K			
		L			RR As
		M			
		MB2spk			✓
		CCV6			Ag+
		CCB6			^{62}Ni As^{75} Se^{78} ↑
		WA61 N	REN	2	
		O			
		P			
		Q			RR As

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-25-13 **Analyst:** [illegible] **Page:** 4 **of** 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WA61 R	REN	2	RR As, Pb
		S			
		U			
		V			
		W			RR AS
		X			
		CCV7			^{137}Ba ^{52}Cr ^{62}Ni ^{63}Cu ^{78}Se ↑ Ag ↓
		CCB7			^{52}Cr ^{63}Cu As2 ^{78}Se ↑
		WA61 Y	REN	2	
		Z			
		AA			
		AB			
		AC			
		AD			
		AE			RR AS
		AF			
		AG			
	✓	AH			noisy missed tube
		CCV8			Ag ↓ ^{62}Ni ^{78}Se ↑
		CCB8			^{62}Ni ^{63}Cu As2 ^{78}Se ↑
		WA61 AI	REN	2	
		AJ			RR As
		AK			RR AS
		AL			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-25-13 **Analyst:** AA **Page:** 5 of 5

All corrections made by analyst unless otherwise noted. AA 1-28-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WA61 D	REN	5	As Cd Sb
		↓ W	↓	↓	As
		CCV9			^{62}Ni ^{63}Cu As_2 ^{78}Se ↑ Ag ↓
		CCB9			↓
		VZ86 ADup	REN	20	Cr
		A			
		Aspk			
		IDup			
	✓	I			~~sample~~ added, ~~100 Sample~~ missed tube
		↓ Ispk	↓	↓	↓
		CCV10			Ag ↓ ^{62}Ni ^{78}Se ↑
		CCB10			^{62}Ni ^{63}Cu As_2 ^{78}Se ↑
		Rinse / DI			

1/31/13

AA 1-28-13

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Friday, January 25, 2013 09:27:22
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1747
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time (ns): 60
Current Dead Time (ns): 60

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
Be	9.0	2150.8	2150.811	27.263	1.3	Standard
Mg	24.0	16542.7	16542.740	274.443	1.7	Standard
In	114.9	59936.1	59936.054	644.842	1.1	Standard
Pb	208.0	32255.2	32255.171	164.812	0.5	Standard
U	238.1	53079.0	53078.977	288.446	0.5	Standard
CeO	155.9	968.7	0.013	0.000	1.7	Standard
> Ce	139.9	76496.0	76495.962	155.990	0.2	Standard
Ce++	70.0	475.8	0.006	0.000	2.5	Standard
Bkgd	220.0	0.1	0.133	0.139	104.6	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1712.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

WA51 00124

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 1/25/2013 9:30:51 AM
End Time: 1/25/2013 9:31:45 AM

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
-0.99 mm	1.96 mm	71862.52

UA61 00125

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 1/25/2013 9:31:56 AM
End Time: 1/25/2013 9:34:08 AM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.075), Target/Obtained resolution (0.7/0.683)
Target/Obtained mass (23.985/23.925), Target/Obtained resolution (0.7/0.696)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.690)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.689)

UAG1 00126

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 1/25/2013 9:34:31 AM
End Time: 1/25/2013 9:38:42 AM

AutoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 1.000; Intercept = -10.63

UA61 : 00127

SmartTune Wizard - Details

```
ptimization Details

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

ptimization Status

tart Time: 1/25/2013 9:38:48 AM

aily Performance Check
        Optimization Settings:
                Method: C:\NexIONData\Method\Daily Performancenew.mth.
                Intensity Criterion: Be 9.0122 > 3000
                Intensity Criterion: Mg 23.985 > 20000
                Intensity Criterion: In 114.904 > 50000
                Intensity Criterion: Pb 207.977 > 20000
                Intensity Criterion: U 238.05 > 40000
                Intensity Criterion: Bkgd 220 <= 5
                Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
                Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

        Optimization Results:
        Initial Try
                Obtained Intensity (Be 9.0122): 3764.05
                Obtained Intensity (Mg 23.985): 32171.72
                Obtained Intensity (In 114.904): 84952.27
                Obtained Intensity (Pb 207.977): 37898.66
                Obtained Intensity (U 238.05): 60841.80
                Obtained Intensity (Bkgd 220): 0.07
                Obtained Formula (CeO 155.9 / Ce 139.905): 0.014 (=1289.37 / 91860.34)
                Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.007 (=628.49 / 91860.34)
Passed]  Optimum value(s): N/A

nd Time: 1/25/2013 9:41:24 AM
```


WA61 : 00128

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 10:16:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L				958423	2
	Be	9		ug/L				4	86
	C	13		ug/L				76933	2
	Cl	37		ug/L				4014861	1
>	Sc	45		ug/L				769659	2
	V	51		ug/L				5539	1
	V-1	51		ug/L				1369	3
	Cr	52		ug/L				16312	0
	Cr	53		ug/L				509	1
	Mn	55		ug/L				349	5
	Co	59		ug/L				80	17
>	Ge	72		ug/L				431833	1
	Ni	60		ug/L				31	11
	Ni	62		ug/L				3480	1
	Cu	63		ug/L				2480	3
	Cu	65		ug/L				83	9
	Zn	66		ug/L				147	6
	Zn	67		ug/L				39	7
	Zn	68		ug/L				186	8
	As	75		ug/L				296	11
	As-1	75		ug/L				7270	1
	Se	82		ug/L				-10	141
	Se	78		ug/L				7370	1
	Mo	98		ug/L				7	38
	Y	89		ug/L				280187	0
	Kr	83		ug/L				566	4
>	In	115		ug/L				1030925	0
	Ag	107		ug/L				23	13
	Cd	111		ug/L				106	16
	Cd	114		ug/L				29	17
	Sb	121		ug/L				28	32
	Sb	123		ug/L				24	51
	Ba	135		ug/L				21	32
	Ba	137		ug/L				32	23
>	Tb	159		ug/L				1380218	0
	Tl	205		ug/L				111	11
	Pb	208		ug/L				204 -	1
	Bi	209		ug/L				2871573	0
	Th	232		ug/L				62	39
	U	238		ug/L				1	34

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 10:21:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			958423	981718	0
[	Be	9	0.200	ug/L	0.009	4	4	631	4
	C	13		ug/L			76933	77074	1
	Cl	37		ug/L			4014861	3981267	1
[>	Sc	45		ug/L			769659	750633	1
[	V	51	0.200	ug/L	0.008	3	5539	8876	3
[	V-1	51	0.200	ug/L	0.005	2	1369	4548	0
[	Cr	52	0.500	ug/L	0.024	4	16312	23457	2
[	Cr	53	0.500	ug/L	0.041	8	509	1266	3
[	Mn	55	0.500	ug/L	0.003	0	349	9544	2
[	Co	59	0.200	ug/L	0.002	0	80	3018	2
[>	Ge	72		ug/L			431833	434798	1
[	Ni	60	0.500	ug/L	0.015	3	31	1595	4
[	Ni	62	0.500	ug/L	21.332	4266	3480	3506	3
[	Cu	63	0.500	ug/L	0.027	5	2480	5679	2
[	Cu	65	0.500	ug/L	0.002	0	83	1664	1
[	Zn	66	4.000	ug/L	0.151	3	147	7077	1
[	Zn	67	4.000	ug/L	0.269	6	39	1108	5
[	Zn	68	4.000	ug/L	0.179	4	186	5158	3
[	As	75	0.200	ug/L	0.011	5	296	624	4
[	As-1	75	0.200	ug/L	0.090	44	7270	7579	0
[	Se	82	0.500	ug/L	0.086	17	-10	83	21
[	Se	78	0.500	ug/L	0.338	67	7370	7583	0
[	Mo	98	0.200	ug/L	0.010	4	7	838	3
	Y	89		ug/L			280187	280164	3
	Kr	83		ug/L			566	557	1
[>	In	115		ug/L			1030925	1052491	2
[	Ag	107	0.200	ug/L	0.005	2	23	2433	3
[	Cd	111	0.100	ug/L	0.008	8	106	665	6
[	Cd	114	0.100	ug/L	0.004	3	29	1484	2
[	Sb	121	0.200	ug/L	0.006	2	28	3158	2
[	Sb	123	0.200	ug/L	0.003	1	24	2431	1
[	Ba	135	0.500	ug/L	0.011	2	21	2649	2
[	Ba	137	0.500	ug/L	0.009	1	32	4521	0
[>	Tb	159		ug/L			1380218	1372235	1
[	Tl	205	0.200	ug/L	0.001	0	111	8985	1
[	Pb	208	0.100	ug/L	0.001	0	204	6112	1
[	Bi	209		ug/L			2871573	2887959	0
[	Th	232	0.200	ug/L	0.010	5	62	8090	3
[	U	238	0.200	ug/L	0.004	1	1	10160	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 10:25:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			958423	953963	3
	Be	9	10.000	ug/L	0.401	4	4	32625	1
	C	13		ug/L			76933	79070	3
	Cl	37		ug/L			4014861	4038359	3
>	Sc	45		ug/L			769659	760126	1
	V	51	10.000	ug/L	0.270	2	5539	167655	3
	V-1	51	10.000	ug/L	0.265	2	1369	162547	3
	Cr	52	9.998	ug/L	0.126	1	16312	155944	1
	Cr	53	10.000	ug/L	0.097	0	509	15988	1
	Mn	55	10.001	ug/L	0.354	3	349	192812	2
	Co	59	10.000	ug/L	0.169	1	80	142078	1
>	Ge	72		ug/L			431833	440337	2
	Ni	60	10.000	ug/L	0.417	4	31	32120	2
	Ni	62	10.024	ug/L	0.489	4	3480	7713	0
	Cu	63	10.001	ug/L	0.568	5	2480	70658	3
	Cu	65	9.999	ug/L	0.415	4	83	30378	1
	Zn	66	10.001	ug/L	0.451	4	147	17713	5
	Zn	67	10.124	ug/L	0.679	6	39	3008	3
	Zn	68	10.010	ug/L	0.435	4	186	12858	2
	As	75	10.000	ug/L	0 287	2	296	16508	1
	As-1	75	10.001	ug/L	0 485	4	7270	23608	1
	Se	82	9.998	ug/L	0 336	3	-10	1744	2
	Se	78	10.006	ug/L	0.888	8	7370	11928	1
	Mo	98	10.000	ug/L	0.289	2	7	42166	0
	Y	89		ug/L			280187	279320	1
	Kr	83		ug/L			566	532	2
>	In	115		ug/L			1030925	1035859	1
	Ag	107	10.000	ug/L	0.160	1	23	120285	1
	Cd	111	10.000	ug/L	0.185	1	106	56593	2
	Cd	114	10.000	ug/L	0.264	2	29	143196	1
	Sb	121	10.000	ug/L	0.073	0	28	164004	1
	Sb	123	10.000	ug/L	0.173	1	24	124741	0
	Ba	135	10.000	ug/L	0.357	3	21	52186	2
	Ba	137	10.001	ug/L	0.057	0	32	93461	1
>	Tb	159		ug/L			1380218	1381768	1
	Tl	205	10.000	ug/L	0.102	1	111	441306	0
	Pb	208	10.000	ug/L	0.143	1	204	569680	0
	Bi	209		ug/L			2871573	2864876	1
	Th	232	10.001	ug/L	0.132	1	62	469143	1
	U	238	10.000	ug/L	0.118	1	1	514436	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 10:29:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			958423	967321	3
	Be	9	19.885	ug/L	0.420	2	4	64319	2
	C	13		ug/L			76933	78149	1
	Cl	37		ug/L			4014861	3858423	0
>	Sc	45		ug/L			769659	757393	1
	V	51	20.045	ug/L	0.566	2	5539	332300	2
	V-1	51	20.059	ug/L	0.688	3	1369	327290	3
	Cr	52	20.037	ug/L	0.049	0	16312	297347	1
	Cr	53	20.082	ug/L	0.352	1	509	31997	1
	Mn	55	19.861	ug/L	0.447	2	349	370947	1
	Co	59	20.151	ug/L	0.484	2	80	294025	1
>	Ge	72		ug/L			431833	440826	2
	Ni	60	19.965	ug/L	0.686	3	31	63745	2
	Ni	62	20.080	ug/L	0.449	2	3480	12045	2
	Cu	63	19.885	ug/L	0.564	2	2480	135169	0
	Cu	65	20.082	ug/L	0.134	0	83	62053	2
	Zn	66	20.022	ug/L	0.687	3	147	35463	1
	Zn	67	20.109	ug/L	0.553	2	39	6061	2
	Zn	68	20.006	ug/L	0.310	1	186	25583	2
	As	75	20.048	ug/L	0.511	2	296	33140	0
	As-1	75	20.060	ug/L	0.644	3	7270	40344	0
	Se	82	19.979	ug/L	0.237	1	-10	3487	1
	Se	78	20.056	ug/L	0.877	4	7370	16487	1
	Mo	98	19.990	ug/L	0.693	3	7	84223	2
	Y	89		ug/L			280187	284085	2
	Kr	83		ug/L			566	571	3
>	In	115		ug/L			1030925	1053613	0
	Ag	107	19.956	ug/L	0.273	1	23	242021	1
	Cd	111	20.010	ug/L	0.090	0	106	115315	1
	Cd	114	19.938	ug/L	0.236	1	29	286907	1
	Sb	121	19.952	ug/L	0.250	1	28	329656	1
	Sb	123	19.940	ug/L	0.132	0	24	250013	1
	Ba	135	20.002	ug/L	0.156	0	21	106225	0
	Ba	137	19.897	ug/L	0.291	1	32	185283	1
>	Tb	159		ug/L			1380218	1382283	1
	Tl	205	19.941	ug/L	0.183	0	111	870107	1
	Pb	208	19.979	ug/L	0.241	1	204	1133748	0
	Bi	209		ug/L			2871573	2844888	0
	Th	232	20.159	ug/L	0.225	1	62	976900	1
	U	238	19.953	ug/L	0.300	1	1	1017269	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 10:34:08
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012413a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			958423	955067	2
	Be	9	49.557	ug/L	1.740	3	4	151507	1
	C	13		ug/L			76933	74829	3
	Cl	37		ug/L			4014861	4106113	2
>	Sc	45		ug/L			769659	750882	1
	V	51	49.861	ug/L	2.857	5	5539	799880	3
	V-1	51	49.955	ug/L	2.703	5	1369	802128	3
	Cr	52	49.536	ug/L	2.199	4	16312	674433	2
	Cr	53	49.859	ug/L	1.790	3	509	76929	2
	Mn	55	49.794	ug/L	0.812	1	349	903013	2
	Co	59	49.913	ug/L	1.683	3	80	715517	2
>	Ge	72		ug/L			431833	441630	1
	Ni	60	49.445	ug/L	1.573	3	31	149812	1
	Ni	62	50.193	ug/L	0.542	1	3480	25252	2
	Cu	63	49.798	ug/L	1.258	2	2480	328834	1
	Cu	65	49.652	ug/L	0.882	1	83	148457	3
	Zn	66	49.569	ug/L	0.725	1	147	84263	1
	Zn	67	49.840	ug/L	0.543	1	39	14764	1
	Zn	68	49.457	ug/L	0.533	1	186	59933	0
	As	75	49.761	ug/L	0.877	1	296	80075	0
	As-1	75	49.801	ug/L	0.835	1	7270	87758	0
	Se	82	49.533	ug/L	0.965	1	-10	8289	0
	Se	78	49.701	ug/L	0.706	1	7370	29158	0
	Mo	98	49.845	ug/L	0.784	1	7	207271	2
	Y	89		ug/L			280187	276136	2
	Kr	83		ug/L			566	568	10
>	In	115		ug/L			1030925	1018688	0
	Ag	107	49.880	ug/L	0.348	0	23	577932	0
	Cd	111	49.918	ug/L	0.781	1	106	275733	2
	Cd	114	49.886	ug/L	0.204	0	29	686143	1
	Sb	121	49.941	ug/L	0.635	1	28	793050	1
	Sb	123	49.999	ug/L	0.834	1	24	605985	1
	Ba	135	50.068	ug/L	0.401	0	21	258804	1
	Ba	137	49.947	ug/L	0.675	1	32	447299	0
>	Tb	159		ug/L			1380218	1359745	0
	Tl	205	50.415	ug/L	0.730	1	111	2257109	0
	Pb	208	49.851	ug/L	0.557	1	204	2741578	0
	Bi	209		ug/L			2871573	2755371	1
	Th	232	50.593	ug/L	0.185	0	62	2563912	0
	U	238	50.464	ug/L	0.598	1	1	2654177	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 10:40:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			958423	945259	1
	Be	9	100.658	ug/L	2.017	2	4	311563	1
	C	13		ug/L			76933	72548	4
	Cl	37		ug/L			4014861	3999340	2
>	Sc	45		ug/L			769659	763175	1
	V	51	99.375	ug/L	2.648	2	5539	1582742	1
	V-1	51	99.595	ug/L	2.561	2	1369	1603089	1
	Cr	52	99.561	ug/L	1.550	1	16312	1342562	0
	Cr	53	100.274	ug/L	1.089	1	509	158216	0
	Mn	55	99.578	ug/L	5.350	5	349	1809367	5
	Co	59	99.464	ug/L	2.993	3	80	1423864	1
>	Ge	72		ug/L			431833	430065	2
	Ni	60	99.918	ug/L	3.592	3	31	293924	1
	Ni	62	101.295	ug/L	4.471	4	3480	48008	4
	Cu	63	100.083	ug/L	5.034	5	2480	642423	2
	Cu	65	99.977	ug/L	3.161	3	83	290605	1
	Zn	66	99.153	ug/L	1.946	1	147	159485	0
	Zn	67	99.490	ug/L	0.682	0	39	28187	2
	Zn	68	100.175	ug/L	4.104	4	186	118655	2
	As	75	99.838	ug/L	4.038	4	296	155240	1
	As-1	75	99.752	ug/L	3.908	3	7270	162549	1
	Se	82	99.858	ug/L	3.225	3	-10	16203	1
	Se	78	99.580	ug/L	2.595	2	7370	48930	0
	Mo	98	100.485	ug/L	2.921	2	7	413464	2
	Y	89		ug/L			280187	279465	2
	Kr	83		ug/L			566	624	2
>	In	115		ug/L			1030925	998047	0
	Ag	107	99.576	ug/L	1.528	1	23	1114540	1
	Cd	111	99.424	ug/L	2.112	2	106	527823	2
	Cd	114	100.243	ug/L	1.195	1	29	1361806	0
	Sb	121	100.181	ug/L	0.889	0	28	1567997	1
	Sb	123	100.218	ug/L	0.461	0	24	1198720	0
	Ba	135	100.152	ug/L	0.355	0	21	509754	0
	Ba	137	100.418	ug/L	0.409	0	32	893518	0
>	Tb	159		ug/L			1380218	1327362	1
	Tl	205	100.365	ug/L	2.018	2	111	4439590	0
	Pb	208	100.921	ug/L	1.758	1	204	5588424	0
	Bi	209		ug/L			2871573	2656266	1
	Th	232	100.588	ug/L	0.535	0	62	5075413	1
	U	238	100.492	ug/L	2.244	2	1	5244263	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 10:47:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012413a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			958423	964518	3
	Be	9	0.002	ug/L	0.001	65	4	10	37
	C	13		ug/L			76933	74096	4
	Cl	37		ug/L			4014861	3944206	3
>	Sc	45		ug/L			769659	784123	1
	V	51	-0.003	ug/L	0.006	219	5539	5595	2
	V-1	51	-0.037	ug/L	0.002	4	1369	779	2
	Cr	52	-0.015	ug/L	0.041	264	16312	16405	2
	Cr	53	-0.127	ug/L	0.025	19	509	313	11
	Mn	55	0.014	ug/L	0.024	173	349	607	71
	Co	59	0.016	ug/L	0.028	172	80	321	128
>	Ge	72		ug/L			431833	456661	1
	Ni	60	0.024	ug/L	0.038	157	31	108	109
	Ni	62	-2.279	ug/L	0.603	26	3480	2613	9
	Cu	63	-0.107	ug/L	0.040	37	2480	1896	14
	Cu	65	0.020	ug/L	0.037	184	83	151	76
	Zn	66	0.005	ug/L	0.031	585	147	165	31
	Zn	67	-0.003	ug/L	0.035	1129	39	40	26
	Zn	68	0.008	ug/L	0.037	441	186	208	22
	As	75	-0.028	ug/L	0.012	42	296	267	6
	As-1	75	-0.088	ug/L	0.096	108	7270	7540	0
	Se	82	0.032	ug/L	0.047	146	-10	-5	142
	Se	78	-0.309	ug/L	0.375	121	7370	7655	1
	Mo	98	0.017	ug/L	0.002	13	7	81	12
	Y	89		ug/L			280187	282290	1
	Kr	83		ug/L			566	533	1
>	In	115		ug/L			1030925	1034642	1
	Ag	107	0.004	ug/L	0.003	64	23	74	44
	Cd	111	0.000	ug/L	0.001	495	106	108	6
	Cd	114	0.002	ug/L	0.003	116	29	62	61
	Sb	121	0.059	ug/L	0.005	8	28	989	9
	Sb	123	0.056	ug/L	0.007	11	24	724	12
	Ba	135	0.000	ug/L	0.003	1737	21	22	74
	Ba	137	0.000	ug/L	0.001	851	32	33	22
>	Tb	159		ug/L			1380218	1385837	0
	Tl	205	0.011	ug/L	0.004	31	111	637	26
	Pb	208	0.001	ug/L	0.001	134	204	246	22
	Bi	209		ug/L			2871573	2887987	1
	Th	232	0.240	ug/L	0.053	21	62	12694	21
	U	238	0.003	ug/L	0.001	34	1	159	34

Sample Information

Sample Date/Time: Friday, January 25, 2013 10:40:21
Method File: C:\NexION Data\Method\200.8nomin.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**0.9999**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**0.9999**	0.021	0.20	10	20	50	100
V-1	51	**1.0000**	0.021	0.20	10	20	50	100
Cr	52	**0.9999**	0.017	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**1.0000**	0.024	0.50	10	20	50	100
Co	59	**0.9999**	0.019	0.20	10	20	50	100
Ge	72							
Ni	60	**0.9999**	0.007	0.50	10	20	50	100
Ni	62	**0.9997**	0.001	0.50	10	20	50	100
Cu	63	**1.0000**	0.015	0.50	10	20	50	100
Cu	65	**1.0000**	0.007	0.50	10	20	50	100
Zn	66	**0.9998**	0.004	4.00	10	20	50	100
Zn	67	**0.9999**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.004	0.20	10	20	50	100
As-1	75	**1.0000**	0.004	0.20	10	20	50	100
Se	82	**0.9998**	0.000	0.50	10	20	50	100
Se	78	**0.9999**	0.001	0.50	10	20	50	100
Mo	98	**1.0000**	0.010	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.011	0.20	10	20	50	100
Cd	111	**0.9999**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.014	0.10	10	20	50	100
Sb	121	**1.0000**	0.016	0.20	10	20	50	100
Sb	123	**1.0000**	0.012	0.20	10	20	50	100
Ba	135	**1.0000**	0.005	0.50	10	20	50	100
Ba	137	**1.0000**	0.009	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9999**	0.033	0.20	10	20	50	100
Pb	208	**0.9999**	0.042	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	0.038	0.20	10	20	50	100
U	238	**0.9999**	0.039	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 10:59:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				988464	1
	Be	9		ug/L				10	27
	C	13		ug/L				75670	4
	Cl	37		ug/L				3921810	2
>	Sc	45		ug/L				776850	1
	V	51		ug/L				5488	2
	V-1	51		ug/L				776	5
	Cr	52		ug/L				16030	2
	Cr	53		ug/L				304	1
	Mn	55		ug/L				334	3
	Co	59		ug/L				88	10
>	Ge	72		ug/L				461747	3
	Ni	60		ug/L				31	17
	Ni	62		ug/L				1423	4
	Cu	63		ug/L				1037	0
	Cu	65		ug/L				65	12
	Zn	66		ug/L				136	3
	Zn	67		ug/L				29	1
	Zn	68		ug/L				187	8
	As	75		ug/L				272	1
	As-1	75		ug/L				7476	0
	Se	82		ug/L				-5	69
	Se	78		ug/L				7591	0
	Mo	98		ug/L				19	10
	Y	89		ug/L				289059	2
	Kr	83		ug/L				540	1
>	In	115		ug/L				1039566	1
	Ag	107		ug/L				35	11
	Cd	111		ug/L				103	14
	Cd	114		ug/L				34	26
	Sb	121		ug/L				264	22
	Sb	123		ug/L				200	29
	Ba	135		ug/L				21	18
	Ba	137		ug/L				29	13
>	Tb	159		ug/L				1387186	0
	Tl	205		ug/L				300	19
	Pb	208		ug/L				162	5
	Bi	209		ug/L				2880974	0
	Th	232		ug/L				2849	31
	U	238		ug/L				25	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 11:03:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			988464	977684	2
[	Be	9	50.249	ug/L	1.921	3	10	160790	1
	C	13		ug/L			75670	78425	0
	Cl	37		ug/L			3921810	4108230	1
[>	Sc	45		ug/L			776850	767907	2
	V	51	53.016	ug/L	0.921	1	5488	852205	2
	V-1	51	52.098	ug/L	0.970	1	776	843920	2
	Cr	52	52.240	ug/L	1.122	2	16030	716101	2
	Cr	53	49.270	ug/L	0.847	1	304	78269	1
	Mn	55	53.184	ug/L	1.461	2	334	972896	4
[	Co	59	51.322	ug/L	0.846	1	88	739339	1
[>	Ge	72		ug/L			461747	448746	1
	Ni	60	51.861	ug/L	0.448	0	31	159283	1
	Ni	62	50.511	ug/L	0.842	1	1423	24566	2
	Cu	63	51.069	ug/L	1.283	2	1037	342062	3
	Cu	65	50.440	ug/L	1.212	2	65	153047	1
	Zn	66	53.018	ug/L	0.387	0	136	89064	1
	Zn	67	49.218	ug/L	0.214	0	29	14559	0
	Zn	68	51.529	ug/L	2.551	4	187	63832	6
	As	75	50.951	ug/L	0.835	1	272	82824	1
	As-1	75	51.679	ug/L	0.959	1	7476	91267	1
	Se	82	80.237	ug/L	0.801	0	-5	13315	1
	Se	78	81.047	ug/L	1.862	2	7591	42699	0
[	Mo	98	48.481	ug/L	1.079	2	19	208205	2
	Y	89		ug/L			289059	289578	1
	Kr	83		ug/L			540	589	3
[>	In	115		ug/L			1039566	1019350	1
	Ag	107	51.037	ug/L	1.908	3	35	583366	2
	Cd	111	50.132	ug/L	0.531	1	103	271837	0
	Cd	114	49.898	ug/L	0.601	1	34	692378	1
	Sb	121	49.974	ug/L	0.534	1	264	799036	0
	Sb	123	49.802	ug/L	0.559	1	200	608545	0
	Ba	135	50.411	ug/L	0.726	1	21	262049	0
[	Ba	137	50.665	ug/L	0.642	1	29	460412	0
[>	Tb	159		ug/L			1387186	1373352	1
	Tl	205	51.296	ug/L	0.396	0	300	2348291	0
	Pb	208	49.277	ug/L	0.403	0	162	2823739	1
	Bi	209		ug/L			2880974	2784871	0
	Th	232	51.663	ug/L	0.376	0	2849	2699769	0
[	U	238	51.862	ug/L	1.040	2	25	2800570	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 11:10:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	963356	0
	Be	9	-0.001	ug/L	0.001	76	10	6	48
	C	13		ug/L			75670	74878	2
	Cl	37		ug/L			3921810	3940508	1
>	Sc	45		ug/L			776850	772045	4
	V	51	0.007	ug/L	0.016	235	5488	5558	1
	V-1	51	-0.003	ug/L	0.002	68	776	730	3
	Cr	52	0.035	ug/L	0.061	175	16030	16380	2
	Cr	53	0.003	ug/L	0.009	333	304	307	3
	Mn	55	0.002	ug/L	0.000	13	334	377	4
	Co	59	-0.000	ug/L	0.001	391	88	84	12
>	Ge	72		ug/L			461747	454518	1
	Ni	60	0.003	ug/L	0.002	90	31	39	20
	Ni	62	0.422	ug/L	0.183	43	1423	1596	4
	Cu	63	0.015	ug/L	0.011	73	1037	1125	6
	Cu	65	0.002	ug/L	0.001	58	65	70	4
	Zn	66	0.005	ug/L	0.011	247	136	141	13
	Zn	67	0.011	ug/L	0.013	124	29	32	10
	Zn	68	0.001	ug/L	0.010	655	187	186	7
	As	75	0.015	ug/L	0.020	134	272	292	10
	As-1	75	0.128	ug/L	0.077	59	7476	7568	0
	Se	82	0.009	ug/L	0.118	1282	-5	-3	492
	Se	78	0.465	ug/L	0.235	50	7591	7677	0
	Mo	98	0.005	ug/L	0.001	16	19	42	10
	Y	89		ug/L			289059	290508	3
	Kr	83		ug/L			540	551	10
>	In	115		ug/L			1039566	1051120	2
	Ag	107	0.000	ug/L	0.000	257	35	37	9
	Cd	111	-0.003	ug/L	0.000	7	103	86	3
	Cd	114	-0.000	ug/L	0.001	2779	34	34	24
	Sb	121	0.002	ug/L	0.004	224	264	299	25
	Sb	123	0.000	ug/L	0.004	1055	200	207	22
	Ba	135	-0.000	ug/L	0.000	138	21	20	7
	Ba	137	-0.000	ug/L	0.001	1067	29	28	29
>	Tb	159		ug/L			1387186	1379519	2
	Tl	205	-0.002	ug/L	0.001	29	300	220	13
	Pb	208	0.001	ug/L	0.000	27	162	195	4
	Bi	209		ug/L			2880974	2948155	0
	Th	232	0.072	ug/L	0.015	21	2849	6601	13
	U	238	0.001	ug/L	0.000	20	25	82	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 11:26:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	931353	1
	Be	9	50.937	ug/L	1.781	3	10	155318	2
	C	13		ug/L			75670	73264	5
	Cl	37		ug/L			3921810	3987997	1
>	Sc	45		ug/L			776850	750212	2
	V	51	51.905	ug/L	1.368	2	5488	815310	3
	V-1	51	50.913	ug/L	0.867	1	776	805836	2
	Cr	52	52.543	ug/L	1.986	3	16030	703510	3
	Cr	53	49.271	ug/L	0.521	1	304	76466	1
	Mn	55	51.805	ug/L	1.816	3	334	925137	1
	Co	59	50.263	ug/L	0.528	1	88	707423	1
>	Ge	72		ug/L			461747	447156	1
	Ni	60	51.683	ug/L	1.699	3	31	158116	1
	Ni	62	48.660	ug/L	3.944	8	1423	23608	5
	Cu	63	49.857	ug/L	0.851	1	1037	332691	1
	Cu	65	49.942	ug/L	1.534	3	65	150971	1
	Zn	66	51.645	ug/L	1.303	2	136	86423	0
	Zn	67	50.057	ug/L	0.538	1	29	14754	1
	Zn	68	50.359	ug/L	1.900	3	187	62113	2
	As	75	50.026	ug/L	2.067	4	272	81002	2
	As-1	75	50.212	ug/L	1.916	3	7476	88543	2
	Se	82	51.034	ug/L	1.347	2	-5	8434	0
	Se	78	50.703	ug/L	1.012	1	7591	29372	2
	Mo	98	48.285	ug/L	1.486	3	19	206571	1
	Y	89		ug/L			289059	279813	2
	Kr	83		ug/L			540	550	1
>	In	115		ug/L			1039566	1016293	1
	Ag	107	48.903	ug/L	1.206	2	35	557521	3
	Cd	111	50.985	ug/L	0.257	0	103	275639	1
	Cd	114	49.174	ug/L	0.811	1	34	680163	0
	Sb	121	49.759	ug/L	0.457	0	264	793198	0
	Sb	123	49.079	ug/L	0.969	1	200	597832	0
	Ba	135	49.101	ug/L	1.071	2	21	254438	0
	Ba	137	49.013	ug/L	0.533	1	29	444061	0
>	Tb	159		ug/L			1387186	1330681	1
	Tl	205	51.465	ug/L	0.800	1	300	2282733	0
	Pb	208	49.104	ug/L	0.804	1	162	2726227	0
	Bi	209		ug/L			2880974	2748184	0
	Th	232	51.118	ug/L	0.926	1	2849	2588150	0
	U	238	51.787	ug/L	0.987	1	25	2709680	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 11:33:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	969313	2
	Be	9	-0.001	ug/L	0.001	169	10	8	37
	C	13		ug/L			75670	73255	2
	Cl	37		ug/L			3921810	3934981	3
>	Sc	45		ug/L			776850	775867	1
	V	51	0.001	ug/L	0.003	375	5488	5494	1
	V-1	51	-0.009	ug/L	0.000	2	776	636	1
	Cr	52	0.023	ug/L	0.011	49	16030	16315	0
	Cr	53	-0.009	ug/L	0.010	110	304	290	4
	Mn	55	0.002	ug/L	0.002	102	334	365	8
	Co	59	0.001	ug/L	0.000	65	88	95	6
>	Ge	72		ug/L			461747	456630	2
	Ni	60	0.001	ug/L	0.002	207	31	34	17
	Ni	62	-0.359	ug/L	0.199	55	1423	1238	5
	Cu	63	-0.025	ug/L	0.011	45	1037	854	7
	Cu	65	0.000	ug/L	0.001	182	65	66	2
	Zn	66	0.025	ug/L	0.014	56	136	176	11
	Zn	67	0.013	ug/L	0.014	108	29	33	13
	Zn	68	0.029	ug/L	0.013	46	187	221	8
	As	75	-0.004	ug/L	0.016	457	272	263	7
	As-1	75	0.134	ug/L	0.153	114	7476	7611	1
	Se	82	0.029	ug/L	0.074	252	-5	0	1312
	Se	78	0.552	ug/L	0.557	100	7591	7748	1
	Mo	98	0.008	ug/L	0.002	25	19	53	15
	Y	89		ug/L			289059	287044	2
	Kr	83		ug/L			540	541	3
>	In	115		ug/L			1039566	1022500	0
	Ag	107	-0.000	ug/L	0.000	64	35	32	4
	Cd	111	-0.001	ug/L	0.001	166	103	97	5
	Cd	114	0.000	ug/L	0.001	180	34	39	25
	Sb	121	0.026	ug/L	0.006	22	264	670	13
	Sb	123	0.025	ug/L	0.006	24	200	505	14
	Ba	135	0.000	ug/L	0.000	12088	21	21	9
	Ba	137	0.000	ug/L	0.000	562	29	29	9
>	Tb	159		ug/L			1387186	1350748	0
	Tl	205	-0.002	ug/L	0.000	16	300	199	8
	Pb	208	0.001	ug/L	0.000	37	162	212	9
	Bi	209		ug/L			2880974	2881322	0
	Th	232	0.148	ug/L	0.040	27	2849	10360	20
	U	238	0.001	ug/L	0.000	2	25	98	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 11:37:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	986835	0
	Be	9	0.201	ug/L	0.008	4	10	660	3
	C	13		ug/L			75670	75630	5
	Cl	37		ug/L			3921810	3986895	4
>	Sc	45		ug/L			776850	781774	2
	V	51	0.213	ug/L	0.013	6	5488	8989	3
	V-1	51	0.199	ug/L	0.005	2	776	4051	2
	Cr	52	0.540	ug/L	0.028	5	16030	23504	1
	Cr	53	0.478	ug/L	0.017	3	304	1077	0
	Mn	55	0.528	ug/L	0.023	4	334	10163	1
	Co	59	0.210	ug/L	0.005	2	88	3164	3
>	Ge	72		ug/L			461747	461814	1
	Ni	60	0.544	ug/L	0.004	0	31	1751	1
	Ni	62	-0.366	ug/L	0.177	48	1423	1250	5
	Cu	63	0.465	ug/L	0.020	4	1037	4229	2
	Cu	65	0.510	ug/L	0.013	2	65	1656	0
	Zn	66	4.287	ug/L	0.101	2	136	7534	0
	Zn	67	3.909	ug/L	0.042	1	29	1217	2
	Zn	68	3.977	ug/L	0.126	3	187	5238	1
	As	75	0.217	ug/L	0.014	6	272	633	3
	As-1	75	0.266	ug/L	0.105	39	7476	7919	0
	Se	82	0.578	ug/L	0.065	11	-5	93	13
	Se	78	0.738	ug/L	0.332	44	7591	7921	0
	Mo	98	0.194	ug/L	0.018	9	19	876	11
	Y	89		ug/L			289059	289006	0
	Kr	83		ug/L			540	536	2
>	In	115		ug/L			1039566	1030945	0
	Ag	107	0.206	ug/L	0.004	1	35	2417	1
	Cd	111	0.104	ug/L	0.006	5	103	673	5
	Cd	114	0.108	ug/L	0.003	2	34	1551	3
	Sb	121	0.189	ug/L	0.006	3	264	3315	3
	Sb	123	0.193	ug/L	0.009	4	200	2580	3
	Ba	135	0.483	ug/L	0.022	4	21	2558	4
	Ba	137	0.494	ug/L	0.010	1	29	4567	1
>	Tb	159		ug/L			1387186	1373691	1
	Tl	205	0.189	ug/L	0.005	2	300	8957	1
	Pb	208	0.103	ug/L	0 003	2	162	6081	1
	Bi	209		ug/L			2880974	2883174	0
	Th	232	0.171	ug/L	0.008	4	2849	11760	2
	U	238	0.186	ug/L	0.006	3	25	10080	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 11:41:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	1051543	4
	Be	9	0.000	ug/L	0.001	553	10	12	30
	C	13		ug/L			75670	162209	3
	Cl	37		ug/L			3921810	11823206	2
>	Sc	45		ug/L			776850	878760	6
	V	51	0.186	ug/L	0.034	18	5488	9586	2
	V-1	51	1.301	ug/L	0.032	2	776	24980	7
	Cr	52	0.645	ug/L	0.045	6	16030	28004	4
	Cr	53	4.271	ug/L	0.129	3	304	8087	8
	Mn	55	0.085	ug/L	0.003	3	334	2146	5
	Co	59	0.023	ug/L	0.003	13	88	484	8
>	Ge	72		ug/L			461747	478691	0
	Ni	60	0.398	ug/L	0.012	2	31	1337	3
	Ni	62	10.691	ug/L	4.650	43	1423	6708	34
	Cu	63	1.418	ug/L	0.260	18	1037	11176	16
	Cu	65	0.388	ug/L	0.026	6	65	1323	6
	Zn	66	1.047	ug/L	0.032	3	136	2013	2
	Zn	67	6.153	ug/L	0.157	2	29	1968	2
	Zn	68	0.413	ug/L	0.016	3	187	737	2
	As	75	0.062	ug/L	0.035	55	272	390	15
	As-1	75	0.396	ug/L	0.103	26	7476	8437	2
	Se	82	-0.258	ug/L	0.094	36	-5	-51	31
	Se	78	1.402	ug/L	0.435	31	7591	8521	2
	Mo	98	374.077	ug/L	12.220	3	19	1713647	3
	Y	89		ug/L			289059	305257	3
	Kr	83		ug/L			540	801	3
>	In	115		ug/L			1039566	1024668	2
	Ag	107	0.016	ug/L	0.001	3	35	216	4
	Cd	111	0.187	ug/L	0.024	12	103	1125	14
	Cd	114	0.307	ug/L	0.004	1	34	4318	2
	Sb	121	0.052	ug/L	0.003	6	264	1091	7
	Sb	123	0.051	ug/L	0.002	4	200	824	3
	Ba	135	0.049	ug/L	0.002	3	21	279	0
	Ba	137	0.042	ug/L	0.003	7	29	410	9
>	Tb	159		ug/L			1387186	1406854	2
	Tl	205	0.030	ug/L	0.001	4	300	1701	3
	Pb	208	0.029	ug/L	0.000	1	162	1889	3
	Bi	209		ug/L			2880974	2682319	2
	Th	232	0.072	ug/L	0.041	57	2849	6709	29
	U	238	0.000	ug/L	0.000	90	25	37	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 11:47:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	1031878	4
	Be	9	0.002	ug/L	0.001	48	10	16	12
	C	13		ug/L			75670	159822	6
	Cl	37		ug/L			3921810	11789815	1
>	Sc	45		ug/L			776850	868685	3
	V	51	0.102	ug/L	0.260	256	5488	8072	62
	V-1	51	1.303	ug/L	0.047	3	776	24741	6
	Cr	52	20.750	ug/L	0.378	1	16030	332678	4
	Cr	53	23.794	ug/L	0.780	3	304	42923	3
	Mn	55	19.680	ug/L	0.179	0	334	407469	4
	Co	59	18.654	ug/L	0.657	3	88	304032	4
>	Ge	72		ug/L			461747	467451	3
	Ni	60	20.372	ug/L	0.386	1	31	65217	4
	Ni	62	30.046	ug/L	3.656	12	1423	15829	13
	Cu	63	21.386	ug/L	0.310	1	1037	149768	2
	Cu	65	19.636	ug/L	0.552	2	65	62124	4
	Zn	66	20.820	ug/L	0.118	0	136	36516	3
	Zn	67	22.122	ug/L	0.324	1	29	6835	4
	Zn	68	18.855	ug/L	0.499	2	187	24443	4
	As	75	19.480	ug/L	0.472	2	272	33156	3
	As-1	75	19.836	ug/L	0.576	2	7476	41154	3
	Se	82	-0.214	ug/L	0.099	46	-5	-42	41
	Se	78	1.746	ug/L	0.498	28	7591	8475	2
	Mo	98	396.216	ug/L	7.057	1	19	1771836	1
	Y	89		ug/L			289059	301029	4
	Kr	83		ug/L			540	776	4
>	In	115		ug/L			1039566	1048197	1
	Ag	107	19.463	ug/L	0.329	1	35	228794	1
	Cd	111	19.460	ug/L	0.250	1	103	108589	2
	Cd	114	19.512	ug/L	0.453	2	34	278432	3
	Sb	121	0.050	ug/L	0.001	2	264	1084	3
	Sb	123	0.048	ug/L	0.002	3	200	806	4
	Ba	135	0.051	ug/L	0.001	2	21	295	1
	Ba	137	0.043	ug/L	0 002	4	29	428	4
>	Tb	159		ug/L			1387186	1438064	2
	Tl	205	0.026	ug/L	0.001	3	300	1578	5
	Pb	208	0.033	ug/L	0.001	2	162	2130	3
	Bi	209		ug/L			2880974	2705704	3
	Th	232	-0.001	ug/L	0.004	330	2849	2898	8
	U	238	0.000	ug/L	0.000	50	25	32	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 11:54:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
[>	Li	6		ug/L			988464	910298	3
[	Be	9	196.584	ug/L	4.604	2	10	585771	1
	C	13		ug/L			75670	73693	4
	Cl	37		ug/L			3921810	4140185	0
[>	Sc	45		ug/L			776850	733872	2
	V	51	218.957	ug/L	2.537	1	5488	3347534	2
	V-1	51	213.950	ug/L	4.375	2	776	3309400	2
	Cr	52	209.233	ug/L	3.202	1	16030	2695095	1
	Cr	53	193.276	ug/L	10.283	5	304	292350	2
	Mn	55	205.728	ug/L	6.981	3	334	3593968	3
[	Co	59	208.440	ug/L	7.007	3	88	2868052	0
[>	Ge	72		ug/L			461747	403194	2
	Ni	60	200.829	ug/L	4.922	2	31	553925	0
	Ni	62	204.375	ug/L	3.394	1	1423	85532	3
	Cu	63	197.181	ug/L	5.322	2	1037	1183560	1
	Cu	65	197.142	ug/L	5.178	2	65	537233	1
	Zn	66	199.203	ug/L	4.430	2	136	300230	0
	Zn	67	193.774	ug/L	2.890	1	29	51423	2
	Zn	68	197.903	ug/L	4.213	2	187	219660	1
	As	75	207.184	ug/L	4.551	2	272	301798	0
	As-1	75	205.649	ug/L	3.673	1	7476	306830	0
	Se	82	209.446	ug/L	6.014	2	-5	31225	0
	Se	78	199.886	ug/L	3.345	1	7591	84897	1
[	Mo	98	228.954	ug/L	7.366	3	19	883041	1
	Y	89		ug/L			289059	269438	3
	Kr	83		ug/L			540	729	0
[>	In	115		ug/L			1039566	985469	0
	Ag	107	233.431	ug/L	2.555	1	35	2579790	0
	Cd	111	200.426	ug/L	3.287	1	103	1050372	1
	Cd	114	213.064	ug/L	2.693	1	34	2857857	0
	Sb	121	217.262	ug/L	2.575	1	264	3357554	0
	Sb	123	217.547	ug/L	2.734	1	200	2569437	1
	Ba	135	199.151	ug/L	2.641	1	21	1000813	1
[	Ba	137	202.537	ug/L	2.082	1	29	1779433	1
[>	Tb	159		ug/L			1387186	1316359	0
	Tl	205	198.043	ug/L	3.807	1	300	8689248	1
	Pb	208	203.299	ug/L	1.310	0	162	11166131	0
	Bi	209		ug/L			2880974	2546554	0
	Th	232	202.341	ug/L	2.203	1	2849	10127461	0
[	U	238	196.043	ug/L	3.056	1	25	10149072	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 12:01:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			988464	979386	1
	Be	9	0.005	ug/L	0.001	26	10	25	14
	C	13		ug/L			75670	74715	5
	Cl	37		ug/L			3921810	3997150	0
>	Sc	45		ug/L			776850	775002	4
	V	51	0.003	ug/L	0.034	1329	5488	5504	7
	V-1	51	0.021	ug/L	0.007	33	776	1116	6
	Cr	52	0.049	ug/L	0.093	192	16030	16626	5
	Cr	53	0.107	ug/L	0.004	3	304	475	3
	Mn	55	0.038	ug/L	0.005	11	334	1034	3
	Co	59	0.003	ug/L	0.001	29	88	124	4
>	Ge	72		ug/L			461747	450874	2
	Ni	60	0.128	ug/L	0.004	3	31	425	2
	Ni	62	1.953	ug/L	0.463	23	1423	2288	8
	Cu	63	0.211	ug/L	0.030	14	1037	2427	7
	Cu	65	0.139	ug/L	0.009	6	65	487	4
	Zn	66	1.433	ug/L	0.034	2	136	2546	0
	Zn	67	1.227	ug/L	0.062	5	29	393	5
	Zn	68	1.366	ug/L	0.031	2	187	1876	0
	As	75	-0.011	ug/L	0.013	125	272	248	6
	As-1	75	0.108	ug/L	0.072	66	7476	7474	0
	Se	82	-0.055	ug/L	0.060	109	-5	-14	67
	Se	78	0.451	ug/L	0.263	58	7591	7609	1
	Mo	98	0.035	ug/L	0.006	15	19	169	13
	Y	89		ug/L			289059	287954	0
	Kr	83		ug/L			540	563	3
>	In	115		ug/L			1039566	1063360	1
	Ag	107	0.007	ug/L	0.002	24	35	118	16
	Cd	111	0.006	ug/L	0.002	27	103	141	8
	Cd	114	0.005	ug/L	0.001	29	34	100	18
	Sb	121	0.063	ug/L	0.013	20	264	1320	17
	Sb	123	0.064	ug/L	0.013	19	200	1024	17
	Ba	135	0.022	ug/L	0.003	11	21	142	11
	Ba	137	0.020	ug/L	0.003	13	29	219	10
>	Tb	159		ug/L			1387186	1397934	0
	Tl	205	0.017	ug/L	0.005	29	300	1085	21
	Pb	208	0.034	ug/L	0.001	3	162	2140	3
	Bi	209		ug/L			2880974	2925741	1
	Th	232	0.218	ug/L	0.076	34	2849	14446	28
	U	238	0.004	ug/L	0.000	7	25	258	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 12:06:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			988464	974322	0
[	Be	9	0.002	ug/L	0.001	27	10	17	10
	C	13		ug/L			75670	75113	2
	Cl	37		ug/L			3921810	4024521	2
[>	Sc	45		ug/L			776850	783396	0
	V	51	0.009	ug/L	0.012	134	5488	5685	4
	V-1	51	0.009	ug/L	0.001	12	776	929	1
	Cr	52	0.047	ug/L	0.040	84	16030	16815	3
	Cr	53	0.044	ug/L	0.007	15	304	379	2
	Mn	55	0.035	ug/L	0.003	7	334	990	4
[	Co	59	0.001	ug/L	0.001	77	88	104	11
[>	Ge	72		ug/L			461747	454840	1
	Ni	60	0.029	ug/L	0.004	15	31	120	10
	Ni	62	0.213	ug/L	0.200	93	1423	1502	7
	Cu	63	0.048	ug/L	0.012	24	1037	1347	6
	Cu	65	0.044	ug/L	0.005	10	65	198	5
	Zn	66	0.521	ug/L	0.035	6	136	1020	4
	Zn	67	0.438	ug/L	0.034	7	29	160	5
	Zn	68	0.496	ug/L	0.029	5	187	804	3
	As	75	-0.000	ug/L	0.022	11000	272	267	13
	As-1	75	0.133	ug/L	0.082	61	7476	7583	1
	Se	82	-0.000	ug/L	0.069	159367	-5	-5	202
	Se	78	0.514	ug/L	0.261	50	7591	7704	0
[	Mo	98	0.008	ug/L	0.000	6	19	52	3
	Y	89		ug/L			289059	287677	0
	Kr	83		ug/L			540	542	6
[>	In	115		ug/L			1039566	1067418	0
	Ag	107	0.002	ug/L	0.001	34	35	56	12
	Cd	111	-0.000	ug/L	0.001	238	103	104	3
	Cd	114	0.001	ug/L	0.000	32	34	53	11
	Sb	121	0.010	ug/L	0.002	25	264	434	9
	Sb	123	0.009	ug/L	0.004	40	200	319	14
	Ba	135	0.017	ug/L	0.001	7	21	116	5
[	Ba	137	0.016	ug/L	0.003	16	29	185	14
[>	Tb	159		ug/L			1387186	1376893	0
	Tl	205	0.006	ug/L	0.003	50	300	556	23
	Pb	208	0.012	ug/L	0.001	4	162	859	4
	Bi	209		ug/L			2880974	2905730	0
	Th	232	0.018	ug/L	0.013	74	2849	3767	19
[	U	238	0.000	ug/L	0.000	21	25	51	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 12:11:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
⌈>	Li	6		ug/L			988464	975596	1
⌊	Be	9	50.784	ug/L	0.128	0	10	162257	1
	C	13		ug/L			75670	73450	3
	Cl	37		ug/L			3921810	4133992	1
⌈>	Sc	45		ug/L			776850	765090	2
|	V	51	51.261	ug/L	1.483	2	5488	820907	0
|	V-1	51	51.006	ug/L	1.296	2	776	823019	0
|	Cr	52	51.142	ug/L	1.955	3	16030	698586	2
|	Cr	53	50.312	ug/L	1.048	2	304	79615	0
|	Mn	55	52.088	ug/L	1.351	2	334	948775	0
⌊	Co	59	51.586	ug/L	1.689	3	88	740347	2
⌈>	Ge	72		ug/L			461747	449497	1
|	Ni	60	51.101	ug/L	1.368	2	31	157173	1
|	Ni	62	47.840	ug/L	1.552	3	1423	23374	2
|	Cu	63	49.931	ug/L	0.810	1	1037	334972	1
|	Cu	65	48.562	ug/L	1.715	3	65	147579	2
|	Zn	66	51.637	ug/L	1 535	2	136	86871	2
|	Zn	67	49.742	ug/L	0.572	1	29	14740	2
|	Zn	68	49.937	ug/L	1.278	2	187	61943	2
|	As	75	50.301	ug/L	0 596	1	272	81903	0
|	As-1	75	50.528	ug/L	0.328	0	7476	89552	0
|	Se	82	51.377	ug/L	1.055	2	-5	8537	0
|	Se	78	51.221	ug/L	0.299	0	7591	29754	1
⌊	Mo	98	50.033	ug/L	0.962	1	19	215241	2
	Y	89		ug/L			289059	285847	2
	Kr	83		ug/L			540	569	7
⌈>	In	115		ug/L			1039566	1043785	1
|	Ag	107	51.946	ug/L	1.188	2	35	608009	1
|	Cd	111	50.549	ug/L	0.614	1	103	280665	0
|	Cd	114	50.165	ug/L	0.360	0	34	712717	0
|	Sb	121	49.916	ug/L	0.650	1	264	817297	1
|	Sb	123	50.045	ug/L	1.119	2	200	626095	1
|	Ba	135	48.623	ug/L	1.218	2	21	258784	1
⌊	Ba	137	49.174	ug/L	1.358	2	29	457505	1
⌈>	Tb	159		ug/L			1387186	1360821	1
|	Tl	205	51.614	ug/L	0.950	1	300	2341104	0
|	Pb	208	49.473	ug/L	0.759	1	162	2808885	0
|	Bi	209		ug/L			2880974	2779096	0
|	Th	232	51.023	ug/L	1.496	2	2849	2641583	1
⌊	U	238	51.470	ug/L	1.139	2	25	2754023	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 12:18:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			988464	968125	1
	Be	9	0.000	ug/L	0.001	180	10	11	13
	C	13		ug/L			75670	73902	0
	Cl	37		ug/L			3921810	4007043	3
>	Sc	45		ug/L			776850	770737	2
	V	51	0.009	ug/L	0.024	274	5488	5581	5
	V-1	51	-0.001	ug/L	0.000	31	776	748	2
	Cr	52	0.041	ug/L	0.068	166	16030	16442	3
	Cr	53	0.006	ug/L	0.013	204	304	312	8
	Mn	55	0.001	ug/L	0.001	98	334	357	6
	Co	59	-0.000	ug/L	0.000	70	88	81	8
>	Ge	72		ug/L			461747	452782	4
	Ni	60	0.002	ug/L	0.001	81	31	36	7
	Ni	62	-0.539	ug/L	0.266	49	1423	1143	7
	Cu	63	-0.034	ug/L	0.012	34	1037	783	7
	Cu	65	0.001	ug/L	0.003	291	65	67	12
	Zn	66	0.014	ug/L	0.004	29	136	157	2
	Zn	67	0.026	ug/L	0.006	23	29	37	9
	Zn	68	0.032	ug/L	0.022	68	187	222	9
	As	75	0.001	ug/L	0.008	952	272	268	6
	As-1	75	0.188	ug/L	0.233	124	7476	7628	0
	Se	82	0.012	ug/L	0.029	237	-5	-3	131
	Se	78	0.724	ug/L	0.908	125	7591	7750	0
	Mo	98	0.008	ug/L	0.000	2	19	54	5
	Y	89		ug/L			289059	287243	1
	Kr	83		ug/L			540	538	1
>	In	115		ug/L			1039566	1044980	1
	Ag	107	0.001	ug/L	0.001	48	35	47	13
	Cd	111	-0.001	ug/L	0.002	170	103	97	12
	Cd	114	0.001	ug/L	0.000	24	34	50	6
	Sb	121	0.026	ug/L	0.004	15	264	697	9
	Sb	123	0.030	ug/L	0.007	22	200	577	13
	Ba	135	-0.001	ug/L	0.001	163	21	17	38
	Ba	137	0.000	ug/L	0.002	407	29	33	47
>	Tb	159		ug/L			1387186	1361744	1
	Tl	205	0.001	ug/L	0.001	194	300	319	16
	Pb	208	0.001	ug/L	0.000	27	162	204	4
	Bi	209		ug/L			2880974	2900770	0
	Th	232	0.137	ug/L	0.042	30	2849	9923	23
	U	238	0.002	ug/L	0.000	4	25	113	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA14 MB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 12:30:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	990694	1
	Be	9	0.001	ug/L	0.001	80	10	15	22
	C	13		ug/L			75670	81612	7
	Cl	37		ug/L			3921810	4036662	3
>	Sc	45		ug/L			776850	794614	2
	V	51	0.007	ug/L	0.006	80	5488	5735	1
	V-1	51	-0.003	ug/L	0.001	36	776	741	2
	Cr	52	0.043	ug/L	0.022	49	16030	16994	0
	Cr	53	0.007	ug/L	0.005	74	304	323	0
	Mn	55	0.042	ug/L	0.002	5	334	1143	2
	Co	59	0.001	ug/L	0.000	33	88	111	4
>	Ge	72		ug/L			461747	461949	0
	Ni	60	0.134	ug/L	0.011	8	31	454	7
	Ni	62	-1.331	ug/L	0.027	2	1423	795	1
	Cu	63	0.066	ug/L	0.007	10	1037	1492	3
	Cu	65	0.141	ug/L	0.006	4	65	505	3
	Zn	66	0.924	ug/L	0.023	2	136	1732	2
	Zn	67	0.703	ug/L	0.037	5	29	243	5
	Zn	68	0.871	ug/L	0.037	4	187	1294	2
	As	75	0.005	ug/L	0.023	451	272	280	12
	As-1	75	0.160	ug/L	0.095	59	7476	7746	1
	Se	82	0.032	ug/L	0.124	391	-5	0	3703
	Se	78	0.635	ug/L	0.373	58	7591	7879	1
	Mo	98	0.010	ug/L	0.003	33	19	64	23
	Y	89		ug/L			289059	294022	1
	Kr	83		ug/L			540	556	4
>	In	115		ug/L			1039566	1054702	1
	Ag	107	0.000	ug/L	0.001	628	35	38	42
	Cd	111	-0.002	ug/L	0.001	91	103	95	7
	Cd	114	-0.002	ug/L	0 010	410	34	1	8548
	Sb	121	0.002	ug/L	0.003	207	264	294	18
	Sb	123	0.002	ug/L	0.005	198	200	232	23
	Ba	135	0.009	ug/L	0.001	14	21	68	11
	Ba	137	0.011	ug/L	0.000	3	29	129	1
>	Tb	159		ug/L			1387186	1388461	0
	Tl	205	0.007	ug/L	0.001	14	300	633	6
	Pb	208	0.145	ug/L	0.009	6	162	8541	5
	Bi	209		ug/L			2880974	2892016	0
	Th	232	0.023	ug/L	0.012	55	2849	4041	15
	U	238	0.000	ug/L	0.000	38	25	39	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ86 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 12:34:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	999813	2
	Be	9	0.004	ug/L	0.002	51	10	24	30
	C	13		ug/L			75670	99025	4
	Cl	37		ug/L			3921810	13907043	4
>	Sc	45		ug/L			776850	912645	3
	V	51	1.440	ug/L	0.010	0	5488	33772	2
	V-1	51	2.536	ug/L	0.106	4	776	49746	7
	Cr	52	0.209	ug/L	0.065	31	16030	22151	5
	Cr	53	3.849	ug/L	0.377	9	304	7611	12
	Mn	55	302.218	ug/L	4.025	1	334	6565298	2
	Co	59	0.360	ug/L	0.010	2	88	6272	2
>	Ge	72		ug/L			461747	408590	1
	Ni	60	6.239	ug/L	0.199	3	31	17466	1
	Ni	62	36.910	ug/L	6.268	16	1423	16676	15
	Cu	63	8.875	ug/L	0.293	3	1037	54868	2
	Cu	65	1.005	ug/L	0.044	4	65	2833	2
	Zn	66	3.375	ug/L	0.123	3	136	5273	2
	Zn	67	4.734	ug/L	0.188	3	29	1298	2
	Zn	68	5.589	ug/L	0.103	1	187	6447	0
	As	75	0.734	ug/L	0.021	2	272	1324	3
	As-1	75	1.330	ug/L	0.195	14	7476	8582	2
	Se	82	1.014	ug/L	0.084	8	-5	148	8
	Se	78	3.585	ug/L	0.768	21	7591	8139	3
	Mo	98	1.806	ug/L	0.024	1	19	7078	1
	Y	89		ug/L			289059	292174	3
	Kr	83		ug/L			540	670	2
>	In	115		ug/L			1039566	934861	2
	Ag	107	0.001	ug/L	0.001	42	35	44	14
	Cd	111	-0.001	ug/L	0.004	381	103	87	23
	Cd	114	0.016	ug/L	0.002	13	34	231	9
	Sb	121	0.290	ug/L	0.002	0	264	4488	1
	Sb	123	0.286	ug/L	0.004	1	200	3389	1
	Ba	135	35.148	ug/L	0.286	0	21	167571	1
	Ba	137	35.494	ug/L	0.494	1	29	295837	2
>	Tb	159		ug/L			1387186	1339306	1
	Tl	205	0.004	ug/L	0.000	9	300	490	4
	Pb	208	0.059	ug/L	0.001	1	162	3434	1
	Bi	209		ug/L			2880974	1916099	2
	Th	232	0.012	ug/L	0.015	123	2849	3350	21
	U	238	1.248	ug/L	0.037	2	25	65780	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ86 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 12:38:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	862992	7
	Be	9	0.005	ug/L	0.002	37	10	24	29
	C	13		ug/L			75670	82859	5
	Cl	37		ug/L			3921810	5019124	5
>	Sc	45		ug/L			776850	775748	6
	V	51	0.510	ug/L	0.024	4	5488	13713	6
	V-1	51	0.729	ug/L	0.024	3	776	12711	8
	Cr	52	0.040	ug/L	0.005	13	16030	16550	6
	Cr	53	0.777	ug/L	0.052	6	304	1549	11
	Mn	55	210.470	ug/L	3.990	1	334	3885633	5
	Co	59	0.159	ug/L	0.004	2	88	2409	6
>	Ge	72		ug/L			461747	371153	7
	Ni	60	2.146	ug/L	0.028	1	31	5477	7
	Ni	62	25.622	ug/L	2.620	10	1423	10823	2
	Cu	63	3.655	ug/L	0.237	6	1037	20963	2
	Cu	65	0.484	ug/L	0.013	2	65	1267	5
	Zn	66	1.752	ug/L	0.038	2	136	2537	5
	Zn	67	1.931	ug/L	0.063	3	29	494	4
	Zn	68	3.243	ug/L	0.094	2	187	3459	5
	As	75	0.255	ug/L	0.046	18	272	557	4
	As-1	75	0.864	ug/L	0.216	25	7476	7158	3
	Se	82	0.435	ug/L	0.018	4	-5	54	3
	Se	78	3.105	ug/L	0.762	24	7591	7208	3
	Mo	98	2.756	ug/L	0.260	9	19	9760	2
	Y	89		ug/L			289059	267342	0
	Kr	83		ug/L			540	622	1
>	In	115		ug/L			1039566	944734	1
	Ag	107	0.001	ug/L	0.000	56	35	40	11
	Cd	111	0.002	ug/L	0.002	107	103	105	13
	Cd	114	0.004	ug/L	0.001	20	34	85	13
	Sb	121	0.019	ug/L	0.001	5	264	520	2
	Sb	123	0.017	ug/L	0.001	4	200	379	2
	Ba	135	14.237	ug/L	0.235	1	21	68603	1
	Ba	137	14.121	ug/L	0.262	1	29	118980	3
>	Tb	159		ug/L			1387186	1283934	1
	Tl	205	-0.002	ug/L	0.000	15	300	210	6
	Pb	208	0.011	ug/L	0.001	5	162	722	5
	Bi	209		ug/L			2880974	2230868	0
	Th	232	-0.014	ug/L	0.005	34	2849	1941	14
	U	238	0.036	ug/L	0.001	1	25	1848	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ86 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 12:42:45
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			988464	801748	3
[	Be	9	0.005	ug/L	0.002	32	10	23	18
	C	13		ug/L			75670	79133	7
	Cl	37		ug/L			3921810	5056605	3
[>	Sc	45		ug/L			776850	718784	2
	V	51	0.616	ug/L	0.024	3	5488	14282	3
	V-1	51	0.841	ug/L	0.016	1	776	13460	2
	Cr	52	0.732	ug/L	0.060	8	16030	24034	6
	Cr	53	1.465	ug/L	0.028	1	304	2453	4
	Mn	55	442.970	ug/L	1.290	0	334	7580465	2
[	Co	59	0.200	ug/L	0.007	3	88	2778	3
[>	Ge	72		ug/L			461747	339565	3
	Ni	60	2.640	ug/L	0.100	3	31	6156	4
	Ni	62	20.665	ug/L	0.877	4	1423	8216	0
	Cu	63	3.263	ug/L	0.050	1	1037	17247	3
	Cu	65	0.618	ug/L	0.032	5	65	1466	2
	Zn	66	1.697	ug/L	0.034	1	136	2252	1
	Zn	67	1.938	ug/L	0.081	4	29	454	4
	Zn	68	3.401	ug/L	0.185	5	187	3315	6
	As	75	0.363	ug/L	0.027	7	272	644	2
	As-1	75	1.129	ug/L	0.189	16	7476	6881	0
	Se	82	0.506	ug/L	0.021	4	-5	59	2
	Se	78	3.857	ug/L	0.681	17	7591	6849	0
[	Mo	98	0.840	ug/L	0.045	5	19	2742	2
	Y	89		ug/L			289059	246211	3
	Kr	83		ug/L			540	611	3
[>	In	115		ug/L			1039566	898437	2
	Ag	107	0.001	ug/L	0.000	44	35	40	8
	Cd	111	0.009	ug/L	0.002	27	103	132	6
	Cd	114	0.006	ug/L	0.002	25	34	103	20
	Sb	121	0.039	ug/L	0.001	3	264	774	4
	Sb	123	0.039	ug/L	0.000	0	200	598	3
	Ba	135	15.228	ug/L	0.126	0	21	69780	2
[	Ba	137	15.515	ug/L	0.220	1	29	124258	1
[>	Tb	159		ug/L			1387186	1197447	2
	Tl	205	0.000	ug/L	0.001	344	300	266	6
	Pb	208	0.008	ug/L	0.000	3	162	559	3
	Bi	209		ug/L			2880974	1915147	1
	Th	232	-0.034	ug/L	0.001	1	2849	898	1
[	U	238	0.125	ug/L	0.003	2	25	5892	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ86 J REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 12:46:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	841262	1
	Be	9	0.003	ug/L	0.002	68	10	16	28
	C	13		ug/L			75670	75184	1
	Cl	37		ug/L			3921810	5510775	1
>	Sc	45		ug/L			776850	754429	0
	V	51	0.651	ug/L	0.013	1	5488	15543	1
	V-1	51	1.019	ug/L	0.017	1	776	16959	1
	Cr	52	0.101	ug/L	0.051	50	16030	16895	4
	Cr	53	1.329	ug/L	0.079	5	304	2362	5
	Mn	55	905.538	ug/L	16.124	1	334	16264906	1
	Co	59	0.125	ug/L	0.004	3	88	1849	2
>	Ge	72		ug/L			461747	354424	1
	Ni	60	1.193	ug/L	0.041	3	31	2916	2
	Ni	62	30.986	ug/L	7.548	24	1423	12303	21
	Cu	63	4.430	ug/L	0.512	11	1037	24136	10
	Cu	65	0.429	ug/L	0.020	4	65	1078	3
	Zn	66	1.438	ug/L	0.031	2	136	2009	1
	Zn	67	1.462	ug/L	0.070	4	29	363	5
	Zn	68	3.494	ug/L	0.047	1	187	3551	2
	As	75	0.213	ug/L	0.026	12	272	481	6
	As-1	75	1.163	ug/L	0.112	9	7476	7230	0
	Se	82	0.179	ug/L	0.088	49	-5	18	60
	Se	78	4.114	ug/L	0.453	11	7591	7241	0
	Mo	98	0.096	ug/L	0.004	4	19	341	3
	Y	89		ug/L			289059	257076	2
	Kr	83		ug/L			540	591	4
>	In	115		ug/L			1039566	923345	1
	Ag	107	-0.001	ug/L	0.001	125	35	25	28
	Cd	111	-0.005	ug/L	0.005	104	103	67	37
	Cd	114	0.003	ug/L	0.000	9	34	72	6
	Sb	121	0.027	ug/L	0.001	3	264	621	2
	Sb	123	0.027	ug/L	0.001	4	200	471	1
	Ba	135	7.093	ug/L	0.078	1	21	33420	2
	Ba	137	7.166	ug/L	0.152	2	29	59011	2
>	Tb	159		ug/L			1387186	1253692	0
	Tl	205	-0.003	ug/L	0.001	16	300	128	17
	Pb	208	0.008	ug/L	0.000	3	162	577	3
	Bi	209		ug/L			2880974	2285013	1
	Th	232	-0.041	ug/L	0.000	1	2849	626	3
	U	238	0.013	ug/L	0.001	3	25	664	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA14 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 12:51:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	924681	0
	Be	9	0.003	ug/L	0.001	44	10	18	20
	C	13		ug/L			75670	92979	1
	Cl	37		ug/L			3921810	5113552	3
>	Sc	45		ug/L			776850	773422	0
	V	51	0.635	ug/L	0.015	2	5488	15675	1
	V-1	51	1.022	ug/L	0.048	4	776	17427	4
	Cr	52	0.459	ug/L	0.050	10	16030	22154	3
	Cr	53	1.732	ug/L	0.124	7	304	3063	6
	Mn	55	11.270	ug/L	0.339	3	334	207822	2
	Co	59	0.104	ug/L	0.004	3	88	1591	3
>	Ge	72		ug/L			461747	417399	0
	Ni	60	1.458	ug/L	0.024	1	31	4193	1
	Ni	62	14.082	ug/L	1.496	10	1423	7295	8
	Cu	63	27.237	ug/L	0.778	2	1037	170122	3
	Cu	65	25.995	ug/L	0.354	1	65	73405	0
	Zn	66	41.885	ug/L	0.505	1	136	65467	0
	Zn	67	35.535	ug/L	0.663	1	29	9785	1
	Zn	68	39.161	ug/L	0.317	0	187	45144	0
	As	75	0.822	ug/L	0.029	3	272	1485	2
	As-1	75	1.289	ug/L	0.038	2	7476	8706	0
	Se	82	0.236	ug/L	0.032	13	-5	31	16
	Se	78	2.105	ug/L	0.091	4	7591	7715	0
	Mo	98	0.459	ug/L	0.011	2	19	1851	2
	Y	89		ug/L			289059	283487	1
	Kr	83		ug/L			540	557	2
>	In	115		ug/L			1039566	1028042	1
	Ag	107	0.065	ug/L	0.002	2	35	786	1
	Cd	111	4 0.088	ug/L	0.009	9	103	581	6
	Cd	114	0.090	ug/L	0.004	4	34	1292	3
	Sb	121	0.202	ug/L	0.006	2	264	3510	2
	Sb	123	0.200	ug/L	0.004	1	200	2657	2
	Ba	135	6.239	ug/L	0.157	2	21	32723	0
	Ba	137	6.227	ug/L	0.144	2	29	57092	1
>	Tb	159		ug/L			1387186	1381663	0
	Tl	205	-0.001	ug/L	0.000	9	300	253	1
	Pb	208	0.318	ug/L	0.003	0	162	18497	0
	Bi	209		ug/L			2880974	2703861	1
	Th	232	-0.041	ug/L	0.001	1	2849	673	5
	U	238	0.008	ug/L	0.001	6	25	459	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA14 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 12:55:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	939317	2
	Be	9	0.004	ug/L	0.002	43	10	23	24
	C	13		ug/L			75670	124918	3
	Cl	37		ug/L			3921810	4999701	3
>	Sc	45		ug/L			776850	791974	3
	V	51	1.307	ug/L	0.089	6	5488	27089	2
	V-1	51	1.621	ug/L	0.035	2	776	27840	1
	Cr	52	1.369	ug/L	0.144	10	16030	35237	2
	Cr	53	2.396	ug/L	0.034	1	304	4222	4
	Mn	55	31.851	ug/L	1.682	5	334	600299	2
	Co	59	0.192	ug/L	0.002	1	88	2944	2
>	Ge	72		ug/L			461747	425406	1
	Ni	60	2.233	ug/L	0.012	0	31	6531	2
	Ni	62	9.907	ug/L	0.360	3	1423	5621	3
	Cu	63	51.850	ug/L	0.273	0	1037	329165	1
	Cu	65	49.874	ug/L	1.678	3	65	143434	1
	Zn	66	97.359	ug/L	2.774	2	136	154887	1
	Zn	67	82.495	ug/L	3.336	4	29	23106	2
	Zn	68	91.743	ug/L	2.222	2	187	107531	1
	As	75	0.947	ug/L	0.041	4	272	1704	1
	As-1	75	1.328	ug/L	0.096	7	7476	8932	0
	Se	82	0.432	ug/L	0.072	16	-5	62	16
	Se	78	1.992	ug/L	0.303	15	7591	7816	1
	Mo	98	0.879	ug/L	0.028	3	19	3595	2
	Y	89		ug/L			289059	282661	1
	Kr	83		ug/L			540	574	2
>	In	115		ug/L			1039566	1020644	1
	Ag	107	0.186	ug/L	0.009	5	35	2161	3
	Cd	111	0.346	ug/L	0.006	1	103	1977	2
	Cd	114	0.345	ug/L	0.009	2	34	4830	1
	Sb	121	0.415	ug/L	0.007	1	264	6896	1
	Sb	123	0.420	ug/L	0.014	3	200	5335	1
	Ba	135	15.769	ug/L	0.154	0	21	82089	0
	Ba	137	15.663	ug/L	0.234	1	29	142525	0
>	Tb	159		ug/L			1387186	1373210	1
	Tl	205	0.001	ug/L	0.000	42	300	323	4
	Pb	208	1.307	ug/L	0.026	2	162	75005	0
	Bi	209		ug/L			2880974	2799194	1
	Th	232	-0.046	ug/L	0.001	2	2849	442	13
	U	238	0.024	ug/L	0.001	4	25	1343	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA14 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 12:59:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	930361	2
	Be	9	0.005	ug/L	0.002	31	10	26	19
	C	13		ug/L			75670	114089	3
	Cl	37		ug/L			3921810	4870243	4
>	Sc	45		ug/L			776850	780475	0
	V	51	1.274	ug/L	0.086	6	5488	26192	4
	V-1	51	1.589	ug/L	0.068	4	776	26922	3
	Cr	52	1.495	ug/L	0.106	7	16030	36475	3
	Cr	53	2.517	ug/L	0.046	1	304	4355	1
	Mn	55	30.898	ug/L	0.688	2	334	574469	2
	Co	59	0.190	ug/L	0.009	4	88	2869	4
>	Ge	72		ug/L			461747	415506	1
	Ni	60	2.114	ug/L	0.048	2	31	6038	1
	Ni	62	7.825	ug/L	0.161	2	1423	4606	3
	Cu	63	47.749	ug/L	1.454	3	1037	296076	1
	Cu	65	47.518	ug/L	1.114	2	65	133499	1
	Zn	66	97.429	ug/L	1.776	1	136	151409	0
	Zn	67	81.800	ug/L	2.397	2	29	22386	2
	Zn	68	90.187	ug/L	4.152	4	187	103268	4
	As	75	0.901	ug/L	0.033	3	272	1596	1
	As-1	75	1.376	ug/L	0.114	8	7476	8796	0
	Se	82	0.402	ug/L	0.074	18	-5	56	19
	Se	78	2.283	ug/L	0.318	13	7591	7751	0
	Mo	98	0.761	ug/L	0.022	2	19	3043	4
	Y	89		ug/L			289059	275978	1
	Kr	83		ug/L			540	546	2
>	In	115		ug/L			1039566	1021030	1
	Ag	107	0.598	ug/L	0.012	2	35	6879	0
	Cd	111	0.322	ug/L	0.001	0	103	1850	1
	Cd	114	0.321	ug/L	0.010	3	34	4494	1
	Sb	121	0.375	ug/L	0.010	2	264	6256	1
	Sb	123	0.369	ug/L	0.006	1	200	4713	1
	Ba	135	15.840	ug/L	0.335	2	21	82482	0
	Ba	137	15.879	ug/L	0.569	3	29	144522	2
>	Tb	159		ug/L			1387186	1372481	0
	Tl	205	0.000	ug/L	0.000	97	300	318	6
	Pb	208	1.415	ug/L	0.012	0	162	81166	0
	Bi	209		ug/L			2880974	2791654	0
	Th	232	-0.047	ug/L	0.001	1	2849	383	11
	U	238	0.022	ug/L	0.002	7	25	1220	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA14 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 13:03:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	933412	2
	Be	9	25.866	ug/L	0.799	3	10	79033	0
	C	13		ug/L			75670	120986	0
	Cl	37		ug/L			3921810	5069819	4
>	Sc	45		ug/L			776850	802557	1
	V	51	27.104	ug/L	0.855	3	5488	458204	3
	V-1	51	27.062	ug/L	0.843	3	776	458619	3
	Cr	52	27.183	ug/L	0.254	0	16030	397447	1
	Cr	53	27.044	ug/L	0.672	2	304	45044	2
	Mn	55	59.046	ug/L	1.231	2	334	1128442	1
	Co	59	24.312	ug/L	0.481	1	88	366125	1
>	Ge	72		ug/L			461747	423153	1
	Ni	60	30.135	ug/L	0.663	2	31	87298	2
	Ni	62	32.742	ug/L	0.096	0	1423	15474	1
	Cu	63	82.123	ug/L	1.858	2	1037	517996	1
	Cu	65	78.704	ug/L 124.7%	2.059	2	65	225230	3
	Zn	66	184.120	ug/L	2.562	1	136	291317	0
	Zn	67	161.205	ug/L	4.215	2	29	44914	3
	Zn	68	176.686	ug/L	1.841	1	187	205891	1
	As	75	27.749	ug/L	0.751	2	272	42644	1
	As-1	75	28.163	ug/L	1.190	4	7476	50011	2
	Se	82	81.578	ug/L	0.541	0	-5	12766	1
	Se	78	80.914	ug/L	1.561	1	7591	40211	0
	Mo	98	28.241	ug/L	0.801	2	19	114360	1
	Y	89		ug/L			289059	280451	2
	Kr	83		ug/L			540	563	2
>	In	115		ug/L			1039566	1023137	1
	Ag	107	21.104 ✓	ug/L	0.042	0	35	242196	0
	Cd	111	26.063	ug/L	0 227	0	103	141902	0
	Cd	114	25.377	ug/L	0.500	1	34	353403	1
	Sb	121	23.300	ug/L	0.120	0	264	374090	0
	Sb	123	23.234	ug/L	0.307	1	200	285069	1
	Ba	135	46.467	ug/L	0.838	1	21	242437	0
	Ba	137	46.558	ug/L	0.405	0	29	424680	0
>	Tb	159		ug/L			1387186	1378393	0
	Tl	205	25.091	ug/L	0.271	1	300	1153102	1
	Pb	208	27.324	ug/L	0.200	0	162	1571645	0
	Bi	209		ug/L			2880974	2823098	0
	Th	232	2.393	ug/L	0.129	5	2849	128198	5
	U	238	25.106	ug/L	0.071	0	25	1360940	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA14 MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 13:07:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	893478	2
	Be	9	26.054	ug/L	0.308	1	10	76231	1
	C	13		ug/L			75670	76029	5
	Cl	37		ug/L			3921810	3788479	1
>	Sc	45		ug/L			776850	709060	2
	V	51	26.893	ug/L	0.713	2	5488	401517	0
	V-1	51	26.606	ug/L	0.616	2	776	398202	0
	Cr	52	27.363	ug/L	0.735	2	16030	353287	2
	Cr	53	26.402	ug/L	0.583	2	304	38861	3
	Mn	55	27.625	ug/L	0.719	2	334	466541	2
	Co	59	26.206	ug/L	0.177	0	88	348671	2
>	Ge	72		ug/L			461747	407340	1
	Ni	60	28.224	ug/L	0.193	0	31	78698	1
	Ni	62	28.094	ug/L	0.544	1	1423	12958	1
	Cu	63	27.997	ug/L	0.565	2	1037	170589	0
	Cu	65	27.380	ug/L	0.159	0	65	75454	1
	Zn	66	88.426	ug/L	1.446	1	136	134770	2
	Zn	67	78.206	ug/L	2.148	2	29	20982	2
	Zn	68	85.637	ug/L	0.516	0	187	96146	1
	As	75	26.217	ug/L	0.538	2	272	38800	1
	As-1	75	26.805	ug/L	0.934	3	7476	46141	2
	Se	82	83.947	ug/L	0.101	0	-5	12646	1
	Se	78	83.832	ug/L	1.611	1	7591	39862	0
	Mo	98	25.839	ug/L	0.505	1	19	100746	2
	Y	89		ug/L			289059	262423	3
	Kr	83		ug/L			540	541	2
>	In	115		ug/L			1039566	995517	0
	Ag	107	27.327	ug/L	0.740	2	35	305101	2
	Cd	111	26.332	ug/L	0.210	0	103	139498	0
	Cd	114	25.309	ug/L	0.540	2	34	342971	1
	Sb	121	24.990	ug/L	0.189	0	264	390376	0
	Sb	123	24.912	ug/L	0.146	0	200	297391	0
	Ba	135	26.199	ug/L	0.092	0	21	133030	1
	Ba	137	26.279	ug/L	0.415	1	29	233249	1
>	Tb	159		ug/L			1387186	1317119	0
	Tl	205	25.338	ug/L	0.404	1	300	1112576	0
	Pb	208	26.805	ug/L	0.221	0	162	1473259	0
	Bi	209		ug/L			2880974	2832269	1
	Th	232	24.834	ug/L	0.603	2	2849	1246054	2
	U	238	25.055	ug/L	0.147	0	25	1297816	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 13:12:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	860263	2
	Be	9	50.903	ug/L	0.882	1	10	143395	1
	C	13		ug/L			75670	67297	2
	Cl	37		ug/L			3921810	3944540	1
>	Sc	45		ug/L			776850	687547	1
	V	51	51.525	ug/L	1.248	2	5488	741553	0
	V-1	51	51.135	ug/L	1.585	3	776	741458	1
	Cr	52	51.083	ug/L	1.403	2	16030	627194	1
	Cr	53	49.829	ug/L	2.161	4	304	70842	2
	Mn	55	51.033	ug/L	1.529	2	334	835338	1
	Co	59	48.837	ug/L	1.926	3	88	629717	2
>	Ge	72		ug/L			461747	402652	0
	Ni	60	49.930	ug/L	0.851	1	31	137601	1
	Ni	62	48.979	ug/L	1.550	3	1423	21407	2
	Cu	63	48.889	ug/L	0.680	1	1037	293819	1
	Cu	65	48.260	ug/L	0.587	1	65	131411	0
	Zn	66	50.524	ug/L	0.365	0	136	76156	0
	Zn	67	48.737	ug/L	1.937	3	29	12934	3
	Zn	68	49.932	ug/L	1.509	3	187	55492	3
	As	75	49.653	ug/L	0.806	1	272	72429	1
	As-1	75	50.300	ug/L	0.615	1	7476	79886	0
	Se	82	50.190	ug/L	1.207	2	-5	7470	1
	Se	78	51.632	ug/L	1.043	2	7591	26812	0
	Mo	98	49.612	ug/L	0.990	1	19	191182	1
	Y	89		ug/L			289059	256560	1
	Kr	83		ug/L			540	514	0
>	In	115		ug/L			1039566	962305	2
	Ag	107	49.815	ug/L	0.936	1	35	537478	0
	Cd	111	49.664	ug/L	1.551	3	103	254110	0
	Cd	114	50.001	ug/L	1.125	2	34	654721	0
	Sb	121	49.558	ug/L	1.124	2	264	747807	0
	Sb	123	49.359	ug/L	1.925	3	200	569057	1
	Ba	135	48.733	ug/L	0.991	2	21	239105	1
	Ba	137	49.283	ug/L	1.821	3	29	422564	1
>	Tb	159		ug/L			1387186	1272524	1
	Tl	205	50.192	ug/L	3.436	6	300	2127949	5
	Pb	208	49.096	ug/L	0.620	1	162	2606633	0
	Bi	209		ug/L			2880974	2682585	0
	Th	232	51.406	ug/L	1.521	2	2849	2488645	1
	U	238	51.455	ug/L	0.465	0	25	2574778	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 13:19:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			988464	881450	1
	Be	9	0.000	ug/L	0.000	443	10	9	5
	C	13		ug/L			75670	69040	3
	Cl	37		ug/L			3921810	3808699	1
>	Sc	45		ug/L			776850	697997	1
	V	51	0.004	ug/L	0.018	468	5488	4987	5
	V-1	51	0.006	ug/L	0.002	30	776	786	2
	Cr	52	0.028	ug/L	0.046	162	16030	14746	4
	Cr	53	0.034	ug/L	0.012	35	304	322	4
	Mn	55	0.002	ug/L	0.001	49	334	337	5
	Co	59	0.002	ug/L	0.001	50	88	102	9
>	Ge	72		ug/L			461747	413524	1
	Ni	60	0.002	ug/L	0.001	59	31	35	12
	Ni	62	0.694	ug/L	0.324	46	1423	1567	8
	Cu	63	0.012	ug/L	0.008	66	1037	1000	4
	Cu	65	-0.000	ug/L	0.001	834	65	58	7
	Zn	66	0.021	ug/L	0.010	46	136	154	9
	Zn	67	0.013	ug/L	0.020	156	29	30	16
	Zn	68	0.034	ug/L	0.004	13	187	205	1
	As	75	0.016	ug/L	0.015	94	272	267	7
	As-1	75	0.401	ug/L	0.063	15	7476	7294	0
	Se	82	0.008	ug/L	0.066	810	-5	-4	247
	Se	78	1.488	ug/L	0.229	15	7591	7395	0
	Mo	98	0.008	ug/L	0.002	29	19	49	18
	Y	89		ug/L			289059	255690	0
	Kr	83		ug/L			540	509	5
>	In	115		ug/L			1039566	979934	1
	Ag	107	0.003	ug/L	0.002	75	35	62	35
	Cd	111	-0.001	ug/L	0.001	74	103	91	3
	Cd	114	0.000	ug/L	0.000	85	34	38	13
	Sb	121	0.023	ug/L	0 003	11	264	598	6
	Sb	123	0.023	ug/L	0.007	31	200	455	17
	Ba	135	-0.000	ug/L	0.001	195	21	17	28
	Ba	137	0.001	ug/L	0.001	63	29	38	17
>	Tb	159		ug/L			1387186	1289110	0
	Tl	205	-0.002	ug/L	0.001	29	300	184	15
	Pb	208	0.001	ug/L	0.000	29	162	225	9
	Bi	209		ug/L			2880974	2767045	0
	Th	232	0.137	ug/L	0.033	24	2849	9371	18
	U	238	0.002	ug/L	0.000	16	25	106	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 13:29:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			988464	858505	2
	Be	9	0.008	ug/L	0.002	29	10	31	19
	C	13		ug/L			75670	75374	5
	Cl	37		ug/L			3921810	4048875	0
>	Sc	45		ug/L			776850	751407	0
	V	51	2.306	ug/L	0.094	4	5488	41344	3
	V-1	51	2.537	ug/L	0.034	1	776	40930	1
	Cr	52	12.558	ug/L	0.240	1	16030	180232	1
	Cr	53	12.874	ug/L	0.169	1	304	20233	1
	Mn	55	54.825	ug/L	0.625	1	334	981100	1
	Co	59	0.369	ug/L	0.006	1	88	5290	1
>	Ge	72		ug/L			461747	401328	1
	Ni	60	2.387	ug/L	0.032	1	31	6580	1
	Ni	62	3.163	ug/L	0.213	6	1423	2536	5
	Cu	63	3.166	ug/L	0.078	2	1037	19801	1
	Cu	65	2.301	ug/L	0.073	3	65	6298	1
	Zn	66	4.458	ug/L	0.108	2	136	6804	1
	Zn	67	5.277	ug/L	0.040	0	29	1419	1
	Zn	68	6.293	ug/L	0.300	4	187	7107	2
	As	75	3.090	ug/L	0.080	2	272	4713	1
	As-1	75	3.605	ug/L	0.099	2	7476	11736	0
	Se	82	0.070	ug/L	0.064	90	-5	5	173
	Se	78	2.202	ug/L	0.160	7	7591	7456	1
	Mo	98	14.231	ug/L	0.241	1	19	54665	1
	Y	89		ug/L			289059	261121	3
	Kr	83		ug/L			540	560	4
>	In	115		ug/L			1039566	963146	1
	Ag	107	0.003	ug/L	0.000	11	35	66	4
	Cd	111	0.092	ug/L	0.002	2	103	568	2
	Cd	114	0.106	ug/L	0.002	2	34	1415	2
	Sb	121	0.883	ug/L	0.018	2	264	13580	0
	Sb	123	0.887	ug/L	0.023	2	200	10418	1
	Ba	135	27.153	ug/L	0.477	1	21	133362	0
	Ba	137	27.259	ug/L	0.588	2	29	234039	0
>	Tb	159		ug/L			1387186	1298134	1
	Tl	205	0.001	ug/L	0.000	37	300	328	4
	Pb	208	0.369	ug/L	0.005	1	162	20126	0
	Bi	209		ug/L			2880974	2539161	1
	Th	232	0.116	ug/L	0.012	10	2849	8399	8
	U	238	0.129	ug/L	0.003	2	25	6596	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 13:33:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	752096	2
	Be	9	0.134	ug/L	0.008	5	10	339	8
	C	13		ug/L			75670	89427	3
	Cl	37		ug/L			3921810	4894916	4
>	Sc	45		ug/L			776850	656393	4
	V	51	23.766	ug/L	0.369	1	5488	329032	3
	V-1	51	23.960	ug/L	0.350	1	776	332045	3
	Cr	52	15.680	ug/L	0.115	0	16030	193271	5
	Cr	53	16.659	ug/L	0.247	1	304	22803	5
	Mn	55	742.219	ug/L	10.745	1	334	11602960	5
	Co	59	0.670	ug/L	0.004	0	88	8329	4
>	Ge	72		ug/L			461747	332636	1
	Ni	60	3.644	ug/L	0.121	3	31	8316	3
	Ni	62	268.211	ug/L	18.390	6	1423	92210	5
	Cu	63	54.351	ug/L	1.050	1	1037	269771	2
	Cu	65	17.549	ug/L	0.344	1	65	39511	2
	Zn	66	6.313	ug/L	0.090	1	136	7948	2
	Zn	67	8.979	ug/L	0.273	3	29	1985	2
	Zn	68	8.627	ug/L	0.433	5	187	8032	5
	As	75	11.939	ug/L	0.129	1	272	14535	0
	As-1	75	13.879	ug/L	0.495	3	7476	22105	1
	Se	82	0.303	ug/L	0.049	16	-5	33	19
	Se	78	8.189	ug/L	1.633	19	7591	8110	5
	Mo	98	1.695	ug/L	0.109	6	19	5411	7
	Y	89		ug/L			289059	292906	5
	Kr	83		ug/L			540	610	0
>	In	115		ug/L			1039566	790691	4
	Ag	107	0.073	ug/L	0.004	5	35	673	9
	Cd	111	0.116	ug/L	0.062	53	103	572	47
	Cd	114	0.206	ug/L	0.008	3	34	2248	7
	Sb	121	0.597	ug/L	0.004	0	264	7598	4
	Sb	123	0.576	ug/L	0.004	0	200	5615	5
	Ba	135	51.609	ug/L	0.696	1	21	208051	3
	Ba	137	52.148	ug/L	0.357	0	29	367568	4
>	Tb	159		ug/L			1387186	1125604	4
	Tl	205	-0.001	ug/L	0 000	24	300	195	9
	Pb	208	U 6.466	ug/L	0.053	0	162	303727	3
	Bi	209		ug/L			2880974	1835612	3
	Th	232	0.716	ug/L	0.011	1	2849	32956	4
	U	238	1.040	ug/L	0.017	1	25	46022	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 13:37:57
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012513a.cal

RR Cd Sb, As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	799606	1
	Be	9	0.058	ug/L	0.008	13	10	161	14
	C	13		ug/L			75670	106012	3
	Cl	37		ug/L			3921810	15607712	1
>	Sc	45		ug/L			776850	693732	1
	V	51	15.647	ug/L	0.323	2	5488	230735	3
	V-1	51	19.555	ug/L	0.966	4	776	286792	6
	Cr	52	10.890	ug/L	0.109	1	16030	146194	0
	Cr	53	23.877	ug/L	2.181	9	304	34446	10
	Mn	55	256.968	ug/L	4.893	1	334	4245232	3
	Co	59	0.847	ug/L	0.027	3	88	11111	4
>	Ge	72		ug/L			461747	320207	4
	Ni	60	2.175	ug/L	0.032	1	31	4786	3
	Ni	62	731.948	ug/L	128.347	17	1423	241702	21
	Cu	63	110.894	ug/L	9.058	8	1037	530146	12
	Cu	65	2.643	ug/L	0.119	4	65	5759	0
	Zn	66	4.130	ug/L	0.092	2	136	5036	4
	Zn	67	6.115	ug/L	0.450	7	29	1308	7
	Zn	68	5.762	ug/L	0.246	4	187	5201	2
	As	75	3.105	ug/L	0.077	2	272	3778	3
	As-1	75	17.612	ug/L	7.547	42	7476	25819	37
	Se	82	1.612	ug/L	0.473	29	-5	188	33
	Se	78	58.085	ug/L	28.176	48	7591	23537	41
	Mo	98	0.158	ug/L	0.010	6	19	497	9
	Y	89		ug/L			289059	~~240876~~	2
	Kr	83		ug/L			540	1383	4
>	In	115		ug/L			1039566	622247	4
	Ag	107	0.009	ug/L	0.003	33	35	83	30
	Cd	111	0.178	ug/L	0.052	29	103	645	23
	Cd	114	0.320	ug/L	0.008	2	34	2733	3
	Sb	121	0.529	ug/L	0.016	3	264	5315	2
	Sb	123	0.516	ug/L	0.018	3	200	3964	1
	Ba	135	42.948	ug/L	1.987	4	21	136094	0
	Ba	137	43.675	ug/L	1.992	4	29	241945	1
>	Tb	159		ug/L			1387186	1007696	2
	Tl	205	U 0.001	ug/L	0.001	49	300	268	9
	Pb	208	0.564	ug/L	0.016	2	162	23812	0
	Bi	209		ug/L			2880974	1472575	0
	Th	232	0.043	ug/L	0.003	7	2849	3731	5
	U	238	0.148	ug/L	0.003	1	25	5886	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 13:42:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	837482	2
	Be	9	0.003	ug/L	0.002	61	10	18	34
	C	13		ug/L			75670	72166	3
	Cl	37		ug/L			3921810	3458386	1
>	Sc	45		ug/L			776850	679067	1
	V	51	5.704	ug/L	0.039	0	5488	85367	1
	V-1	51	5.880	ug/L	0.106	1	776	84851	3
	Cr	52	2.812	ug/L	0.148	5	16030	47351	4
	Cr	53	3.512	ug/L	0.295	8	304	5185	9
	Mn	55	35.408	ug/L	0.979	2	334	572785	3
	Co	59	0.417	ug/L	0.009	2	88	5390	3
>	Ge	72		ug/L			461747	400502	3
	Ni	60	5.730	ug/L	0.372	6	31	15716	5
	Ni	62	468.859	ug/L	69.149	14	1423	193229	15
	Cu	63	23.933	ug/L	3.418	14	1037	143564	15
	Cu	65	1.102	ug/L	0.075	6	65	3035	3
	Zn	66	3.382	ug/L	0.033	0	136	5180	2
	Zn	67	3.776	ug/L	0.102	2	29	1020	2
	Zn	68	5.060	ug/L	0.264	5	187	5731	2
	As	75	1.383	ug/L	0.039	2	272	2235	3
	As-1	75	9.944	ug/L	2.367	23	7476	20916	17
	Se	82	0.440	ug/L	0.049	11	-5	60	12
	Se	78	32.506	ug/L	8.758	26	7591	19235	18
	Mo	98	0.432	ug/L	0.018	4	19	1670	3
	Y	89		ug/L			289059	260853	3
	Kr	83		ug/L			540	588	5
>	In	115		ug/L			1039566	761197	0
	Ag	107	0.001	ug/L	0.000	53	35	32	11
	Cd	111	0.825	ug/L	0.021	2	103	3416	2
	Cd	114	0.820	ug/L	0.008	0	34	8517	1
	Sb	121	0.068	ug/L	0.005	7	264	1007	6
	Sb	123	U 0.071	ug/L	0.005	6	200	790	5
	Ba	135	14.430	ug/L	0.226	1	21	56030	1
	Ba	137	14.541	ug/L	0.165	1	29	98698	1
>	Tb	159		ug/L			1387186	1133593	1
	Tl	205	U 0.003	ug/L	0.001	37	300	348	10
	Pb	208	0.081	ug/L	0.001	1	162	3954	1
	Bi	209	U	ug/L			2880974	2328722	0
	Th	232	-0.036	ug/L	0.002	4	2849	797	8
	U	238	0.078	ug/L	0.003	3	25	3513	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ86 K REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 13:46:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	765431	1
	Be	9	0.002	ug/L	0.001	58	10	14	24
	C	13		ug/L			75670	72045	2
	Cl	37		ug/L			3921810	4171429	4
>	Sc	45		ug/L			776850	635341	1
	V	51	1.761	ug/L	0.057	3	5488	27760	1
	V-1	51	2.006	ug/L	0.065	3	776	27486	2
	Cr	52	0.152	ug/L	0.032	21	16030	14796	1
	Cr	53	1.020	ug/L	0.065	6	304	1584	4
	Mn	55	259.530	ug/L	11.453	4	334	3924842	3
	Co	59	0.196	ug/L	0 009	4	88	2411	5
>	Ge	72		ug/L			461747	343365	3
	Ni	60	4.240	ug/L	0.161	3	31	9987	5
	Ni	62	315.794	ug/L	32.640	10	1423	112196	13
	Cu	63	19.776	ug/L	1.618	8	1037	101992	11
	Cu	65	1.537	ug/L	0.016	1	65	3616	2
	Zn	66	1.723	ug/L	0.068	3	136	2312	4
	Zn	67	1.516	ug/L	0.041	2	29	364	2
	Zn	68	2.573	ug/L	0.095	3	187	2570	4
	As	75	1.454	ug/L	0.059	4	272	2006	5
	As-1	75	5.559	ug/L	0 504	9	7476	12487	8
	Se	82	0.435	ug/L	0.143	32	-5	51	38
	Se	78	16.009	ug/L	1.827	11	7591	10997	8
	Mo	98	6.212	ug/L	0.243	3	19	20409	0
	Y	89		ug/L			289059	230018	4
	Kr	83		ug/L			540	534	0
>	In	115		ug/L			1039566	789617	0
	Ag	107	0.000	ug/L	0.000	46	35	30	6
	Cd	111	0.012	ug/L	0.002	18	103	128	6
	Cd	114	0.017	ug/L	0.002	9	34	207	7
	Sb	121	0.064	ug/L	0.004	6	264	993	4
	Sb	123	0.064	ug/L	0.005	7	200	760	5
	Ba	135	4.433	ug/L	0.063	1	21	17864	0
	Ba	137	4.453	ug/L	0.091	2	29	31368	1
>	Tb	159		ug/L			1387186	1143927	1
	Tl	205	-0.002	ug/L	0.000	7	300	182	4
	Pb	208	0.022	ug/L	0.001	2	162	1174	1
	Bi	209		ug/L			2880974	1942839	1
	Th	232	-0.040	ug/L	0.002	3	2849	598	12
	U	238	0.253	ug/L	0.003	1	25	11406	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ86 L REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 13:50:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			988464	741407	4
└	Be	9	0.004	ug/L	0.001	25	10	17	10
	C	13		ug/L			75670	71962	1
	Cl	37		ug/L			3921810	4383030	3
⌈>	Sc	45		ug/L			776850	640734	3
|	V	51	1.099	ug/L	0.043	3	5488	19157	0
|	V-1	51	1.323	ug/L	0.043	3	776	18497	2
|	Cr	52	0.206	ug/L	0.046	22	16030	15523	4
|	Cr	53	0.978	ug/L	0.023	2	304	1542	5
|	Mn	55	514.654	ug/L	17.604	3	334	7845190	2
└	Co	59	0.164	ug/L	0.005	2	88	2044	1
⌈>	Ge	72		ug/L			461747	316456	3
|	Ni	60	2.137	ug/L	0.153	7	31	4656	10
|	Ni	62	212.889	ug/L	11.365	5	1423	69959	8
|	Cu	63	14.123	ug/L	0.743	5	1037	67296	8
|	Cu	65	0.682	ug/L	0.029	4	65	1503	4
|	Zn	66	1.940	ug/L	0.015	0	136	2387	2
|	Zn	67	2.426	ug/L	0.011	0	29	525	3
|	Zn	68	3.748	ug/L	0.170	4	187	3391	4
|	As	75	0.327	ug/L	0.004	1	272	559	3
|	As-1	75	2.937	ug/L	0.079	2	7476	8491	3
|	Se	82	0.545	ug/L	0.086	15	-5	59	20
|	Se	78	10.666	ug/L	0.277	2	7591	8481	3
└	Mo	98	0.089	ug/L	0.003	3	19	282	0
	Y	89		ug/L			289059	218394	1
	Kr	83		ug/L			540	537	1
⌈>	In	115		ug/L			1039566	800884	1
|	Ag	107	0.002	ug/L	0.000	6	35	42	1
|	Cd	111	0.001	ug/L	0.002	268	103	82	10
|	Cd	114	0.002	ug/L	0.000	19	34	44	7
|	Sb	121	0.021	ug/L	0.003	13	264	467	6
|	Sb	123	0.018	ug/L	0.001	8	200	327	3
|	Ba	135	18.591	ug/L	0.262	1	21	75949	2
└	Ba	137	18.701	ug/L	0.347	1	29	133569	3
⌈>	Tb	159		ug/L			1387186	1131285	1
|	Tl	205	-0.003	ug/L	0.000	10	300	124	11
|	Pb	208	0.031	ug/L	0.001	2	162	1613	3
|	Bi	209		ug/L			2880974	1837896	1
|	Th	232	-0.043	ug/L	0.002	3	2849	474	13
└	U	238	0.026	ug/L	0.001	2	25	1170	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ86 M REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 13:54:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	708118	4
	Be	9	0.003	ug/L	0.003	104	10	15	50
	C	13		ug/L			75670	71231	1
	Cl	37		ug/L			3921810	10280063	1
>	Sc	45		ug/L			776850	613159	3
	V	51	1.220	ug/L	0.083	6	5488	19918	8
	V-1	51	2.383	ug/L	0.019	0	776	31409	3
	Cr	52	0.095	ug/L	0.060	62	16030	13677	6
	Cr	53	3.944	ug/L	0.170	4	304	5220	1
	Mn	55	290.668	ug/L	6.912	2	334	4245165	5
	Co	59	0.316	ug/L	0.009	2	88	3704	6
>	Ge	72		ug/L			461747	286627	4
	Ni	60	4.886	ug/L	0.044	0	31	9603	4
	Ni	62	243.065	ug/L	19.688	8	1423	71971	3
	Cu	63	21.187	ug/L	1.244	5	1037	90858	1
	Cu	65	1.916	ug/L	0.084	4	65	3751	5
	Zn	66	6.265	ug/L	0.257	4	136	6792	3
	Zn	67	6.898	ug/L	0.228	3	29	1318	1
	Zn	68	8.066	ug/L	0.441	5	187	6480	7
	As	75	0.729	ug/L	0.093	12	272	920	6
	As-1	75	3.800	ug/L	0.396	10	7476	8575	1
	Se	82	0.601	ug/L	0.120	19	-5	59	19
	Se	78	12.810	ug/L	1.220	9	7591	8269	1
	Mo	98	1.914	ug/L	0.086	4	19	5257	2
	Y	89		ug/L			289059	204929	3
	Kr	83		ug/L			540	618	4
>	In	115		ug/L			1039566	769124	2
	Ag	107	0.002	ug/L	0.000	22	35	40	7
	Cd	111	-0.008	ug/L	0.004	47	103	42	36
	Cd	114	0.013	ug/L	0.002	13	34	159	13
	Sb	121	0.289	ug/L	0.004	1	264	3679	2
	Sb	123	0.291	ug/L	0.000	0	200	2829	2
	Ba	135	34.071	ug/L	0.443	1	21	133657	2
	Ba	137	34.408	ug/L	0.146	0	29	235963	2
>	Tb	159		ug/L			1387186	1098452	3
	Tl	205	0.001	ug/L	0.000	45	300	267	5
	Pb	208	0.067	ug/L	0.002	2	162	3185	1
	Bi	209		ug/L			2880974	1707056	1
	Th	232	-0.046	ug/L	0.001	2	2849	333	12
	U	238	1.234	ug/L	0.035	2	25	53295	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ86 N REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 13:58:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	673619	5
	Be	9	0.009	ug/L	0.003	34	10	26	25
	C	13		ug/L			75670	67260	1
	Cl	37		ug/L			3921810	4199105	5
>	Sc	45		ug/L			776850	592581	6
	V	51	0.457	ug/L	0.023	4	5488	9817	5
	V-1	51	0.654	ug/L	0.051	7	776	8749	5
	Cr	52	0.103	ug/L	0.021	20	16030	13290	5
	Cr	53	0.763	ug/L	0.114	14	304	1160	9
	Mn	55	204.394	ug/L	5.999	2	334	2880328	3
	Co	59	0.141	ug/L	0.010	6	88	1634	9
>	Ge	72		ug/L			461747	280227	3
	Ni	60	1.890	ug/L	0.135	7	31	3642	7
	Ni	62	177.459	ug/L	5.919	3	1423	51677	0
	Cu	63	11.900	ug/L	0.357	3	1037	50215	1
	Cu	65	0.817	ug/L	0.021	2	65	1587	2
	Zn	66	2.491	ug/L	0.063	2	136	2690	2
	Zn	67	2.612	ug/L	0.188	7	29	498	2
	Zn	68	3.991	ug/L	0.025	0	187	3190	3
	As	75	0.285	ug/L	0.036	12	272	453	5
	As-1	75	2.990	ug/L	0.204	6	7476	7567	1
	Se	82	0.281	ug/L	0.073	26	-5	25	29
	Se	78	10.987	ug/L	0 730	6	7591	7593	1
	Mo	98	2.655	ug/L	0.153	5	19	7122	2
	Y	89		ug/L			289059	207517	3
	Kr	83		ug/L			540	554	1
>	In	115		ug/L			1039566	772535	2
	Ag	107	0.001	ug/L	0.001	140	35	32	25
	Cd	111	0.003	ug/L	0.004	124	103	88	14
	Cd	114	0.004	ug/L	0.001	13	34	71	10
	Sb	121	0.016	ug/L	0.002	10	264	384	2
	Sb	123	0.019	ug/L	0.002	12	200	324	6
	Ba	135	14.130	ug/L	0.312	2	21	55660	1
	Ba	137	14.205	ug/L	0.174	1	29	97862	3
>	Tb	159		ug/L			1387186	1067070	3
	Tl	205	-0.002	ug/L	0.000	14	300	164	6
	Pb	208	0.043	ug/L	0.003	5	162	2022	2
	Bi	209		ug/L			2880974	1814894	0
	Th	232	-0.045	ug/L	0.001	1	2849	381	5
	U	238	0.035	ug/L	0.000	0	25	1500	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ86 O REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 14:02:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	703734	4
	Be	9	0.003	ug/L	0.002	56	10	13	21
	C	13		ug/L			75670	70573	6
	Cl	37		ug/L			3921810	4380100	3
>	Sc	45		ug/L			776850	610531	5
	V	51	0.553	ug/L	0.001	0	5488	11334	5
	V-1	51	0.765	ug/L	0.010	1	776	10448	4
	Cr	52	0.056	ug/L	0.011	19	16030	13196	5
	Cr	53	0.771	ug/L	0.036	4	304	1207	2
	Mn	55	437.450	ug/L	3.833	0	334	6357091	4
	Co	59	0.184	ug/L	0.009	4	88	2176	0
>	Ge	72		ug/L			461747	297779	0
	Ni	60	2.024	ug/L	0.097	4	31	4145	5
	Ni	62	131.183	ug/L	2.925	2	1423	40867	2
	Cu	63	9.202	ug/L	0.113	1	1037	41440	0
	Cu	65	0.654	ug/L	0.023	3	65	1359	3
	Zn	66	2.473	ug/L	0.058	2	136	2840	2
	Zn	67	2.648	ug/L	0.137	5	29	538	5
	Zn	68	3.923	ug/L	0.187	4	187	3335	4
	As	75	0.348	ug/L	0.022	6	272	549	3
	As-1	75	2.384	ug/L	0.023	0	7476	7393	0
	Se	82	0.450	ug/L	0.057	12	-5	45	12
	Se	78	8.546	ug/L	0.111	1	7591	7367	0
	Mo	98	0.744	ug/L	0.035	4	19	2133	4
	Y	89		ug/L			289059	214717	5
	Kr	83		ug/L			540	545	2
>	In	115		ug/L			1039566	807248	3
	Ag	107	0.001	ug/L	0.001	142	35	35	31
	Cd	111	0.007	ug/L	0.002	26	103	112	6
	Cd	114	0.005	ug/L	0.001	17	34	81	9
	Sb	121	0.033	ug/L	0.003	7	264	627	2
	Sb	123	0.035	ug/L	0.001	3	200	499	6
	Ba	135	15.216	ug/L	0.200	1	21	62638	2
	Ba	137	15.301	ug/L	0.132	0	29	110127	2
>	Tb	159		ug/L			1387186	1111091	3
	Tl	205	-0.001	ug/L	0.001	101	300	219	5
	Pb	208	0.019	ug/L	0.000	0	162	992	4
	Bi	209		ug/L			2880974	1823325	3
	Th	232	-0.048	ug/L	0.001	1	2849	251	18
	U	238	0.117	ug/L	0.002	1	25	5154	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ86 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 14:06:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	933982	2
	Be	9	26.383	ug/L	0.676	2	10	80698	2
	C	13		ug/L			75670	73702	1
	Cl	37		ug/L			3921810	3900212	2
>	Sc	45		ug/L			776850	732996	1
	V	51	25.741	ug/L	0.293	1	5488	397622	0
	V-1	51	25.416	ug/L	0.500	1	776	393331	0
	Cr	52	25.661	ug/L	0.404	1	16030	343472	1
	Cr	53	24.600	ug/L	0.848	3	304	37440	2
	Mn	55	26.588	ug/L	0.666	2	334	464239	2
	Co	59	24.956	ug/L	0.114	0	88	343277	1
>	Ge	72		ug/L			461747	405018	1
	Ni	60	27.401	ug/L	0.439	1	31	75969	2
	Ni	62	86.956	ug/L	3.204	3	1423	37263	3
	Cu	63	29.539	ug/L	0.434	1	1037	178914	0
	Cu	65	26.660	ug/L	1.199	4	65	73018	3
	Zn	66	88.485	ug/L	1.055	1	136	134064	1
	Zn	67	76.544	ug/L	2.492	3	29	20420	2
	Zn	68	85.172	ug/L	1.898	2	187	95102	3
	As	75	26.356	ug/L	0.442	1	272	38779	0
	As-1	75	27.456	ug/L	0.736	2	7476	46833	1
	Se	82	81.960	ug/L	0.503	0	-5	12276	1
	Se	78	83.791	ug/L	1.350	1	7591	39618	0
	Mo	98	0.006	ug/L	0.001	24	19	39	15
	Y	89		ug/L			289059	263561	1
	Kr	83		ug/L			540	524	3
>	In	115		ug/L			1039566	1018692	2
	Ag	107	25.873	ug/L	0.708	2	35	295580	2
	Cd	111	25.899	ug/L	0 621	2	103	140362	0
	Cd	114	24.888	ug/L	0.544	2	34	345035	0
	Sb	121	-0.009	ug/L	0.001	10	264	108	12
	Sb	123	-0.008	ug/L	0.001	7	200	93	7
	Ba	135	25.947	ug/L	0.513	1	21	134778	0
	Ba	137	25.934	ug/L	0.444	1	29	235503	0
>	Tb	159		ug/L			1387186	1348820	1
	Tl	205	25.599	ug/L	0.168	0	300	1151162	0
	Pb	208	26.423	ug/L	0.512	1	162	1487054	1
	Bi	209		ug/L			2880974	2857277	0
	Th	232	24.633	ug/L	0.227	0	2849	1265734	0
	U	238	24.751	ug/L	0.473	1	25	1312741	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 14:12:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			988464	870990	0
	Be	9	50.226	ug/L	0.529	1	10	143262	0
	C	13		ug/L			75670	66430	1
	Cl	37		ug/L			3921810	3842932	0
>	Sc	45		ug/L			776850	690720	2
	V	51	48.827	ug/L	0.953	1	5488	706173	1
	V-1	51	48.126	ug/L	1.323	2	776	700978	0
	Cr	52	49.715	ug/L	1.439	2	16030	613765	4
	Cr	53	47.386	ug/L	1.348	2	304	67694	0
	Mn	55	48.619	ug/L	1.719	3	334	799332	1
	Co	59	46.470	ug/L	0.499	1	88	602164	2
>	Ge	72		ug/L			461747	388720	0
	Ni	60	48.775	ug/L	0.318	0	31	129770	1
	Ni	62	110.908	ug/L	1.927	1	1423	45286	1
	Cu	63	51.356	ug/L	1.084	2	1037	297949	2
	Cu	65	49.159	ug/L	1.898	3	65	129217	3
	Zn	66	50.815	ug/L	1.396	2	136	73945	2
	Zn	67	48.798	ug/L	1.003	2	29	12505	2
	Zn	68	50.463	ug/L	0.903	1	187	54128	1
	As	75	50.033	ug/L	0.325	0	272	70460	0
	As-1	75	51.372	ug/L	0.622	1	7476	78634	0
	Se	82	50.287	ug/L	0.522	1	-5	7227	1
	Se	78	54.372	ug/L	0.764	1	7591	26920	0
	Mo	98	47.749	ug/L	0.209	0	19	177649	0
	Y	89		ug/L			289059	248909	1
	Kr	83		ug/L			540	529	6
>	In	115		ug/L			1039566	922177	0
	Ag	107	47.807	ug/L	1.003	2	35	494507	2
	Cd	111	50.326	ug/L	0.375	0	103	246892	1
	Cd	114	50.073	ug/L	0.942	1	34	628512	1
	Sb	121	49.977	ug/L	0.195	0	264	722967	0
	Sb	123	50.297	ug/L	0.388	0	200	556020	0
	Ba	135	51.508	ug/L	0.487	0	21	242250	1
	Ba	137	50.650	ug/L	1.027	2	29	416405	1
>	Tb	159		ug/L			1387186	1298820	1
	Tl	205	45.657	ug/L	0.821	1	300	1976556	0
	Pb	208	47.992	ug/L	0.499	1	162	2600711	0
	Bi	209		ug/L			2880974	2680297	0
	Th	232	49.975	ug/L	1.164	2	2849	2469541	0
	U	238	50.043	ug/L	0.424	0	25	2556062	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 14:18:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	892267	1
	Be	9	0.004	ug/L	0.008	211	10	21	116
	C	13		ug/L			75670	66040	0
	Cl	37		ug/L			3921810	3720653	1
>	Sc	45		ug/L			776850	683445	2
	V	51	0.012	ug/L	0.009	72	5488	5000	4
	V-1	51	0.014	ug/L	0.009	63	776	891	17
	Cr	52	0.024	ug/L	0.008	34	16030	14390	2
	Cr	53	0.031	ug/L	0.016	52	304	312	8
	Mn	55	0.091	ug/L	0.138	152	334	1812	128
	Co	59	0.004	ug/L	0.005	110	88	136	49
>	Ge	72		ug/L			461747	399752	0
	Ni	60	0.007	ug/L	0.005	74	31	47	31
	Ni	62	47.658	ug/L	1.758	3	1423	20717	3
	Cu	63	2.201	ug/L	0.027	1	1037	13988	1
	Cu	65	0.038	ug/L	0.002	5	65	158	4
	Zn	66	0.042	ug/L	0.008	18	136	180	7
	Zn	67	0.011	ug/L	0.011	98	29	28	10
	Zn	68	0.058	ug/L	0.011	19	187	226	4
	As	75	0.016	ug/L	0.035	224	272	258	20
	As-1	75	0.899	ug/L	0.025	2	7476	7773	0
	Se	82	-0.016	ug/L	0.153	960	-5	-7	306
	Se	78	3.353	ug/L	0.146	4	7591	7874	0
	Mo	98	0.006	ug/L	0.001	13	19	40	7
	Y	89		ug/L			289059	252928	1
	Kr	83		ug/L			540	510	9
>	In	115		ug/L			1039566	933867	1
	Ag	107	0.001	ug/L	0.001	72	35	43	19
	Cd	111	-0.001	ug/L	0.001	110	103	87	7
	Cd	114	0.001	ug/L	0.000	21	34	43	7
	Sb	121	0.015	ug/L	0.005	31	264	461	14
	Sb	123	0.016	ug/L	0.004	23	200	363	10
	Ba	135	0.027	ug/L	0.046	172	21	147	149
	Ba	137	0.036	ug/L	0.062	171	29	328	157
>	Tb	159		ug/L			1387186	1286315	0
	Tl	205	0.015	ug/L	0.026	174	300	909	121
	Pb	208	0.015	ug/L	0.023	158	162	939	133
	Bi	209		ug/L			2880974	2734094	1
	Th	232	0.154	ug/L	0.027	17	2849	10153	12
	U	238	0.010	ug/L	0.014	144	25	527	138

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 14:27:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	887478	0
	Be	9	0.001	ug/L	0.002	212	10	12	47
	C	13		ug/L			75670	73235	5
	Cl	37		ug/L			3921810	3854071	0
>	Sc	45		ug/L			776850	696711	2
	V	51	0.019	ug/L	0.018	97	5488	5187	2
	V-1	51	0.007	ug/L	0.002	31	776	797	3
	Cr	52	0.059	ug/L	0.069	116	16030	15079	2
	Cr	53	0.019	ug/L	0.012	63	304	300	3
	Mn	55	0.020	ug/L	0.001	6	334	630	0
	Co	59	0.002	ug/L	0.001	53	88	104	13
>	Ge	72		ug/L			461747	409431	1
	Ni	60	0.007	ug/L	0.006	83	31	48	35
	Ni	62	35.402	ug/L	0.811	2	1423	16088	3
	Cu	63	1.778	ug/L	0.049	2	1037	11756	3
	Cu	65	0.161	ug/L	0.003	1	65	503	2
	Zn	66	0.753	ug/L	0.013	1	136	1272	0
	Zn	67	0.693	ug/L	0.058	8	29	213	7
	Zn	68	0.712	ug/L	0.039	5	187	967	3
	As	75	0.008	ug/L	0.022	273	272	253	12
	As-1	75	0.742	ug/L	0.111	14	7476	7728	1
	Se	82	-0.002	ug/L	0.058	3064	-5	-5	163
	Se	78	2.767	ug/L	0.383	13	7591	7830	0
	Mo	98	0.002	ug/L	0.002	94	19	25	29
	Y	89		ug/L			289059	255660	1
	Kr	83		ug/L			540	499	3
>	In	115		ug/L			1039566	942509	1
	Ag	107	0.000	ug/L	0.001	273	35	36	32
	Cd	111	-0.001	ug/L	0.001	71	103	88	5
	Cd	114	0.001	ug/L	0.001	67	34	41	15
	Sb	121	-0.006	ug/L	0.001	20	264	154	9
	Sb	123	-0.004	ug/L	0.002	48	200	136	14
	Ba	135	0.006	ug/L	0.001	22	21	48	14
	Ba	137	0.008	ug/L	0.001	12	29	91	9
>	Tb	159		ug/L			1387186	1263507	1
	Tl	205	-0.001	ug/L	0.000	7	300	239	1
	Pb	208	0.009	ug/L	0.000	1	162	645	1
	Bi	209		ug/L			2880974	2716558	0
	Th	232	0.045	ug/L	0.012	25	2849	4727	10
	U	238	0.000	ug/L	0.000	52	25	29	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 14:31:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	898700	2
	Be	9	0.031	ug/L	0.003	11	10	101	8
	C	13		ug/L			75670	76610	2
	Cl	37		ug/L			3921810	4175911	1
>	Sc	45		ug/L			776850	728869	1
	V	51	1.704	ug/L	0.026	1	5488	30982	0
	V-1	51	1.846	ug/L	0.041	2	776	29084	0
	Cr	52	0.464	ug/L	0.025	5	16030	20940	2
	Cr	53	0.981	ug/L	0 045	4	304	1759	3
	Mn	55	164.616	ug/L	2.717	1	334	2856391	0
	Co	59	0.882	ug/L	0.071	7	88	12138	6
>	Ge	72		ug/L			461747	399600	4
	Ni	60	4.288	ug/L	0.122	2	31	11743	1
	Ni	62	30.491	ug/L	2.535	8	1423	13701	9
	Cu	63	2.957	ug/L	0.167	5	1037	18481	6
	Cu	65	1.313	ug/L	0.070	5	65	3599	1
	Zn	66	4.741	ug/L	0.233	4	136	7190	2
	Zn	67	5.190	ug/L	0.229	4	29	1388	0
	Zn	68	6.315	ug/L	0.114	1	187	7102	2
	As	75	0.524	ug/L	0.057	10	272	989	4
	As-1	75	1.151	ug/L	0.225	19	7476	8127	0
	Se	82	0.475	ug/L	0.083	17	-5	64	14
	Se	78	2.905	ug/L	0.764	26	7591	7689	0
	Mo	98	0.164	ug/L	0.012	7	19	644	6
	Y	89		ug/L			289059	278726	2
	Kr	83		ug/L			540	521	2
>	In	115		ug/L			1039566	929943	0
	Ag	107	0.002	ug/L	0.002	80	35	51	31
	Cd	111	0.231	ug/L	0.007	3	103	1234	3
	Cd	114	0.227	ug/L	0.003	1	34	2902	0
	Sb	121	0.053	ug/L	0.003	4	264	1008	3
	Sb	123	0.052	ug/L	0.002	3	200	758	2
	Ba	135	22.615	ug/L	0.232	1	21	107269	1
	Ba	137	23.071	ug/L	0.261	1	29	191294	0
>	Tb	159		ug/L			1387186	1268986	1
	Tl	205	0.012	ug/L	0.001	11	300	781	6
	Pb	208	0.180	ug/L	0.003	1	162	9669	0
	Bi	209		ug/L			2880974	2515950	1
	Th	232	0.078	ug/L	0.005	6	2849	6358	3
	U	238	0.133	ug/L	0.002	1	25	6681	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 14:35:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	865917	0
	Be	9	0.029	ug/L	0.004	14	10	90	13
	C	13		ug/L			75670	72991	3
	Cl	37		ug/L			3921810	4038011	3
>	Sc	45		ug/L			776850	724310	1
	V	51	1.652	ug/L	0.098	5	5488	29988	3
	V-1	51	1.773	ug/L	0.085	4	776	27784	3
	Cr	52	0.436	ug/L	0.053	12	16030	20458	2
	Cr	53	0.886	ug/L	0.011	1	304	1606	1
	Mn	55	164.258	ug/L	2.013	1	334	2832323	0
	Co	59	0.873	ug/L	0.028	3	88	11945	2
>	Ge	72		ug/L			461747	386496	2
	Ni	60	4.084	ug/L	0.090	2	31	10825	0
	Ni	62	20.313	ug/L	1.188	5	1423	9227	7
	Cu	63	2.505	ug/L	0.122	4	1037	15283	6
	Cu	65	1.341	ug/L	0.025	1	65	3556	1
	Zn	66	5.433	ug/L	0.235	4	136	7961	3
	Zn	67	5.760	ug/L	0.332	5	29	1488	3
	Zn	68	7.064	ug/L	0.340	4	187	7663	2
	As	75	0.537	ug/L	0.026	4	272	977	3
	As-1	75	1.150	ug/L	0.083	7	7476	7866	0
	Se	82	0.438	ug/L	0.037	8	-5	57	7
	Se	78	2.865	ug/L	0.300	10	7591	7428	0
	Mo	98	0.157	ug/L	0.007	4	19	599	6
	Y	89		ug/L			289059	269148	3
	Kr	83		ug/L			540	525	2
>	In	115		ug/L			1039566	911967	3
	Ag	107	0.002	ug/L	0.001	49	35	50	16
	Cd	111	0.230	ug/L	0.013	5	103	1206	3
	Cd	114	0.234	ug/L	0.004	1	34	2930	2
	Sb	121	0.055	ug/L	0 007	12	264	1011	6
	Sb	123	0.056	ug/L	0.005	9	200	788	5
	Ba	135	23.133	ug/L	0.610	2	21	107545	0
	Ba	137	23.428	ug/L	1.051	4	29	190333	1
>	Tb	159		ug/L			1387186	1260826	1
	Tl	205	0.010	ug/L	0.000	3	300	688	1
	Pb	208	0.177	ug/L	0.002	1	162	9478	0
	Bi	209		ug/L			2880974	2482596	1
	Th	232	0.042	ug/L	0.002	4	2849	4623	1
	U	238	0.128	ug/L	0.004	3	25	6382	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 14:39:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	880938	4
	Be	9	24.098	ug/L	0.747	3	10	69466	2
	C	13		ug/L			75670	72544	2
	Cl	37		ug/L			3921810	4204182	2
>	Sc	45		ug/L			776850	739090	3
	V	51	26.296	ug/L	1.161	4	5488	409084	0
	V-1	51	26.034	ug/L	1.240	4	776	405844	1
	Cr	52	25.563	ug/L	0.709	2	16030	344923	1
	Cr	53	24.736	ug/L	1.060	4	304	37940	2
	Mn	55	189.662	ug/L	2.414	1	334	3337016	2
	Co	59	24.196	ug/L	0.827	3	88	335434	3
>	Ge	72		ug/L			461747	398663	0
	Ni	60	29.896	ug/L	0.651	2	31	81574	1
	Ni	62	39.428	ug/L	0.385	0	1423	17303	0
	Cu	63	27.418	ug/L	0.100	0	1037	163549	1
	Cu	65	26.021	ug/L	0.255	0	65	70180	1
	Zn	66	82.913	ug/L	2.460	2	136	123647	2
	Zn	67	72.992	ug/L	1.543	2	29	19168	1
	Zn	68	79.247	ug/L	1.884	2	187	87087	2
	As	75	25.044	ug/L	0.156	0	272	36290	1
	As-1	75	26.623	ug/L	0.452	1	7476	44906	2
	Se	82	73.814	ug/L	1.122	1	-5	10881	0
	Se	78	77.682	ug/L	1.550	1	7591	36634	1
	Mo	98	23.166	ug/L	1.052	4	19	88373	3
	Y	89		ug/L			289059	278575	1
	Kr	83		ug/L			540	519	3
>	In	115		ug/L			1039566	926080	0
	Ag	107	22.525	ug/L	0.286	1	35	233970	0
	Cd	111	24.239	ug/L	0.100	0	103	119463	0
	Cd	114	24.127	ug/L	0.245	1	34	304158	0
	Sb	121	22.174	ug/L	0.067	0	264	322255	0
	Sb	123	22.440	ug/L	0.385	1	200	249220	1
	Ba	135	49.165	ug/L	0.877	1	21	232196	1
	Ba	137	49.256	ug/L	0.380	0	29	406695	1
>	Tb	159		ug/L			1387186	1280333	2
	Tl	205	23.905	ug/L	0.580	2	300	1020028	0
	Pb	208	24.640	ug/L	0.605	2	162	1316003	1
	Bi	209		ug/L			2880974	2509267	1
	Th	232	23.823	ug/L	0.561	2	2849	1161708	1
	U	238	23.798	ug/L	0.772	3	25	1197581	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~**WA61 APOST REN**~~ ZZZZZZ #1-25-13
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 14:44:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			988464	806507	1
	Be	9	23.997	ug/L	0.335	1	10	63380	0
	C	13		ug/L			75670	76723	1
	Cl	37		ug/L			3921810	4061335	1
>	Sc	45		ug/L			776850	676645	3
	V	51	26.854	ug/L	0.337	1	5488	382642	2
	V-1	51	26.650	ug/L	0.190	0	776	380731	3
	Cr	52	24.962	ug/L	0.927	3	16030	308580	0
	Cr	53	24.378	ug/L	0.143	0	304	34258	3
	Mn	55	192.110	ug/L	5.942	3	334	3092838	1
	Co	59	23.857	ug/L	0.180	0	88	302937	3
>	Ge	72		ug/L			461747	372724	4
	Ni	60	29.062	ug/L	2.183	7	31	73999	3
	Ni	62	35.924	ug/L	1.987	5	1423	14821	1
	Cu	63	26.406	ug/L	0.989	3	1037	147137	0
	Cu	65	25.511	ug/L	0.373	1	65	64312	3
	Zn	66	81.187	ug/L	3.033	3	136	113113	2
	Zn	67	71.500	ug/L	3.328	4	29	17534	0
	Zn	68	79.575	ug/L	6.003	7	187	81595	3
	As	75	24.802	ug/L	0.890	3	272	33570	1
	As-1	75	26.498	ug/L	1.209	4	7476	41767	0
	Se	82	72.432	ug/L	2 315	3	-5	9974	1
	Se	78	76.868	ug/L	3.573	4	7591	33920	0
	Mo	98	23.869	ug/L	0.686	2	19	85089	1
	Y	89		ug/L			289059	258259	2
	Kr	83		ug/L			540	529	1
>	In	115		ug/L			1039566	879632	2
	Ag	107	22.489	ug/L	0.277	1	35	221883	2
	Cd	111	23.562	ug/L	0.434	1	103	110277	1
	Cd	114	23.396	ug/L	0.562	2	34	280075	1
	Sb	121	23.612	ug/L	0.267	1	264	325884	1
	Sb	123	23.701	ug/L	0.663	2	200	249921	0
	Ba	135	48.705	ug/L	1.028	2	21	218442	1
	Ba	137	48.364	ug/L	0.491	1	29	379243	1
>	Tb	159		ug/L			1387186	1199018	1
	Tl	205	23.178	ug/L	0.442	1	300	926535	2
	Pb	208	24.182	ug/L	0.216	0	162	1209854	0
	Bi	209		ug/L			2880974	2384008	1
	Th	232	23.854	ug/L	0.164	0	2849	1089657	0
	U	238	23.495	ug/L	0.371	1	25	1107725	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 TDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 14:48:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
>	Li	6		ug/L			988464	824664	2
	Be	9	0.024	ug/L	0.002	8	10	73	9
	C	13		ug/L			75670	73866	2
	Cl	37		ug/L			3921810	4129567	1
>	Sc	45		ug/L			776850	697183	2
	V	51	1.165	ug/L	0.035	3	5488	21809	0
	V-1	51	1.305	ug/L	0.032	2	776	19871	0
	Cr	52	0.071	ug/L	0.047	66	16030	15246	2
	Cr	53	0.578	ug/L	0.025	4	304	1103	1
	Mn	55	162.755	ug/L	3.618	2	334	2700856	0
	Co	59	1.039	ug/L	0.044	4	88	13666	2
>	Ge	72		ug/L			461747	366045	0
	Ni	60	3.901	ug/L	0.039	0	31	9796	0
	Ni	62	8.893	ug/L	0.846	9	1423	4455	6
	Cu	63	1.847	ug/L	0.061	3	1037	10882	2
	Cu	65	1.200	ug/L	0.009	0	65	3020	0
	Zn	66	3.681	ug/L	0.068	1	136	5143	0
	Zn	67	4.116	ug/L	0.266	6	29	1015	7
	Zn	68	5.271	ug/L	0.101	1	187	5457	1
	As	75	0.432	ug/L	0.026	6	272	787	4
	As-1	75	1.299	ug/L	0.057	4	7476	7649	1
	Se	82	0.466	ug/L	0.062	13	-5	58	13
	Se	78	3.846	ug/L	0.139	3	7591	7385	1
	Mo	98	0.179	ug/L	0.009	5	19	642	4
	Y	89		ug/L			289059	254685	3
	Kr	83		ug/L			540	504	1
>	In	115		ug/L			1039566	884366	2
	Ag	107	0.002	ug/L	0.001	58	35	47	21
	Cd	111	0.069	ug/L	0.002	3	103	414	0
	Cd	114	0.067	ug/L	0.003	4	34	837	2
	Sb	121	0.104	ug/L	0.011	10	264	1660	6
	Sb	123	0.108	ug/L	0.007	6	200	1316	3
	Ba	135	20.640	ug/L	0.577	2	21	93061	0
	Ba	137	20.556	ug/L	0.536	2	29	162024	0
>	Tb	159		ug/L			1387186	1203354	1
	Tl	205	0.010	ug/L	0.001	7	300	652	6
	Pb	208	0.022	ug/L	0.001	2	162	1238	3
	Bi	209		ug/L			2880974	2426484	2
	Th	232	0.126	ug/L	0.050	39	2849	8263	29
	U	238	0.119	ug/L	0.003	2	25	5652	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 T REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 14:52:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	801418	1
	Be	9	0.023	ug/L	0.003	14	10	68	14
	C	13		ug/L			75670	75186	2
	Cl	37		ug/L			3921810	4011162	2
>	Sc	45		ug/L			776850	652295	1
	V	51	1.246	ug/L	0.015	1	5488	21511	2
	V-1	51	1.395	ug/L	0.018	1	776	19830	2
	Cr	52	0.106	ug/L	0.033	30	16030	14659	1
	Cr	53	0.642	ug/L	0.026	3	304	1119	1
	Mn	55	175.072	ug/L	1.055	0	334	2719178	1
	Co	59	1.115	ug/L	0.011	1	88	13717	2
>	Ge	72		ug/L			461747	359969	2
	Ni	60	4.054	ug/L	0.234	5	31	9999	2
	Ni	62	6.706	ug/L	0.193	2	1423	3577	1
	Cu	63	1.881	ug/L	0.066	3	1037	10879	0
	Cu	65	1.382	ug/L	0.038	2	65	3413	0
	Zn	66	3.847	ug/L	0.142	3	136	5278	1
	Zn	67	4.551	ug/L	0.211	4	29	1100	1
	Zn	68	5.439	ug/L	0.224	4	187	5529	1
	As	75	0.482	ug/L	0.042	8	272	838	5
	As-1	75	1.316	ug/L	0.159	12	7476	7540	0
	Se	82	0.443	ug/L	0.184	41	-5	54	45
	Se	78	3.805	ug/L	0.525	13	7591	7245	1
	Mo	98	0.171	ug/L	0.023	13	19	604	11
	Y	89		ug/L			289059	251459	2
	Kr	83		ug/L			540	541	4
>	In	115		ug/L			1039566	869153	1
	Ag	107	0.001	ug/L	0.000	12	35	37	4
	Cd	111	0.069	ug/L	0.005	7	103	405	6
	Cd	114	0.069	ug/L	0.003	3	34	845	5
	Sb	121	0.073	ug/L	0.000	0	264	1222	1
	Sb	123	0.076	ug/L	0.002	2	200	958	0
	Ba	135	20.761	ug/L	0.231	1	21	92046	2
	Ba	137	21.078	ug/L	0.183	0	29	163345	2
>	Tb	159		ug/L			1387186	1194488	2
	Tl	205	0.009	ug/L	0.000	5	300	601	0
	Pb	208	0.039	ug/L	0.001	1	162	2081	2
	Bi	209		ug/L			2880974	2351846	0
	Th	232	-0.007	ug/L	0.001	14	2849	2135	3
	U	238	0.118	ug/L	0.002	2	25	5580	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 TSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 14:56:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			988464	790464	2
⌊	Be	9	25.833	ug/L	0.561	2	10	66859	0
	C	13		ug/L			75670	74315	3
	Cl	37		ug/L			3921810	4076247	1
⌈>	Sc	45		ug/L			776850	670002	2
|	V	51	27.390	ug/L	0.517	1	5488	386357	0
|	V-1	51	27.277	ug/L	0.779	2	776	385698	0
|	Cr	52	25.688	ug/L	0.854	3	16030	314429	5
|	Cr	53	25.390	ug/L	0.281	1	304	35319	1
|	Mn	55	188.377	ug/L	2.155	1	334	3005092	2
⌊	Co	59	25.575	ug/L	0.903	3	88	321397	1
⌈>	Ge	72		ug/L			461747	362665	0
|	Ni	60	30.955	ug/L	0.398	1	31	76850	2
|	Ni	62	30.613	ug/L	1.036	3	1423	12469	2
|	Cu	63	27.663	ug/L	0.474	1	1037	150118	2
|	Cu	65	27.132	ug/L	0.249	0	65	66566	0
|	Zn	66	84.304	ug/L	1.247	1	136	114376	0
|	Zn	67	73.847	ug/L	1.657	2	29	17640	1
|	Zn	68	82.046	ug/L	0.657	0	187	82017	0
|	As	75	26.003	ug/L	0.561	2	272	34263	1
|	As-1	75	27.468	ug/L	0.492	1	7476	41957	1
|	Se	82	77.873	ug/L	1.129	1	-5	10443	0
|	Se	78	81.379	ug/L	1.656	2	7591	34630	1
⌊	Mo	98	25.470	ug/L	0.288	1	19	88411	0
	Y	89		ug/L			289059	248986	1
	Kr	83		ug/L			540	555	4
⌈>	In	115		ug/L			1039566	863842	3
|	Ag	107	23.818	ug/L	0.476	2	35	230711	3
|	Cd	111	25.651	ug/L	0.816	3	103	117830	0
|	Cd	114	25.132	ug/L	0.468	1	34	295430	2
|	Sb	121	24.519	ug/L	0.691	2	264	332160	1
|	Sb	123	24.621	ug/L	1.074	4	200	254784	0
|	Ba	135	47.724	ug/L	1.981	4	21	210039	0
⌊	Ba	137	47.642	ug/L	1.644	3	29	366642	1
⌈>	Tb	159		ug/L			1387186	1180224	1
|	Tl	205	24.909	ug/L	0.288	1	300	980136	2
|	Pb	208	25.958	ug/L	0.503	1	162	1278129	0
|	Bi	209		ug/L			2880974	2373127	1
|	Th	232	25.287	ug/L	0.402	1	2849	1136704	0
⌊	U	238	25.509	ug/L	0.616	2	25	1183630	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WA61 TPOST REN~~ ZZZZZZ
Sample Dil Factor: 2 4 1.25-13
Comments:
Sample Date/Time: Friday, January 25, 2013 15:00:34
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012513a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			988464	804160	2
Be	9	24.378	ug/L	1.015	4	10	64166	1
C	13		ug/L			75670	74395	3
Cl	37		ug/L			3921810	4115788	3
> Sc	45		ug/L			776850	662453	3
V	51	26.213	ug/L	1.177	4	5488	365574	1
V-1	51	26.269	ug/L	1.307	4	776	367093	2
Cr	52	24.321	ug/L	1.040	4	16030	294740	2
Cr	53	24.586	ug/L	1.456	5	304	33791	3
Mn	55	190.056	ug/L	6.999	3	334	2995454	0
Co	59	24.654	ug/L	0.870	3	88	306298	2
> Ge	72		ug/L			461747	368486	1
Ni	60	29.052	ug/L	0.361	1	31	73289	2
Ni	62	27.169	ug/L	1.103	4	1423	11370	2
Cu	63	26.585	ug/L	0.584	2	1037	146580	1
Cu	65	25.310	ug/L	0.628	2	65	63089	1
Zn	66	81.402	ug/L	0.452	0	136	112221	1
Zn	67	70.802	ug/L	2.137	3	29	17182	1
Zn	68	76.625	ug/L	1.094	1	187	77835	1
As	75	24.456	ug/L	0.743	3	272	32752	2
As-1	75	26.009	ug/L	0.731	2	7476	40675	1
Se	82	72.624	ug/L	1.686	2	-5	9894	1
Se	78	76.535	ug/L	1.982	2	7591	33444	0
Mo	98	23.737	ug/L	1.029	4	19	83683	2
Y	89		ug/L			289059	248444	3
Kr	83		ug/L			540	531	3
> In	115		ug/L			1039566	868840	2
Ag	107	23.411	ug/L	0.657	2	35	228086	2
Cd	111	23.965	ug/L	0.311	1	103	110796	1
Cd	114	23.736	ug/L	0.276	1	34	280699	1
Sb	121	24.273	ug/L	0.693	2	264	330821	1
Sb	123	24.159	ug/L	0.207	0	200	251695	1
Ba	135	46.817	ug/L	0.273	0	21	207440	1
Ba	137	46.286	ug/L	1.008	2	29	358442	0
> Tb	159		ug/L			1387186	1187025	2
Tl	205	23.765	ug/L	0.160	0	300	940453	1
Pb	208	24.619	ug/L	0.596	2	162	1219043	0
Bi	209		ug/L			2880974	2359949	1
Th	232	23.982	ug/L	0.406	1	2849	1084335	0
U	238	24.076	ug/L	0.548	2	25	1123595	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 15:04:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	866926	1
	Be	9	25.233	ug/L	0.842	3	10	71621	1
	C	13		ug/L			75670	74325	3
	Cl	37		ug/L			3921810	3824626	1
>	Sc	45		ug/L			776850	660315	0
	V	51	27.639	ug/L	0.690	2	5488	384270	2
	V-1	51	27.302	ug/L	0.515	1	776	380620	1
	Cr	52	27.085	ug/L	0.655	2	16030	325879	2
	Cr	53	26.009	ug/L	0.336	1	304	35657	1
	Mn	55	27.541	ug/L	0.760	2	334	433252	2
	Co	59	26.412	ug/L	0.236	0	88	327255	0
>	Ge	72		ug/L			461747	389035	1
	Ni	60	27.070	ug/L	0.510	1	31	72075	0
	Ni	62	26.008	ug/L	0.846	3	1423	11543	2
	Cu	63	27.118	ug/L	0.712	2	1037	157813	1
	Cu	65	27.130	ug/L	1.648	6	65	71354	4
	Zn	66	86.220	ug/L	2.020	2	136	125463	1
	Zn	67	76.472	ug/L	3.194	4	29	19588	2
	Zn	68	81.903	ug/L	3.250	3	187	87801	3
	As	75	25.570	ug/L	0 643	2	272	36141	0
	As-1	75	27.005	ug/L	0.558	2	7476	44349	0
	Se	82	79.233	ug/L	1.372	1	-5	11397	0
	Se	78	82.367	ug/L	1.028	1	7591	37517	0
	Mo	98	23.331	ug/L	0.549	2	19	86863	1
	Y	89		ug/L			289059	242379	2
	Kr	83		ug/L			540	494	5
>	In	115		ug/L			1039566	897797	0
	Ag	107	24.647	ug/L	0.462	1	35	248171	1
	Cd	111	25.841	ug/L	0.353	1	103	123458	1
	Cd	114	25.558	ug/L	0.434	1	34	312336	0
	Sb	121	24.746	ug/L	0.178	0	264	348631	1
	Sb	123	24.858	ug/L	0.285	1	200	267635	1
	Ba	135	27.162	ug/L	0.440	1	21	124368	0
	Ba	137	27.287	ug/L	0.686	2	29	218401	1
>	Tb	159		ug/L			1387186	1240405	1
	Tl	205	25.327	ug/L	0.649	2	300	1047219	1
	Pb	208	26.535	ug/L	0.104	0	162	1373420	0
	Bi	209		ug/L			2880974	2651999	0
	Th	232	25.380	ug/L	0.472	1	2849	1199107	0
	U	238	24.657	ug/L	0.322	1	25	1202668	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 15:09:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			988464	829455	0
[	Be	9	52.272	ug/L	0.647	1	10	141993	0
	C	13		ug/L			75670	63075	7
	Cl	37		ug/L			3921810	3685826	5
[>	Sc	45		ug/L			776850	659970	2
[	V	51	51.401	ug/L	1.605	3	5488	709976	0
[	V-1	51	50.730	ug/L	1.669	3	776	705987	1
[	Cr	52	51.512	ug/L	1.149	2	16030	606942	0
[	Cr	53	49.314	ug/L	1.382	2	304	67308	0
[	Mn	55	49.931	ug/L	1.135	2	334	784562	0
[	Co	59	49.172	ug/L	1.737	3	88	608583	1
[>	Ge	72		ug/L			461747	379266	1
[	Ni	60	50.872	ug/L	1.158	2	31	132038	1
[	Ni	62	48.555	ug/L	2 117	4	1423	20000	3
[	Cu	63	49.832	ug/L	1.784	3	1037	282021	2
[	Cu	65	50.527	ug/L	0.874	1	65	129598	2
[	Zn	66	52.336	ug/L	0.235	0	136	74303	0
[	Zn	67	51.091	ug/L	0.532	1	29	12773	2
[	Zn	68	52.056	ug/L	1.276	2	187	54467	1
[	As	75	50.814	ug/L	1.584	3	272	69803	2
[	As-1	75	52.011	ug/L	1.757	3	7476	77584	2
[	Se	82	51.054	ug/L	0.320	0	-5	7158	0
[	Se	78	54.583	ug/L	1 571	2	7591	26340	1
[	Mo	98	47.177	ug/L	0.766	1	19	171231	0
	Y	89		ug/L			289059	236670	0
	Kr	83		ug/L			540	511	9
[>	In	115		ug/L			1039566	878128	2
[	Ag	107	45.304	ug/L	0.389	0	35	446143	1
[	Cd	111	51.133	ug/L	0.619	1	103	238857	2
[	Cd	114	50.348	ug/L	0.848	1	34	601689	0
[	Sb	121	50.826	ug/L	0.731	1	264	700023	1
[	Sb	123	50.030	ug/L	0.794	1	200	526550	0
[	Ba	135	51.700	ug/L	0.885	1	21	231490	1
[	Ba	137	51.993	ug/L	1.189	2	29	406960	1
[>	Tb	159		ug/L			1387186	1217522	1
[	Tl	205	47.651	ug/L	0.286	0	300	1934097	1
[	Pb	208	52.132	ug/L	4.323	8	162	2646846	7
[	Bi	209		ug/L			2880974	2531974	0
[	Th	232	52.495	ug/L	0.793	1	2849	2431842	0
[	U	238	52.494	ug/L	0.652	1	25	2513207	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 15:16:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			988464	804290	2
[	Be	9	-0.001	ug/L	0.002	190	10	6	65
	C	13		ug/L			75670	63897	2
	Cl	37		ug/L			3921810	3604902	3
[>	Sc	45		ug/L			776850	620708	1
[	V	51	0.007	ug/L	0.021	290	5488	4478	5
[	V-1	51	0.002	ug/L	0.001	75	776	646	1
[	Cr	52	0.034	ug/L	0.063	181	16030	13178	4
[	Cr	53	0.016	ug/L	0.005	33	304	263	3
[	Mn	55	0.006	ug/L	0.001	19	334	355	4
[	Co	59	0.003	ug/L	0.000	8	88	105	3
[>	Ge	72		ug/L			461747	377993	1
[	Ni	60	0.008	ug/L	0.001	11	31	46	4
[	Ni	62	1.872	ug/L	0.241	12	1423	1887	3
[	Cu	63	0.073	ug/L	0.011	15	1037	1261	3
[	Cu	65	0.001	ug/L	0.002	296	65	55	9
[	Zn	66	0.043	ug/L	0.008	17	136	172	5
[	Zn	67	0.019	ug/L	0.029	150	29	29	24
[	Zn	68	0.059	ug/L	0.007	11	187	214	4
[	As	75	0.017	ug/L	0.025	149	272	245	12
[	As-1	75	0.826	ug/L	0.110	13	7476	7250	1
[	Se	82	0.002	ug/L	0.077	4551	-5	-4	232
[	Se	78	3.102	ug/L	0.439	14	7591	7352	1
[	Mo	98	0.008	ug/L	0.001	15	19	46	8
	Y	89		ug/L			289059	234800	2
	Kr	83		ug/L			540	484	0
[>	In	115		ug/L			1039566	859293	0
[	Ag	107	0.002	ug/L	0.001	40	35	51	17
[	Cd	111	-0.003	ug/L	0.003	103	103	73	16
[	Cd	114	0.002	ug/L	0.002	125	34	46	47
[	Sb	121	0.026	ug/L	0.007	25	264	566	15
[	Sb	123	0.023	ug/L	0.005	21	200	398	12
[	Ba	135	-0.001	ug/L	0.001	186	21	14	37
[	Ba	137	0.001	ug/L	0.001	74	29	35	23
[>	Tb	159		ug/L			1387186	1167699	1
[	Tl	205	0.000	ug/L	0.002	587	300	264	24
[	Pb	208	0.003	ug/L	0.001	24	162	267	10
[	Bi	209		ug/L			2880974	2540325	0
[	Th	232	0.174	ug/L	0.043	25	2849	10086	17
[	U	238	0.002	ug/L	0.000	22	25	119	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 15:29:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			988464	825423	2
	Be	9	-0.001	ug/L	0.001	106	10	7	20
	C	13		ug/L			75670	70137	2
	Cl	37		ug/L			3921810	3622773	1
>	Sc	45		ug/L			776850	632574	2
	V	51	0.045	ug/L	0.005	12	5488	5058	1
	V-1	51	0.010	ug/L	0.006	55	776	763	8
	Cr	52	0.167	ug/L	0.023	13	16030	14898	2
	Cr	53	0.048	ug/L	0.004	8	304	310	1
	Mn	55	0.032	ug/L	0.003	10	334	752	4
	Co	59	0.003	ug/L	0.001	46	88	102	12
>	Ge	72		ug/L			461747	388711	0
	Ni	60	0.016	ug/L	0.000	2	31	70	1
	Ni	62	0.640	ug/L	0.127	19	1423	1452	3
	Cu	63	0.125	ug/L	0.006	4	1037	1597	1
	Cu	65	0.108	ug/L	0.007	6	65	338	5
	Zn	66	0.926	ug/L	0.013	1	136	1459	1
	Zn	67	0.656	ug/L	0.094	14	29	192	11
	Zn	68	0.858	ug/L	0.040	4	187	1075	3
	As	75	0.023	ug/L	0.019	82	272	261	10
	As-1	75	0.891	ug/L	0.070	7	7476	7548	1
	Se	82	0.018	ug/L	0.051	277	-5	-2	322
	Se	78	3.320	ug/L	0.290	8	7591	7644	1
	Mo	98	0.003	ug/L	0.001	41	19	28	17
	Y	89		ug/L			289059	241277	0
	Kr	83		ug/L			540	491	3
>	In	115		ug/L			1039566	863414	1
	Ag	107	-0.000	ug/L	0.000	880	35	28	14
	Cd	111	-0.003	ug/L	0.001	32	103	70	6
	Cd	114	0.001	ug/L	0.001	57	34	40	15
	Sb	121	-0.000	ug/L	0.003	1960	264	217	21
	Sb	123	-0.000	ug/L	0.003	977	200	164	18
	Ba	135	0.035	ug/L	0.001	3	21	170	2
	Ba	137	0.040	ug/L	0.003	7	29	331	7
>	Tb	159		ug/L			1387186	1181879	0
	Tl	205	-0.001	ug/L	0.000	11	300	200	2
	Pb	208	0.012	ug/L	0.001	6	162	734	5
	Bi	209		ug/L			2880974	2551839	1
	Th	232	0.048	ug/L	0.011	24	2849	4565	12
	U	238	0.000	ug/L	0.000	77	25	30	23

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 15:33:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			988464	813824	1
	Be	9	0.130	ug/L	0.003	2	10	354	1
	C	13		ug/L			75670	73423	2
	Cl	37		ug/L			3921810	4160841	5
>	Sc	45		ug/L			776850	712972	1
	V	51	9.714	ug/L	0.142	1	5488	149078	0
	V-1	51	9.831	ug/L	0.182	1	776	148433	1
	Cr	52	7.390	ug/L	0.249	3	16030	106688	2
	Cr	53	7.874	ug/L	0.070	0	304	11849	0
	Mn	55	404.740	ug/L	1.764	0	334	6870492	1
	Co	59	4.224	ug/L	0.070	1	88	56570	0
>	Ge	72		ug/L			461747	376172	0
	Ni	60	14.528	ug/L	0.265	1	31	37418	0
	Ni	62	15.113	ug/L	0.510	3	1423	6972	2
	Cu	63	8.643	ug/L	0.136	1	1037	49220	0
	Cu	65	8.305	ug/L	0.405	4	65	21165	3
	Zn	66	25.692	ug/L	0.732	2	136	36230	2
	Zn	67	27.417	ug/L	1.161	4	29	6807	3
	Zn	68	27.690	ug/L	0 833	3	187	28808	2
	As	75	3.103	ug/L	0.043	1	272	4436	1
	As-1	75	4.003	ug/L	0.105	2	7476	11545	1
	Se	82	0.256	ug/L	0.029	11	-5	30	13
	Se	78	3.841	ug/L	0.279	7	7591	7587	1
	Mo	98	0.430	ug/L	0.005	1	19	1565	1
	Y	89		ug/L			289059	282125	1
	Kr	83		ug/L			540	536	6
>	In	115		ug/L			1039566	839616	1
	Ag	107	0.025	ug/L	0.001	5	35	259	5
	Cd	111	0.441	ug/L	0.003	0	103	2052	1
	Cd	114	0.420	ug/L	0.008	1	34	4824	0
	Sb	121	0.354	ug/L	0.010	2	264	4876	1
	Sb	123	0.354	ug/L	0.013	3	200	3727	2
	Ba	135	69.100	ug/L	0.684	0	21	295878	1
	Ba	137	68.966	ug/L	1.412	2	29	516152	0
>	Tb	159		ug/L			1387186	1182274	1
	Tl	205	0.035	ug/L	0.001	3	300	1647	4
	Pb	208	3.499	ug/L	0.009	0	162	172745	1
	Bi	209		ug/L			2880974	2373668	1
	Th	232	0.564	ug/L	0.007	1	2849	27783	2
	U	238	0.170	ug/L	0.005	3	25	7901	2

61 1-28-13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA51 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 15:37:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			988464	793774	0
	Be	9	0.018	ug/L	0.002	9	10	54	8
	C	13		ug/L			75670	76609	3
	Cl	37		ug/L			3921810	3695704	0
>	Sc	45		ug/L			776850	666326	1
	V	51	3.072	ug/L	0.082	2	5488	47281	1
	V-1	51	3.049	ug/L	0.084	2	776	43483	2
	Cr	52	0.835	ug/L	0.076	9	16030	23450	2
	Cr	53	0.856	ug/L	0.076	8	304	1435	6
	Mn	55	652.245	ug/L	13.483	2	334	10346126	1
	Co	59	2.326	ug/L	0.086	3	88	29146	2
>	Ge	72		ug/L			461747	367263	1
	Ni	60	6.372	ug/L	0.149	2	31	16035	1
	Ni	62	10.110	ug/L	1.895	18	1423	4931	14
	Cu	63	3.165	ug/L	0.055	1	1037	18120	1
	Cu	65	2.633	ug/L	0.081	3	65	6586	1
	Zn	66	7.796	ug/L	0.125	1	136	10809	2
	Zn	67	9.288	ug/L	0.125	1	29	2267	2
	Zn	68	10.427	ug/L	0.557	5	187	10678	3
	As	75	61.539	ug/L	0.431	0	272	81825	1
	As-1	75	62.376	ug/L	0.516	0	7476	88929	1
	Se	82	0.273	ug/L	0.120	43	-5	32	49
	Se	78	4.222	ug/L	0.336	7	7591	7543	0
	Mo	98	2.985	ug/L	0.079	2	19	10504	2
	Y	89		ug/L			289059	242826	1
	Kr	83		ug/L			540	481	3
>	In	115		ug/L			1039566	847624	1
	Ag	107	0.023	ug/L	0.002	7	35	243	5
	Cd	111	2.238	ug/L	0.049	2	103	10170	1
	Cd	114	2.213	ug/L	0.053	2	34	25563	2
	Sb	121	0.291	ug/L	0.007	2	264	4081	1
	Sb	123	0.294	ug/L	0.008	2	200	3148	1
	Ba	135	47.968	ug/L	0.743	1	21	207340	0
	Ba	137	48.482	ug/L	0.570	1	29	366356	0
>	Tb	159		ug/L			1387186	1163858	0
	Tl	205	-0.002	ug/L	0.000	18	300	163	10
	Pb	208	0.598	ug/L	0.007	1	162	29192	1
	Bi	209		ug/L			2880974	2356122	0
	Th	232	0.016	ug/L	0.004	22	2849	3103	5
	U	238	0.151	ug/L	0.002	1	25	6923	0

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ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 15:42:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	822582	3
	Be	9	0.055	ug/L	0.006	10	10	158	11
	C	13		ug/L			75670	78587	1
	Cl	37		ug/L			3921810	4315610	1
>	Sc	45		ug/L			776850	713459	3
	V	51	14.061	ug/L	0.123	0	5488	213732	3
	V-1	51	14.132	ug/L	0.097	0	776	213229	3
	Cr	52	7.629	ug/L	0.386	5	16030	109651	2
	Cr	53	8.134	ug/L	0.326	4	304	12229	1
	Mn	55	46.559	ug/L	2.749	5	334	790221	3
	Co	59	0.892	ug/L	0.027	2	88	12015	2
>	Ge	72		ug/L			461747	367282	0
	Ni	60	2.673	ug/L	0.091	3	31	6741	3
	Ni	62	19.755	ug/L	4.791	24	1423	8562	21
	Cu	63	8.391	ug/L	0.513	6	1037	46692	6
	Cu	65	4.065	ug/L	0.077	1	65	10145	2
	Zn	66	6.272	ug/L	0.150	2	136	8720	3
	Zn	67	6.414	ug/L	0.169	2	29	1573	2
	Zn	68	8.005	ug/L	0.126	1	187	8237	0
	As	75	1.671	ug/L	0.003	0	272	2433	0
	As-1	75	2.735	ug/L	0.109	3	7476	9585	1
	Se	82	0.513	ug/L	0.056	10	-5	65	10
	Se	78	4.648	ug/L	0.403	8	7591	7696	2
	Mo	98	1.866	ug/L	0.014	0	19	6573	1
	Y	89		ug/L			289059	261002	1
	Kr	83		ug/L			540	510	2
>	In	115		ug/L			1039566	832802	2
	Ag	107	0.006	ug/L	0.000	4	35	85	4
	Cd	111	1.979	ug/L	0.056	2	103	8844	0
	Cd	114	1.970	ug/L	0.014	0	34	22357	2
	Sb	121	0.101	ug/L	0.000	0	264	1533	2
	Sb	123	0.101	ug/L	0.008	7	200	1171	7
	Ba	135	11.270	ug/L	0.246	2	21	47867	1
	Ba	137	11.416	ug/L	0.373	3	29	84749	2
>	Tb	159		ug/L			1387186	1170797	1
	Tl	205	0.011	ug/L	0.016	149	300	670	94
	Pb	208	0.874	ug/L	0.008	0	162	42842	2
	Bi	209		ug/L			2880974	2264850	2
	Th	232	0.246	ug/L	0.014	5	2849	13351	6
	U	238	0.960	ug/L	0.006	0	25	44218	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 I REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 15:46:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	812862	0
	Be	9	0.007	ug/L	0.001	19	10	28	12
	C	13		ug/L			75670	76415	0
	Cl	37		ug/L			3921810	3827411	2
>	Sc	45		ug/L			776850	679612	0
	V	51	2.295	ug/L	0.069	3	5488	37247	2
	V-1	51	2.283	ug/L	0.061	2	776	33384	2
	Cr	52	0.779	ug/L	0.087	11	16030	23260	4
	Cr	53	0.804	ug/L	0.034	4	304	1392	3
	Mn	55	485.239	ug/L	23.145	4	334	7849779	4
	Co	59	1.220	ug/L	0.006	0	88	15638	1
>	Ge	72		ug/L			461747	362971	1
	Ni	60	5.039	ug/L	0.085	1	31	12541	1
	Ni	62	18.917	ug/L	1.938	10	1423	8144	9
	Cu	63	2.969	ug/L	0.115	3	1037	16856	4
	Cu	65	1.815	ug/L	0.029	1	65	4505	2
	Zn	66	9.005	ug/L	0.063	0	136	12324	1
	Zn	67	10.380	ug/L	0.110	1	29	2502	0
	Zn	68	11.232	ug/L	0.117	1	187	11365	2
	As	75	4.475	ug/L	0 023	0	272	6079	1
	As-1	75	5.386	ug/L	0.049	0	7476	12958	1
	Se	82	0.387	ug/L	0.125	32	-5	47	36
	Se	78	3.983	ug/L	0.210	5	7591	7372	1
	Mo	98	1.842	ug/L	0.025	1	19	6415	1
	Y	89		ug/L			289059	238237	0
	Kr	83		ug/L			540	500	5
>	In	115		ug/L			1039566	840316	1
	Ag	107	0.002	ug/L	0.000	27	35	45	9
	Cd	111	0.335	ug/L	0.006	1	103	1580	0
	Cd	114	0.332	ug/L	0.006	1	34	3828	1
	Sb	121	0.464	ug/L	0.006	1	264	6321	1
	Sb	123	0.463	ug/L	0.009	1	200	4827	0
	Ba	135	59.505	ug/L	1.061	1	21	254989	1
	Ba	137	60.030	ug/L	1.849	3	29	449593	1
>	Tb	159		ug/L			1387186	1170376	2
	Tl	205	0.004	ug/L	0.001	13	300	398	3
	Pb	208	0.718	ug/L	0.018	2	162	35183	0
	Bi	209		ug/L			2880974	2239796	0
	Th	232	-0.024	ug/L	0.001	3	2849	1341	5
	U	238	1.039	ug/L	0.044	4	25	47820	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 J REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 15:50:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	858614	2
	Be	9	0.027	ug/L	0.001	4	10	85	1
	C	13		ug/L			75670	76968	1
	Cl	37		ug/L			3921810	4638683	4
>	Sc	45		ug/L			776850	739024	2
	V	51	4.515	ug/L	0.075	1	5488	74610	1
	V-1	51	4.821	ug/L	0.079	1	776	75818	1
	Cr	52	2.190	ug/L	0.045	2	16030	43491	1
	Cr	53	3.291	ug/L	0.048	1	304	5301	1
	Mn	55	42.046	ug/L	0.698	1	334	739878	1
	Co	59	0.440	ug/L	0.006	1	88	6188	1
>	Ge	72		ug/L			461747	379895	0
	Ni	60	1.245	ug/L	0.004	0	31	3262	1
	Ni	62	10.496	ug/L	0.476	4	1423	5248	2
	Cu	63	4.332	ug/L	0.188	4	1037	25335	3
	Cu	65	2.604	ug/L	0.084	3	65	6740	2
	Zn	66	4.905	ug/L	0.169	3	136	7078	4
	Zn	67	4.716	ug/L	0.188	3	29	1203	3
	Zn	68	6.208	ug/L	0.203	3	187	6642	3
	As	75	2.997	ug/L	0.042	1	272	4335	1
	As-1	75	3.939	ug/L	0.070	1	7476	11571	0
	Se	82	0.290	ug/L	0.106	36	-5	35	40
	Se	78	3.954	ug/L	0.286	7	7591	7704	0
	Mo	98	0.205	ug/L	0.009	4	19	762	4
	Y	89		ug/L			289059	260636	1
	Kr	83		ug/L			540	507	3
>	In	115		ug/L			1039566	870894	0
	Ag	107	0.003	ug/L	0.001	26	35	56	13
	Cd	111	0.072	ug/L	0.007	9	103	420	7
	Cd	114	0.080	ug/L	0.003	3	34	974	4
	Sb	121	0.049	ug/L	0.002	4	264	888	4
	Sb	123	0.046	ug/L	0.004	8	200	651	6
	Ba	135	8.680	ug/L	0.241	2	21	38568	3
	Ba	137	8.804	ug/L	0.052	0	29	68380	0
>	Tb	159		ug/L			1387186	1210873	1
	Tl	205	-0.001	ug/L	0.000	38	300	209	10
	Pb	208	1.705	ug/L	0.019	1	162	86267	0
	Bi	209		ug/L			2880974	2399111	2
	Th	232	0.020	ug/L	0.000	1	2849	3415	0
	U	238	0.138	ug/L	0.001	0	25	6571	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 K REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 15:54:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	819913	1
	Be	9	0.045	ug/L	0.002	5	10	129	6
	C	13		ug/L			75670	74883	0
	Cl	37		ug/L			3921810	3820695	2
>	Sc	45		ug/L			776850	677035	0
	V	51	1.950	ug/L	0.020	1	5488	32251	0
	V-1	51	1.962	ug/L	0.027	1	776	28669	1
	Cr	52	0.969	ug/L	0.029	3	16030	25422	1
	Cr	53	1.048	ug/L	0.085	8	304	1727	6
	Mn	55	407.067	ug/L	3.889	0	334	6561466	0
	Co	59	7.639	ug/L	0.058	0	88	97099	0
>	Ge	72		ug/L			461747	375119	2
	Ni	60	24.136	ug/L	0.332	1	31	61977	2
	Ni	62	30.940	ug/L	1.250	4	1423	13021	2
	Cu	63	2.955	ug/L	0.079	2	1037	17337	2
	Cu	65	2.169	ug/L	0.052	2	65	5553	3
	Zn	66	33.290	ug/L	0.829	2	136	46771	1
	Zn	67	28.686	ug/L	0.640	2	29	7103	2
	Zn	68	31.809	ug/L	0.935	2	187	32970	0
	As	75	19.974	ug/L	0.736	3	272	27262	1
	As-1	75	20.865	ug/L	0.876	4	7476	34409	1
	Se	82	0.329	ug/L	0.046	14	-5	40	13
	Se	78	3.958	ug/L	0.553	13	7591	7606	0
	Mo	98	2.230	ug/L	0.047	2	19	8023	3
	Y	89		ug/L			289059	248256	3
	Kr	83		ug/L			540	481	5
>	In	115		ug/L			1039566	863145	1
	Ag	107	0.010	ug/L	0.001	8	35	122	6
	Cd	111	5.476	ug/L	0.134	2	103	25219	2
	Cd	114	5.373	ug/L	0.166	3	34	63129	1
	Sb	121	0.134	ug/L	0.001	0	264	2030	1
	Sb	123	0.134	ug/L	0.005	3	200	1555	2
	Ba	135	11.305	ug/L	0.479	4	21	49755	2
	Ba	137	11.235	ug/L	0.181	1	29	86468	1
>	Tb	159		ug/L			1387186	1208786	1
	Tl	205	0.002	ug/L	0.000	21	300	353	4
	Pb	208	0.243	ug/L	0.004	1	162	12388	1
	Bi	209		ug/L			2880974	2379658	0
	Th	232	-0.025	ug/L	0.001	2	2849	1318	2
	U	238	0.584	ug/L	0.015	2	25	27785	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 L REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 15:58:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

RRA?

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			988464	846317	1
	Be	9	0.032	ug/L	0.005	16	10	98	14
	C	13		ug/L			75670	72151	2
	Cl	37		ug/L			3921810	4223909	4
>	Sc	45		ug/L			776850	720641	1
	V	51	8.025	ug/L	0.158	1	5488	125377	2
	V-1	51	8.164	ug/L	0.183	2	776	124715	2
	Cr	52	3.381	ug/L	0.148	4	16030	57384	1
	Cr	53	4.034	ug/L	0.104	2	304	6272	1
	Mn	55	31.336	ug/L	0.543	1	334	537953	2
	Co	59	0.570	ug/L	0.024	4	88	7787	2
>	Ge	72		ug/L			461747	382160	0
	Ni	60	2.024	ug/L	0.049	2	31	5320	3
	Ni	62	8.446	ug/L	0.614	7	1423	4478	4
	Cu	63	3.221	ug/L	0.042	1	1037	19177	1
	Cu	65	1.759	ug/L	0.030	1	65	4598	1
	Zn	66	4.481	ug/L	0.029	0	136	6513	1
	Zn	67	4.306	ug/L	0.101	2	29	1107	1
	Zn	68	6.083	ug/L	0.017	0	187	6551	0
	As	75	1905.314	ug/L	15.841	0	272	2629690	1
	As-1	75	1900.103	ug/L	15.670	0	7476	2636863	1
	Se	82	0.228	ug/L	0.114	50	-5	27	59
	Se	78	3.571	ug/L	0.406	11	7591	7608	1
	Mo	98	1.099	ug/L	0.013	1	19	4034	1
	Y	89		ug/L			289059	254362	0
	Kr	83		ug/L			540	492	2
>	In	115		ug/L			1039566	877531	0
	Ag	107	0.001	ug/L	0.001	98	35	43	30
	Cd	111	0.383	ug/L	0.009	2	103	1876	2
	Cd	114	0.388	ug/L	0.014	3	34	4659	2
	Sb	121	0.130	ug/L	0.003	2	264	2013	1
	Sb	123	0.133	ug/L	0.002	1	200	1572	1
	Ba	135	7.375	ug/L	0.028	0	21	33018	0
	Ba	137	7.285	ug/L	0.191	2	29	57011	1
>	Tb	159		ug/L			1387186	1212540	0
	Tl	205	-0.000	ug/L	0.001	139	300	248	8
	Pb	208	0.414	ug/L	0.005	1	162	21068	0
	Bi	209		ug/L			2880974	2373865	0
	Th	232	0.031	ug/L	0.002	5	2849	3927	1
	U	238	0.151	ug/L	0.005	3	25	7215	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 M REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 16:02:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			988464	779038	2
[	Be	9	0.009	ug/L	0.002	20	10	31	14
	C	13		ug/L			75670	75012	3
	Cl	37		ug/L			3921810	4627471	6
[>	Sc	45		ug/L			776850	659081	0
[	V	51	2.086	ug/L	0.051	2	5488	33254	1
[	V-1	51	2.139	ug/L	0.041	1	776	30370	0
[	Cr	52	0.832	ug/L	0.010	1	16030	23173	0
[	Cr	53	1.059	ug/L	0.035	3	304	1696	3
[	Mn	55	2403.814	ug/L	72.573	3	334	37713699	2
[	Co	59	0.334	ug/L	0.016	4	88	4209	4
[>	Ge	72		ug/L			461747	333642	2
[	Ni	60	1.407	ug/L	0.086	6	31	3232	3
[	Ni	62	18.743	ug/L	7.849	41	1423	7406	34
[	Cu	63	3.182	ug/L	0.449	14	1037	16529	12
[	Cu	65	0.818	ug/L	0.031	3	65	1892	4
[	Zn	66	2.896	ug/L	0.062	2	136	3709	0
[	Zn	67	21.249	ug/L	0.551	2	29	4683	0
[	Zn	68	18.635	ug/L	0.779	4	187	17230	1
[	As	75	27.102	ug/L	0.788	2	272	32833	0
[	As-1	75	28.116	ug/L	0.936	3	7476	39365	0
[	Se	82	0.574	ug/L	0.099	17	-5	66	16
[	Se	78	4.893	ug/L	0.614	12	7591	7067	0
[	Mo	98	0.617	ug/L	0.005	0	19	1984	3
	Y	89		ug/L			289059	225075	0
	Kr	83		ug/L			540	492	3
[>	In	115		ug/L			1039566	782681	0
[	Ag	107	0.002	ug/L	0.001	49	35	46	21
[	Cd	111	0.055	ug/L	0.004	7	103	308	4
[	Cd	114	0.053	ug/L	0.002	3	34	595	2
[	Sb	121	0.116	ug/L	0.005	4	264	1627	3
[	Sb	123	0.117	ug/L	0.006	4	200	1249	3
[	Ba	135	355.061	ug/L	6.540	1	21	1417088	1
[	Ba	137	394.952	ug/L	8.603	2	29	2755607	1
[>	Tb	159		ug/L			1387186	1116850	1
[	Tl	205	-0.003	ug/L	0.000	13	300	148	7
[	Pb	208	0.406	ug/L	0.003	0	162	19060	0
[	Bi	209		ug/L			2880974	1917295	0
[	Th	232	-0.033	ug/L	0.001	2	2849	904	3
[	U	238	0.053	ug/L	0.000	0	25	2344	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 16:06:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	832174	1
	Be	9	26.799	ug/L	0.478	1	10	73035	1
	C	13		ug/L			75670	73252	3
	Cl	37		ug/L			3921810	3654684	3
>	Sc	45		ug/L			776850	667442	2
	V	51	28.646	ug/L	0.180	0	5488	402426	2
	V-1	51	28.406	ug/L	0.146	0	776	400292	2
	Cr	52	27.889	ug/L	0.760	2	16030	338641	1
	Cr	53	27.136	ug/L	0.612	2	304	37583	1
	Mn	55	28.652	ug/L	0.930	3	334	455379	1
	Co	59	27.311	ug/L	0.969	3	88	341946	2
>	Ge	72		ug/L			461747	387715	3
	Ni	60	28.233	ug/L	1.175	4	31	74871	1
	Ni	62	48.164	ug/L	3.703	7	1423	20262	4
	Cu	63	28.918	ug/L	1.160	4	1037	167595	2
	Cu	65	27.774	ug/L	1.399	5	65	72774	2
	Zn	66	88.590	ug/L	2.024	2	136	128440	0
	Zn	67	80.333	ug/L	5.264	6	29	20492	4
	Zn	68	84.284	ug/L	3.197	3	187	90007	1
	As	75	25.829	ug/L	0.205	0	272	36390	2
	As-1	75	28.057	ug/L	0.413	1	7476	45673	1
	Se	82	81.256	ug/L	1.372	1	-5	11647	1
	Se	78	87.263	ug/L	2.480	2	7591	39219	0
	Mo	98	23.411	ug/L	1.006	4	19	86808	1
	Y	89		ug/L			289059	247511	2
	Kr	83		ug/L			540	487	1
>	In	115		ug/L			1039566	896058	0
	Ag	107	24.842	ug/L	0.347	1	35	249674	1
	Cd	111	26.473	ug/L	0.238	0	103	126236	0
	Cd	114	26.453	ug/L	0.150	0	34	322673	0
	Sb	121	24.980	ug/L	0.143	0	264	351239	0
	Sb	123	25.099	ug/L	0.126	0	200	269699	0
	Ba	135	27.822	ug/L	0.318	1	21	127153	1
	Ba	137	27.739	ug/L	0.168	0	29	221619	0
>	Tb	159		ug/L			1387186	1213601	1
	Tl	205	26.087	ug/L	0.281	1	300	1055400	0
	Pb	208	27.473	ug/L	0.590	2	162	1390983	0
	Bi	209		ug/L			2880974	2595534	1
	Th	232	25.743	ug/L	0.419	1	2849	1189945	0
	U	238	25.467	ug/L	0.378	1	25	1215332	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 16:12:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	830476	2
	Be	9	53.569	ug/L	1.861	3	10	145623	1
	C	13		ug/L			75670	63946	1
	Cl	37		ug/L			3921810	3642804	1
>	Sc	45		ug/L			776850	667782	4
	V	51	51.973	ug/L	1.357	2	5488	726120	1
	V-1	51	51.392	ug/L	1.821	3	776	723282	0
	Cr	52	53.110	ug/L	1.853	3	16030	632497	2
	Cr	53	51.162	ug/L	2.852	5	304	70564	1
	Mn	55	51.939	ug/L	1.595	3	334	825296	1
	Co	59	50.901	ug/L	1.313	2	88	637325	2
>	Ge	72		ug/L			461747	389347	1
	Ni	60	49.084	ug/L	1.498	3	31	130818	3
	Ni	62	61.874	ug/L	0.848	1	1423	25839	2
	Cu	63	50.363	ug/L	1 350	2	1037	292607	1
	Cu	65	50.633	ug/L	1.161	2	65	133312	2
	Zn	66	51.709	ug/L	0.616	1	136	75360	0
	Zn	67	51.254	ug/L	0.946	1	29	13153	1
	Zn	68	52.306	ug/L	0.760	1	187	56188	0
	As	75	51.252	ug/L	0.371	0	272	72284	0
	As-1	75	52.452	ug/L	0.358	0	7476	80282	0
	Se	82	51.383	ug/L	0.768	1	-5	7396	0
	Se	78	54.865	ug/L	0.831	1	7591	27149	1
	Mo	98	46.255	ug/L	1.290	2	19	172374	3
	Y	89		ug/L			289059	247068	2
	Kr	83		ug/L			540	498	4
>	In	115		ug/L			1039566	876000	1
	Ag	107	44.731	ug/L	0.771	1	35	439439	0
	Cd	111	51.443	ug/L	0.395	0	103	239734	1
	Cd	114	51.187	ug/L	1.070	2	34	610285	1
	Sb	121	50.846	ug/L	0.575	1	264	698669	0
	Sb	123	51.255	ug/L	1.078	2	200	538165	1
	Ba	135	52.347	ug/L	0 673	1	21	233849	0
	Ba	137	52.864	ug/L	1.137	2	29	412826	1
>	Tb	159		ug/L			1387186	1219234	0
	Tl	205	47.512	ug/L	0.340	0	300	1931129	1
	Pb	208	50.074	ug/L	0.445	0	162	2547361	0
	Bi	209		ug/L			2880974	2526121	0
	Th	232	52.390	ug/L	1.301	2	2849	2430418	2
	U	238	53.266	ug/L	1.084	2	25	2553718	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 16:18:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			988464	837848	1
	Be	9	-0.001	ug/L	0.001	64	10	5	52
	C	13		ug/L			75670	64757	2
	Cl	37		ug/L			3921810	3617594	2
>	Sc	45		ug/L			776850	676293	1
	V	51	0.020	ug/L	0 015	77	5488	5052	3
	V-1	51	-0.011	ug/L	0.001	5	776	521	1
	Cr	52	0.064	ug/L	0.045	70	16030	14713	3
	Cr	53	-0.037	ug/L	0.007	18	304	213	4
	Mn	55	0.005	ug/L	0.001	17	334	370	4
	Co	59	0.002	ug/L	0.001	77	88	98	16
>	Ge	72		ug/L			461747	394252	1
	Ni	60	0.004	ug/L	0.002	44	31	38	12
	Ni	62	7.599	ug/L	0.480	6	1423	4278	3
	Cu	63	0.320	ug/L	0.023	7	1037	2763	3
	Cu	65	-0.004	ug/L	0.002	52	65	45	11
	Zn	66	0.015	ug/L	0.006	40	136	138	5
	Zn	67	-0.019	ug/L	0.018	92	29	20	22
	Zn	68	0.047	ug/L	0.020	43	187	210	8
	As	75	0.003	ug/L	0.015	433	272	237	8
	As-1	75	0.903	ug/L	0.089	9	7476	7671	0
	Se	82	-0.028	ug/L	0.099	353	-5	-9	158
	Se	78	3.370	ug/L	0.359	10	7591	7770	0
	Mo	98	0.006	ug/L	0.001	10	19	39	6
	Y	89		ug/L			289059	242435	1
	Kr	83		ug/L			540	487	8
>	In	115		ug/L			1039566	867682	1
	Ag	107	0.000	ug/L	0.000	59	35	31	3
	Cd	111	-0.005	ug/L	0.002	37	103	64	12
	Cd	114	0.001	ug/L	0.000	57	34	36	12
	Sb	121	0.021	ug/L	0.005	23	264	504	14
	Sb	123	0.020	ug/L	0.004	18	200	375	10
	Ba	135	-0.002	ug/L	0.001	33	21	10	23
	Ba	137	-0.001	ug/L	0.000	27	29	15	17
>	Tb	159		ug/L			1387186	1185471	1
	Tl	205	-0.001	ug/L	0.001	77	300	222	12
	Pb	208	0.001	ug/L	0.000	34	162	175	6
	Bi	209		ug/L			2880974	2606479	0
	Th	232	0.142	ug/L	0.039	27	2849	8856	20
	U	238	0.002	ug/L	0.000	12	25	92	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 N REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 16:23:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	844419	1
	Be	9	0.052	ug/L	0.003	5	10	152	3
	C	13		ug/L			75670	81410	1
	Cl	37		ug/L			3921810	5407818	2
>	Sc	45		ug/L			776850	712764	0
	V	51	18.921	ug/L	0.267	1	5488	285579	1
	V-1	51	18.893	ug/L	0.413	2	776	284554	2
	Cr	52	6.653	ug/L	0.273	4	16030	97498	3
	Cr	53	7.086	ug/L	0.266	3	304	10689	3
	Mn	55	274.896	ug/L	5.645	2	334	4664919	1
	Co	59	0.661	ug/L	0.019	2	88	8921	2
>	Ge	72		ug/L			461747	370146	3
	Ni	60	2.249	ug/L	0.087	3	31	5718	2
	Ni	62	44.976	ug/L	19.206	42	1423	18016	37
	Cu	63	8.733	ug/L	1.090	12	1037	48810	9
	Cu	65	2.820	ug/L	0.036	1	65	7108	2
	Zn	66	5.627	ug/L	0.095	1	136	7892	1
	Zn	67	6.350	ug/L	0.075	1	29	1569	1
	Zn	68	7.163	ug/L	0.270	3	187	7441	2
	As	75	25.362	ug/L	0.927	3	272	34094	1
	As-1	75	26.669	ug/L	1.336	5	7476	41718	1
	Se	82	0.562	ug/L	0.061	10	-5	72	8
	Se	78	5.872	ug/L	1.663	28	7591	8184	4
	Mo	98	0.242	ug/L	0.007	3	19	873	5
	Y	89		ug/L			289059	261853	1
	Kr	83		ug/L			540	510	3
>	In	115		ug/L			1039566	818932	1
	Ag	107	0.003	ug/L	0.001	36	35	56	17
	Cd	111	u 0.092	ug/L	0.002	2	103	481	3
	Cd	114	0.107	ug/L	0.003	2	34	1218	3
	Sb	121	0.107	ug/L	0.003	2	264	1582	2
	Sb	123	u 0.108	ug/L	0.002	1	200	1219	2
	Ba	135	15.409	ug/L	0.141	0	21	64366	0
	Ba	137	15.770	ug/L	0.176	1	29	115147	0
>	Tb	159		ug/L			1387186	1167268	0
	Tl	205	u 0.005	ug/L	0.002	42	300	459	18
	Pb	208	0.621	ug/L	0.011	1	162	30377	0
	Bi	209		ug/L			2880974	2127857	5
	Th	232	0.277	ug/L	0.039	14	2849	14681	12
	U	238	0.340	ug/L	0.007	2	25	15624	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 O REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 16:27:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	792658	2
	Be	9	0.042	ug/L	0.005	11	10	117	8
	C	13		ug/L			75670	81776	4
	Cl	37		ug/L			3921810	4419090	2
>	Sc	45		ug/L			776850	681151	1
	V	51	4.267	ug/L	0.092	2	5488	65259	1
	V-1	51	4.297	ug/L	0.090	2	776	62356	0
	Cr	52	13.184	ug/L	0.209	1	16030	170819	0
	Cr	53	12.900	ug/L	0.421	3	304	18374	2
	Mn	55	1521.273	ug/L	17.184	1	334	24670759	1
	Co	59	0.298	ug/L	0.008	2	88	3884	3
>	Ge	72		ug/L			461747	372782	2
	Ni	60	1.103	ug/L	0.031	2	31	2837	3
	Ni	62	74.132	ug/L	8.354	11	1423	29468	13
	Cu	63	6.824	ug/L	0.283	4	1037	38722	6
	Cu	65	1.140	ug/L	0.034	2	65	2923	0
	Zn	66	10.042	ug/L	0.329	3	136	14093	1
	Zn	67	11.218	ug/L	0.493	4	29	2773	1
	Zn	68	12.098	ug/L	0.356	2	187	12554	1
	As	75	121.523	ug/L	3.818	3	272	163712	0
	As-1	75	122.656	ug/L	3.914	3	7476	171579	0
	Se	82	0.573	ug/L	0.085	14	-5	74	18
	Se	78	6.355	ug/L	0.484	7	7591	8427	1
	Mo	98	0.116	ug/L	0.008	6	19	429	6
	Y	89		ug/L			289059	242482	1
	Kr	83		ug/L			540	503	1
>	In	115		ug/L			1039566	810678	0
	Ag	107	0.003	ug/L	0.001	36	35	51	16
	Cd	111	0.112	ug/L	0.011	9	103	561	7
	Cd	114	0.117	ug/L	0.001	0	34	1319	1
	Sb	121	0.229	ug/L	0.007	3	264	3120	2
	Sb	123	0.228	ug/L	0.008	3	200	2369	2
	Ba	135	50.996	ug/L	0.264	0	21	210838	0
	Ba	137	51.736	ug/L	0.792	1	29	373936	1
>	Tb	159		ug/L			1387186	1147759	0
	Tl	205	-0.002	ug/L	0.000	13	300	183	4
	Pb	208	0.343	ug/L	0.007	2	162	16582	1
	Bi	209		ug/L			2880974	2155441	6
	Th	232	0.109	ug/L	0.010	9	2849	7104	5
	U	238	0.057	ug/L	0.002	3	25	2592	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 P REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 16:31:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	808559	2
	Be	9	0.017	ug/L	0.002	11	10	54	11
	C	13		ug/L			75670	74633	4
	Cl	37		ug/L			3921810	3470237	1
>	Sc	45		ug/L			776850	664889	1
	V	51	1.712	ug/L	0.019	1	5488	28379	0
	V-1	51	1.696	ug/L	0.029	1	776	24433	0
	Cr	52	0.933	ug/L	0.022	2	16030	24556	2
	Cr	53	0.914	ug/L	0.032	3	304	1512	2
	Mn	55	123.249	ug/L	1.334	1	334	1951079	0
	Co	59	0.521	ug/L	0.020	3	88	6577	2
>	Ge	72		ug/L			461747	374398	1
	Ni	60	4.730	ug/L	0.088	1	31	12144	2
	Ni	62	57.258	ug/L	10.123	17	1423	23043	15
	Cu	63	17.789	ug/L	1.067	5	1037	99896	4
	Cu	65	14.854	ug/L	0.618	4	65	37633	2
	Zn	66	51.205	ug/L	1.328	2	136	71750	1
	Zn	67	44.412	ug/L	0.669	1	29	10962	0
	Zn	68	50.781	ug/L	0.400	0	187	52460	0
	As	75	20.963	ug/L	0.308	1	272	28559	0
	As-1	75	22.272	ug/L	0.506	2	7476	36264	0
	Se	82	0.306	ug/L	0.079	25	-5	37	27
	Se	78	5.517	ug/L	0.812	14	7591	8159	2
	Mo	98	0.645	ug/L	0.012	1	19	2327	1
	Y	89		ug/L			289059	246674	1
	Kr	83		ug/L			540	486	4
>	In	115		ug/L			1039566	839453	1
	Ag	107	0.015	ug/L	0.002	10	35	173	9
	Cd	111	0.365	ug/L	0.018	5	103	1710	3
	Cd	114	0.361	ug/L	0.011	2	34	4154	1
	Sb	121	0.395	ug/L	0.004	1	264	5407	0
	Sb	123	0.387	ug/L	0.003	0	200	4053	2
	Ba	135	14.075	ug/L	0.269	1	21	60261	0
	Ba	137	14.551	ug/L	0.197	1	29	108914	1
>	Tb	159		ug/L			1387186	1168414	0
	Tl	205	U 0.012	ug/L	0.000	2	300	731	1
	Pb	208	0.330	ug/L	0.005	1	162	16245	0
	Bi	209		ug/L			2880974	2327337	1
	Th	232	-0.023	ug/L	0.002	9	2849	1368	6
	U	238	0.130	ug/L	0.001	0	25	5978	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 Q REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 16:35:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			988464	902162	2
	Be	9	0.010	ug/L	0.000	4	10	38	5
	C	13		ug/L			75670	91496	3
	Cl	37		ug/L			3921810	24583532	1
>	Sc	45		ug/L			776850	736349	2
	V	51	2.286	ug/L	0.124	5	5488	40207	5
	V-1	51	6.027	ug/L	0.499	8	776	94276	8
	Cr	52	1.339	ug/L	0.069	5	16030	32400	1
	Cr	53	13.615	ug/L	1.261	9	304	20952	9
	Mn	55	21.915	ug/L	1.015	4	334	384454	4
	Co	59	0.772	ug/L	0.015	1	88	10740	1
>	Ge	72		ug/L			461747	348314	1
	Ni	60	3.737	ug/L	0.130	3	31	8929	2
	Ni	62	238.233	ug/L	72.132	30	1423	85950	29
	Cu	63	37.080	ug/L	6.407	17	1037	192947	17
	Cu	65	6.245	ug/L	0.161	2	65	14751	1
	Zn	66	9.188	ug/L	0.071	0	136	12063	0
	Zn	67	10.764	ug/L	0.311	2	29	2489	3
	Zn	68	10.597	ug/L	0.162	1	187	10296	0
	As	75	5.450	ug/L	0.062	1	272	7060	1
	As-1	75	9.173	ug/L	0.930	10	7476	17214	6
	Se	82	1.620	ug/L	0.117	7	-5	204	8
	Se	78	15.900	ug/L	3.407	21	7591	11106	10
	Mo	98	1.135	ug/L	0.012	1	19	3798	0
	Y	89		ug/L			289059	242690	0
	Kr	83		ug/L			540	592	6
>	In	115		ug/L			1039566	752578	0
	Ag	107	0.015	ug/L	0.002	11	35	151	10
	Cd	111	0.038	ug/L	0 035	93	103	225	62
	Cd	114	0.155	ug/L	0.004	2	34	1609	2
	Sb	121	1.183	ug/L	0.008	0	264	14148	0
	Sb	123	1.183	ug/L	0.020	1	200	10817	1
	Ba	135	51.376	ug/L	0.514	1	21	197194	1
	Ba	137	52.306	ug/L	0.845	1	29	350938	1
>	Tb	159		ug/L			1387186	1157485	1
	Tl	205	0.009	ug/L	0.000	2	300	615	0
	Pb	208	0.766	ug/L	0.018	2	162	37107	1
	Bi	209		ug/L			2880974	1801459	0
	Th	232	-0.010	ug/L	0.003	33	2849	1947	7
	U	238	0.081	ug/L	0.004	4	25	3713	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 R REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 16:39:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	932714	1
	Be	9	0.014	ug/L	0.002	11	10	52	9
	C	13		ug/L			75670	81331	2
	Cl	37		ug/L			3921810	4045046	2
>	Sc	45		ug/L			776850	767558	1
	V	51	0.687	ug/L	0.065	9	5488	16394	6
	V-1	51	0.944	ug/L	0.062	6	776	16050	8
	Cr	52	2.860	ug/L	0.136	4	16030	54166	3
	Cr	53	3.607	ug/L	0.219	6	304	6010	7
	Mn	55	613.617	ug/L	15.051	2	334	11210601	1
	Co	59	8.141	ug/L	0.309	3	88	117293	3
>	Ge	72		ug/L			461747	416633	3
	Ni	60	18.083	ug/L	0.248	1	31	51568	1
	Ni	62	116.203	ug/L	22.539	19	1423	50987	21
	Cu	63	174.193	ug/L	2.213	1	1037	1080653	2
	Cu	65	161.061	ug/L	3.708	2	65	453494	1
	Zn	66	39032.761	ug/L	1152.815	2	136	60748025	0
	Zn	67	33570.928	ug/L	299.698	0	29	9203601	3
	Zn	68	37279.797	ug/L	1633.530	4	187	42706197	2
	As	75	126.887	ug/L	4.016	3	272	191041	1
	As-1	75	127.771	ug/L	3.939	3	7476	199491	1
	Se	82	1.372	ug/L	0.100	7	-5	205	4
	Se	78	6.373	ug/L	0.363	5	7591	9431	4
	Mo	98	2.871	ug/L	0.154	5	19	11452	2
	Y	89		ug/L			289059	273159	2
	Kr	83		ug/L			540	616	2
>	In	115		ug/L			1039566	844286	1
	Ag	107	0.169	ug/L	0.003	1	35	1627	2
	Cd	111	27.374	ug/L	0.779	2	103	122956	1
	Cd	114	27.021	ug/L	0.243	0	34	310531	1
	Sb	121	15.654	ug/L	0.290	1	264	207439	1
	Sb	123	15.389	ug/L	0.241	1	200	155858	1
	Ba	135	55.434	ug/L	0.201	0	21	238685	1
	Ba	137	56.268	ug/L	0.685	1	29	423491	0
>	Tb	159		ug/L			1387186	1190510	0
	Tl	205	0.324	ug/L	0.002	0	300	13100	0
	Pb	208	315.065	ug/L	2.703	0	162	15649902	0
	Bi	209		ug/L			2880974	2625703	0
	Th	232	-0.018	ug/L	0.001	7	2849	1627	3
	U	238	0.027	ug/L	0.001	4	25	1292	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 S REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 16:43:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			988464	855432	2
	Be	9	0.036	ug/L	0.003	8	10	111	10
	C	13		ug/L			75670	79365	5
	Cl	37		ug/L			3921810	4247393	1
>	Sc	45		ug/L			776850	714497	3
	V	51	2.651	ug/L	0.030	1	5488	44439	2
	V-1	51	2.897	ug/L	0.019	0	776	44344	3
	Cr	52	2.038	ug/L	0.114	5	16030	40136	0
	Cr	53	2.871	ug/L	0.092	3	304	4504	1
	Mn	55	76.559	ug/L	1.809	2	334	1302007	1
	Co	59	0.346	ug/L	0.009	2	88	4719	2
>	Ge	72		ug/L			461747	362652	1
	Ni	60	2.429	ug/L	0.092	3	31	6050	2
	Ni	62	57.209	ug/L	5.440	9	1423	22352	10
	Cu	63	7.014	ug/L	0.129	1	1037	38668	2
	Cu	65	3.753	ug/L	0.074	1	65	9253	2
	Zn	66	15.052	ug/L	0.356	2	136	20513	3
	Zn	67	13.478	ug/L	0.601	4	29	3240	5
	Zn	68	16.556	ug/L	0.429	2	187	16671	3
	As	75	10.209	ug/L	0.115	1	272	13582	0
	As-1	75	11.556	ug/L	0.127	1	7476	21053	1
	Se	82	0.395	ug/L	0.038	9	-5	48	9
	Se	78	5.725	ug/L	0.241	4	7591	7979	2
	Mo	98	0.257	ug/L	0.011	4	19	906	3
	Y	89		ug/L			289059	249845	3
	Kr	83		ug/L			540	520	1
>	In	115		ug/L			1039566	871293	1
	Ag	107	0.007	ug/L	0 001	8	35	100	5
	Cd	111	0.030	ug/L	0.004	14	103	223	9
	Cd	114	0.031	ug/L	0 001	1	34	401	2
	Sb	121	0.416	ug/L	0.009	2	264	5900	1
	Sb	123	0.410	ug/L	0.003	0	200	4451	0
	Ba	135	27.563	ug/L	0.138	0	21	122482	0
	Ba	137	28.047	ug/L	0.401	1	29	217876	1
>	Tb	159		ug/L			1387186	1210549	0
	Tl	205	0.002	ug/L	0.000	9	300	340	2
	Pb	208	1.251	ug/L	0.008	0	162	63320	1
	Bi	209		ug/L			2880974	2356975	0
	Th	232	0.015	ug/L	0 002	14	2849	3193	2
	U	238	0.029	ug/L	0.000	1	25	1385	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 U REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 16:47:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			988464	843883	2
[	Be	9	0.001	ug/L	0.002	126	10	12	36
	C	13		ug/L			75670	71458	4
	Cl	37		ug/L			3921810	3829036	3
[>	Sc	45		ug/L			776850	710184	0
	V	51	0.997	ug/L	0.041	4	5488	19746	3
	V-1	51	1.152	ug/L	0.022	1	776	17949	1
	Cr	52	0.089	ug/L	0.050	55	16030	15763	3
	Cr	53	0.634	ug/L	0.022	3	304	1206	2
	Mn	55	41.238	ug/L	0.612	1	334	697557	1
[	Co	59	0.388	ug/L	0.012	3	88	5252	3
[>	Ge	72		ug/L			461747	377048	3
	Ni	60	0.612	ug/L	0.032	5	31	1603	2
	Ni	62	35.870	ug/L	3.270	9	1423	14996	9
	Cu	63	2.836	ug/L	0.207	7	1037	16755	6
	Cu	65	0.384	ug/L	0.015	3	65	1032	1
	Zn	66	2.501	ug/L	1.842	73	136	3588	68
	Zn	67	3.219	ug/L	1.121	34	29	817	30
	Zn	68	3.966	ug/L	1.378	34	187	4241	30
	As	75	2.253	ug/L	0.115	5	272	3287	1
	As-1	75	3.370	ug/L	0.263	7	7476	10701	0
	Se	82	0.214	ug/L	0.031	14	-5	25	20
	Se	78	4.424	ug/L	0.591	13	7591	7815	0
[	Mo	98	11.808	ug/L	0.542	4	19	42586	1
	Y	89		ug/L			289059	237213	2
	Kr	83		ug/L			540	459	1
[>	In	115		ug/L			1039566	874243	1
	Ag	107	0.000	ug/L	0.001	262	35	33	32
	Cd	111	0.016	ug/L	0.002	10	103	161	6
	Cd	114	0.028	ug/L	0.000	0	34	359	1
	Sb	121	0.988	ug/L	0.027	2	264	13769	0
	Sb	123	0.983	ug/L	0.006	0	200	10469	1
	Ba	135	24.405	ug/L	0.648	2	21	108789	0
[	Ba	137	24.661	ug/L	0.637	2	29	192177	0
[>	Tb	159		ug/L			1387186	1189182	2
	Tl	205	-0.002	ug/L	0.000	16	300	167	10
	Pb	208	0.031	ug/L	0.003	9	162	1678	6
	Bi	209		ug/L			2880974	2409529	0
	Th	232	-0.044	ug/L	0.001	2	2849	434	8
[	U	238	0.118	ug/L	0.005	4	25	5544	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 V REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 16:51:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens	Intens. RSD
>	Li	6		ug/L			988464	753378	1
	Be	9	0.129	ug/L	0.006	4	10	326	3
	C	13		ug/L			75670	88112	5
	Cl	37		ug/L			3921810	4937010	0
>	Sc	45		ug/L			776850	640919	1
	V	51	23.753	ug/L	0.729	3	5488	321093	1
	V-1	51	23.908	ug/L	0.756	3	776	323493	1
	Cr	52	16.448	ug/L	0.471	2	16030	197260	3
	Cr	53	17.267	ug/L	0.298	1	304	23057	1
	Mn	55	747.063	ug/L	15.418	2	334	11396858	0
	Co	59	1.584	ug/L	0.019	1	88	19118	2
>	Ge	72		ug/L			461747	314970	0
	Ni	60	3.647	ug/L	0.036	0	31	7882	0
	Ni	62	434.964	ug/L	144.016	33	1423	140916	32
	Cu	63	62.002	ug/L	11.058	17	1037	291128	17
	Cu	65	13.502	ug/L	0.098	0	65	28791	0
	Zn	66	6.426	ug/L	1.419	22	136	7654	21
	Zn	67	8.742	ug/L	1.252	14	29	1831	13
	Zn	68	8.625	ug/L	1.574	18	187	7600	17
	As	75	11.797	ug/L	0.265	2	272	13602	1
	As-1	75	16.543	ug/L	2.144	12	7476	23966	9
	Se	82	0.263	ug/L	0.089	33	-5	26	39
	Se	78	18.588	ug/L	7.088	38	7591	10857	19
	Mo	98	1.472	ug/L	0.021	1	19	4450	1
	Y	89		ug/L			289059	277597	0
	Kr	83		ug/L			540	583	2
>	In	115		ug/L			1039566	766890	1
	Ag	107	0.055	ug/L	0.003	4	35	502	3
	Cd	111	-0.025	ug/L	0.061	245	103	-22	1110
	Cd	114	0.065	ug/L	0.002	2	34	700	3
	Sb	121	0.579	ug/L	0.012	2	264	7154	0
	Sb	123	0.585	ug/L	0.023	3	200	5521	1
	Ba	135	51.345	ug/L	1.194	2	21	200760	0
	Ba	137	52.677	ug/L	1.283	2	29	360074	1
>	Tb	159		ug/L			1387186	1085814	0
	Tl	205	-0.001	ug/L	0.000	22	300	182	6
	Pb	208	5.185	ug/L	0 055	1	162	235014	0
	Bi	209		ug/L			2880974	1770595	0
	Th	232	0.785	ug/L	0.009	1	2849	34649	0
	U	238	1.077	ug/L	0.023	2	25	46025	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 W REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 16:56:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

RR-AS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	797261	2
	Be	9	0.044	ug/L	0.001	2	10	123	1
	C	13		ug/L			75670	100975	4
	Cl	37		ug/L			3921810	15628004	6
>	Sc	45		ug/L			776850	668365	1
	V	51	13.844	ug/L	0.211	1	5488	197170	1
	V-1	51	16.950	ug/L	0.289	1	776	239399	0
	Cr	52	9.636	ug/L	0.183	1	16030	126252	3
	Cr	53	19.973	ug/L	0.590	2	304	27771	2
	Mn	55	250.982	ug/L	7.288	2	334	3992903	1
	Co	59	1.024	ug/L	0.016	1	88	12922	3
>	Ge	72		ug/L			461747	302547	0
	Ni	60	1.258	ug/L	0.051	4	31	2625	3
	Ni	62	1165.698	ug/L	195.957	16	1423	361236	15
	Cu	63	153.960	ug/L	17.021	11	1037	693344	10
	Cu	65	2.162	ug/L	0.031	1	65	4465	1
	Zn	66	3.098	ug/L	0.166	5	136	3592	5
	Zn	67	4.692	ug/L	0.241	5	29	953	4
	Zn	68	4.763	ug/L	0.191	4	187	4088	4
	As	75	2.893	ug/L	0.145	5	272	3339	5
	As-1	75	21.629	ug/L	5.332	24	7476	28568	19
	Se	82	1.492	ug/L	0.254	17	-5	163	16
	Se	78	73.765	ug/L	19.842	26	7591	26615	20
	Mo	98	0.118	ug/L	0.005	4	19	354	4
	Y	89		ug/L			289059	220747	1
	Kr	83		ug/L			540	1339	7
>	In	115		ug/L			1039566	648694 ✓	5
	Ag	107	0.008	ug/L	0.001	11	35	78	3
	Cd	111	-0.157	ug/L	0.086	55	103	-466	60
	Cd	114	u 0.053	ug/L	0.003	4	34	489	9
	Sb	121	0.359	ug/L	0.007	1	264	3814	6
	Sb	123	0.348	ug/L	0.003	0	200	2833	5
	Ba	135	39.689	ug/L	1.465	3	21	131166	2
	Ba	137	40.769	ug/L	1.390	3	29	235564	2
>	Tb	159		ug/L			1387186	995900	3
	Tl	205	u -0.001	ug/L	0.001	106	300	179	20
	Pb	208	u 0.067	ug/L	0.004	6	162	2884	4
	Bi	209		ug/L			2880974	1502028	2
	Th	232	-0.016	ug/L	0.001	6	2849	1451	5
	U	238	0.122	ug/L	0.004	3	25	4812	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 X REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 17:00:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas Intens	Intens. RSD
>	Li	6		ug/L			988464	813904	1
	Be	9	0.003	ug/L	0.001	38	10	16	17
	C	13		ug/L			75670	67576	4
	Cl	37		ug/L			3921810	3502888	4
>	Sc	45		ug/L			776850	635538	3
	V	51	5.624	ug/L	0.035	0	5488	78837	3
	V-1	51	5.807	ug/L	0.048	0	776	78442	3
	Cr	52	2.612	ug/L	0.052	1	16030	42084	2
	Cr	53	3.341	ug/L	0.151	4	304	4628	7
	Mn	55	25.845	ug/L	0.715	2	334	391116	1
	Co	59	0.333	ug/L	0.004	1	88	4047	2
>	Ge	72		ug/L			461747	363348	1
	Ni	60	5.220	ug/L	0.040	0	31	13002	1
	Ni	62	611.247	ug/L	137.663	22	1423	228738	23
	Cu	63	29.943	ug/L	6.457	21	1037	163037	22
	Cu	65	0.833	ug/L	0.086	10	65	2098	11
	Zn	66	1.457	ug/L	0.020	1	136	2085	2
	Zn	67	2.087	ug/L	0.011	0	29	522	1
	Zn	68	3.210	ug/L	0.083	2	187	3357	3
	As	75	1.309	ug/L	0.043	3	272	1932	4
	As-1	75	10.153	ug/L	2 569	25	7476	19279	18
	Se	82	0.282	ug/L	0.053	18	-5	33	22
	Se	78	33.370	ug/L	9.496	28	7591	17783	20
	Mo	98	0.423	ug/L	0.015	3	19	1486	3
	Y	89		ug/L			289059	227774	2
	Kr	83		ug/L			540	520	2
>	In	115		ug/L			1039566	762827	1
	Ag	107	-0.000	ug/L	0.000	105	35	23	11
	Cd	111	0.014	ug/L	0.003	25	103	131	11
	Cd	114	0.023	ug/L	0.002	10	34	264	9
	Sb	121	0.069	ug/L	0.004	5	264	1014	5
	Sb	123	0.072	ug/L	0.003	4	200	803	3
	Ba	135	13.583	ug/L	0.360	2	21	52847	1
	Ba	137	13.587	ug/L	0.628	4	29	92396	3
>	Tb	159		ug/L			1387186	1107361	1
	Tl	205	0.003	ug/L	0.001	24	300	333	7
	Pb	208	0.017	ug/L	0.002	8	162	924	8
	Bi	209		ug/L			2880974	2273733	1
	Th	232	-0.047	ug/L	0.001	1	2849	291	8
	U	238	0.078	ug/L	0.002	1	25	3412	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 17:05:24
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			988464	751154	5
	Be	9	53.225	ug/L	2.288	4	10	130742	1
	C	13		ug/L			75670	57853	2
	Cl	37		ug/L			3921810	3283454	1
>	Sc	45		ug/L			776850	558115	2
	V	51	54.481	ug/L	0.382	0	5488	636432	2
	V-1	51	53.665	ug/L	0.860	1	776	631740	2
	Cr	52	56.072	ug/L	0.906	1	16030	557710	1
	Cr	53	53.337	ug/L	2.482	4	304	61520	2
	Mn	55	54.683	ug/L	1.000	1	334	726605	1
	Co	59	52.483	ug/L	0.989	1	88	549392	0
>	Ge	72		ug/L			461747	348407	1
	Ni	60	49.930	ug/L	0.390	0	31	119069	1
	Ni	62	305.991	ug/L	15.912	5	1423	110149	6
	Cu	63	61.110	ug/L	1.143	1	1037	317646	2
	Cu	65	49.071	ug/L	0.836	1	65	115619	1
	Zn	66	53.212	ug/L	1.102	2	136	69386	0
	Zn	67	50.056	ug/L	1.357	2	29	11498	3
	Zn	68	51.294	ug/L	1.870	3	187	49301	2
	As	75	50.793	ug/L	0.912	1	272	64099	0
	As-1	75	54.224	ug/L	1.091	2	7476	74069	0
	Se	82	51.191	ug/L	1.196	2	-5	6593	1
	Se	78	63.033	ug/L	1.323	2	7591	27056	0
	Mo	98	45.050	ug/L	0.940	2	19	150196	0
	Y	89		ug/L			289059	225223	1
	Kr	83		ug/L			540	475	5
>	In	115		ug/L			1039566	742325	0
	Ag	107	40.344	ug/L	0.659	1	35	335865	0
	Cd	111	50.565	ug/L	0.541	1	103	199693	1
	Cd	114	51.190	ug/L	0.397	0	34	517244	0
	Sb	121	50.746	ug/L	0.610	1	264	590885	0
	Sb	123	51.319	ug/L	0.849	1	200	456657	1
	Ba	135	54.888	ug/L	0.299	0	21	207803	1
	Ba	137	55.869	ug/L	1.219	2	29	369709	1
>	Tb	159		ug/L			1387186	1079051	1
	Tl	205	47.999	ug/L	0.485	1	300	1726468	0
	Pb	208	50.535	ug/L	0.262	0	162	2275346	1
	Bi	209		ug/L			2880974	2310135	1
	Th	232	49.927	ug/L	3.097	6	2849	2050241	6
	U	238	52.727	ug/L	0.627	1	25	2237329	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 17:12:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	764546	2
	Be	9	-0.001	ug/L	0.001	136	10	6	50
	C	13		ug/L			75670	56960	2
	Cl	37		ug/L			3921810	3297742	2
>	Sc	45		ug/L			776850	571007	1
	V	51	0.016	ug/L	0.010	63	5488	4219	2
	V-1	51	0.031	ug/L	0.004	14	776	943	5
	Cr	52	0.076	ug/L	0.025	32	16030	12536	1
	Cr	53	0.123	ug/L	0.012	9	304	368	2
	Mn	55	0.020	ug/L	0.001	6	334	515	3
	Co	59	0.004	ug/L	0.001	12	88	111	4
>	Ge	72		ug/L			461747	357992	2
	Ni	60	0.004	ug/L	0.002	48	31	34	14
	Ni	62	153.911	ug/L	6.299	4	1423	57461	5
	Cu	63	6.981	ug/L	0.377	5	1037	37988	5
	Cu	65	0.082	ug/L	0.004	5	65	249	3
	Zn	66	0.098	ug/L	0.004	3	136	236	2
	Zn	67	0.039	ug/L	0.033	86	29	32	22
	Zn	68	0.068	ug/L	0.026	38	187	211	10
	As	75	0.065	ug/L	0.019	29	272	294	6
	As-1	75	1.991	ug/L	0.138	6	7476	8376	2
	Se	82	0.241	ug/L	0.033	13	-5	27	14
	Se	78	7.426	ug/L	0.475	6	7591	8466	2
	Mo	98	0.005	ug/L	0.002	31	19	33	15
	Y	89		ug/L			289059	224599	1
	Kr	83		ug/L			540	434	0
>	In	115		ug/L			1039566	756337	0
	Ag	107	-0.000	ug/L	0.000	664	35	25	12
	Cd	111	-0.004	ug/L	0.001	25	103	57	7
	Cd	114	0.001	ug/L	0.000	22	34	36	7
	Sb	121	0.017	ug/L	0.003	16	264	394	8
	Sb	123	0.020	ug/L	0.003	16	200	331	9
	Ba	135	-0.000	ug/L	0.001	176	21	14	18
	Ba	137	0.001	ug/L	0.001	139	29	26	28
>	Tb	159		ug/L			1387186	1065009	0
	Tl	205	0.000	ug/L	0.000	57	300	235	2
	Pb	208	0.002	ug/L	0.001	44	162	204	17
	Bi	209		ug/L			2880974	2364015	0
	Th	232	0.123	ug/L	0.035	28	2849	7155	19
	U	238	0.002	ug/L	0.000	10	25	94	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 Y REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 17:16:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
⌈>	Li	6		ug/L			988464	784450	3
⌊	Be	9	0.010	ug/L	0.001	14	10	34	7
	C	13		ug/L			75670	66228	2
	Cl	37		ug/L			3921810	3831589	3
⌈>	Sc	45		ug/L			776850	632777	3
|	V	51	0.551	ug/L	0.032	5	5488	11720	3
|	V-1	51	0.799	ug/L	0.021	2	776	11282	3
|	Cr	52	0.355	ug/L	0.056	15	16030	16964	2
|	Cr	53	1.173	ug/L	0.020	1	304	1776	2
|	Mn	55	376.730	ug/L	12 241	3	334	5671401	0
⌊	Co	59	3.791	ug/L	0.217	5	88	45019	2
⌈>	Ge	72		ug/L			461747	357320	0
|	Ni	60	3.408	ug/L	0.071	2	31	8356	1
|	Ni	62	140.151	ug/L	6.417	4	1423	52324	5
|	Cu	63	8.676	ug/L	0.169	1	1037	46936	2
|	Cu	65	1.620	ug/L	0.051	3	65	3962	2
|	Zn	66	13.674	ug/L	0.405	2	136	18364	2
|	Zn	67	12.205	ug/L	0.225	1	29	2891	1
|	Zn	68	14.213	ug/L	0.344	2	187	14117	1
|	As	75	0.340	ug/L	0.033	9	272	649	6
|	As-1	75	2.192	ug/L	0.059	2	7476	8623	1
|	Se	82	0.334	ug/L	0.089	26	-5	39	29
|	Se	78	7.379	ug/L	0.217	2	7591	8436	1
⌊	Mo	98	0.419	ug/L	0.021	5	19	1447	4
	Y	89		ug/L			289059	237631	2
	Kr	83		ug/L			540	491	1
⌈>	In	115		ug/L			1039566	759196	2
|	Ag	107	0.000	ug/L	0.001	301	35	27	18
|	Cd	111	0.080	ug/L	0.007	8	103	398	4
|	Cd	114	0.094	ug/L	0.003	3	34	991	2
|	Sb	121	0.351	ug/L	0.006	1	264	4374	2
|	Sb	123	0.366	ug/L	0.013	3	200	3470	1
|	Ba	135	20.317	ug/L	0.176	0	21	78666	1
⌊	Ba	137	20.427	ug/L	0.500	2	29	138226	0
⌈>	Tb	159		ug/L			1387186	1104354	2
|	Tl	205	0.018	ug/L	0.001	7	300	908	5
|	Pb	208	0.053	ug/L	0.002	3	162	2559	2
|	Bi	209		ug/L			2880974	2230322	0
|	Th	232	0.072	ug/L	0 025	34	2849	5270	19
⌊	U	238	0.029	ug/L	0.001	2	25	1261	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 Z REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 17:20:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			988464	771788	0
	Be	9	0.015	ug/L	0.003	23	10	45	18
	C	13		ug/L			75670	67300	2
	Cl	37		ug/L			3921810	3404354	0
>	Sc	45		ug/L			776850	599918	1
	V	51	2.575	ug/L	0.026	1	5488	36375	1
	V-1	51	2.568	ug/L	0.028	1	776	33072	1
	Cr	52	0.633	ug/L	0.040	6	16030	19008	0
	Cr	53	0.693	ug/L	0.040	5	304	1091	2
	Mn	55	683.603	ug/L	31.423	4	334	9758842	2
	Co	59	2.958	ug/L	0.076	2	88	33352	2
>	Ge	72		ug/L			461747	349529	1
	Ni	60	4.330	ug/L	0.113	2	31	10380	2
	Ni	62	130.395	ug/L	3.404	2	1423	47676	1
	Cu	63	6.942	ug/L	0.229	3	1037	36879	1
	Cu	65	0.723	ug/L	0.013	1	65	1758	2
	Zn	66	3.167	ug/L	0.101	3	136	4238	1
	Zn	67	5.224	ug/L	0.237	4	29	1223	2
	Zn	68	5.655	ug/L	0.107	1	187	5579	1
	As	75	59.012	ug/L	0.828	1	272	74680	0
	As-1	75	60.574	ug/L	0.887	1	7476	82349	0
	Se	82	0.314	ug/L	0.084	26	-5	36	29
	Se	78	6.911	ug/L	0.290	4	7591	8092	0
	Mo	98	2.896	ug/L	0.041	1	19	9702	1
	Y	89		ug/L			289059	221261	0
	Kr	83		ug/L			540	451	7
>	In	115		ug/L			1039566	764732	1
	Ag	107	0.002	ug/L	0.001	26	35	45	12
	Cd	111	u -0.000	ug/L	0.003	1793	103	75	15
	Cd	114	0.005	ug/L	0.001	19	34	76	12
	Sb	121	0.311	ug/L	0.006	1	264	3922	1
	Sb	123	0.302	ug/L	0.008	2	200	2911	1
	Ba	135	49.107	ug/L	0.691	1	21	191500	0
	Ba	137	50.339	ug/L	0.865	1	29	343166	0
>	Tb	159		ug/L			1387186	1076254	0
	Tl	205	u -0.001	ug/L	0.000	31	300	197	6
	Pb	208	u 0.092	ug/L	0.003	3	162	4256	2
	Bi	209		ug/L			2880974	2148422	6
	Th	232	0.018	ug/L	0.006	32	2849	2967	8
	U	238	0.119	ug/L	0.001	1	25	5057	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AA REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 17:24:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	745722	1
	Be	9	0.032	ug/L	0.004	13	10	87	12
	C	13		ug/L			75670	68779	0
	Cl	37		ug/L			3921810	3823335	2
>	Sc	45		ug/L			776850	619249	2
	V	51	11.208	ug/L	0.295	2	5488	148713	1
	V-1	51	11.246	ug/L	0.267	2	776	147360	0
	Cr	52	5.331	ug/L	0.087	1	16030	70399	1
	Cr	53	5.706	ug/L	0.333	5	304	7522	4
	Mn	55	32.272	ug/L	1.220	3	334	475806	1
	Co	59	0.273	ug/L	0.004	1	88	3245	2
>	Ge	72		ug/L			461747	341115	1
	Ni	60	0.406	ug/L	0.004	0	31	970	0
	Ni	62	148.602	ug/L	2.969	1	1423	52882	0
	Cu	63	12.068	ug/L	0.368	3	1037	62006	1
	Cu	65	1.283	ug/L	0.054	4	65	3006	2
	Zn	66	1.501	ug/L	0.038	2	136	2013	2
	Zn	67	2.037	ug/L	0.118	5	29	479	6
	Zn	68	3.091	ug/L	0.108	3	187	3039	3
	As	75	0.943	ug/L	0.053	5	272	1362	5
	As-1	75	2.873	ug/L	0.107	3	7476	9072	1
	Se	82	0.576	ug/L	0.024	4	-5	68	5
	Se	78	7.872	ug/L	0.362	4	7591	8215	0
	Mo	98	1.766	ug/L	0.035	1	19	5779	0
	Y	89		ug/L			289059	237714	2
	Kr	83		ug/L			540	453	6
>	In	115		ug/L			1039566	737048	1
	Ag	107	0.002	ug/L	0.000	19	35	44	7
	Cd	111	-0.009	ug/L	0.010	114	103	37	107
	Cd	114	0.011	ug/L	0.000	1	34	139	2
	Sb	121	0.060	ug/L	0.001	1	264	879	1
	Sb	123	0.061	ug/L	0.004	6	200	683	4
	Ba	135	7.781	ug/L	0.068	0	21	29260	1
	Ba	137	7.872	ug/L	0.025	0	29	51748	1
>	Tb	159		ug/L			1387186	1070998	1
	Tl	205	-0.001	ug/L	0.000	23	300	188	4
	Pb	208	0.279	ug/L	0.005	1	162	12588	0
	Bi	209		ug/L			2880974	1920157	1
	Th	232	0.117	ug/L	0.008	6	2849	6964	2
	U	238	0.810	ug/L	0.003	0	25	34146	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 17:28:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			988464	752623	1
	Be	9	0.005	ug/L	0.002	43	10	21	27
	C	13		ug/L			75670	66390	2
	Cl	37		ug/L			3921810	3377998	0
>	Sc	45		ug/L			776850	587449	1
	V	51	2.124	ug/L	0.013	0	5488	30098	1
	V-1	51	2.089	ug/L	0.029	1	776	26457	2
	Cr	52	0.710	ug/L	0.077	10	16030	19392	2
	Cr	53	0.658	ug/L	0.043	6	304	1027	6
	Mn	55	523.220	ug/L	12.704	2	334	7316789	2
	Co	59	1.731	ug/L	0.017	1	88	19141	0
>	Ge	72		ug/L			461747	328587	2
	Ni	60	4.849	ug/L	0.178	3	31	10920	1
	Ni	62	101.079	ug/L	11.819	11	1423	34923	9
	Cu	63	6.444	ug/L	0.577	8	1037	32207	6
	Cu	65	1.225	ug/L	0.045	3	65	2766	2
	Zn	66	8.097	ug/L	0.131	1	136	10038	0
	Zn	67	9.985	ug/L	0.315	3	29	2178	1
	Zn	68	10.644	ug/L	0.266	2	187	9753	0
	As	75	4.448	ug/L	0.131	2	272	5469	0
	As-1	75	6.086	ug/L	0.328	5	7476	12559	1
	Se	82	0.469	ug/L	0.125	26	-5	52	28
	Se	78	6.784	ug/L	0.780	11	7591	7563	1
	Mo	98	1.727	ug/L	0.040	2	19	5442	0
	Y	89		ug/L			289059	216855	0
	Kr	83		ug/L			540	461	2
>	In	115		ug/L			1039566	743621	1
	Ag	107	-0.001	ug/L	0.001	105	35	20	25
	Cd	111	0.091	ug/L	0.004	4	103	432	2
	Cd	114	0.089	ug/L	0.004	4	34	923	2
	Sb	121	0.464	ug/L	0.019	4	264	5601	2
	Sb	123	0.462	ug/L	0.023	4	200	4258	3
	Ba	135	60.009	ug/L	0.973	1	21	227563	1
	Ba	137	61.571	ug/L	1.105	1	29	408143	0
>	Tb	159		ug/L			1387186	1073229	1
	Tl	205	0.003	ug/L	0.000	6	300	351	3
	Pb	208	0.119	ug/L	0.003	2	162	5438	0
	Bi	209		ug/L			2880974	1924292	1
	Th	232	-0.033	ug/L	0.002	5	2849	856	6
	U	238	1.016	ug/L	0.030	2	25	42903	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AC REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 17:32:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			988464	788045	1
	Be	9	0.009	ug/L	0.003	29	10	31	22
	C	13		ug/L			75670	67799	3
	Cl	37		ug/L			3921810	4223010	3
>	Sc	45		ug/L			776850	633208	2
	V	51	2.636	ug/L	0.141	5	5488	39177	4
	V-1	51	2.995	ug/L	0.139	4	776	40591	4
	Cr	52	1.529	ug/L	0.032	2	16030	29974	2
	Cr	53	2.751	ug/L	0.073	2	304	3839	4
	Mn	55	40.541	ug/L	0.833	2	334	611603	4
	Co	59	0.832	ug/L	0.018	2	88	9956	3
>	Ge	72		ug/L			461747	352685	0
	Ni	60	0.350	ug/L	0.016	4	31	869	5
	Ni	62	73.638	ug/L	0.286	0	1423	27648	1
	Cu	63	5.241	ug/L	0.094	1	1037	28293	0
	Cu	65	0.488	ug/L	0.008	1	65	1212	0
	Zn	66	1.760	ug/L	0.083	4	136	2424	4
	Zn	67	1.821	ug/L	0.141	7	29	445	6
	Zn	68	3.091	ug/L	0.101	3	187	3143	3
	As	75	2.362	ug/L	0.020	0	272	3215	1
	As-1	75	3.871	ug/L	0.051	1	7476	10655	0
	Se	82	0.209	ug/L	0.025	12	-5	22	13
	Se	78	5.961	ug/L	0.300	5	7591	7840	0
	Mo	98	0.221	ug/L	0.014	6	19	760	5
	Y	89		ug/L			289059	226339	5
	Kr	83		ug/L			540	465	4
>	In	115		ug/L			1039566	766822	3
	Ag	107	0.002	ug/L	0.001	44	35	39	18
	Cd	111	-0.002	ug/L	0.004	149	103	66	25
	Cd	114	0.003	ug/L	0.000	11	34	57	9
	Sb	121	0.054	ug/L	0.002	4	264	838	1
	Sb	123	0.055	ug/L	0.008	13	200	649	8
	Ba	135	6.628	ug/L	0.164	2	21	25925	2
	Ba	137	6.687	ug/L	0.123	1	29	45719	1
>	Tb	159		ug/L			1387186	1097272	1
	Tl	205	-0.003	ug/L	0.000	9	300	146	5
	Pb	208	0.089	ug/L	0.002	2	162	4197	3
	Bi	209		ug/L			2880974	2248390	2
	Th	232	-0.018	ug/L	0.001	6	2849	1497	2
	U	238	0.052	ug/L	0.001	2	25	2267	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AD REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 17:37:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	771206	0
	Be	9	0.031	ug/L	0.005	15	10	85	13
	C	13		ug/L			75670	66675	1
	Cl	37		ug/L			3921810	3409098	0
>	Sc	45		ug/L			776850	608525	1
	V	51	1.679	ug/L	0.041	2	5488	25553	3
	V-1	51	1.694	ug/L	0.049	2	776	22337	3
	Cr	52	0.818	ug/L	0.035	4	16030	21245	1
	Cr	53	0.904	ug/L	0.048	5	304	1372	3
	Mn	55	404.508	ug/L	5.379	1	334	5860152	1
	Co	59	7.146	ug/L	0.024	0	88	81642	0
>	Ge	72		ug/L			461747	346205	1
	Ni	60	20.069	ug/L	0.374	1	31	47567	2
	Ni	62	82.796	ug/L	2.710	3	1423	30377	2
	Cu	63	4.453	ug/L	0.178	3	1037	23716	3
	Cu	65	1.203	ug/L	0.048	4	65	2862	2
	Zn	66	23.587	ug/L	0.639	2	136	30621	2
	Zn	67	20.703	ug/L	0.310	1	29	4737	0
	Zn	68	23.098	ug/L	0.210	0	187	22144	2
	As	75	16.611	ug/L	0.235	1	272	20968	0
	As-1	75	18.066	ug/L	0.242	1	7476	28260	0
	Se	82	0.200	ug/L	0.048	23	-5	21	28
	Se	78	5.910	ug/L	0.095	1	7591	7679	0
	Mo	98	2.758	ug/L	0.005	0	19	9152	1
	Y	89		ug/L			289059	230342	1
	Kr	83		ug/L			540	453	1
>	In	115		ug/L			1039566	785601	1
	Ag	107	0.002	ug/L	0.001	52	35	43	21
	Cd	111	0.029	ug/L	0 002	8	103	197	4
	Cd	114	0.034	ug/L	0.003	10	34	392	8
	Sb	121	0.167	ug/L	0.003	1	264	2256	0
	Sb	123	0.165	ug/L	0.010	5	200	1704	4
	Ba	135	11.084	ug/L	0.147	1	21	44417	0
	Ba	137	11.054	ug/L	0.226	2	29	77432	1
>	Tb	159		ug/L			1387186	1100851	1
	Tl	205	0.001	ug/L	0.000	7	300	286	1
	Pb	208	0.049	ug/L	0.002	3	162	2371	1
	Bi	209		ug/L			2880974	2272669	0
	Th	232	-0.033	ug/L	0 002	6	2849	868	11
	U	238	0.612	ug/L	0.014	2	25	26520	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AE REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 17:41:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			988464	781657	2
Be	9	0.012	ug/L	0.004	30	10	38	21
C	13		ug/L			75670	70349	2
Cl	37		ug/L			3921810	3862528	1
Sc	45		ug/L			776850	631991	1
V	51	4.615	ug/L	0.136	2	5488	65123	1
V-1	51	4.804	ug/L	0.143	2	776	64600	1
Cr	52	1.703	ug/L	0.126	7	16030	31821	3
Cr	53	2.444	ug/L	0.149	6	304	3428	3
Mn	55	22.893	ug/L	0.609	2	334	344623	1
Co	59	0.500	ug/L	0.017	3	88	5993	2
Ge	72		ug/L			461747	349573	1
Ni	60	0.574	ug/L	0.027	4	31	1395	2
Ni	62	38.556	ug/L	5.997	15	1423	14890	16
Cu	63	3.217	ug/L	0.300	9	1037	17539	10
Cu	65	0.385	ug/L	0.010	2	65	959	3
Zn	66	1.712	ug/L	0.078	4	136	2339	4
Zn	67	1.672	ug/L	0.121	7	29	407	6
Zn	68	2.974	ug/L	0.020	0	187	3001	2
As	75	1863.261	ug/L	32.769	1	272	2351841	1
As-1	75	1858.539	ug/L	32.750	1	7476	2358851	1
Se	82	0.211	ug/L	0.099	47	-5	22	57
Se	78	4.891	ug/L	0.348	7	7591	7406	1
Mo	98	1.084	ug/L	0.046	4	19	3641	2
Y	89		ug/L			289059	229375	1
Kr	83		ug/L			540	459	5
In	115		ug/L			1039566	782634	0
Ag	107	-0.001	ug/L	0.000	43	35	18	19
Cd	111	-0.007	ug/L	0.004	61	103	49	36
Cd	114	0.005	ug/L	0.000	1	34	81	1
Sb	121	0.108	ug/L	0.003	3	264	1526	2
Sb	123	0.108	ug/L	0.006	5	200	1163	4
Ba	135	4.715	ug/L	0.065	1	21	18831	0
Ba	137	4.777	ug/L	0.036	0	29	33348	0
Tb	159		ug/L			1387186	1112649	0
Tl	205	-0.002	ug/L	0.000	26	300	178	9
Pb	208	0.025	ug/L	0.000	1	162	1272	1
Bi	209		ug/L			2880974	2232861	0
Th	232	-0.031	ug/L	0 002	5	2849	988	7
U	238	0.057	ug/L	0.001	1	25	2502	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AF REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 17:45:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	703305	2
	Be	9	0.007	ug/L	0.001	17	10	23	10
	C	13		ug/L			75670	62233	0
	Cl	37		ug/L			3921810	4110885	0
>	Sc	45		ug/L			776850	566070	1
	V	51	1.775	ug/L	0.057	3	5488	24899	2
	V-1	51	1.836	ug/L	0.035	1	776	22473	2
	Cr	52	0.761	ug/L	0.072	9	16030	19191	2
	Cr	53	1.004	ug/L	0.020	1	304	1393	3
	Mn	55	2389.720	ug/L	72.078	3	334	32196264	1
	Co	59	0.810	ug/L	0.018	2	88	8662	3
>	Ge	72		ug/L			461747	304765	1
	Ni	60	1.183	ug/L	0.053	4	31	2487	3
	Ni	62	111.715	ug/L	44.183	39	1423	35815	39
	Cu	63	7.699	ug/L	2.333	30	1037	35648	30
	Cu	65	0.460	ug/L	0.015	3	65	991	1
	Zn	66	3.080	ug/L	1.090	35	136	3599	34
	Zn	67	19.985	ug/L	0.560	2	29	4026	3
	Zn	68	17.741	ug/L	1.165	6	187	14999	6
	As	75	25.476	ug/L	0.448	1	272	28215	1
	As-1	75	27.424	ug/L	0.124	0	7476	35212	1
	Se	82	0.525	ug/L	0.138	26	-5	55	27
	Se	78	8.272	ug/L	1.155	13	7591	7460	5
	Mo	98	0.549	ug/L	0.023	4	19	1616	5
	Y	89		ug/L			289059	198278	3
	Kr	83		ug/L			540	439	6
>	In	115		ug/L			1039566	702689	1
	Ag	107	0.002	ug/L	0.001	84	35	36	29
	Cd	111	0.006	ug/L	0.002	37	103	92	10
	Cd	114	0.007	ug/L	0.002	29	34	90	20
	Sb	121	0.131	ug/L	0.007	4	264	1618	3
	Sb	123	0.125	ug/L	0.005	3	200	1185	4
	Ba	135	351.695	ug/L	4.038	1	21	1260334	1
	Ba	137	392.486	ug/L	6.248	1	29	2458508	0
>	Tb	159		ug/L			1387186	1025050	0
	Tl	205	-0.002	ug/L	0.001	31	300	160	12
	Pb	208	0.018	ug/L	0.001	4	162	879	4
	Bi	209		ug/L			2880974	1773446	0
	Th	232	-0.041	ug/L	0.000	0	2849	504	2
	U	238	0.044	ug/L	0.001	1	25	1774	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AG REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 17:49:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	765896	1
	Be	9	0.025	ug/L	0.003	13	10	70	11
	C	13		ug/L			75670	70085	1
	Cl	37		ug/L			3921810	4811976	2
>	Sc	45		ug/L			776850	626759	2
	V	51	13.690	ug/L	0.347	2	5488	182818	0
	V-1	51	13.712	ug/L	0.331	2	776	181679	0
	Cr	52	5.152	ug/L	0.231	4	16030	69256	0
	Cr	53	5.590	ug/L	0.187	3	304	7461	0
	Mn	55	266.795	ug/L	9.956	3	334	3979729	3
	Co	59	0.609	ug/L	0.016	2	88	7225	0
>	Ge	72		ug/L			461747	340195	1
	Ni	60	0.529	ug/L	0.031	5	31	1253	4
	Ni	62	226.624	ug/L	32.564	14	1423	79861	13
	Cu	63	16.696	ug/L	1.745	10	1037	85260	10
	Cu	65	0.791	ug/L	0.029	3	65	1865	2
	Zn	66	1.804	ug/L	0.055	3	136	2393	2
	Zn	67	2.428	ug/L	0.016	0	29	565	1
	Zn	68	3.062	ug/L	0.129	4	187	3003	2
	As	75	22.352	ug/L	0.257	1	272	27658	1
	As-1	75	25.034	ug/L	0.227	0	7476	36358	0
	Se	82	0.346	ug/L	0.074	21	-5	39	23
	Se	78	10.797	ug/L	1.226	11	7591	9158	3
	Mo	98	0.191	ug/L	0.013	6	19	635	5
	Y	89		ug/L			289059	228497	1
	Kr	83		ug/L			540	493	1
>	In	115		ug/L			1039566	755519	0
	Ag	107	0.001	ug/L	0.001	57	35	33	14
	Cd	111	-0.009	ug/L	0.008	87	103	39	77
	Cd	114	0.006	ug/L	0.001	16	34	82	11
	Sb	121	0.085	ug/L	0.004	4	264	1200	3
	Sb	123	0.084	ug/L	0.004	5	200	906	4
	Ba	135	12.352	ug/L	0.249	2	21	47607	1
	Ba	137	12.435	ug/L	0.094	0	29	83776	0
>	Tb	159		ug/L			1387186	1085231	0
	Tl	205	-0.002	ug/L	0.000	13	300	146	7
	Pb	208	0.087	ug/L	0.001	1	162	4071	1
	Bi	209		ug/L			2880974	1909209	2
	Th	232	0.092	ug/L	0.007	7	2849	6041	4
	U	238	0.199	ug/L	0.000	0	25	8509	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AH REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 17:53:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	855475	94
	Be	9	0.003	ug/L	0.010	378	10	1	91
	C	13		ug/L			75670	25962	28
	Cl	37		ug/L			3921810	1192544	41
>	Sc	45		ug/L			776850	682903	90
	V	51	-0.051	ug/L	0.370	722	5488	1304	54
	V-1	51	0.081	ug/L	0.178	220	776	454	21
	Cr	52	-0.180	ug/L	1.258	698	16030	3907	50
	Cr	53	0.257	ug/L	0.594	231	304	169	26
	Mn	55	0.541	ug/L	0.930	171	334	1025	83
	Co	59	0.028	ug/L	0.051	178	88	90	1
>	Ge	72		ug/L			461747	448858	90
	Ni	60	0.016	ug/L	0 026	163	31	35	50
	Ni	62	312.710	ug/L	457.639	146	1423	31828	5
	Cu	63	11.138	ug/L	16 151	145	1037	17313	0
	Cu	65	0.109	ug/L	0.178	163	65	103	14
	Zn	66	0.057	ug/L	0.156	272	136	88	49
	Zn	67	0.069	ug/L	0 194	281	29	19	56
	Zn	68	0.173	ug/L	0.395	228	187	132	36
	As	75	0.332	ug/L	0.687	206	272	210	24
	As-1	75	8.432	ug/L	18.006	213	7476	5294	14
	Se	82	0.066	ug/L	0.094	142	-5	0	759
	Se	78	30.959	ug/L	66 731	215	7591	5291	14
	Mo	98	-0.004	ug/L	0.000	4	19	2	103
	Y	89		ug/L			289059	282987	87
	Kr	83		ug/L			540	288	29
>	In	115		ug/L			1039566	1049073	85
	Ag	107	0.001	ug/L	0.004	638	35	18	66
	Cd	111	-0.008	ug/L	0.005	53	103	44	84
	Cd	114	0.003	ug/L	0.006	211	34	33	71
	Sb	121	-0.008	ug/L	0.012	142	264	29	28
	Sb	123	-0.008	ug/L	0.012	145	200	24	44
	Ba	135	0.066	ug/L	0.118	178	21	47	119
	Ba	137	0.056	ug/L	0.099	176	29	72	110
>	Tb	159		ug/L			1387186	1658517	86
	Tl	205	0.001	ug/L	0.009	1570	300	130	27
	Pb	208	0.000	ug/L	0.003	780	162	113	59
	Bi	209		ug/L			2880974	3473250	82
	Th	232	-0.043	ug/L	0.006	14	2849	625	116
	U	238	-0.000	ug/L	0 000	410	25	6	50

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 17:58:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	788826	1
	Be	9	51.416	ug/L	1.173	2	10	132815	1
	C	13		ug/L			75670	57714	3
	Cl	37		ug/L			3921810	3333714	1
>	Sc	45		ug/L			776850	588399	3
	V	51	51.984	ug/L	2.237	4	5488	639821	1
	V-1	51	51.350	ug/L	1.929	3	776	636961	1
	Cr	52	53.443	ug/L	2.084	3	16030	560694	1
	Cr	53	51.307	ug/L	0.528	1	304	62443	2
	Mn	55	52.562	ug/L	1.996	3	334	735933	0
	Co	59	49.824	ug/L	0 767	1	88	549887	2
>	Ge	72		ug/L			461747	348496	2
	Ni	60	49.177	ug/L	0.703	1	31	117292	2
	Ni	62	111.865	ug/L	1.994	1	1423	40935	1
	Cu	63	52.881	ug/L	1.854	3	1037	274913	2
	Cu	65	48.731	ug/L	0.668	1	65	114871	3
	Zn	66	51.262	ug/L	1.169	2	136	66862	1
	Zn	67	50.349	ug/L	1.624	3	29	11562	1
	Zn	68	51.115	ug/L	0.527	1	187	49148	1
	As	75	50.976	ug/L	1.011	1	272	64343	1
	As-1	75	52.558	ug/L	0.827	1	7476	71983	1
	Se	82	51.128	ug/L	1.428	2	-5	6585	1
	Se	78	56.031	ug/L	1.180	2	7591	24691	0
	Mo	98	46.291	ug/L	1.606	3	19	154335	1
	Y	89		ug/L			289059	222248	1
	Kr	83		ug/L			540	445	6
>	In	115		ug/L			1039566	785945	1
	Ag	107	40.612	ug/L	0.140	0	35	358000	1
	Cd	111	50.131	ug/L	0.684	1	103	209620	2
	Cd	114	50.947	ug/L	1.755	3	34	544860	1
	Sb	121	50.414	ug/L	0.790	1	264	621443	0
	Sb	123	50.733	ug/L	0.839	1	200	477916	0
	Ba	135	52.818	ug/L	0.727	1	21	211687	1
	Ba	137	53.497	ug/L	0.423	0	29	374839	1
>	Tb	159		ug/L			1387186	1098446	1
	Tl	205	47.956	ug/L	0.350	0	300	1756056	1
	Pb	208	50.164	ug/L	0.767	1	162	2298896	0
	Bi	209		ug/L			2880974	2390480	0
	Th	232	53.620	ug/L	0.864	1	2849	2240834	0
	U	238	53.442	ug/L	1.549	2	25	2307857	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 18:05:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	802614	1
	Be	9	-0.001	ug/L	0.001	107	10	5	80
	C	13		ug/L			75670	59171	0
	Cl	37		ug/L			3921810	3330306	3
>	Sc	45		ug/L			776850	604144	1
	V	51	0.004	ug/L	0 011	261	5488	4318	2
	V-1	51	-0.008	ug/L	0.002	20	776	508	3
	Cr	52	0.020	ug/L	0.024	117	16030	12680	1
	Cr	53	-0.018	ug/L	0.008	45	304	214	6
	Mn	55	0.009	ug/L	0.001	10	334	384	4
	Co	59	0.002	ug/L	0.001	63	88	88	14
>	Ge	72		ug/L			461747	353188	2
	Ni	60	0.005	ug/L	0.003	58	31	35	19
	Ni	62	39.308	ug/L	1.404	3	1423	15293	5
	Cu	63	1.744	ug/L	0.036	2	1037	9960	2
	Cu	65	0.026	ug/L	0.010	36	65	113	21
	Zn	66	0.036	ug/L	0.005	14	136	151	5
	Zn	67	0.003	ug/L	0.013	439	29	23	10
	Zn	68	0.058	ug/L	0.012	21	187	199	3
	As	75	0.045	ug/L	0 009	20	272	266	5
	As-1	75	1.326	ug/L	0.132	9	7476	7413	0
	Se	82	0.020	ug/L	0.041	207	-5	-1	291
	Se	78	4.918	ug/L	0.506	10	7591	7491	0
	Mo	98	0.004	ug/L	0.000	6	19	29	2
	Y	89		ug/L			289059	220258	2
	Kr	83		ug/L			540	472	2
>	In	115		ug/L			1039566	781025	0
	Ag	107	0.000	ug/L	0.000	68	35	29	7
	Cd	111	-0.004	ug/L	0.001	14	103	61	3
	Cd	114	0.000	ug/L	0.000	160	34	28	11
	Sb	121	0.018	ug/L	0.003	16	264	414	8
	Sb	123	0.018	ug/L	0.005	28	200	321	15
	Ba	135	-0.001	ug/L	0.001	86	21	12	26
	Ba	137	-0.001	ug/L	0.001	98	29	15	38
>	Tb	159		ug/L			1387186	1091567	2
	Tl	205	-0.001	ug/L	0.000	35	300	188	7
	Pb	208	0.001	ug/L	0 000	13	162	183	2
	Bi	209		ug/L			2880974	2428230	0
	Th	232	0.119	ug/L	0.039	32	2849	7171	21
	U	238	0.002	ug/L	0.001	33	25	84	23

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AI REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 18:09:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	789379	1
	Be	9	0.010	ug/L	0.002	16	10	33	11
	C	13		ug/L			75670	71329	2
	Cl	37		ug/L			3921810	3376577	1
>	Sc	45		ug/L			776850	620026	3
	V	51	1.468	ug/L	0.014	0	5488	23306	2
	V-1	51	1.464	ug/L	0.004	0	776	19751	3
	Cr	52	0.826	ug/L	0.095	11	16030	21706	1
	Cr	53	0.840	ug/L	0.038	4	304	1315	0
	Mn	55	123.192	ug/L	2.829	2	334	1817774	1
	Co	59	1.322	ug/L	0.041	3	88	15440	2
>	Ge	72		ug/L			461747	350195	2
	Ni	60	4.541	ug/L	0.044	0	31	10907	3
	Ni	62	37.147	ug/L	5.104	13	1423	14355	10
	Cu	63	12.952	ug/L	0.495	3	1037	68237	1
	Cu	65	11.317	ug/L	0.261	2	65	26830	1
	Zn	66	44.984	ug/L	1.665	3	136	58947	1
	Zn	67	38.825	ug/L	1.240	3	29	8962	1
	Zn	68	43.723	ug/L	1.760	4	187	42241	1
	As	75	22.920	ug/L	0.579	2	272	29178	0
	As-1	75	24.070	ug/L	0.753	3	7476	36190	0
	Se	82	0.227	ug/L	0.101	44	-5	24	51
	Se	78	4.892	ug/L	0.787	16	7591	7417	1
	Mo	98	0.638	ug/L	0.004	0	19	2154	2
	Y	89		ug/L			289059	232774	1
	Kr	83		ug/L			540	462	0
>	In	115		ug/L			1039566	782828	1
	Ag	107	0.010	ug/L	0.001	14	35	117	9
	Cd	111	0.135	ug/L	0.009	6	103	637	5
	Cd	114	0.143	ug/L	0.002	1	34	1551	2
	Sb	121	0.427	ug/L	0.004	1	264	5439	0
	Sb	123	0.430	ug/L	0.011	2	200	4186	1
	Ba	135	13.832	ug/L	0.065	0	21	55234	0
	Ba	137	14.164	ug/L	0.276	1	29	98854	0
>	Tb	159		ug/L			1387186	1102409	1
	Tl	205	0.013	ug/L	0.002	12	300	734	8
	Pb	208	0.180	ug/L	0.005	2	162	8400	1
	Bi	209		ug/L			2880974	2276662	1
	Th	232	0.085	ug/L	0.026	30	2849	5834	19
	U	238	0.120	ug/L	0.003	2	25	5216	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AJ REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 18:13:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

RFAs

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
>	Li	6		ug/L			988464	828618	4
	Be	9	0.003	ug/L	0.001	41	10	18	20
	C	13		ug/L			75670	83955	1
	Cl	37		ug/L			3921810	22597968	3
>	Sc	45		ug/L			776850	628556	2
	V	51	1.398	ug/L	0.063	4	5488	22710	1
	V-1	51	4.929	ug/L	0.198	4	776	65970	6
	Cr	52	1.001	ug/L	0.070	7	16030	23946	2
	Cr	53	12.565	ug/L	0.779	6	304	16540	8
	Mn	55	19.548	ug/L	0.621	3	334	292776	4
	Co	59	0.868	ug/L	0.045	5	88	10296	2
>	Ge	72		ug/L			461747	297501	1
	Ni	60	3.423	ug/L	0.078	2	31	6987	0
	Ni	62	476.603	ug/L	141.020	29	1423	146379	30
	Cu	63	53.324	ug/L	8.942	16	1037	237131	18
	Cu	65	5.329	ug/L	0.045	0	65	10759	1
	Zn	66	6.536	ug/L	0.308	4	136	7351	2
	Zn	67	7.927	ug/L	0.078	0	29	1570	1
	Zn	68	7.763	ug/L	0.208	2	187	6473	1
	As	75	5.126	ug/L	0.150	2	272	5680	1
	As-1	75	10.606	ug/L	1.239	11	7476	16260	9
	Se	82	1.014	ug/L	0.316	31	-5	107	30
	Se	78	22.405	ug/L	5 099	22	7591	11380	14
	Mo	98	1.144	ug/L	0.017	1	19	3269	1
	Y	89		ug/L			289059	211883	1
	Kr	83		ug/L			540	712	14
>	In	115		ug/L			1039566	696139	2
	Ag	107	0.007	ug/L	0.001	11	35	80	8
	Cd	111	u -0.012	ug/L	0.003	20	103	23	38
	Cd	114	0.072	ug/L	0.005	6	34	707	6
	Sb	121	1.187	ug/L	0.020	1	264	13134	0
	Sb	123	1.203	ug/L	0.027	2	200	10164	0
	Ba	135	47.346	ug/L	1.514	3	21	168045	2
	Ba	137	48.469	ug/L	0 945	1	29	300758	1
>	Tb	159		ug/L			1387186	1060570	2
	Tl	205	u 0.008	ug/L	0.001	9	300	515	6
	Pb	208	0.129	ug/L	0.002	1	162	5810	0
	Bi	209		ug/L			2880974	1696965	1
	Th	232	-0.003	ug/L	0.000	7	2849	2072	3
	U	238	0.057	ug/L	0.002	2	25	2393	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 18:18:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

RLA3

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			988464	761968	3
[	Be	9	0.004	ug/L	0.000	12	10	18	5
	C	13		ug/L			75670	67519	1
	Cl	37		ug/L			3921810	3554250	1
[>	Sc	45		ug/L			776850	600070	3
	V	51	0.159	ug/L	0.013	8	5488	6224	5
	V-1	51	0.389	ug/L	0.066	16	776	5534	18
	Cr	52	0.105	ug/L	0.031	29	16030	13483	2
	Cr	53	0.860	ug/L	0.182	21	304	1303	20
	Mn	55	588.956	ug/L	9.953	1	334	8411326	1
[	Co	59	7.883	ug/L	0.182	2	88	88769	1
[>	Ge	72		ug/L			461747	330802	0
	Ni	60	16.322	ug/L	0.191	1	31	36972	1
	Ni	62	168.744	ug/L	52.800	31	1423	58203	31
	Cu	63	129.811	ug/L	4.832	3	1037	639859	4
	Cu	65	123.847	ug/L	4.086	3	65	277004	3
	Zn	66	38792.568	ug/L	702.760	1	136	47964262	1
	Zn	67	32428.445	ug/L	503.831	1	29	7057353	1
	Zn	68	36334.632	ug/L	478.880	1	187	33074879	2
	As	75	26.503	ug/L	0.178	0	272	31856	1
	As-1	75	28.332	ug/L	0.616	2	7476	39312	2
	Se	82	1.030	ug/L	0.130	12	-5	121	13
	Se	78	8.463	ug/L	1.649	19	7591	8161	7
[	Mo	98	2.694	ug/L	0.049	1	19	8542	2
	Y	89		ug/L			289059	206685	1
	Kr	83		ug/L			540	532	1
[>	In	115		ug/L			1039566	736209	2
	Ag	107	0.118	ug/L	0.006	4	35	1003	5
	Cd	111	27.066	ug/L	0.440	1	103	106010	0
	Cd	114	26.779	ug/L	0.359	1	34	268314	1
	Sb	121	14.927	ug/L	0.127	0	264	172509	2
	Sb	123	15.084	ug/L	0.412	2	200	133175	1
	Ba	135	53.242	ug/L	1.370	2	21	199826	1
[	Ba	137	54.387	ug/L	1.522	2	29	356831	1
[>	Tb	159		ug/L			1387186	1035554	1
	Tl	205	0.328	ug/L	0.010	2	300	11538	2
	Pb	208	67.747	ug/L	0.877	1	162	2927045	0
	Bi	209		ug/L			2880974	2284449	0
	Th	232	-0.029	ug/L	0.003	10	2849	979	10
[	U	238	0.013	ug/L	0.000	3	25	532	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AL REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, January 25, 2013 18:22:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			988464	736234	2
	Be	9	0.008	ug/L	0 001	14	10	26	12
	C	13		ug/L			75670	74756	5
	Cl	37		ug/L			3921810	3839102	4
>	Sc	45		ug/L			776850	590062	2
	V	51	0.885	ug/L	0.027	3	5488	15029	2
	V-1	51	1.118	ug/L	0.045	3	776	14487	3
	Cr	52	0.496	ug/L	0.056	11	16030	17281	1
	Cr	53	1.274	ug/L	0.061	4	304	1779	2
	Mn	55	70.813	ug/L	4.103	5	334	994113	3
	Co	59	0.805	ug/L	0.021	2	88	8979	2
>	Ge	72		ug/L			461747	312048	0
	Ni	60	0.572	ug/L	0.009	1	31	1243	1
	Ni	62	47.733	ug/L	15.486	32	1423	16188	30
	Cu	63	3.556	ug/L	0.669	18	1037	17211	18
	Cu	65	0.873	ug/L	0.051	5	65	1886	4
	Zn	66	5.402	ug/L	1.374	25	136	6384	24
	Zn	67	5.297	ug/L	1.190	22	29	1106	21
	Zn	68	6.776	ug/L	1.051	15	187	5939	14
	As	75	12.637	ug/L	0.140	1	272	14423	0
	As-1	75	14.209	ug/L	0 233	1	7476	21113	0
	Se	82	0.321	ug/L	0.084	26	-5	33	28
	Se	78	6.528	ug/L	0.419	6	7591	7108	1
	Mo	98	0.178	ug/L	0.004	2	19	544	2
	Y	89		ug/L			289059	206283	1
	Kr	83		ug/L			540	451	3
>	In	115		ug/L			1039566	755922	0
	Ag	107	0.000	ug/L	0.001	2892	35	25	29
	Cd	111	0.020	ug/L	0.008	42	103	154	22
	Cd	114	0.024	ug/L	0.003	13	34	269	12
	Sb	121	0.325	ug/L	0.007	2	264	4042	2
	Sb	123	0.316	ug/L	0.003	0	200	3010	0
	Ba	135	23.889	ug/L	0.387	1	21	92096	0
	Ba	137	23.861	ug/L	0.182	0	29	160820	0
>	Tb	159		ug/L			1387186	1059308	1
	Tl	205	-0.002	ug/L	0.000	18	300	155	8
	Pb	208	0.114	ug/L	0.008	6	162	5149	5
	Bi	209		ug/L			2880974	1923955	1
	Th	232	-0.040	ug/L	0.002	3	2849	584	11
	U	238	0.009	ug/L	0.001	7	25	378	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 D REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, January 25, 2013 18:26:16
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012513a.cal

As Cd Sb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			988464	741156	2
	Be	9	0.023	ug/L	0.002	9	10	64	9
	C	13		ug/L			75670	71564	4
	Cl	37		ug/L			3921810	8419258	4
>	Sc	45		ug/L			776850	566669	3
	V	51	6.266	ug/L	0.136	2	5488	77832	1
	V-1	51	7.792	ug/L	0.090	1	776	93606	2
	Cr	52	4.460	ug/L	0.276	6	16030	55778	3
	Cr	53	9.527	ug/L	0.196	2	304	11347	3
	Mn	55	103.172	ug/L	3.364	3	334	1391312	1
	Co	59	0.355	ug/L	0.011	3	88	3841	0
>	Ge	72		ug/L			461747	278417	1
	Ni	60	0.882	ug/L	0.022	2	31	1698	0
	Ni	62	451.702	ug/L	214.518	47	1423	129619	47
	Cu	63	41.830	ug/L	13.482	32	1037	174015	32
	Cu	65	1.047	ug/L	0.068	6	65	2010	7
	Zn	66	5.884	ug/L	4.592	78	136	6182	76
	Zn	67	5.723	ug/L	4.128	72	29	1063	70
	Zn	68	5.992	ug/L	3.769	62	187	4688	60
	As	75	1.354	ug/L	0.075	5	272	1525	3
	As-1	75	6.927	ug/L	2.607	37	7476	11499	22
	Se	82	1.308	ug/L	0.166	12	-5	131	11
	Se	78	22.539	ug/L	9.470	42	7591	10677	24
	Mo	98	0.059	ug/L	0.006	9	19	168	7
	Y	89		ug/L			289059	198284	1
	Kr	83		ug/L			540	512	4
>	In	115		ug/L			1039566	673213	1
	Ag	107	0.003	ug/L	0.001	27	35	46	13
	Cd	111	u 0.076	ug/L	0.007	9	103	337	7
	Cd	114	0.143	ug/L	0.003	1	34	1334	1
	Sb	121	0.226	ug/L	0.004	1	264	2556	2
	Sb	123	0.223	ug/L	0.007	3	200	1930	3
	Ba	135	16.546	ug/L	0.369	2	21	56808	1
	Ba	137	16.695	ug/L	0.237	1	29	100208	0
>	Tb	159		ug/L			1387186	1008421	0
	Tl	205	-0.002	ug/L	0.000	21	300	163	8
	Pb	208	0.251	ug/L	0.002	0	162	10674	0
	Bi	209		ug/L			2880974	1676104	0
	Th	232	-0.015	ug/L	0.003	17	2849	1498	7
	U	238	0.063	ug/L	0.002	2	25	2524	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 W REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, January 25, 2013 18:30:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

DEL 1-28-13 As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
[>	Li	6		ug/L			988464	779263	0
[	Be	9	0.020	ug/L	0.002	7	10	60	6
	C	13		ug/L			75670	71988	3
	Cl	37		ug/L			3921810	8512149	1
[>	Sc	45		ug/L			776850	597819	0
[	V	51	5.538	ug/L	0.104	1	5488	73082	1
[	V-1	51	7.122	ug/L	0.128	1	776	90331	1
[	Cr	52	4.112	ug/L	0.146	3	16030	55251	2
[	Cr	53	9.354	ug/L	0.249	2	304	11759	2
[	Mn	55	101.091	ug/L	0.772	0	334	1439024	0
[	Co	59	0.452	ug/L	0.016	3	88	5134	3
[>	Ge	72		ug/L			461747	285275	1
[	Ni	60	0.514	ug/L	0.016	3	31	1022	3
[	Ni	62	786.131	ug/L	109.466	13	1423	229916	12
[	Cu	63	63.848	ug/L	6.815	10	1037	271407	9
[	Cu	65	0.716	ug/L	0.055	7	65	1421	5
[	Zn	66	1.780	ug/L	0.351	19	136	1977	17
[	Zn	67	2.440	ug/L	0.531	21	29	475	19
[	Zn	68	2.639	ug/L	0.438	16	187	2183	14
[	As	75	1.316	ug/L	0 050	3	272	1523	1
[	As-1	75	10.256	ug/L	1.712	16	7476	15200	10
[	Se	82	1.176	ug/L	0.040	3	-5	120	3
[	Se	78	35.061	ug/L	6.202	17	7591	14388	10
[	Mo	98	0.039	ug/L	0.004	9	19	118	8
	Y	89		ug/L			289059	201841	2
	Kr	83		ug/L			540	572	0
[>	In	115		ug/L			1039566	692395	2
[	Ag	107	0.004	ug/L	0.005	119	35	58	73
[	Cd	111	-0.066	ug/L	0.028	42	103	-175	61
[	Cd	114	0.028	ug/L	0.008	27	34	290	28
[	Sb	121	0.151	ug/L	0.003	1	264	1815	2
[	Sb	123	0.150	ug/L	0.003	2	200	1380	1
[	Ba	135	16.006	ug/L	0.376	2	21	56504	0
[	Ba	137	16.180	ug/L	0.362	2	29	99857	1
[>	Tb	159		ug/L			1387186	1046934	1
[	Tl	205	-0.001	ug/L	0.001	104	300	179	26
[	Pb	208	0.032	ug/L	0.005	15	162	1529	13
[	Bi	209		ug/L			2880974	1706908	0
[	Th	232	-0.034	ug/L	0.003	7	2849	782	12
[	U	238	0.050	ug/L	0.002	3	25	2064	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 18:34:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			988464	712298	0
	Be	9	51.261	ug/L	0.698	1	10	119592	2
	C	13		ug/L			75670	53011	3
	Cl	37		ug/L			3921810	3304544	2
>	Sc	45		ug/L			776850	532311	1
	V	51	51.249	ug/L	0.791	1	5488	571188	1
	V-1	51	50.825	ug/L	1.559	3	776	570715	2
	Cr	52	51.811	ug/L	1.697	3	16030	492396	2
	Cr	53	50.400	ug/L	1.918	3	304	55489	2
	Mn	55	51.155	ug/L	1.018	1	334	648432	1
	Co	59	49.213	ug/L	1.546	3	88	491396	2
>	Ge	72		ug/L			461747	308122	2
	Ni	60	49.214	ug/L	1.936	3	31	103720	1
	Ni	62	382.095	ug/L	98.605	25	1423	120857	23
	Cu	63	63.517	ug/L	5.188	8	1037	291537	5
	Cu	65	49.765	ug/L	0.194	0	65	103693	2
	Zn	66	51.489	ug/L	0.841	1	136	59393	3
	Zn	67	50.911	ug/L	1.952	3	29	10334	1
	Zn	68	52.297	ug/L	0.842	1	187	44454	1
	As	75	51.734	ug/L	1.458	2	272	57718	0
	As-1	75	55.805	ug/L	2.342	4	7476	67237	1
	Se	82	51.879	ug/L	1.668	3	-5	5907	1
	Se	78	66.154	ug/L	4.775	7	7591	24842	3
	Mo	98	50.866	ug/L	0.152	0	19	149999	2
	Y	89		ug/L			289059	195611	1
	Kr	83		ug/L			540	444	3
>	In	115		ug/L			1039566	740910	0
	Ag	107	43.870	ug/L	0.761	1	35	364529	1
	Cd	111	52.046	ug/L	0.355	0	103	205138	1
	Cd	114	51.340	ug/L	0.134	0	34	517787	0
	Sb	121	51.440	ug/L	0.457	0	264	597856	1
	Sb	123	52.601	ug/L	0.223	0	200	467203	1
	Ba	135	54.079	ug/L	0.223	0	21	204347	1
	Ba	137	54.006	ug/L	0.649	1	29	356723	0
>	Tb	159		ug/L			1387186	1028615	2
	Tl	205	49.363	ug/L	1.279	2	300	1692080	0
	Pb	208	51.344	ug/L	1.029	2	162	2203147	0
	Bi	209		ug/L			2880974	2239045	0
	Th	232	49.197	ug/L	1.399	2	2849	1925043	1
	U	238	48.556	ug/L	0.939	1	25	1963659	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, January 25, 2013 18:41:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			988464	747402	1
	Be	9	-0.002	ug/L	0.000	13	10	4	13
	C	13		ug/L			75670	54880	1
	Cl	37		ug/L			3921810	3231932	0
>	Sc	45		ug/L			776850	543722	1
	V	51	-0.007	ug/L	0.005	69	5488	3760	2
	V-1	51	0.021	ug/L	0.003	16	776	782	5
	Cr	52	0.008	ug/L	0.008	98	16030	11298	1
	Cr	53	0.099	ug/L	0.011	11	304	324	3
	Mn	55	0.017	ug/L	0 004	22	334	450	11
	Co	59	0.005	ug/L	0.001	18	88	117	9
>	Ge	72		ug/L			461747	325664	2
	Ni	60	0.005	ug/L	0.002	32	31	33	12
	Ni	62	119.372	ug/L	11 265	9	1423	40708	7
	Cu	63	5.200	ug/L	0.549	10	1037	25894	8
	Cu	65	0.051	ug/L	0.003	6	65	159	2
	Zn	66	0.090	ug/L	0.003	3	136	205	3
	Zn	67	0.073	ug/L	0 029	39	29	36	18
	Zn	68	0.122	ug/L	0.013	10	187	241	2
	As	75	0.037	ug/L	0 015	40	272	235	7
	As-1	75	1.860	ug/L	0 198	10	7476	7464	1
	Se	82	0.072	ug/L	0 066	91	-5	4	171
	Se	78	6.935	ug/L	0.743	10	7591	7544	1
	Mo	98	0.007	ug/L	0.003	49	19	34	29
	Y	89		ug/L			289059	204455	1
	Kr	83		ug/L			540	416	4
>	In	115		ug/L			1039566	743145	2
	Ag	107	0.001	ug/L	0.001	149	35	31	27
	Cd	111	-0.003	ug/L	0.002	70	103	61	12
	Cd	114	0.001	ug/L	0.001	80	34	39	31
	Sb	121	0.020	ug/L	0.002	10	264	416	3
	Sb	123	0.020	ug/L	0.003	14	200	323	5
	Ba	135	-0.000	ug/L	0 002	16162	21	15	63
	Ba	137	0.001	ug/L	0 003	202	29	30	65
>	Tb	159		ug/L			1387186	1039619	0
	Tl	205	0.000	ug/L	0 001	341	300	235	15
	Pb	208	0.003	ug/L	0.001	42	162	233	20
	Bi	209		ug/L			2880974	2317762	1
	Th	232	0.103	ug/L	0.022	20	2849	6198	13
	U	238	0.002	ug/L	0 001	31	25	100	25

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-28-13 **Analyst:** M **Page:** 1 **of** 5

M 1-28-13

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			Recal
		1			
		2			
		3			
		4			
		5			noisy ?
		STD 0			2999-15
		1			3008-3
		2			3008-15
		3			3009-1 51 noisy
		4			3008-8 noisy
		5 AIR			~~3009-2~~ check for
		~~Rinse Sample~~ 11th Run			~~cd~~ clog in sample probe
		STD 0			2999-15
		1			3008-3
		2			3008-15
		3			3009-1
		4			3008-8
		5			3009-2
		Rinse Sample			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			
222		~~low check~~ 222222			

M 1-29-13

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-28-13 **Analyst:** A **Page:** 2 **of** 5

All corrections made by analyst unless otherwise noted. A 1-28-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
222		~~ICSA~~ 222222			
↓		~~ICSAB~~ ↓			^{53}Cr ^{62}Ni ↑
		LR200			Mo Ag ↑
		B1			Li Sc high
		B2			↓
		CCV2			Li Sc ^{82}Se ↑
		CCB2			
		STOO			
		CCV3			V ^{82}Se Ag ↑
		CCB3			
		Low check			
		ICSA			
		ICSAB			^{62}Ni ↑ Mo ↑
		B3			
		CCV4			^{66}Zn ^{82}Se Mo Ag ↑
		CCB4			
		DI Check			
		ERA997		10	Ag ^{82}Se ↑ (Cu Ag); ^{66}Zn, ^{68}Zn w/in ERA limits
		VZ86 I	REN	20	Cr
		VA61 L		50	As
		Q		5	As
		R		5	As Pb
dil		AE		50	As
Label		AH	↑	2	

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-28-13 **Analyst:** AT **Page:** 3 **of** 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WA61 AJ	REN	5	As
		AK			As
		CCV5			^{62}Ni, ^{82}Se Mo Ag ↑
		CCB5			^{62}Ni ↑
	✓	WA61 MB1	REN	2	As 0.212 (RR)
		ADup			✓ RR As 1/50
		A			
		Aspk			✓
		IDup			✓
		I			
		Ispk			✓
		B			RR As 1/100
		C			1/20
	✓	MB1spk			As 120.4 RR 80?
		CCV6			^{78}Se Mo Ag ↑
		CCB6			
		WA66 MB1	REN	2	
		ADup		50	✓ As
		A			
Label		Aspk			✓ STL
		IDup			✓
		I			
		Ispk			✓ STL
	✓	B		100	RR 1/200

AT 1-29-13

UA61 : 00232

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Monday, January 28, 2013 08:51:37
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1752
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
Be	9.0	3183.7	3183.741	39.224	1.2	Standard
Mg	24.0	26823.5	26823.509	422.116	1.6	Standard
In	114.9	66524.3	66524.342	205.461	0.3	Standard
Pb	208.0	31682.6	31682.647	100.196	0.3	Standard
U	238.1	51805.7	51805.734	245.125	0.5	Standard
CeO	155.9	874.3	0.011	0.000	2.6	Standard
> Ce	139.9	77195.3	77195.305	383.845	0.5	Standard
Ce++	70.0	451.0	0.006	0.000	3.2	Standard
Bkgd	220.0	0.1	0.067	0.091	136.9	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1712.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

UA61 00233

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/28/2013 8:51:35 AM
nd Time: 1/28/2013 8:54:12 AM

aily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 3183.74
Obtained Intensity (Mg 23.985): 26823.51
Obtained Intensity (In 114.904): 66524.34
Obtained Intensity (Pb 207.977): 31682.65
Obtained Intensity (U 238.05): 51805.73
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (CeO 155.9 / Ce 139.905): 0.011 (=874.31 / 77195.31)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.006 (=451.01 / 77195.31)

WA61 : 00234

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/28/2013 8:58:50 AM
nd Time: 1/28/2013 8:59:48 AM

orch Alignment - [Passed]

Vertical	Horizontal	Intensity
-1.02 mm	1.80 mm	103460.28

UAE1 00235

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 1/28/2013 8:59:57 AM
End Time: 1/28/2013 9:02:09 AM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.694)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.713)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.694)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.695)

UAE1 00235

SmartTune Wizard - Summary

)ptimization Summary

;martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

;tart Time: 1/28/2013 9:03:28 AM
:nd Time: 1/28/2013 9:07:40 AM

\utoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.998; Intercept = -12.31

WA61 00237

SmartTune Wizard - Details

ptimization Details

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

ptimization Status

tart Time: 1/28/2013 9:08:16 AM

aily Performance Check

Optimization Settings:

Method: C:\NexIONData\Method\Daily Performancenew.mth.
Intensity Criterion: Be 9.0122 > 3000
Intensity Criterion: Mg 23.985 > 20000
Intensity Criterion: In 114.904 > 50000
Intensity Criterion: Pb 207.977 > 20000
Intensity Criterion: U 238.05 > 40000
Intensity Criterion: Bkgd 220 <= 5
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

Optimization Results:

Initial Try

Obtained Intensity (Be 9.0122): 5112.23
Obtained Intensity (Mg 23.985): 46371.60
Obtained Intensity (In 114.904): 101545.31
Obtained Intensity (Pb 207.977): 45264.61
Obtained Intensity (U 238.05): 74607.90
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.020 (=2083.53 / 106629.63)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.012 (=1281.70 / 106629.63)

Passed] Optimum value(s): N/A

nd Time: 1/28/2013 9:10:51 AM

WA61 00238

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 10:45:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				1394055	3
	Be	9		ug/L				12	44
	C	13		ug/L				94652	1
	Cl	37		ug/L				4825045	5
>	Sc	45		ug/L				1190279	2
	V	51		ug/L				8541	2
	V-1	51		ug/L				342	4
	Cr	52		ug/L				25207	2
	Cr	53		ug/L				226	5
	Mn	55		ug/L				500	7
	Co	59		ug/L				96	19
>	Ge	72		ug/L				621499	1
	Ni	60		ug/L				50	15
	Ni	62		ug/L				585	8
	Cu	63		ug/L				413	4
	Cu	65		ug/L				47	12
	Zn	66		ug/L				267	17
	Zn	67		ug/L				50	30
	Zn	68		ug/L				337	11
	As	75		ug/L				266	7
	As-1	75		ug/L				10263	1
	Se	82		ug/L				-7	117
	Se	78		ug/L				10445	1
	Mo	98		ug/L				23	15
	Y	89		ug/L				388424	3
	Kr	83		ug/L				635	5
>	In	115		ug/L				1194649	2
	Ag	107		ug/L				59	15
	Cd	111		ug/L				117	1
	Cd	114		ug/L				47	22
	Sb	121		ug/L				397	19
	Sb	123		ug/L				307	27
	Ba	135		ug/L				35	22
	Ba	137		ug/L				38	63
>	Tb	159		ug/L				1537907	0
	Tl	205		ug/L				203	33
	Pb	208		ug/L				229	19
	Bi	209		ug/L				3467919	1
	Th	232		ug/L				2936	21
	U	238		ug/L				59	69

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 10:50:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1394055	1401005	0
	Be	9	0.200	ug/L	0.010	4	12	784	5
	C	13		ug/L			94652	91637	1
	Cl	37		ug/L			4825045	4820113	2
>	Sc	45		ug/L			1190279	1236413	0
	V	51	0.200	ug/L	0.014	6	8541	13346	2
	V-1	51	0.200	ug/L	0.004	2	342	5087	1
	Cr	52	0.500	ug/L	0.026	5	25207	35494	1
	Cr	53	0.500	ug/L	0.022	4	226	1369	3
	Mn	55	0.500	ug/L	0.011	2	500	14022	2
	Co	59	0.200	ug/L	0.002	0	96	4014	0
>	Ge	72		ug/L			621499	617025	1
	Ni	60	0.500	ug/L	0.027	5	50	2167	3
	Ni	62	0.500	ug/L	0.091	18	585	803	3
	Cu	63	0.500	ug/L	0.010	1	413	5158	0
	Cu	65	0.500	ug/L	0.032	6	47	2189	5
	Zn	66	4.000	ug/L	0.179	4	267	10432	3
	Zn	67	4.000	ug/L	0 108	2	50	1510	1
	Zn	68	4.000	ug/L	0.189	4	337	7177	2
	As	75	0.200	ug/L	0.008	4	266	670	4
	As-1	75	0.200	ug/L	0 082	40	10263	10612	0
	Se	82	0.500	ug/L	0.044	8	-7	108	11
	Se	78	0.500	ug/L	0.302	60	10445	10680	0
	Mo	98	0.200	ug/L	0.004	2	23	992	0
	Y	89		ug/L			388424	382274	1
	Kr	83		ug/L			635	627	4
>	In	115		ug/L			1194649	1207590	0
	Ag	107	0.200	ug/L	0.005	2	59	2730	2
	Cd	111	0.100	ug/L	0.005	5	117	768	3
	Cd	114	0.100	ug/L	0.001	0	47	1565	0
	Sb	121	0.200	ug/L	0.002	0	397	3305	0
	Sb	123	0.200	ug/L	0.004	1	307	2519	1
	Ba	135	0.500	ug/L	0.010	1	35	2811	2
	Ba	137	0.500	ug/L	0.008	1	38	4767	1
>	Tb	159		ug/L			1537907	1551882	1
	Tl	205	0.200	ug/L	0.001	0	203	9760	0
	Pb	208	0.100	ug/L	0.001	0	229	6564	0
	Bi	209		ug/L			3467919	3524397	0
	Th	232	0.200	ug/L	0.009	4	2936	10688	1
	U	238	0.200	ug/L	0.003	1	59	11143	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 10:54:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1364107	1
	Be	9	10.000	ug/L	0.224	2	12	38141	2
	C	13		ug/L			94652	89619	1
	Cl	37		ug/L			4825045	4848355	3
>	Sc	45		ug/L			1190279	1185194	0
	V	51	10.000	ug/L	0.199	1	8541	239670	1
	V-1	51	10.000	ug/L	0.104	1	342	232269	1
	Cr	52	10.002	ug/L	0.256	2	25207	221606	1
	Cr	53	10.001	ug/L	0.118	1	226	22674	1
	Mn	55	10.001	ug/L	0.151	1	500	268667	2
	Co	59	10.000	ug/L	0.211	2	96	196632	1
>	Ge	72		ug/L			621499	613266	0
	Ni	60	10.000	ug/L	0.222	2	50	42454	2
	Ni	62	10.006	ug/L	0.192	1	585	6495	2
	Cu	63	9.999	ug/L	0.024	0	413	91110	0
	Cu	65	10.000	ug/L	0.153	1	47	42389	1
	Zn	66	9.947	ug/L	0.158	1	267	24588	1
	Zn	67	10.136	ug/L	0.285	2	50	4071	2
	Zn	68	10.017	ug/L	0.238	2	337	17556	2
	As	75	10.000	ug/L	0.054	0	266	20994	0
	As-1	75	10.000	ug/L	0.114	1	10263	31095	0
	Se	82	9.999	ug/L	0.042	0	-7	2243	1
	Se	78	9.999	ug/L	0 223	2	10445	16263	0
	Mo	98	10.000	ug/L	0 147	1	23	50509	1
	Y	89		ug/L			388424	374695	1
	Kr	83		ug/L			635	632	5
>	In	115		ug/L			1194649	1187388	1
	Ag	107	10.000	ug/L	0.313	3	59	130141	1
	Cd	111	10.000	ug/L	0.139	1	117	61176	0
	Cd	114	10.000	ug/L	0.145	1	47	151758	1
	Sb	121	10.000	ug/L	0.149	1	397	162443	0
	Sb	123	10.000	ug/L	0.222	2	307	123171	1
	Ba	135	10.000	ug/L	0.259	2	35	55607	1
	Ba	137	10.001	ug/L	0.165	1	38	96848	0
>	Tb	159		ug/L			1537907	1553335	0
	Tl	205	10.000	ug/L	0.112	1	203	470939	0
	Pb	208	10.000	ug/L	0.139	1	229	621539	0
	Bi	209		ug/L			3467919	3394766	0
	Th	232	10.001	ug/L	0.053	0	2936	514987	0
	U	238	10.000	ug/L	0 149	1	59	564611	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 10:58:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1428816	2
	Be	9	19.970	ug/L	0.636	3	12	79263	1
	C	13		ug/L			94652	88603	3
	Cl	37		ug/L			4825045	5068354	2
>	Sc	45		ug/L			1190279	1233446	3
	V	51	19.922	ug/L	0.954	4	8541	480271	1
	V-1	51	19.940	ug/L	0.880	4	342	475489	1
	Cr	52	19.825	ug/L	0.852	4	25207	417412	1
	Cr	53	19.886	ug/L	0.385	1	226	45638	2
	Mn	55	19.912	ug/L	1.010	5	500	545873	1
	Co	59	20.031	ug/L	0.264	1	96	412237	2
>	Ge	72		ug/L			621499	634151	1
	Ni	60	19.911	ug/L	0.817	4	50	85806	3
	Ni	62	19.970	ug/L	0.309	1	585	12736	1
	Cu	63	20.050	ug/L	0.471	2	413	190359	0
	Cu	65	19.896	ug/L	0.669	3	47	85379	2
	Zn	66	19.859	ug/L	0.467	2	267	49292	0
	Zn	67	20.060	ug/L	0.208	1	50	8369	1
	Zn	68	19.917	ug/L	0.512	2	337	35246	1
	As	75	19.959	ug/L	0.340	1	266	42703	1
	As-1	75	19.885	ug/L	0.441	2	10263	52611	1
	Se	82	19.956	ug/L	0.431	2	-7	4594	0
	Se	78	19.669	ug/L	0.835	4	10445	22020	0
	Mo	98	19.877	ug/L	0.621	3	23	101273	1
	Y	89		ug/L			388424	386717	1
	Kr	83		ug/L			635	603	4
>	In	115		ug/L			1194649	1214343	0
	Ag	107	20.001	ug/L	0.437	2	59	266242	1
	Cd	111	19.918	ug/L	0.544	2	117	122483	1
	Cd	114	19.974	ug/L	0.340	1	47	308363	0
	Sb	121	19.928	ug/L	0.041	0	397	325994	0
	Sb	123	19.956	ug/L	0.056	0	307	248911	0
	Ba	135	19.922	ug/L	0.223	1	35	111533	0
	Ba	137	19.955	ug/L	0.431	2	38	195818	1
>	Tb	159		ug/L			1537907	1563470	0
	Tl	205	20.024	ug/L	0.312	1	203	953432	0
	Pb	208	19.987	ug/L	0.286	1	229	1246840	0
	Bi	209		ug/L			3467919	3459380	0
	Th	232	20.133	ug/L	0.206	1	2936	1068722	0
	U	238	19.995	ug/L	0.085	0	59	1135224	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 11:03:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1416968	1
	Be	9	49.990	ug/L	0.855	1	12	196602	0
	C	13		ug/L			94652	86340	2
	Cl	37		ug/L			4825045	4828338	1
>	Sc	45		ug/L			1190279	1224526	3
	V	51	50.177	ug/L	1.586	3	8541	1209814	3
	V-1	51	50.076	ug/L	1.371	2	342	1194639	2
	Cr	52	50.246	ug/L	0.586	1	25207	1036368	3
	Cr	53	49.902	ug/L	1.435	2	226	112256	2
	Mn	55	49.844	ug/L	1.178	2	500	1336202	2
	Co	59	49.816	ug/L	0.765	1	96	999313	1
>	Ge	72		ug/L			621499	631074	2
	Ni	60	49.749	ug/L	1.917	3	50	207994	1
	Ni	62	49.906	ug/L	1.295	2	585	30509	3
	Cu	63	49.710	ug/L	0.955	1	413	455830	0
	Cu	65	49.785	ug/L	0.966	1	47	208058	0
	Zn	66	49.643	ug/L	1.706	3	267	118117	2
	Zn	67	49.831	ug/L	0.061	0	50	20283	2
	Zn	68	49.866	ug/L	1.338	2	337	86161	0
	As	75	49.861	ug/L	0.701	1	266	104307	1
	As-1	75	49.895	ug/L	0.650	1	10263	114546	1
	Se	82	49.717	ug/L	0.564	1	-7	11089	1
	Se	78	49.868	ug/L	1.173	2	10445	38909	2
	Mo	98	50.079	ug/L	2 118	4	23	255806	2
	Y	89		ug/L			388424	386712	2
	Kr	83		ug/L			635	684	3
>	In	115		ug/L			1194649	1166031	2
	Ag	107	49.878	ug/L	0.488	0	59	629724	1
	Cd	111	50.078	ug/L	1.126	2	117	297771	0
	Cd	114	50.126	ug/L	1.321	2	47	752214	0
	Sb	121	50.289	ug/L	1.074	2	397	812496	0
	Sb	123	50.143	ug/L	1.087	2	307	608535	0
	Ba	135	50.287	ug/L	1.614	3	35	278104	0
	Ba	137	50.204	ug/L	1.637	3	38	482613	1
>	Tb	159		ug/L			1537907	1554870	1
	Tl	205	50.634	ug/L	0.677	1	203	2559504	0
	Pb	208	49.866	ug/L	0.370	0	229	3052618	0
	Bi	209		ug/L			3467919	3343105	1
	Th	232	50.794	ug/L	0.357	0	2936	2907889	1
	U	238	50.665	ug/L	0.411	0	59	3064137	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 11:09:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1394055	1404274	1
	Be	9	99.601	ug/L	2.453	2	12	383080	1
	C	13		ug/L			94652	86597	1
	Cl	37		ug/L			4825045	4952893	1
>	Sc	45		ug/L			1190279	1227412	1
	V	51	101.645	ug/L	1.312	1	8541	2589844	2
	V-1	51	101.090	ug/L	1.397	1	342	2509451	2
	Cr	52	101.576	ug/L	2.476	2	25207	2186224	0
	Cr	53	99.585	ug/L	1.050	1	226	221333	1
	Mn	55	101.192	ug/L	0.956	0	500	2831904	1
	Co	59	99.780	ug/L	6.505	6	96	1993253	7
>	Ge	72		ug/L			621499	620257	3
	Ni	60	100.083	ug/L	2.672	2	50	412365	0
	Ni	62	99.914	ug/L	3.366	3	585	59253	3
	Cu	63	99.276	ug/L	2.439	2	413	873084	1
	Cu	65	99.600	ug/L	3.041	3	47	403551	0
	Zn	66	99.764	ug/L	3 480	3	267	231172	1
	Zn	67	99.721	ug/L	3.570	3	50	39461	3
	Zn	68	99.374	ug/L	5.096	5	337	164898	1
	As	75	99.677	ug/L	3.357	3	266	202403	0
	As-1	75	99.768	ug/L	3.453	3	10263	213200	0
	Se	82	99.535	ug/L	2.107	2	-7	21490	1
	Se	78	99.882	ug/L	2 402	2	10445	65901	1
	Mo	98	100.058	ug/L	2.642	2	23	503321	0
	Y	89		ug/L			388424	383020	1
	Kr	83		ug/L			635	711	1
>	In	115		ug/L			1194649	1147392	1
	Ag	107	99.868	ug/L	3.631	3	59	1234922	1
	Cd	111	99.604	ug/L	1.895	1	117	575182	0
	Cd	114	99.835	ug/L	1.839	1	47	1466573	1
	Sb	121	99.734	ug/L	2.235	2	397	1571479	0
	Sb	123	100.022	ug/L	1.309	1	307	1195320	0
	Ba	135	99.923	ug/L	0.869	0	35	542638	1
	Ba	137	100.216	ug/L	1 948	1	38	955144	0
>	Tb	159		ug/L			1537907	1531951	1
	Tl	205	100.078	ug/L	0.727	0	203	4997254	0
	Pb	208	100.574	ug/L	0.883	0	229	6183951	0
	Bi	209		ug/L			3467919	3206735	1
	Th	232	100.266	ug/L	0.156	0	2936	5703029	1
	U	238	100.072	ug/L	0.715	0	59	5977846	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 11:16:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1453290	0
	Be	9	0.004	ug/L	0.003	71	12	27	38
	C	13		ug/L			94652	88682	2
	Cl	37		ug/L			4825045	4959015	3
>	Sc	45		ug/L			1190279	1270626	2
	V	51	-0.017	ug/L	0.006	36	8541	8675	3
	V-1	51	-0.000	ug/L	0.003	18188	342	364	21
	Cr	52	-0.064	ug/L	0.022	34	25207	25496	3
	Cr	53	-0.008	ug/L	0.004	52	226	223	4
	Mn	55	0.001	ug/L	0.003	260	500	562	11
	Co	59	0.001	ug/L	0.003	205	96	130	43
>	Ge	72		ug/L			621499	637123	1
	Ni	60	0.002	ug/L	0.004	249	50	58	27
	Ni	62	0.153	ug/L	0.057	37	585	692	4
	Cu	63	0.019	ug/L	0.010	50	413	597	14
	Cu	65	0.004	ug/L	0.002	36	47	66	8
	Zn	66	-0.055	ug/L	0.008	13	267	143	12
	Zn	67	-0.058	ug/L	0.011	19	50	27	17
	Zn	68	-0.054	ug/L	0.006	11	337	254	2
	As	75	-0.009	ug/L	0 004	45	266	255	2
	As-1	75	-0.097	ug/L	0.055	56	10263	10316	0
	Se	82	-0.073	ug/L	0 012	15	-7	-23	9
	Se	78	-0.371	ug/L	0.204	55	10445	10495	0
	Mo	98	0.013	ug/L	0.000	2	23	92	0
	Y	89		ug/L			388424	400269	3
	Kr	83		ug/L			635	669	1
>	In	115		ug/L			1194649	1225416	0
	Ag	107	0.001	ug/L	0.001	119	59	76	23
	Cd	111	0.002	ug/L	0.004	249	117	130	18
	Cd	114	0.001	ug/L	0.001	83	47	71	25
	Sb	121	0.060	ug/L	0.011	18	397	1417	12
	Sb	123	0.060	ug/L	0.015	25	307	1079	17
	Ba	135	0.004	ug/L	0.011	271	35	58	105
	Ba	137	0.005	ug/L	0.009	199	38	87	108
>	Tb	159		ug/L			1537907	1577640	0
	Tl	205	0.013	ug/L	0.007	58	203	862	45
	Pb	208	0.004	ug/L	0.007	175	229	488	90
	Bi	209		ug/L			3467919	3523898	1
	Th	232	0.174	ug/L	0.057	32	2936	13227	25
	U	238	0.004	ug/L	0.004	103	59	294	83

Sample Information

Sample Date/Time: Monday, January 28, 2013 11:09:20
Method File: C:\NexIONData\Method\200.8nomin.mth
Mass Calibration File: C:\NexIONData\MassCal\Default.tun
Conditions File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012813.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**1.0000**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**0.9995**	0.021	0.20	10	20	50	100
V-1	51	**0.9998**	0.020	0.20	10	20	50	100
Cr	52	**0.9996**	0.017	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**0.9998**	0.023	0.50	10	20	50	100
Co	59	**1.0000**	0.016	0.20	10	20	50	100
Ge	72							
Ni	60	**1.0000**	0.007	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**0.9999**	0.014	0.50	10	20	50	100
Cu	65	**1.0000**	0.007	0.50	10	20	50	100
Zn	66	**1.0000**	0.004	4.00	10	20	50	100
Zn	67	**1.0000**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9998**	0.000	0.50	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Mo	98	**1.0000**	0.008	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.011	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.013	0.10	10	20	50	100
Sb	121	**1.0000**	0.014	0.20	10	20	50	100
Sb	123	**1.0000**	0.010	0.20	10	20	50	100
Ba	135	**1.0000**	0.005	0.50	10	20	50	100
Ba	137	**1.0000**	0.008	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9999**	0.033	0.20	10	20	50	100
Pb	208	**0.9999**	0.040	0.10	10	20	50	100
Bi	209							
Th	232	**0.9998**	0.037	0.20	10	20	50	100
U	238	**0.9999**	0.039	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 11:23:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1394055	1491275	4
	Be	9	50.927	ug/L	1.955	3	12	207845	0
	C	13		ug/L			94652	95837	1
	Cl	37		ug/L			4825045	5105560	2
>	Sc	45		ug/L			1190279	1279142	2
	V	51	48.620	ug/L	1.310	2	8541	1295214	1
	V-1	51	49.886	ug/L	1.536	3	342	1289905	0
	Cr	52	47.794	ug/L	1.624	3	25207	1086217	2
	Cr	53	52.251	ug/L	2.583	4	226	121044	2
	Mn	55	51.578	ug/L	2.353	4	500	1503396	1
	Co	59	50.905	ug/L	1.759	3	96	1058766	2
>	Ge	72		ug/L			621499	642380	1
	Ni	60	53.331	ug/L	0.734	1	50	227729	1
	Ni	62	53.834	ug/L	0.839	1	585	33352	0
	Cu	63	53.568	ug/L	0.242	0	413	488336	0
	Cu	65	52.623	ug/L	0.256	0	47	220971	0
	Zn	66	54.364	ug/L	2.624	4	267	130678	4
	Zn	67	53.004	ug/L	2.206	4	50	21762	5
	Zn	68	53.277	ug/L	1.653	3	337	91838	3
	As	75	52.278	ug/L	0.601	1	266	110142	0
	As-1	75	51.980	ug/L	0.934	1	10263	120188	0
	Se	82	84.328	ug/L	0.418	0	-7	18530	1
	Se	78	81.384	ug/L	1.165	1	10445	57621	0
	Mo	98	51.168	ug/L	1.025	2	23	266699	1
	Y	89		ug/L			388424	407326	1
	Kr	83		ug/L			635	691	1
>	In	115		ug/L			1194649	1216071	0
	Ag	107	51.982	ug/L	1.165	2	59	681524	1
	Cd	111	50.477	ug/L	1.857	3	117	309007	2
	Cd	114	50.046	ug/L	0.959	1	47	779308	1
	Sb	121	49.863	ug/L	0.341	0	397	833100	0
	Sb	123	49.198	ug/L	0.522	1	307	623377	0
	Ba	135	49.673	ug/L	0.498	1	35	285909	0
	Ba	137	49.898	ug/L	0.837	1	38	504149	1
>	Tb	159		ug/L			1537907	1583663	0
	Tl	205	52.388	ug/L	1.078	2	203	2704108	1
	Pb	208	49.607	ug/L	0.635	1	229	3153258	0
	Bi	209		ug/L			3467919	3385988	0
	Th	232	52.417	ug/L	1.052	2	2936	3083121	1
	U	238	53.187	ug/L	0.867	1	59	3284006	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 11:29:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1394055	1452747	1
	Be	9	0.002	ug/L	0.002	97	12	19	35
	C	13		ug/L			94652	87493	2
	Cl	37		ug/L			4825045	5009188	1
>	Sc	45		ug/L			1190279	1216399	1
	V	51	-0.006	ug/L	0.003	48	8541	8582	0
	V-1	51	-0.002	ug/L	0.001	69	342	312	9
	Cr	52	-0.016	ug/L	0.009	54	25207	25429	0
	Cr	53	-0.001	ug/L	0.007	602	226	228	7
	Mn	55	0.001	ug/L	0.001	53	500	548	2
	Co	59	-0.000	ug/L	0.000	9003	96	98	9
>	Ge	72	.	ug/L			621499	629419	0
	Ni	60	-0.003	ug/L	0.001	54	50	40	15
	Ni	62	-0.099	ug/L	0.042	42	585	534	4
	Cu	63	0.005	ug/L	0.001	21	413	461	2
	Cu	65	0.004	ug/L	0.001	34	47	64	9
	Zn	66	-0.058	ug/L	0.003	4	267	134	4
	Zn	67	-0.061	ug/L	0.021	34	50	26	32
	Zn	68	-0.058	ug/L	0.008	13	337	244	5
	As	75	0.000	ug/L	0.021	6613	266	270	16
	As-1	75	0.043	ug/L	0.079	185	10263	10482	1
	Se	82	0.053	ug/L	0.068	127	-7	3	371
	Se	78	0.162	ug/L	0.244	150	10445	10669	1
	Mo	98	0.009	ug/L	0.001	16	23	68	10
	Y	89		ug/L			388424	384833	2
	Kr	83		ug/L			635	611	5
>	In	115		ug/L			1194649	1206924	1
	Ag	107	0.000	ug/L	0.001	305	59	65	22
	Cd	111	0.001	ug/L	0.001	62	117	127	3
	Cd	114	0.001	ug/L	0.000	55	47	58	9
	Sb	121	0.002	ug/L	0.006	300	397	434	22
	Sb	123	0.001	ug/L	0.005	667	307	319	18
	Ba	135	-0.004	ug/L	0.001	27	35	14	39
	Ba	137	-0.001	ug/L	0.000	40	38	27	17
>	Tb	159		ug/L			1537907	1546738	1
	Tl	205	0.002	ug/L	0.001	43	203	294	13
	Pb	208	-0.000	ug/L	0.000	74	229	207	7
	Bi	209		ug/L			3467919	3471201	1
	Th	232	0.093	ug/L	0.034	36	2936	8301	23
	U	238	0.001	ug/L	0.001	63	59	129	33

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 11:34:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1489967	0
	Be	9	50.409	ug/L	0.575	1	12	205758	0
	C	13		ug/L			94652	86745	0
	Cl	37		ug/L			4825045	4936619	2
>	Sc	45		ug/L			1190279	1276597	2
	V	51	47.453	ug/L	0 398	0	8541	1262222	1
	V-1	51	48.360	ug/L	0.753	1	342	1248382	0
	Cr	52	48.251	ug/L	0.122	0	25207	1094604	2
	Cr	53	51.559	ug/L	1.427	2	226	119264	0
	Mn	55	50.424	ug/L	0 645	1	500	1467820	1
	Co	59	50.946	ug/L	1.604	3	96	1058532	5
>	Ge	72		ug/L			621499	640930	2
	Ni	60	52.701	ug/L	2 168	4	50	224406	2
	Ni	62	51.418	ug/L	1.300	2	585	31801	0
	Cu	63	53.004	ug/L	3.308	6	413	481693	4
	Cu	65	52.301	ug/L	0.843	1	47	219079	0
	Zn	66	54.096	ug/L	0.100	0	267	129737	2
	Zn	67	53.996	ug/L	0.772	1	50	22110	1
	Zn	68	53.319	ug/L	0.290	0	337	91691	2
	As	75	52.550	ug/L	1.680	3	266	110434	2
	As-1	75	52.445	ug/L	1.783	3	10263	120870	2
	Se	82	53.598	ug/L	1 053	1	-7	11745	0
	Se	78	52.284	ug/L	1.316	2	10445	40780	1
	Mo	98	51.405	ug/L	1.085	2	23	267285	0
	Y	89		ug/L			388424	395466	1
	Kr	83		ug/L			635	695	6
>	In	115		ug/L			1194649	1212979	1
	Ag	107	50.899	ug/L	2.372	4	59	665427	3
	Cd	111	50.459	ug/L	0.932	1	117	308121	0
	Cd	114	49.915	ug/L	1.379	2	47	775134	1
	Sb	121	49.984	ug/L	1.281	2	397	832837	1
	Sb	123	49.401	ug/L	1.515	3	307	624213	1
	Ba	135	50.091	ug/L	1.194	2	35	287542	1
	Ba	137	49.605	ug/L	1.094	2	38	499873	1
>	Tb	159		ug/L			1537907	1589840	0
	Tl	205	51.109	ug/L	0.653	1	203	2648732	1
	Pb	208	48.739	ug/L	0.605	1	229	3110406	1
	Bi	209		ug/L			3467919	3404762	0
	Th	232	50.948	ug/L	1.050	2	2936	3008871	2
	U	238	51.403	ug/L	1 032	2	59	3186458	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 11:40:38
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
Li	6		ug/L			1394055	1465577	3
Be	9	-0.000	ug/L	0.001	1593	12	12	37
C	13		ug/L			94652	88367	1
Cl	37		ug/L			4825045	5037603	2
Sc	45		ug/L			1190279	1284822	1
V	51	-0.023	ug/L	0.011	49	8541	8603	2
V-1	51	-0.004	ug/L	0.001	26	342	271	8
Cr	52	-0.081	ug/L	0.034	41	25207	25407	2
Cr	53	-0.016	ug/L	0.009	53	226	206	11
Mn	55	-0.001	ug/L	0.001	186	500	524	5
Co	59	-0.001	ug/L	0.001	90	96	91	12
Ge	72		ug/L			621499	663821	2
Ni	60	-0.005	ug/L	0.001	27	50	31	17
Ni	62	-0.111	ug/L	0.070	62	585	554	5
Cu	63	-0.000	ug/L	0.003	3600	413	440	3
Cu	65	0.003	ug/L	0.001	26	47	62	5
Zn	66	-0.060	ug/L	0.008	12	267	137	16
Zn	67	-0.066	ug/L	0.005	7	50	25	6
Zn	68	-0.070	ug/L	0.007	9	337	236	2
As	75	-0.013	ug/L	0.014	105	266	256	10
As-1	75	-0.198	ug/L	0.098	49	10263	10527	0
Se	82	-0.044	ug/L	0.055	126	-7	-18	71
Se	78	-0.723	ug/L	0.365	50	10445	10723	0
Mo	98	0.008	ug/L	0.001	12	23	67	5
Y	89		ug/L			388424	405818	2
Kr	83		ug/L			635	674	2
In	115		ug/L			1194649	1226156	0
Ag	107	-0.001	ug/L	0.000	14	59	49	3
Cd	111	0.002	ug/L	0.003	138	117	132	12
Cd	114	-0.000	ug/L	0.001	334	47	43	39
Sb	121	0.021	ug/L	0.005	26	397	754	11
Sb	123	0.021	ug/L	0.003	16	307	584	7
Ba	135	-0.004	ug/L	0.000	7	35	13	13
Ba	137	-0.001	ug/L	0.001	47	38	25	26
Tb	159		ug/L			1537907	1556158	1
Tl	205	0.003	ug/L	0.001	28	203	338	11
Pb	208	-0.000	ug/L	0 000	18	229	210	1
Bi	209		ug/L			3467919	3553530	1
Th	232	0.135	ug/L	0.036	26	2936	10749	19
U	238	0.001	ug/L	0.000	32	59	106	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~LOW CHECK~~ 222222
Sample Dil Factor:
Comments: 1-28-13
Sample Date/Time: Monday, January 28, 2013 11:44:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1459237	4
	Be	9	0.204	ug/L	0.005	2	12	827	3
	C	13		ug/L			94652	82972	1
	Cl	37		ug/L			4825045	5109157	0
>	Sc	45		ug/L			1190279	1219823	1
	V	51	0.198	ug/L	0.014	7	8541	13760	3
	V-1	51	0.202	ug/L	0.004	2	342	5344	1
	Cr	52	0.500	ug/L	0.024	4	25207	36399	1
	Cr	53	0.539	ug/L	0.041	7	226	1421	5
	Mn	55	0.516	ug/L	0.016	3	500	14866	2
	Co	59	0.217	ug/L	0.007	3	96	4399	1
>	Ge	72		ug/L			621499	638013	3
	Ni	60	0.535	ug/L	0.015	2	50	2317	0
	Ni	62	0.290	ug/L	0.037	12	585	775	0
	Cu	63	0.555	ug/L	0.010	1	413	5442	1
	Cu	65	0.565	ug/L	0.033	5	47	2400	2
	Zn	66	5.152	ug/L	0.265	5	267	12534	1
	Zn	67	4.584	ug/L	0.056	1	50	1916	4
	Zn	68	4.886	ug/L	0.253	5	337	8670	2
	As	75	0.224	ug/L	0 023	10	266	741	6
	As-1	75	0.225	ug/L	0 203	89	10263	10998	0
	Se	82	0.572	ug/L	0.030	5	-7	117	2
	Se	78	0.565	ug/L	0.763	134	10445	11036	0
	Mo	98	0.199	ug/L	0.006	2	23	1055	1
	Y	89		ug/L			388424	400290	4
	Kr	83		ug/L			635	654	3
>	In	115		ug/L			1194649	1230730	1
	Ag	107	0.206	ug/L	0.012	5	59	2786	4
	Cd	111	0.104	ug/L	0.007	6	117	764	6
	Cd	114	0.100	ug/L	0.002	1	47	1630	0
	Sb	121	0.185	ug/L	0.005	2	397	3527	1
	Sb	123	0.184	ug/L	0.003	1	307	2674	0
	Ba	135	0.489	ug/L	0.011	2	35	2883	3
	Ba	137	0.486	ug/L	0.010	2	38	5005	0
>	Tb	159		ug/L			1537907	1555229	2
	Tl	205	0.195	ug/L	0.005	2	203	10089	0
	Pb	208	0.112	ug/L	0.004	3	229	7190	0
	Bi	209		ug/L			3467919	3537983	1
	Th	232	0.171	ug/L	0.006	3	2936	12810	0
	U	238	0.190	ug/L	0.004	2	59	11563	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~ICSA~~ ZZZZZZ M 1-28-13
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 11:48:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens RSD
>	Li	6		ug/L			1394055	1635542	3
	Be	9	0.001	ug/L	0.000	37	12	18	11
	C	13		ug/L			94652	182244	1
	Cl	37		ug/L			4825045	15820009	5
>	Sc	45		ug/L			1190279	1324961	3
	V	51	0.097	ug/L	0.031	32	8541	12161	6
	V-1	51	1.015	ug/L	0.007	0	342	27570	3
	Cr	52	0.517	ug/L	0.041	7	25207	39921	0
	Cr	53	3.833	ug/L	0.129	3	226	9438	4
	Mn	55	0.101	ug/L	0.006	6	500	3609	1
	Co	59	0.026	ug/L	0.001	3	96	676	5
>	Ge	72		ug/L			621499	638393	1
	Ni	60	0.410	ug/L	0.024	5	50	1792	5
	Ni	62	8.042	ug/L	1.140	14	585	5469	13
	Cu	63	1.399	ug/L	0.109	7	413	13091	8
	Cu	65	0.510	ug/L	0.011	2	47	2174	2
	Zn	66	1.191	ug/L	0 063	5	267	3115	6
	Zn	67	6.044	ug/L	0.428	7	50	2512	8
	Zn	68	0.484	ug/L	0.027	5	337	1172	2
	As	75	0.069	ug/L	0.033	47	266	417	14
	As-1	75	0.246	ug/L	0.105	42	10263	11056	1
	Se	82	-0.323	ug/L	0.013	4	-7	-78	2
	Se	78	0.785	ug/L	0.308	39	10445	11176	1
	Mo	98	451.145	ug/L	5.270	1	23	2336735	1
	Y	89		ug/L			388424	399053	2
	Kr	83		ug/L			635	977	1
>	In	115		ug/L			1194649	1202582	2
	Ag	107	0.016	ug/L	0.001	4	59	268	5
	Cd	111	0.158	ug/L	0.019	12	117	1072	8
	Cd	114	0.308	ug/L	0.006	1	47	4795	0
	Sb	121	0.047	ug/L	0.002	4	397	1175	3
	Sb	123	0.045	ug/L	0.002	3	307	869	0
	Ba	135	0.045	ug/L	0.002	5	35	293	6
	Ba	137	0.041	ug/L	0.002	5	38	449	4
>	Tb	159		ug/L			1537907	1583110	3
	Tl	205	0.034	ug/L	0.003	7	203	1956	7
	Pb	208	0.036	ug/L	0.001	3	229	2549	3
	Bi	209		ug/L			3467919	3191541	1
	Th	232	0.083	ug/L	0.045	54	2936	7845	30
	U	238	-0.000	ug/L	0.000	245	59	55	22

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~ICSAB~~ ZZZZZZ
Sample Dil Factor: AA 1-28-13
Comments:
Sample Date/Time: Monday, January 28, 2013 11:55:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1652391	1
	Be	9	0.001	ug/L	0.001	143	12	18	31
	C	13		ug/L			94652	185348	3
	Cl	37		ug/L			4825045	15921936	1
>	Sc	45		ug/L			1190279	1308722	1
	V	51	-0.025	ug/L	0.282	1146	8541	8741	88
	V-1	51	1.118	ug/L	0.021	1	342	29963	3
	Cr	52	19.371	ug/L	0.728	3	25207	466988	2
	Cr	53	25.058	ug/L	0.735	2	226	59556	1
	Mn	55	19.427	ug/L	0 330	1	500	580068	0
	Co	59	20.070	ug/L	0 331	1	96	427408	2
>	Ge	72		ug/L			621499	643012	2
	Ni	60	21.278	ug/L	0.317	1	50	90955	1
	Ni	62	28.417	ug/L	0.687	2	585	17904	1
	Cu	63	21.776	ug/L	0.376	1	413	198915	0
	Cu	65	20.873	ug/L	0 428	2	47	87754	2
	Zn	66	20.879	ug/L	0.237	1	267	50399	1
	Zn	67	22.818	ug/L	0.311	1	50	9403	1
	Zn	68	18.949	ug/L	0.201	1	337	32910	1
	As	75	20.198	ug/L	0.384	1	266	42756	1
	As-1	75	20.302	ug/L	0.502	2	10263	53449	1
	Se	82	-0.328	ug/L	0.082	25	-7	-79	20
	Se	78	0.838	ug/L	0.491	58	10445	11284	0
	Mo	98	469.153	ug/L	8.345	1	23	2447424	2
	Y	89		ug/L			388424	407699	1
	Kr	83		ug/L			635	1050	2
>	In	115		ug/L			1194649	1225122	1
	Ag	107	20.844	ug/L	0.741	3	59	275438	4
	Cd	111	19.492	ug/L	0.467	2	117	120306	2
	Cd	114	19.444	ug/L	0.234	1	47	305042	0
	Sb	121	0.050	ug/L	0.003	5	397	1245	4
	Sb	123	0.047	ug/L	0.005	10	307	908	8
	Ba	135	0.046	ug/L	0.002	3	35	304	2
	Ba	137	0.039	ug/L	0.000	1	38	440	2
>	Tb	159		ug/L			1537907	1621475	0
	Tl	205	0.028	ug/L	0.001	4	203	1705	2
	Pb	208	0.032	ug/L	0.000	1	229	2317	1
	Bi	209		ug/L			3467919	3200566	1
	Th	232	0.005	ug/L	0.004	84	2936	3393	7
	U	238	-0.000	ug/L	0.000	38	59	37	24

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:02:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1394055	1521433	2
[	Be	9	199.090	ug/L	8.451	4	12	829280	2
	C	13		ug/L			94652	92512	1
	Cl	37		ug/L			4825045	5255949	4
[>	Sc	45		ug/L			1190279	1233869	3
	V	51	212.262	ug/L	9.727	4	8541	5421671	1
	V-1	51	212.503	ug/L	10.484	4	342	5296358	1
	Cr	52	204.155	ug/L	4.475	2	25207	4391206	3
	Cr	53	204.348	ug/L	5.071	2	226	456131	1
	Mn	55	205.193	ug/L	4.614	2	500	5769674	1
[	Co	59	214.249	ug/L	4.072	1	96	4298633	1
[>	Ge	72		ug/L			621499	595324	1
	Ni	60	208.443	ug/L	6.133	2	50	824619	2
	Ni	62	213.959	ug/L	1.600	0	585	121182	1
	Cu	63	208.198	ug/L	6.441	3	413	1757318	1
	Cu	65	208.153	ug/L	3.911	1	47	809790	0
	Zn	66	205.623	ug/L	6.157	2	267	457263	2
	Zn	67	200.204	ug/L	2.618	1	50	76020	1
	Zn	68	201.425	ug/L	5.672	2	337	320734	1
	As	75	211.189	ug/L	5.661	2	266	411501	1
	As-1	75	208.934	ug/L	5.637	2	10263	417993	1
	Se	82	217.234	ug/L	4.084	1	-7	44242	0
	Se	78	205.484	ug/L	3.423	1	10445	119578	1
[	Mo	98	226.147	ug/L	3.282	1	23	1092451	2
	Y	89		ug/L			388424	386625	0
	Kr	83		ug/L			635	942	2
[>	In	115		ug/L			1194649	1165583	1
	Ag	107	234.624	ug/L	5.299	2	59	2947774	0
	Cd	111	197.229	ug/L	3.258	1	117	1156966	0
	Cd	114	214.458	ug/L	3.592	1	47	3200311	0
	Sb	121	218.173	ug/L	3.813	1	397	3492005	0
	Sb	123	219.045	ug/L	5.637	2	307	2658605	1
	Ba	135	200.927	ug/L	4.227	2	35	1108213	0
[	Ba	137	201.217	ug/L	5.142	2	38	1948050	1
[>	Tb	159		ug/L			1537907	1556240	0
	Tl	205	195.198	ug/L	2.871	1	203	9901111	0
	Pb	208	204.673	ug/L	2.951	1	229	12784163	0
	Bi	209		ug/L			3467919	3068445	1
	Th	232	199.652	ug/L	4.429	2	2936	11532137	1
[	U	238	196.461	ug/L	0.765	0	59	11920830	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:09:08
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1394055	1825548	0
	Be	9	0.005	ug/L	0.002	37	12	39	22
	C	13		ug/L			94652	95787	1
	Cl	37		ug/L			4825045	5657422	2
>	Sc	45		ug/L			1190279	1472191	2
	V	51	-0.004	ug/L	0.006	142	8541	10443	3
	V-1	51	0.017	ug/L	0.005	31	342	919	15
	Cr	52	0.008	ug/L	0.027	327	25207	31386	3
	Cr	53	0.083	ug/L	0.036	42	226	500	17
	Mn	55	0.083	ug/L	0.038	45	500	3378	35
	Co	59	0.029	ug/L	0.046	158	96	805	134
>	Ge	72		ug/L			621499	721162	1
	Ni	60	0.096	ug/L	0.039	40	50	515	34
	Ni	62	0.985	ug/L	0.259	26	585	1350	11
	Cu	63	0.167	ug/L	0.038	22	413	2185	16
	Cu	65	0.117	ug/L	0.034	29	47	605	25
	Zn	66	1.448	ug/L	0.052	3	267	4208	1
	Zn	67	1.281	ug/L	0.101	7	50	646	6
	Zn	68	1.408	ug/L	0.116	8	337	3102	5
	As	75	-0.001	ug/L	0 024	1703	266	306	18
	As-1	75	-0.174	ug/L	0.107	61	10263	11493	0
	Se	82	0.026	ug/L	0.063	245	-7	-2	710
	Se	78	-0.565	ug/L	0.339	60	10445	11753	0
	Mo	98	0.041	ug/L	0.004	10	23	264	8
	Y	89		ug/L			388424	460054	2
	Kr	83		ug/L			635	770	1
>	In	115		ug/L			1194649	1390203	1
	Ag	107	0.005	ug/L	0.005	93	59	141	46
	Cd	111	0.008	ug/L	0.002	19	117	192	4
	Cd	114	0.004	ug/L	0.002	42	47	131	23
	Sb	121	0.054	ug/L	0.009	16	397	1485	12
	Sb	123	0.054	ug/L	0.008	15	307	1132	11
	Ba	135	0.018	ug/L	0.004	22	35	161	16
	Ba	137	0.018	ug/L	0.002	10	38	252	7
>	Tb	159		ug/L			1537907	1717238	1
	Tl	205	0.013	ug/L	0.003	24	203	979	18
	Pb	208	0.043	ug/L	0.002	4	229	3219	3
	Bi	209		ug/L			3467919	3836963	1
	Th	232	0.191	ug/L	0.055	28	2936	15427	22
	U	238	0.003	ug/L	0.001	34	59	291	25

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:14:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1798235	2
	Be	9	0.003	ug/L	0.001	50	12	28	22
	C	13		ug/L			94652	96300	1
	Cl	37		ug/L			4825045	5531619	5
>	Sc	45		ug/L			1190279	1436442 , 20.7%	3
	V	51	0.005	ug/L	0.003	72	8541	10445	3
	V-1	51	0.010	ug/L	0.001	12	342	701	2
	Cr	52	0.014	ug/L	0.000	1	25207	30775	3
	Cr	53	0.034	ug/L	0.011	30	226	361	6
	Mn	55	0.213	ug/L	0.006	3	500	7566	2
	Co	59	0.001	ug/L	0.001	110	96	131	10
>	Ge	72		ug/L			621499	712521	2
	Ni	60	0.034	ug/L	0.006	16	50	216	9
	Ni	62	0.415	ug/L	0.048	11	585	950	3
	Cu	63	0.075	ug/L	0.007	9	413	1226	4
	Cu	65	0.052	ug/L	0.004	7	47	298	8
	Zn	66	1.218	ug/L	0.018	1	267	3546	1
	Zn	67	1.066	ug/L	0.053	4	50	541	6
	Zn	68	1.154	ug/L	0.023	1	337	2584	1
	As	75	-0.007	ug/L	0.013	194	266	290	7
	As-1	75	-0.153	ug/L	0.107	69	10263	11403	0
	Se	82	0.041	ug/L	0.030	72	-7	1	522
	Se	78	-0.471	ug/L	0.399	84	10445	11670	0
	Mo	98	0.016	ug/L	0 005	29	23	121	25
	Y	89		ug/L			388424	450874	2
	Kr	83		ug/L			635	748	0
>	In	115		ug/L			1194649	1353490	0
	Ag	107	0.003	ug/L	0 005	169	59	106	61
	Cd	111	0.006	ug/L	0.003	42	117	174	9
	Cd	114	0.004	ug/L	0.003	84	47	117	45
	Sb	121	0.004	ug/L	0.003	94	397	516	11
	Sb	123	0.002	ug/L	0.004	207	307	375	15
	Ba	135	0.020	ug/L	0.004	21	35	170	16
	Ba	137	0.021	ug/L	0.001	6	38	284	5
>	Tb	159		ug/L			1537907	1677252	0
	Tl	205	0.006	ug/L	0.002	33	203	563	20
	Pb	208	0.020	ug/L	0.001	6	229	1623	5
	Bi	209		ug/L			3467919	3748528	0
	Th	232	0.019	ug/L	0.014	75	2936	4365	20
	U	238	0.001	ug/L	0.001	139	59	107	55

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:19:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1394055	1807339	2
	Be	9	49.160	ug/L	2.299	4	12	243196	1
	C	13		ug/L			94652	89312	0
	Cl	37		ug/L			4825045	5839418	2
>	Sc	45		ug/L			1190279	1468013	2
	V	51	45.134	ug/L	2.169	4	8541	1380346	2
	V-1	51	46.545	ug/L	2.299	4	342	1381100	3
	Cr	52	45.545	ug/L	0.842	1	25207	1189605	0
	Cr	53	50.623	ug/L	1 262	2	226	134666	0
	Mn	55	48.463	ug/L	2.098	4	500	1621553	2
	Co	59	49.662	ug/L	0.643	1	96	1185860	1
>	Ge	72		ug/L			621499	714659	1
	Ni	60	52.517	ug/L	1.599	3	50	249437	2
	Ni	62	52.770	ug/L	1.128	2	585	36389	2
	Cu	63	53.426	ug/L	1.643	3	413	541781	2
	Cu	65	52.545	ug/L	1.098	2	47	245513	3
	Zn	66	53.833	ug/L	1.970	3	267	143928	2
	Zn	67	53.046	ug/L	0.418	0	50	24223	0
	Zn	68	54.683	ug/L	1.340	2	337	104821	1
	As	75	52.624	ug/L	0.350	0	266	123347	0
	As-1	75	51.559	ug/L	0.680	1	10263	132729	0
	Se	82	57.506	ug/L	0.574	0	-7	14055	0
	Se	78	52.642	ug/L	1.559	2	10445	45703	1
	Mo	98	52.294	ug/L	0.939	1	23	303240	0
	Y	89		ug/L			388424	456523	3
	Kr	83		ug/L			635	832	2
>	In	115		ug/L			1194649	1353591	0
	Ag	107	53.779	ug/L	1.513	2	59	784834	2
	Cd	111	50.247	ug/L	0.447	0	117	342444	0
	Cd	114	48.686	ug/L	0.356	0	47	843899	0
	Sb	121	48.444	ug/L	0.311	0	397	900954	0
	Sb	123	47.967	ug/L	0.491	1	307	676525	0
	Ba	135	47.282	ug/L	0.718	1	35	302928	1
	Ba	137	47.685	ug/L	0.671	1	38	536273	1
>	Tb	159		ug/L			1537907	1716018	0
	Tl	205	50.840	ug/L	0.406	0	203	2843793	0
	Pb	208	47.936	ug/L	0 311	0	229	3301833	0
	Bi	209		ug/L			3467919	3669833	0
	Th	232	48.497	ug/L	0.320	0	2936	3091616	0
	U	238	51.004	ug/L	0.613	1	59	3412543	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:26:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1871410	2
	Be	9	0.004	ug/L	0.004	89	12	38	50
	C	13		ug/L			94652	93791	2
	Cl	37		ug/L			4825045	5767139	2
>	Sc	45		ug/L			1190279	1465952	0
	V	51	-0.009	ug/L	0.017	185	8541	10244	4
	V-1	51	0.003	ug/L	0.003	90	342	521	17
	Cr	52	-0.034	ug/L	0.046	135	25207	30176	2
	Cr	53	0.008	ug/L	0.008	100	226	300	8
	Mn	55	0.002	ug/L	0 003	190	500	667	15
	Co	59	-0.000	ug/L	0.002	457	96	109	37
>	Ge	72		ug/L			621499	723831	1
	Ni	60	-0.002	ug/L	0 003	156	50	49	26
	Ni	62	0.051	ug/L	0.070	137	585	716	5
	Cu	63	0.012	ug/L	0.006	52	413	601	8
	Cu	65	0.003	ug/L	0.007	231	47	68	44
	Zn	66	-0.054	ug/L	0.007	12	267	164	9
	Zn	67	-0.060	ug/L	0.003	5	50	30	6
	Zn	68	-0.060	ug/L	0.003	5	337	276	0
	As	75	-0.011	ug/L	0.013	112	266	283	9
	As-1	75	-0.193	ug/L	0.100	51	10263	11493	1
	Se	82	0.010	ug/L	0.043	437	-7	-6	173
	Se	78	-0.622	ug/L	0.321	51	10445	11760	0
	Mo	98	0.010	ug/L	0.001	9	23	86	5
	Y	89		ug/L			388424	460956	2
	Kr	83		ug/L			635	764	3
>	In	115		ug/L			1194649	1364985	1
	Ag	107	0.000	ug/L	0.001	1048	59	69	17
	Cd	111	0.004	ug/L	0.002	60	117	162	9
	Cd	114	0.000	ug/L	0.000	72	47	60	6
	Sb	121	0.022	ug/L	0.006	25	397	868	12
	Sb	123	0.019	ug/L	0.006	32	307	616	13
	Ba	135	-0.002	ug/L	0.003	163	35	27	78
	Ba	137	0.002	ug/L	0.005	250	38	68	87
>	Tb	159		ug/L			1537907	1719231	0
	Tl	205	0.008	ug/L	0.008	104	203	669	67
	Pb	208	0.004	ug/L	0.007	202	229	500	98
	Bi	209		ug/L			3467919	3850507	0
	Th	232	0.128	ug/L	0.046	35	2936	11450	25
	U	238	0.003	ug/L	0.004	140	59	277	106

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:32:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				1844055	1
	Be	9		ug/L				19	25
	C	13		ug/L				90443	1
	Cl	37		ug/L				5576019	1
>	Sc	45		ug/L				1504442	1
	V	51		ug/L				10680	4
	V-1	51		ug/L				452	2
	Cr	52		ug/L				31520	4
	Cr	53		ug/L				291	4
	Mn	55		ug/L				589	1
	Co	59		ug/L				100	8
>	Ge	72		ug/L				718320	2
	Ni	60		ug/L				39	18
	Ni	62		ug/L				575	3
	Cu	63		ug/L				481	2
	Cu	65		ug/L				64	12
	Zn	66		ug/L				170	2
	Zn	67		ug/L				30	21
	Zn	68		ug/L				274	2
	As	75		ug/L				259	5
	As-1	75		ug/L				11343	1
	Se	82		ug/L				-3	416
	Se	78		ug/L				11640	1
	Mo	98		ug/L				40	13
	Y	89		ug/L				458015	1
	Kr	83		ug/L				763	3
>	In	115		ug/L				1367345	0
	Ag	107		ug/L				37	8
	Cd	111		ug/L				156	8
	Cd	114		ug/L				56	13
	Sb	121		ug/L				319	16
	Sb	123		ug/L				235	20
	Ba	135		ug/L				17	11
	Ba	137		ug/L				35	23
>	Tb	159		ug/L				1730482	0
	Tl	205		ug/L				268	12
	Pb	208		ug/L				239	8
	Bi	209		ug/L				3854596	0
	Th	232		ug/L				3454	19
	U	238		ug/L				29	23

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:36:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1844055	1783863	1
	Be	9	50.306	ug/L	0 993	1	19	245803	1
	C	13		ug/L			90443	86370	2
	Cl	37		ug/L			5576019	5564386	3
>	Sc	45		ug/L			1504442	1463089	2
	V	51	44.517	ug/L	1.586	3	10680	1357198	1
	V-1	51	45.557	ug/L	1.044	2	452	1347755	0
	Cr	52	46.444	ug/L	2.380	5	31520	1207517	2
	Cr	53	50.322	ug/L	1 834	3	291	133429	2
	Mn	55	48.318	ug/L	2 129	4	589	1611524	3
	Co	59	50.068	ug/L	2.483	4	100	1190944	3
>	Ge	72		ug/L			718320	694137	1
	Ni	60	53.412	ug/L	1.261	2	39	246375	1
	Ni	62	53.031	ug/L	2.382	4	575	35412	4
	Cu	63	54.055	ug/L	2.268	4	481	532285	2
	Cu	65	53.409	ug/L	0.808	1	64	242348	1
	Zn	66	55.061	ug/L	0.323	0	170	142869	0
	Zn	67	53.886	ug/L	0.826	1	30	23871	0
	Zn	68	55.040	ug/L	1.559	2	274	102356	1
	As	75	53.801	ug/L	1.522	2	259	122405	1
	As-1	75	53.380	ug/L	1.577	2	11343	132541	1
	Se	82	57.655	ug/L	0.898	1	-3	13690	0
	Se	78	55.126	ug/L	1.176	2	11640	45518	0
	Mo	98	53.564	ug/L	2.502	4	40	301640	3
	Y	89		ug/L			458015	447925	3
	Kr	83		ug/L			763	817	1
>	In	115		ug/L			1367345	1314727	1
	Ag	107	55.975	ug/L	2.994	5	37	793223	4
	Cd	111	50.796	ug/L	1.387	2	156	336194	1
	Cd	114	49.648	ug/L	0.301	0	56	835839	1
	Sb	121	49.304	ug/L	1.362	2	319	890280	1
	Sb	123	49.854	ug/L	1 167	2	235	682704	1
	Ba	135	48.987	ug/L	1.080	2	17	304774	0
	Ba	137	48.643	ug/L	0.613	1	35	531292	0
>	Tb	159		ug/L			1730482	1679206	1
	Tl	205	51.281	ug/L	0.840	1	268	2806660	0
	Pb	208	48.732	ug/L	0.948	1	239	3284098	0
	Bi	209		ug/L			3854596	3622824	1
	Th	232	49.941	ug/L	1.429	2	3454	3114499	1
	U	238	51.719	ug/L	1.127	2	29	3385497	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:43:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1802076	2
	Be	9	0.003	ug/L	0.003	102	19	32	40
	C	13		ug/L			90443	90879	1
	Cl	37		ug/L			5576019	5632691	1
>	Sc	45		ug/L			1504442	1417632	2
	V	51	0.003	ug/L	0.016	510	10680	10151	3
	V-1	51	0.000	ug/L	0.003	609	452	438	16
	Cr	52	-0.002	ug/L	0.045	2104	31520	29632	1
	Cr	53	-0.012	ug/L	0.006	52	291	242	6
	Mn	55	0.002	ug/L	0.002	146	589	610	12
	Co	59	0.001	ug/L	0.002	148	100	121	32
>	Ge	72		ug/L			718320	703168	1
	Ni	60	0.001	ug/L	0.001	86	39	42	6
	Ni	62	0.053	ug/L	0.026	48	575	599	3
	Cu	63	-0.002	ug/L	0.002	106	481	450	6
	Cu	65	0.001	ug/L	0.001	112	64	66	7
	Zn	66	-0.010	ug/L	0.001	12	170	141	3
	Zn	67	-0.008	ug/L	0.014	169	30	26	24
	Zn	68	-0.002	ug/L	0.007	331	274	264	4
	As	75	0.009	ug/L	0.002	22	259	273	1
	As-1	75	0.055	ug/L	0.065	118	11343	11229	0
	Se	82	-0.037	ug/L	0.050	132	-3	-12	97
	Se	78	0.179	ug/L	0.237	131	11640	11507	0
	Mo	98	0.006	ug/L	0.002	37	40	72	15
	Y	89		ug/L			458015	451691	2
	Kr	83		ug/L			763	785	5
>	In	115		ug/L			1367345	1342436	0
	Ag	107	0.005	ug/L	0.006	115	37	110	76
	Cd	111	0.004	ug/L	0.009	205	156	181	31
	Cd	114	0.006	ug/L	0.009	152	56	160	99
	Sb	121	0.029	ug/L	0.004	14	319	839	8
	Sb	123	0.031	ug/L	0.005	15	235	662	9
	Ba	135	0.002	ug/L	0.004	194	17	31	89
	Ba	137	0.002	ug/L	0.006	360	35	54	129
>	Tb	159		ug/L			1730482	1691533	0
	Tl	205	0.005	ug/L	0.003	69	268	528	35
	Pb	208	0.002	ug/L	0.004	243	239	339	75
	Bi	209		ug/L			3854596	3771065	1
	Th	232	0.116	ug/L	0.026	22	3454	10666	14
	U	238	0.003	ug/L	0.003	99	29	232	87

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:47:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1835185	2
	Be	9	0.201	ug/L	0.010	5	19	1029	3
	C	13		ug/L			90443	87113	2
	Cl	37		ug/L			5576019	5751241	2
>	Sc	45		ug/L			1504442	1464185	0
	V	51	0.183	ug/L	0.004	2	10680	15947	0
	V-1	51	0.193	ug/L	0.007	3	452	6152	2
	Cr	52	0.448	ug/L	0.012	2	31520	42042	1
	Cr	53	0.504	ug/L	0.011	2	291	1618	0
	Mn	55	0.490	ug/L	0.014	2	589	16935	1
	Co	59	0.205	ug/L	0.004	2	100	4984	1
>	Ge	72		ug/L			718320	726790	3
	Ni	60	0.544	ug/L	0.015	2	39	2663	0
	Ni	62	0.434	ug/L	0.043	9	575	881	4
	Cu	63	0.551	ug/L	0.020	3	481	6162	0
	Cu	65	0.551	ug/L	0.015	2	64	2683	2
	Zn	66	4.726	ug/L	0.268	5	170	12985	3
	Zn	67	4.035	ug/L	0.228	5	30	1898	2
	Zn	68	4.497	ug/L	0.224	4	274	9003	1
	As	75	0.230	ug/L	0.031	13	259	808	7
	As-1	75	0.139	ug/L	0.116	83	11343	11801	0
	Se	82	0.582	ug/L	0.059	10	-3	140	7
	Se	78	0.230	ug/L	0.412	179	11640	11922	1
	Mo	98	0.203	ug/L	0.012	5	40	1234	3
	Y	89		ug/L			458015	455572	5
	Kr	83		ug/L			763	769	2
>	In	115		ug/L			1367345	1364426	2
	Ag	107	0.227	ug/L	0.007	3	37	3372	2
	Cd	111	0.105	ug/L	0.003	3	156	880	4
	Cd	114	0.102	ug/L	0.004	3	56	1836	3
	Sb	121	0.187	ug/L	0.005	2	319	3821	1
	Sb	123	0.187	ug/L	0.002	0	235	2892	2
	Ba	135	0.474	ug/L	0.011	2	17	3075	1
	Ba	137	0.477	ug/L	0.017	3	35	5438	0
>	Tb	159		ug/L			1730482	1685165	1
	Tl	205	0.192	ug/L	0.003	1	268	10804	1
	Pb	208	0.108	ug/L	0.001	0	239	7555	1
	Bi	209		ug/L			3854596	3813830	1
	Th	232	0.163	ug/L	0.007	4	3454	13559	3
	U	238	0.192	ug/L	0.003	1	29	12620	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:51:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1844055	1877426	1
	Be	9	0.001	ug/L	0.001	175	19	22	22
	C	13		ug/L			90443	193923	4
	Cl	37		ug/L			5576019	17504359	4
>	Sc	45		ug/L			1504442	1450254	0
	V	51	0.128	ug/L	0.042	32	10680	14120	8
	V-1	51	1.044	ug/L	0.049	4	452	31056	4
	Cr	52	0.564	ug/L	0.027	4	31520	44567	0
	Cr	53	3.877	ug/L	0.070	1	291	10452	1
	Mn	55	0.100	ug/L	0.003	2	589	3866	1
	Co	59	0.028	ug/L	0.002	7	100	749	6
>	Ge	72		ug/L			718320	687932	2
	Ni	60	0.458	ug/L	0.025	5	39	2128	2
	Ni	62	7.032	ug/L	1.053	14	575	5142	15
	Cu	63	1.369	ug/L	0.050	3	481	13821	5
	Cu	65	0.500	ug/L	0.008	1	64	2309	4
	Zn	66	1.266	ug/L	0.061	4	170	3417	7
	Zn	67	6.184	ug/L	0.123	1	30	2740	1
	Zn	68	0.654	ug/L	0.225	34	274	1472	31
	As	75	0.153	ug/L	0.060	39	259	594	26
	As-1	75	0.470	ug/L	0.072	15	11343	11920	1
	Se	82	-0.395	ug/L	0.128	32	-3	-95	29
	Se	78	1.340	ug/L	0.428	31	11640	11969	0
	Mo	98	470.970	ug/L	17.526	3	40	2628456	3
	Y	89		ug/L			458015	437775	1
	Kr	83		ug/L			763	1170	4
>	In	115		ug/L			1367345	1284339	1
	Ag	107	0.022	ug/L	0.006	26	37	346	24
	Cd	111	0.136	ug/L	0.011	8	156	1028	6
	Cd	114	0.307	ug/L	0.001	0	56	5093	0
	Sb	121	0.055	ug/L	0.006	10	319	1276	9
	Sb	123	0.055	ug/L	0.007	12	235	962	10
	Ba	135	0.054	ug/L	0.003	6	17	346	7
	Ba	137	0.042	ug/L	0.002	4	35	480	4
>	Tb	159		ug/L			1730482	1682902	0
	Tl	205	0.035	ug/L	0.004	10	268	2155	9
	Pb	208	0.037	ug/L	0.002	6	239	2728	5
	Bi	209		ug/L			3854596	3333956	1
	Th	232	0.064	ug/L	0.035	54	3454	7354	28
	U	238	0.001	ug/L	0.001	123	29	96	87

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:58:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1989013	5
	Be	9	0.001	ug/L	0.002	164	19	25	29
	C	13		ug/L			90443	198816	4
	Cl	37		ug/L			5576019	18384400	2
>	Sc	45		ug/L			1504442	1477887	1
	V	51	0.012	ug/L	0.099	835	10680	10842	27
	V-1	51	1.077	ug/L	0.012	1	452	32624	1
	Cr	52	18.689	ug/L	0.436	2	31520	509529	0
	Cr	53	24.040	ug/L	0.411	1	291	64542	0
	Mn	55	19.651	ug/L	0.403	2	589	662590	1
	Co	59	19.563	ug/L	0.434	2	100	470300	1
>	Ge	72		ug/L			718320	698289	2
	Ni	60	21.394	ug/L	0.509	2	39	99283	0
	Ni	62	28.307	ug/L	1.009	3	575	19268	1
	Cu	63	22.270	ug/L	0.501	2	481	220887	0
	Cu	65	20.964	ug/L	0.442	2	64	95719	2
	Zn	66	21.021	ug/L	0.256	1	170	54973	2
	Zn	67	23.363	ug/L	0.551	2	30	10426	0
	Zn	68	19.442	ug/L	0 787	4	274	36529	1
	As	75	20.417	ug/L	0 596	2	259	46876	0
	As-1	75	20.659	ug/L	0.693	3	11343	58350	0
	Se	82	-0.313	ug/L	0.051	16	-3	-78	17
	Se	78	1.351	ug/L	0.440	32	11640	12157	1
	Mo	98	492.379	ug/L	15.743	3	40	2788625	1
	Y	89		ug/L			458015	456502	1
	Kr	83		ug/L			763	1166	3
>	In	115		ug/L			1367345	1304903	1
	Ag	107	22.521	ug/L	0.047	0	37	316860	1
	Cd	111	19.440	ug/L	0.298	1	156	127799	0
	Cd	114	19.455	ug/L	0.475	2	56	325058	1
	Sb	121	0.054	ug/L	0.003	4	319	1267	4
	Sb	123	0.055	ug/L	0.005	8	235	967	8
	Ba	135	0.050	ug/L	0.002	4	17	322	2
	Ba	137	0.041	ug/L	0.003	6	35	481	4
>	Tb	159		ug/L			1730482	1714248	1
	Tl	205	0.028	ug/L	0.001	2	268	1844	3
	Pb	208	0.030	ug/L	0.000	1	239	2324	1
	Bi	209		ug/L			3854596	3359642	1
	Th	232	-0.002	ug/L	0.003	154	3454	3279	7
	U	238	0.000	ug/L	0.000	104	29	40	30

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 13:05:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1840661	1
	Be	9	0.001	ug/L	0.001	163	19	23	30
	C	13		ug/L			90443	91860	4
	Cl	37		ug/L			5576019	5812337	4
>	Sc	45		ug/L			1504442	1484262	2
	V	51	-0.009	ug/L	0.008	93	10680	10262	1
	V-1	51	0.039	ug/L	0.006	16	452	1608	10
	Cr	52	-0.018	ug/L	0.038	203	31520	30611	2
	Cr	53	0.151	ug/L	0.030	19	291	691	9
	Mn	55	0.060	ug/L	0 003	4	589	2614	0
	Co	59	0.001	ug/L	0.001	61	100	128	12
>	Ge	72		ug/L			718320	725373	2
	Ni	60	0.076	ug/L	0.005	6	39	408	3
	Ni	62	0.613	ug/L	0.128	20	575	1001	6
	Cu	63	0.119	ug/L	0.009	7	481	1710	3
	Cu	65	0.092	ug/L	0.008	8	64	501	5
	Zn	66	1.459	ug/L	0.050	3	170	4124	4
	Zn	67	1.305	ug/L	0.031	2	30	634	2
	Zn	68	1.410	ug/L	0.073	5	274	3010	3
	As	75	0.030	ug/L	0.018	58	259	332	10
	As-1	75	-0.013	ug/L	0.159	1269	11343	11419	1
	Se	82	0.007	ug/L	0.018	250	-3	-1	285
	Se	78	-0.085	ug/L	0.571	672	11640	11695	1
	Mo	98	0.049	ug/L	0.001	2	40	330	1
	Y	89		ug/L			458015	470633	0
	Kr	83		ug/L			763	822	3
>	In	115		ug/L			1367345	1371522	0
	Ag	107	0.002	ug/L	0.000	23	37	60	9
	Cd	111	0.000	ug/L	0.002	6305	156	157	8
	Cd	114	0.001	ug/L	0.000	24	56	76	7
	Sb	121	-0.008	ug/L	0.002	24	319	163	23
	Sb	123	-0.007	ug/L	0.001	13	235	133	11
	Ba	135	0.020	ug/L	0.001	4	17	149	3
	Ba	137	0.020	ug/L	0.002	12	35	261	10
>	Tb	159		ug/L			1730482	1700846	1
	Tl	205	-0.002	ug/L	0.000	17	268	164	11
	Pb	208	0.044	ug/L	0.001	2	239	3247	1
	Bi	209		ug/L			3854596	3843925	1
	Th	232	-0.046	ug/L	0.002	5	3454	499	31
	U	238	-0.000	ug/L	0.000	105	29	24	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 13:10:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1844055	1885338	1
	Be	9	51.065	ug/L	1.785	3	19	263662	1
	C	13		ug/L			90443	89651	2
	Cl	37		ug/L			5576019	5765326	1
>	Sc	45		ug/L			1504442	1471887	4
	V	51	46.872	ug/L	1.131	2	10680	1436728	1
	V-1	51	48.118	ug/L	1.346	2	452	1431361	1
	Cr	52	46.855	ug/L	1.672	3	31520	1225222	2
	Cr	53	51.306	ug/L	2.190	4	291	136733	1
	Mn	55	48.488	ug/L	1.634	3	589	1626128	1
	Co	59	50.921	ug/L	1 485	2	100	1218314	1
>	Ge	72		ug/L			718320	706201	0
	Ni	60	53.948	ug/L	1.573	2	39	253190	2
	Ni	62	53.786	ug/L	1.227	2	575	36532	1
	Cu	63	54.350	ug/L	1.634	3	481	544601	2
	Cu	65	54.021	ug/L	1.293	2	64	249413	2
	Zn	66	54.932	ug/L	0.432	0	170	145025	1
	Zn	67	54.811	ug/L	0.752	1	30	24707	2
	Zn	68	55.522	ug/L	0.875	1	274	105064	1
	As	75	54.974	ug/L	0 748	1	259	127263	0
	As-1	75	53.225	ug/L	0.883	1	11343	134507	0
	Se	82	62.233	ug/L	0.969	1	-3	15035	0
	Se	78	54.765	ug/L	1.385	2	11640	46082	0
	Mo	98	55.989	ug/L	1.069	1	40	320834	0
	Y	89		ug/L			458015	468268	0
	Kr	83		ug/L			763	855	3
>	In	115		ug/L			1367345	1345432	0
	Ag	107	59.951	ug/L	0.775	1	37	869585	0
	Cd	111	51.370	ug/L	0.586	1	156	347988	0
	Cd	114	50.697	ug/L	0.370	0	56	873479	1
	Sb	121	49.504	ug/L	0.997	2	319	914859	1
	Sb	123	49.797	ug/L	1.106	2	235	697899	1
	Ba	135	49.522	ug/L	0.849	1	17	315325	0
	Ba	137	48.562	ug/L	0.383	0	35	542824	0
>	Tb	159		ug/L			1730482	1719397	0
	Tl	205	51.263	ug/L	0.595	1	268	2873199	1
	Pb	208	48.798	ug/L	0.379	0	239	3367753	0
	Bi	209		ug/L			3854596	3646617	0
	Th	232	49.693	ug/L	1.127	2	3454	3173783	1
	U	238	51.789	ug/L	0.634	1	29	3471734	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 13:17:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1844055	1915600	3
	Be	9	0.001	ug/L	0.000	20	19	25	0
	C	13		ug/L			90443	91000	1
	Cl	37		ug/L			5576019	5793930	2
>	Sc	45		ug/L			1504442	1477441	1
	V	51	-0.003	ug/L	0.008	245	10680	10384	2
	V-1	51	0.010	ug/L	0.001	6	452	745	1
	Cr	52	-0.021	ug/L	0.025	119	31520	30408	2
	Cr	53	0.025	ug/L	0.007	27	291	353	4
	Mn	55	-0.000	ug/L	0.001	499	589	572	4
	Co	59	0.001	ug/L	0.001	97	100	113	11
>	Ge	72		ug/L			718320	708518	1
	Ni	60	0.001	ug/L	0.001	43	39	45	5
	Ni	62	0.146	ug/L	0.077	53	575	665	6
	Cu	63	0.006	ug/L	0.004	70	481	531	6
	Cu	65	-0.001	ug/L	0.002	423	64	61	18
	Zn	66	-0.010	ug/L	0.006	59	170	142	9
	Zn	67	-0.009	ug/L	0.006	69	30	26	11
	Zn	68	-0.001	ug/L	0.008	1171	274	269	6
	As	75	0.043	ug/L	0.008	18	259	354	4
	As-1	75	0.035	ug/L	0.044	126	11343	11268	1
	Se	82	0.041	ug/L	0.126	305	-3	6	481
	Se	78	0.097	ug/L	0.185	190	11640	11542	0
	Mo	98	0.014	ug/L	0.001	9	40	121	8
	Y	89		ug/L			458015	457971	2
	Kr	83		ug/L			763	822	7
>	In	115		ug/L			1367345	1369256	1
	Ag	107	0.002	ug/L	0.001	42	37	60	14
	Cd	111	0.001	ug/L	0.002	232	156	162	6
	Cd	114	0.000	ug/L	0.001	854	56	58	33
	Sb	121	0.021	ug/L	0.004	18	319	712	10
	Sb	123	0.022	ug/L	0.003	13	235	555	8
	Ba	135	0.000	ug/L	0.001	1225	17	17	47
	Ba	137	-0.001	ug/L	0.000	32	35	27	8
>	Tb	159		ug/L			1730482	1687990	0
	Tl	205	0.001	ug/L	0.000	26	268	334	6
	Pb	208	-0.000	ug/L	0.000	270	239	221	13
	Bi	209		ug/L			3854596	3844906	2
	Th	232	0.116	ug/L	0.042	36	3454	10622	24
	U	238	0.002	ug/L	0.000	16	29	134	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 13:32:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1844055	1929000	2
	Be	9	0.000	ug/L	0.001	1162	19	20	27
	C	13		ug/L			90443	84738	1
	Cl	37		ug/L			5576019	5860088	4
>	Sc	45		ug/L			1504442	1481673	3
	V	51	-0.021	ug/L	0.015	71	10680	9880	3
	V-1	51	0.004	ug/L	0.001	24	452	558	4
	Cr	52	-0.072	ug/L	0.049	68	31520	29176	2
	Cr	53	0.011	ug/L	0.006	56	291	315	2
	Mn	55	0.016	ug/L	0.001	8	589	1122	3
	Co	59	0.001	ug/L	0.001	80	100	114	7
>	Ge	72		ug/L			718320	719406	3
	Ni	60	0.024	ug/L	0.001	3	39	153	3
	Ni	62	-0.146	ug/L	0.054	36	575	476	6
	Cu	63	-0.006	ug/L	0.004	67	481	423	7
	Cu	65	0.005	ug/L	0.001	26	64	88	7
	Zn	66	0.327	ug/L	0.018	5	170	1047	1
	Zn	67	0.275	ug/L	0.030	10	30	156	5
	Zn	68	0.304	ug/L	0.023	7	274	859	2
	As	75	0.019	ug/L	0.017	90	259	303	10
	As-1	75	0.017	ug/L	0.172	1005	11343	11391	0
	Se	82	-0.029	ug/L	0.050	169	-3	-10	114
	Se	78	0.032	ug/L	0 612	1912	11640	11670	0
	Mo	98	-0.000	ug/L	0 002	1838	40	39	21
	Y	89		ug/L			458015	461747	0
	Kr	83		ug/L			763	818	3
>	In	115		ug/L			1367345	1372254	1
	Ag	107	0.001	ug/L	0.001	58	37	52	17
	Cd	111	-0.001	ug/L	0.004	429	156	149	18
	Cd	114	0.000	ug/L	0.000	96	56	63	9
	Sb	121	-0.005	ug/L	0.002	48	319	225	21
	Sb	123	-0.004	ug/L	0.003	59	235	172	23
	Ba	135	0.012	ug/L	0.002	19	17	98	17
	Ba	137	0.012	ug/L	0.001	12	35	166	8
>	Tb	159		ug/L			1730482	1711285	2
	Tl	205	-0.001	ug/L	0.001	36	268	186	15
	Pb	208	0.014	ug/L	0.001	4	239	1165	1
	Bi	209		ug/L			3854596	3862300	0
	Th	232	-0.018	ug/L	0.013	69	3454	2251	34
	U	238	-0.000	ug/L	0.000	42	29	22	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ERAP197
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, January 28, 2013 13:36:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			1844055	1936838	1
Be	9	6.091	ug/L	0.098	1	19	32335	0
C	13		ug/L			90443	90413	4
Cl	37		ug/L			5576019	5969892	1
Sc	45		ug/L			1504442	1488908	1
V	51	48.726	ug/L	0.720	1	10680	1511187	0
V-1	51	50.007	ug/L	0.728	1	452	1505730	1
Cr	52	52.111	ug/L	1.081	2	31520	1375620	0
Cr	53	56.968	ug/L	0.970	1	291	153699	0
Mn	55	46.943	ug/L	1.645	3	589	1593498	2
Co	59	100.883	ug/L 110.58	1.833	1	100	2442951	0
Ge	72		ug/L			718320	728299	1
Ni	60	74.965	ug/L	2.096	2	39	362747	1
Ni	62	76.196	ug/L	1.994	2	575	53123	1
Cu	63	33.268	ug/L	0.642	1	481	343954	0
Cu	65	33.465	ug/L	0.632	1	64	159328	1
Zn	66	54.134	ug/L 113.26	0.750	1	170	147364	0
Zn	67	51.714	ug/L	0.989	1	30	24035	0
Zn	68	53.388	ug/L 111.72	0.521	0	274	104193	1
As	75	23.979	ug/L	0.541	2	259	57384	1
As-1	75	22.977	ug/L	0.498	2	11343	66410	0
Se	82	~~38.560~~	ug/L 120	1.333 CV out	3	-3	9602	1
Se	78	34.105	ug/L	1.216	3	11640	34041	0
Mo	98	61.212	ug/L	1.644	2	40	361667	1
Y	89		ug/L			458015	474043	3
Kr	83		ug/L			763	832	5
In	115		ug/L			1367345	1384214	1
Ag	107	48.577	ug/L 120	0.930 CV out	1	37	724866	0
Cd	111	15.085	ug/L	0.246	1	156	105239	0
Cd	114	14.795	ug/L	0.082	0	56	262290	0
Sb	121	29.878	ug/L	0.477	1	319	568209	0
Sb	123	29.927	ug/L	0.631	2	235	431583	0
Ba	135	44.142	ug/L	0.543	1	17	289170	0
Ba	137	43.195	ug/L	0.602	1	35	496716	0
Tb	159		ug/L			1730482	1730421	1
Tl	205	16.950	ug/L	0.198	1	268	956217	0
Pb	208	225.839	ug/L	2.205	0	239	15685250	1
Bi	209		ug/L			3854596	3819797	0
Th	232	-0.036	ug/L	0.003	7	3454	1154	14
U	238	0.000	ug/L	0.000	72	29	32	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ86 I REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, January 28, 2013 13:40:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1844055	1887088	1
	Be	9	0.000	ug/L	0.000	143	19	21	9
	C	13		ug/L			90443	95236	2
	Cl	37		ug/L			5576019	18441188	3
>	Sc	45		ug/L			1504442	1413978	1
	V	51	0.276	ug/L	0.019	6	10680	18099	2
	V-1	51	1.549	ug/L	0.157	10	452	44674	8
	Cr	52	0.145	ug/L	0.010	7	31520	33167	0
	Cr	53	4.686	ug/L	0.514	10	291	12246	9
	Mn	55	10.583	ug/L	0.280	2	589	341619	1
	Co	59	0.048	ug/L	0.003	5	100	1195	6
>	Ge	72		ug/L			718320	646974	1
	Ni	60	0.634	ug/L	0.022	3	39	2763	4
	Ni	62	50.043	ug/L	14.231	28	575	31215	28
	Cu	63	9.711	ug/L	1.717	17	481	89562	18
	Cu	65	0.312	ug/L	0.016	4	64	1375	5
	Zn	66	0.727	ug/L	0.033	4	170	1909	4
	Zn	67	0.941	ug/L	0.105	11	30	415	9
	Zn	68	0.762	ug/L	0.036	4	274	1565	2
	As	75	0.195	ug/L	0.055	28	259	646	19
	As-1	75	0.589	ug/L	0.037	6	11343	11467	0
	Se	82	0.295	ug/L	0.081	27	-3	62	29
	Se	78	2.112	ug/L	0.254	12	11640	11707	0
	Mo	98	0.261	ug/L	0.009	3	40	1408	3
	Y	89		ug/L			458015	437059	1
	Kr	83		ug/L			763	967	4
>	In	115		ug/L			1367345	1237464	0
	Ag	107	0.003	ug/L	0.001	28	37	77	15
	Cd	111	-0.069	ug/L	0.010	15	156	-286	22
	Cd	114	0.004	ug/L	0.001	33	56	119	19
	Sb	121	0.007	ug/L	0.003	34	319	412	10
	Sb	123	0.007	ug/L	0.001	8	235	303	2
	Ba	135	3.086	ug/L	0.027	0	17	18087	1
	Ba	137	3.098	ug/L	0.034	1	35	31884	1
>	Tb	159		ug/L			1730482	1631186	1
	Tl	205	0.004	ug/L	0.001	13	268	490	4
	Pb	208	0.010	ug/L	0.002	17	239	886	14
	Bi	209		ug/L			3854596	3087861	0
	Th	232	-0.031	ug/L	0.001	2	3454	1367	2
	U	238	0.017	ug/L	0 000	2	29	1107	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 L REN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Monday, January 28, 2013 13:44:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1844055	1931033	2
	Be	9	-0.000	ug/L	0.002	471	19	18	52
	C	13		ug/L			90443	92259	1
	Cl	37		ug/L			5576019	5950890	5
>	Sc	45		ug/L			1504442	1455991	0
	V	51	0.304	ug/L	0.010	3	10680	19497	1
	V-1	51	0.372	ug/L	0.020	5	452	11399	4
	Cr	52	0.124	ug/L	0.005	4	31520	33635	0
	Cr	53	0.353	ug/L	0.040	11	291	1211	8
	Mn	55	1.277	ug/L	0.014	1	589	42959	1
	Co	59	0.028	ug/L	0.000	0	100	750	0
>	Ge	72		ug/L			718320	715782	1
	Ni	60	0.104	ug/L	0.004	3	39	532	2
	Ni	62	5.082	ug/L	1.047	20	575	4024	18
	Cu	63	0.363	ug/L	0.056	15	481	4167	14
	Cu	65	0.094	ug/L	0.006	6	64	505	5
	Zn	66	0.671	ug/L	0.126	18	170	1959	15
	Zn	67	0.635	ug/L	0.110	17	30	320	14
	Zn	68	0.730	ug/L	0.149	20	274	1667	15
	As	75	75.306	ug/L	1 731	2	259	176573	0
	As-1	75	75.066	ug/L	1 795	2	11343	187613	0
	Se	82	0.011	ug/L	0.041	387	-3	0	1118
	Se	78	0.042	ug/L	0.285	676	11640	11625	0
	Mo	98	0.048	ug/L	0 003	6	40	319	4
	Y	89		ug/L			458015	464860	1
	Kr	83		ug/L			763	791	2
>	In	115		ug/L			1367345	1361633	0
	Ag	107	0.000	ug/L	0.001	281	37	41	30
	Cd	111	0.013	ug/L	0.000	1	156	247	0
	Cd	114	0.016	ug/L	0.001	4	56	328	4
	Sb	121	-0.003	ug/L	0.001	37	319	256	8
	Sb	123	-0.003	ug/L	0.002	53	235	193	11
	Ba	135	0.277	ug/L	0.002	0	17	1804	0
	Ba	137	0.275	ug/L	0.008	3	35	3145	3
>	Tb	159		ug/L			1730482	1688987	0
	Tl	205	-0.002	ug/L	0.000	7	268	177	4
	Pb	208	0.022	ug/L	0.000	2	239	1708	1
	Bi	209		ug/L			3854596	3787790	0
	Th	232	-0.042	ug/L	0.001	1	3454	738	4
	U	238	0.006	ug/L	0.000	4	29	400	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 Q REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, January 28, 2013 13:48:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1844055	1946498	3
	Be	9	0.002	ug/L	0.001	21	19	33	9
	C	13		ug/L			90443	97870	2
	Cl	37		ug/L			5576019	22078365	2
>	Sc	45		ug/L			1504442	1385582	2
	V	51	0.875	ug/L	0.029	3	10680	34903	3
	V-1	51	2.708	ug/L	0.064	2	452	76288	4
	Cr	52	0.586	ug/L	0.042	7	31520	43099	2
	Cr	53	7.115	ug/L	0.281	3	291	18105	5
	Mn	55	9.231	ug/L	0.246	2	589	292019	0
	Co	59	0.363	ug/L	0.009	2	100	8280	0
>	Ge	72		ug/L			718320	620605	1
	Ni	60	1.684	ug/L	0.034	2	39	6979	2
	Ni	62	35.087	ug/L	5.502	15	575	21102	14
	Cu	63	11.827	ug/L	0.659	5	481	104446	4
	Cu	65	2.822	ug/L	0.028	1	64	11500	1
	Zn	66	4.707	ug/L	0.210	4	170	11049	3
	Zn	67	5.610	ug/L	0.151	2	30	2246	3
	Zn	68	5.503	ug/L	0.202	3	274	9363	2
	As	75	2.627	ug/L	0.087	3	259	5556	2
	As-1	75	3.147	ug/L	0.249	7	11343	16206	1
	Se	82	0.860	ug/L	0.124	14	-3	179	15
	Se	78	3.091	ug/L	0.638	20	11640	11772	1
	Mo	98	0.530	ug/L	0.012	2	40	2702	0
	Y	89		ug/L			458015	439571	1
	Kr	83		ug/L			763	888	5
>	In	115		ug/L			1367345	1205258	0
	Ag	107	0.011	ug/L	0.001	9	37	171	7
	Cd	111	-0.029	ug/L	0 016	54	156	-40	244
	Cd	114	0.067	ug/L	0.004	5	56	1078	5
	Sb	121	0.494	ug/L	0.004	0	319	8457	0
	Sb	123	0.512	ug/L	0.010	2	235	6639	1
	Ba	135	19.179	ug/L	0.166	0	17	109413	0
	Ba	137	18.932	ug/L	0.109	0	35	189600	0
>	Tb	159		ug/L			1730482	1604689	0
	Tl	205	0.003	ug/L	0.000	6	268	413	1
	Pb	208	0.317	ug/L	0.005	1	239	20617	0
	Bi	209		ug/L			3854596	2970871	1
	Th	232	-0.022	ug/L	0.002	7	3454	1874	5
	U	238	0.033	ug/L	0.000	0	29	2107	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 R REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, January 28, 2013 13:52:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1844055	1916397	0
	Be	9	0.004	ug/L	0.000	9	19	38	5
	C	13		ug/L			90443	94157	2
	Cl	37		ug/L			5576019	5830207	2
>	Sc	45		ug/L			1504442	1440091	1
	V	51	0.272	ug/L	0.010	3	10680	18323	3
	V-1	51	0.365	ug/L	0.023	6	452	11062	7
	Cr	52	1.091	ug/L	0.042	3	31520	57400	2
	Cr	53	1.491	ug/L	0.036	2	291	4164	3
	Mn	55	249.700	ug/L	3.798	1	589	8197183	0
	Co	59	3.399	ug/L	0.057	1	100	79733	2
>	Ge	72		ug/L			718320	700282	2
	Ni	60	7.582	ug/L	0.187	2	39	35312	0
	Ni	62	17.582	ug/L	1.984	11	575	12202	8
	Cu	63	74.455	ug/L	1.183	1	481	739650	1
	Cu	65	73.750	ug/L	1.743	2	64	337489	0
	Zn	66	17717.648	ug/L	597.333	3	170	46319549	3
	Zn	67	15133.306	ug/L	226.945	1	30	6754430	0
	Zn	68	16781.681	ug/L	670.434	3	274	31410343	4
	As	75	54.552	ug/L	0.931	1	259	125209	0
	As-1	75	54.351	ug/L	1.111	2	11343	135945	0
	Se	82	0.710	ug/L	0.067	9	-3	166	7
	Se	78	0.802	ug/L	0.749	93	11640	11844	1
	Mo	98	1.336	ug/L	0.041	3	40	7628	1
	Y	89		ug/L			458015	460323	1
	Kr	83		ug/L			763	914	6
>	In	115		ug/L			1367345	1263338	0
	Ag	107	0.068	ug/L	0.007	10	37	965	10
	Cd	111	11.543	ug/L	0.050	0	156	73541	1
	Cd	114	11.168	ug/L	0.186	1	56	180708	1
	Sb	121	6.380	ug/L	0.126	1	319	110974	1
	Sb	123	6.435	ug/L	0.016	0	235	84881	0
	Ba	135	21.380	ug/L	0.385	1	17	127839	1
	Ba	137	21.087	ug/L	0.391	1	35	221338	1
>	Tb	159		ug/L			1730482	1664833	1
	Tl	205	0.124	ug/L	0.002	1	268	6977	0
	Pb	208	116.589	ug/L	2.541	2	239	7789418	0
	Bi	209		ug/L			3854596	3688273	1
	Th	232	-0.030	ug/L	0.001	4	3454	1444	5
	U	238	0.010	ug/L	0.001	5	29	687	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AE REN
Sample Dil Factor: ~~20~~ 50 #1-2813
Comments:
Sample Date/Time: Monday, January 28, 2013 13:56:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
⌈>	Li	6		ug/L			1844055	1912660	2
⌊	Be	9	0.000	ug/L	0.002	444	19	22	39
	C	13		ug/L			90443	89759	0
	Cl	37		ug/L			5576019	5986428	8
⌈>	Sc	45		ug/L			1504442	1427273	1
|	V	51	0.172	ug/L	0.014	8	10680	15221	1
|	V-1	51	0.237	ug/L	0.013	5	452	7273	3
|	Cr	52	0.040	ug/L	0.024	60	31520	30898	1
|	Cr	53	0.261	ug/L	0.019	7	291	949	3
|	Mn	55	1.035	ug/L	0.048	4	589	34220	2
⌊	Co	59	0.025	ug/L	0.003	11	100	671	8
⌈>	Ge	72		ug/L			718320	702682	1
|	Ni	60	0.049	ug/L	0.003	5	39	268	5
|	Ni	62	6.115	ug/L	0.436	7	575	4633	6
|	Cu	63	0.347	ug/L	0.026	7	481	3929	7
|	Cu	65	0.052	ug/L	0.022	43	64	302	34
|	Zn	66	2.205	ug/L	2.474	112	170	5969	109
|	Zn	67	2.010	ug/L	2.330	115	30	933	112
|	Zn	68	2.235	ug/L	2.483	111	274	4480	104
|	As	75	79.392	ug/L	0.881	1	259	182764	0
|	As-1	75	79.215	ug/L	0.898	1	11343	193776	0
|	Se	82	-0.020	ug/L	0.031	151	-3	-8	89
|	Se	78	0.320	ug/L	0.078	24	11640	11588	0
⌊	Mo	98	0.055	ug/L	0.004	7	40	353	6
	Y	89		ug/L			458015	466134	3
	Kr	83		ug/L			763	803	2
⌈>	In	115		ug/L			1367345	1351858	0
|	Ag	107	-0.000	ug/L	0.000	24	37	30	5
|	Cd	111	-0.001	ug/L	0.001	55	156	146	3
|	Cd	114	-0.000	ug/L	0.000	109	56	47	17
|	Sb	121	-0.005	ug/L	0.000	6	319	223	2
|	Sb	123	-0.005	ug/L	0.000	4	235	158	2
|	Ba	135	0.189	ug/L	0.003	1	17	1228	1
⌊	Ba	137	0.182	ug/L	0.007	3	35	2079	3
⌈>	Tb	159		ug/L			1730482	1697344	1
|	Tl	205	-0.002	ug/L	0.000	23	268	161	14
|	Pb	208	0.007	ug/L	0.001	20	239	693	12
|	Bi	209		ug/L			3854596	3765019	1
|	Th	232	-0.049	ug/L	0.001	2	3454	306	24
⌊	U	238	0.002	ug/L	0.000	8	29	171	5

SP 1-31-2013

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61AH REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 14:00:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1844055	1782801	1
	Be	9	0.031	ug/L	0.002	6	19	168	5
	C	13		ug/L			90443	114004	1
	Cl	37		ug/L			5576019	7209370	1
>	Sc	45		ug/L			1504442	1445367	1
	V	51	3.679	ug/L	0.134	3	10680	120232	2
	V-1	51	3.902	ug/L	0.055	1	452	114456	0
	Cr	52	11.550	ug/L	0.336	2	31520	319533	1
	Cr	53	12.997	ug/L	0.095	0	291	34260	0
	Mn	55	1462.415	ug/L	21.077	1	589	48181911	0
	Co	59	0.914	ug/L	0.018	2	100	21580	1
>	Ge	72		ug/L			718320	631781	1
	Ni	60	1.443	ug/L	0.051	3	39	6093	3
	Ni	62	51.773	ug/L	16.701	32	575	31534	32
	Cu	63	6.440	ug/L	1.386	21	481	58180	21
	Cu	65	0.424	ug/L	0.030	7	64	1809	7
	Zn	66	2.954	ug/L	0.121	4	170	7114	2
	Zn	67	5.917	ug/L	0.090	1	30	2409	0
	Zn	68	6.250	ug/L	0.228	3	274	10792	2
	As	75	130.829	ug/L	2.499	1	259	270595	0
	As-1	75	131.044	ug/L	2.494	1	11343	281648	0
	Se	82	0.536	ug/L	0.028	5	-3	112	5
	Se	78	3.055	ug/L	0.369	12	11640	11967	2
	Mo	98	0.130	ug/L	0.006	4	40	700	3
	Y	89		ug/L			458015	450861	3
	Kr	83		ug/L			763	841	2
>	In	115		ug/L			1367345	1222444	1
	Ag	107	0.003	ug/L	0.001	37	37	72	18
	Cd	111	0.004	ug/L	0.001	22	156	162	4
	Cd	114	0.002	ug/L	0.001	24	56	84	8
	Sb	121	0.243	ug/L	0.008	3	319	4368	3
	Sb	123	0.238	ug/L	0.006	2	235	3237	2
	Ba	135	46.897	ug/L	0.954	2	17	271300	1
	Ba	137	46.497	ug/L	0.590	1	35	472219	1
>	Tb	159		ug/L			1730482	1631676	0
	Tl	205	-0.002	ug/L	0.000	22	268	164	12
	Pb	208	0.018	ug/L	0.001	3	239	1371	3
	Bi	209		ug/L			3854596	3041480	1
	Th	232	0.010	ug/L	0.011	108	3454	3869	17
	U	238	0.051	ug/L	0.001	2	29	3256	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AJ REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, January 28, 2013 14:05:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1825173	3
	Be	9	0.001	ug/L	0.001	113	19	25	26
	C	13		ug/L			90443	98624	4
	Cl	37		ug/L			5576019	21173999	2
>	Sc	45		ug/L			1504442	1435405	3
	V	51	0.510	ug/L	0.028	5	10680	25350	5
	V-1	51	1.795	ug/L	0.327	18	452	52490	18
	Cr	52	0.317	ug/L	0.050	15	31520	37955	3
	Cr	53	4.892	ug/L	1.133	23	291	12968	22
	Mn	55	7.595	ug/L	0.153	2	589	249036	2
	Co	59	0.383	ug/L	0.004	1	100	9044	2
>	Ge	72		ug/L			718320	620056	2
	Ni	60	1.527	ug/L	0.075	4	39	6327	5
	Ni	62	70.956	ug/L	9.774	13	575	42103	12
	Cu	63	14.072	ug/L	1.005	7	481	124025	5
	Cu	65	2.314	ug/L	0.058	2	64	9428	1
	Zn	66	2.939	ug/L	0.107	3	170	6949	3
	Zn	67	3.943	ug/L	0.135	3	30	1585	4
	Zn	68	3.713	ug/L	0.017	0	274	6389	2
	As	75	2.342	ug/L	0.033	1	259	4975	1
	As-1	75	3.000	ug/L	0.148	4	11343	15892	1
	Se	82	0.589	ug/L	0.119	20	-3	122	22
	Se	78	3.452	ug/L	0.451	13	11640	11962	1
	Mo	98	0.527	ug/L	0.021	3	40	2685	1
	Y	89		ug/L			458015	429610	1
	Kr	83		ug/L			763	976	6
>	In	115		ug/L			1367345	1216875	1
	Ag	107	0.006	ug/L	0.001	17	37	110	12
	Cd	111	-0.056	ug/L	0.007	13	156	-203	22
	Cd	114	0.031	ug/L	0.001	2	56	527	1
	Sb	121	0.499	ug/L	0.008	1	319	8615	1
	Sb	123	0.504	ug/L	0.009	1	235	6594	0
	Ba	135	17.291	ug/L	0.214	1	17	99589	1
	Ba	137	17.119	ug/L	0.321	1	35	173093	2
>	Tb	159		ug/L			1730482	1610888	1
	Tl	205	0.002	ug/L	0.000	18	268	338	5
	Pb	208	0.050	ug/L	0.001	1	239	3454	1
	Bi	209		ug/L			3854596	2977778	0
	Th	232	-0.047	ug/L	0.000	0	3454	411	7
	U	238	0.024	ug/L	0.000	0	29	1515	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AK REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, January 28, 2013 14:09:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			1844055	1976887	0
⌊	Be	9	0.001	ug/L	0.002	292	19	23	36
	C	13		ug/L			90443	94577	0
	Cl	37		ug/L			5576019	6042969	3
⌈>	Sc	45		ug/L			1504442	1470173	2
|	V	51	0.042	ug/L	0.007	15	10680	11706	3
|	V-1	51	0.156	ug/L	0 017	11	452	5082	11
|	Cr	52	-0.022	ug/L	0.026	118	31520	30250	4
|	Cr	53	0.381	ug/L	0.063	16	291	1300	14
|	Mn	55	235.773	ug/L	3.725	1	589	7901394	1
⌊	Co	59	3.412	ug/L	0.070	2	100	81662	0
⌈>	Ge	72		ug/L			718320	700128	2
|	Ni	60	7.301	ug/L	0.252	3	39	33992	1
|	Ni	62	25.788	ug/L	2.808	10	575	17687	12
|	Cu	63	56.036	ug/L	1.147	2	481	556571	0
|	Cu	65	54.268	ug/L	2.168	3	64	248228	1
|	Zn	66	17505.887	ug/L	661 523	3	170	45738006	1
|	Zn	67	15042.121	ug/L	708.602	4	30	6708757	2
|	Zn	68	16248.012	ug/L	905.644	5	274	30378407	3
|	As	75	11.337	ug/L	0.407	3	259	26208	1
|	As-1	75	11.239	ug/L	0.486	4	11343	36864	0
|	Se	82	0.702	ug/L	0.050	7	-3	164	5
|	Se	78	0.738	ug/L	0.418	56	11640	11804	0
⌊	Mo	98	1.257	ug/L	0.070	5	40	7173	3
	Y	89		ug/L			458015	459262	1
	Kr	83		ug/L			763	970	2
⌈>	In	115		ug/L			1367345	1292374	0
|	Ag	107	0.067	ug/L	0.002	3	37	965	3
|	Cd	111	10.790	ug/L	0.088	0	156	70334	0
|	Cd	114	10.708	ug/L	0.094	0	56	177247	0
|	Sb	121	5.868	ug/L	0.075	1	319	104446	1
|	Sb	123	5.796	ug/L	0.089	1	235	78232	1
|	Ba	135	19.933	ug/L	0.110	0	17	121940	0
⌊	Ba	137	19.769	ug/L	0.295	1	35	212292	1
⌈>	Tb	159		ug/L			1730482	1663855	1
|	Tl	205	0.122	ug/L	0.001	0	268	6882	0
|	Pb	208	25.964	ug/L	0.312	1	239	1734101	0
|	Bi	209		ug/L			3854596	3691550	0
|	Th	232	-0.050	ug/L	0.000	0	3454	251	9
⌊	U	238	0.004	ug/L	0.000	5	29	312	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 14:14:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1899840	1
	Be	9	48.965	ug/L	1.637	3	19	254794	2
	C	13		ug/L			90443	86702	4
	Cl	37		ug/L			5576019	6057967	3
>	Sc	45		ug/L			1504442	1414737	1
	V	51	46.875	ug/L	0.770	1	10680	1381823	1
	V-1	51	47.672	ug/L	0.961	2	452	1364007	1
	Cr	52	47.388	ug/L	0.832	1	31520	1191404	0
	Cr	53	50.281	ug/L	0.892	1	291	128931	0
	Mn	55	50.398	ug/L	1.034	2	589	1625963	2
	Co	59	51.488	ug/L	0.407	0	100	1185093	2
>	Ge	72		ug/L			718320	701345	1
	Ni	60	53.124	ug/L	0.810	1	39	247633	1
	Ni	62	62.560	ug/L	2.909	4	575	42100	3
	Cu	63	53.445	ug/L	1.183	2	481	531868	1
	Cu	65	53.336	ug/L	1.271	2	64	244500	1
	Zn	66	53.697	ug/L	1.726	3	170	140790	3
	Zn	67	53.811	ug/L	0.908	1	30	24089	2
	Zn	68	53.741	ug/L	1.211	2	274	100995	1
	As	75	53.630	ug/L	0.955	1	259	123299	0
	As-1	75	52.031	ug/L	1.013	1	11343	130831	0
	Se	82	60.576	ug/L	0.895	1	-3	14534	0
	Se	78	53.690	ug/L	0.880	1	11640	45091	0
	Mo	98	55.893	ug/L	1.285	2	40	318068	1
	Y	89		ug/L			458015	456725	2
	Kr	83		ug/L			763	850	4
>	In	115		ug/L			1367345	1328283	0
	Ag	107	58.687	ug/L	0.822	1	37	840496	1
	Cd	111	51.335	ug/L	0.514	1	156	343352	1
	Cd	114	50.141	ug/L	0.577	1	56	852867	1
	Sb	121	49.546	ug/L	0.370	0	319	904075	0
	Sb	123	49.999	ug/L	0.595	1	235	691888	1
	Ba	135	49.129	ug/L	0.322	0	17	308873	1
	Ba	137	48.340	ug/L	0.112	0	35	533482	0
>	Tb	159		ug/L			1730482	1695707	0
	Tl	205	51.575	ug/L	0.518	1	268	2850782	0
	Pb	208	48.843	ug/L	0.464	0	239	3324396	0
	Bi	209		ug/L			3854596	3633504	0
	Th	232	49.984	ug/L	0.787	1	3454	3148506	0
	U	238	52.475	ug/L	0.359	0	29	3469368	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 14:21:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Méan	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1844055	1814292	3
	Be	9	0.000	ug/L	0.001	205	19	20	15
	C	13		ug/L			90443	85303	5
	Cl	37		ug/L			5576019	5777380	1
>	Sc	45		ug/L			1504442	1430190	2
	V	51	-0.013	ug/L	0.011	86	10680	9772	1
	V-1	51	0.017	ug/L	0.004	21	452	931	8
	Cr	52	-0.058	ug/L	0.033	57	31520	28519	0
	Cr	53	0.046	ug/L	0.010	20	291	395	3
	Mn	55	0.004	ug/L	0.001	16	589	676	0
	Co	59	0.001	ug/L	0 001	58	100	121	13
>	Ge	72		ug/L			718320	695871	1
	Ni	60	0.000	ug/L	0.001	1461	39	38	9
	Ni	62	5.982	ug/L	0.348	5	575	4498	4
	Cu	63	0.255	ug/L	0.012	4	481	2980	3
	Cu	65	0.004	ug/L	0.003	84	64	79	17
	Zn	66	0.066	ug/L	0.011	16	170	336	7
	Zn	67	0.056	ug/L	0.017	29	30	54	12
	Zn	68	0.057	ug/L	0.007	12	274	372	2
	As	75	0.049	ug/L	0.014	28	259	363	8
	As-1	75	0.138	ug/L	0.035	25	11343	11302	0
	Se	82	-0.007	ug/L	0.028	406	-3	-4	132
	Se	78	0.418	ug/L	0.145	34	11640	11537	0
	Mo	98	0.008	ug/L	0.002	26	40	85	13
	Y	89		ug/L			458015	452543	1
	Kr	83		ug/L			763	820	1
>	In	115		ug/L			1367345	1329782	1
	Ag	107	0.003	ug/L	0.002	63	37	77	33
	Cd	111	0.004	ug/L	0.003	76	156	177	9
	Cd	114	0.001	ug/L	0.001	89	56	75	24
	Sb	121	0.021	ug/L	0.004	20	319	696	9
	Sb	123	0.020	ug/L	0.004	19	235	503	8
	Ba	135	0.001	ug/L	0.002	279	17	20	55
	Ba	137	-0.000	ug/L	0.001	363	35	31	32
>	Tb	159		ug/L			1730482	1660606	0
	Tl	205	0.002	ug/L	0.001	56	268	367	17
	Pb	208	0.001	ug/L	0.001	83	239	275	14
	Bi	209		ug/L			3854596	3758121	0
	Th	232	0.117	ug/L	0.043	36	3454	10529	25
	U	238	0.002	ug/L	0 000	12	29	160	10

Mercury Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WA61, WA62

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: CB

Date: 01-23-13

Final Volume _____

Final Volume (Hg): 20.0

Sample ID WA62 BSPK, MBISPK, VSPK, MB2SPK
WA67 BSPK, MBISPK, JSPK, MB2SPK

	Prepcode			
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:			
	Vol Added (mL):			
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	TLM	CVA	1.0	0.02	2908-S
Hg MBSPK	TLM	CVA	1.0	0.04	↓
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

5033F

Revision 14, 11/21/05

WA61 · 002281

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM **Matrix:** WATER

Analyst: CB **Date:** 01-23-13

Bath Temp: 90°C **Start Time:** 1145 **End Time:** 1345

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight~~ (g) Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WA62 A	1	J	20.0	20.0	2/02 1	Y	
" B	1	J			1		
" Bdup	1	J			1		
" Bspk	1	J			1		
" C	1	J			1		
" D	1	–			1		Preserve in lab
" E	1	J			1		
" F	1	J			1		
" G	1	J			1		
" H	1	J			1		
" I	1	J			1		
" J	1	J			1		
" L	1	J			1		
" M	1	J			1		
" N	1	J			1		
" O	1	J			1		
" P	1	J			1		
" Q	1	J			1		
" R	1	J			1		
" S	1	J			1		
" T	1	J			1		
" MBI	–	–			1		
" MBIspk	–	–	20.0	20.0	1	Y	
			CB 01/23/13				

Chemical/Reagent ID:

HNO_3: MP2342 I7970 **H_2SO_4:** I7677 **HCl:**

5% $K_2S_2O_8$: MP2418 **5% $KMnO_4$:** MP2401 **Digest Tube Lot:** 1208057

WA61 00282

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM | Matrix: WATER
Analyst: CB | Date: 01-23-13
Bath Temp: 90°C | Start Time: 1145 | End Time: 1345

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight~~ (g) Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WA62 U	1	J	20.0	20.0	2/02 1	Y	
" V	1	J			1		
" VdUP	1	J			1		
" VSPK	1	J			1		
" X	1	J			1		Preserve in 196
" Y	1	J			1		
" Z	1	J			1		
" AA	1	J			1		
" AB	1	J			1		
" AC	1	J			1		
" AD	1	J			1		
" AE	1	J			1		
" AF	1	J			1		
" AG	1	J			1		
" AH	1	J			1		
" AI	1	J			1		
" AJ	1	J			1		
" AK	1	J			1		
" AL	1	J			1		
" AM	1	J			1		
" W	1	—			1		~~Preserve in 196~~ CB 01/23/13
" MB2	—	—			1		
" MB2SPK	—	—	20.0	20.0	1	Y	
				CB			
				01/23/13			

Chemical/Reagent ID:

HNO_3: mp2342 I7970 | H_2SO_4: I7677 | HCl: —
5% $K_2S_2O_8$: mp2418 | 5% $KMnO_4$: mp2401 | Digest Tube Lot: 1208057

UAG1 00283

Mercury Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WA61, WA62

Mercury Analysis Log

Analyst: LB

Instrument: CETAC

Date: 01-25-13

Page: 1 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	TLM	1X		
" 20.0				
" 50.0				
" 100.0				
" 200.0				
" 400.0				
" 1000.0				
ICV				
ICB			493.00	Begin CLP
CCV1			2.20	O/QR=99 ✓
CCB1			510.29	✓
CRA			-0.81	O/QR= 102 ✓
WAG2 MB1			196.85	✓
" MB1SOK			0.76	✓
" A			231.47	✓
" B				O/QR= 116 ✓
" BDUP			1.23	
" BSOK			3.76	NO RPD: undetected
" C			111.99	O/QR= 112 ✓
" D				✓
" E				
CCV2				
CCB2			515.06	O/QR= 103
WAG2 F			-0.92	✓
G				✓
H				
I				
J				
L				
M				

Chemical/Reagent ID:

10% $SnCl_2$: MP2429

Standard ID:

Standard: 3008-5

14% $NH_2OH/NaCl$: MP23065

ICV/CCV: 3008-6

5026F

Revision 4
1/26/01

Mercury Analysis Log

Analyst: CB

Instrument: CETAC

Date: 01-25-13

Page: 2 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
WA62 N	TLM	1x		
" O				
" P				
CCV3			522.75	% R=105
CCB3			-0.86	✓
WA62 Q				✓
" R				
" S				
" T				
" MS1			7.67	
" MS1sok			234.53	% R = 117 ✓
" U				✓
" V			0.10	
" Vdup			0.18	No RPD undetected ✓
" Vsok			118.81	% R = 119 ✓
CCV4			520.29	% R = 104 ✓
CCB4			-0.16	✓
WA62 W				
" X				
" Y				
" Z				
" AA				
" AB				
" AC				
" AD				
" AE				
" AF				
CCV5			519.01	% R = 104 ✓
CCB5			-0.83	✓
WA62 AG	✓	✓		✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2429

14% $NH_2OH/NaCl$: MP2398

Standard ID:

Standard: 3008-5

ICV/CCV: 3008-6

5026F

Revision 4
1/26/01

Mercury Analysis Log

Analyst: CB

Instrument: CETAC

Date: 01-25-13

Page: 3 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
WA62 AH	TLM	1x		
" AI				
" AJ				
" AK				
" AL				
" AM				High RSD
CCV6			524.03	%R= 105
CCB6			-1.17	End CLP

01-25-13
CB

Chemical/Reagent ID:
10% $SnCl_2$: MP2429

Standard ID:
Standard: 3003-5

14% $NH_2OH/NaCl$: MP2398

ICV/CCV: 3009-6

5026F

Revision 4
1/26/01

ANALYTICAL RESOURCES INCORPORATED

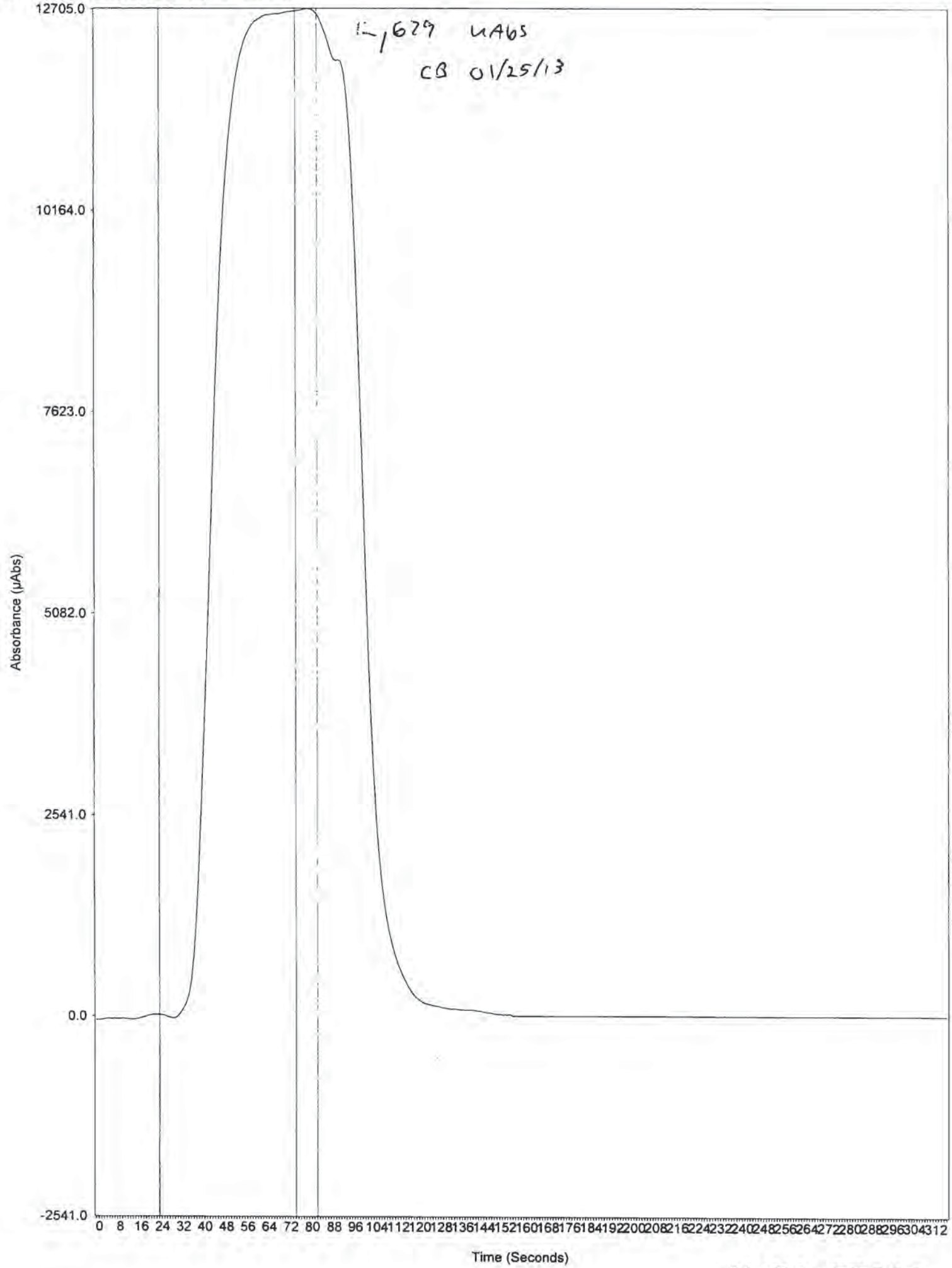
Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA

Analysis Date: 01-25-13

	Analyst CB 01-25-13	Peer GL 1-25-13	Comment
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
RSD's & SD's	✓	✓	WAG2 AL High RSD
Internal Standards	—	—	
Carry-over	—	—	
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	—	—	

Std Tube 6 01/25/2013, 10:34 AM



CETAC Hg Analysis Report - 13012500.DB - Friday, January 25, 2013, 1:48:42 PM

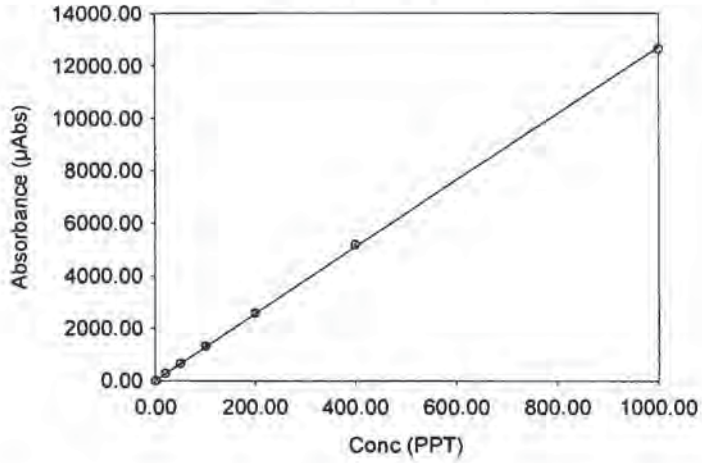
Analyst
Date Started Friday, January 25, 2013, 10:34:15
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Std Tube 6	25-Jan-2013, 10:34	1000.00	0.09	12700.00	12671	12684	12693	12666	

Information about this calibration could not be retrieved from the Master File.

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Calibration Zero	25-Jan-2013, 10:36	0.00	59.00	7.82	6	4	7	15	
Standard #1	25-Jan-2013, 10:39	20.00	0.58	279.00	281	278	277	278	
Standard #2	25-Jan-2013, 10:42	50.00	1.74	651.00	664	655	644	639	
Standard #3	25-Jan-2013, 10:44	100.00	0.59	1320.00	1309	1314	1323	1325	
Standard #4	25-Jan-2013, 10:47	200.00	0.21	2580.00	2576	2584	2581	2572	
Standard #5	25-Jan-2013, 10:50	400.00	0.11	5190.00	5187	5191	5192	5179	
Standard #6	25-Jan-2013, 10:53	1000.00	0.20	12700.00	12644	12666	12699	12694	

Calibration Data



Int.	0.000
Slope	12.727
Correlation	0.99994

TLM

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
ICV	25-Jan-2013, 10:57	493.00	0.11	6270.00	6267	6275	6283	6272	
ICB	25-Jan-2013, 11:00	2.20	15.20	27.90	33	29	27	23	Begin LLP

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	25-Jan-2013, 11:03	510.00	0.10	6490.00	6486	6497	6501	6493	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	25-Jan-2013, 11:05	-0.81	57.20	-10.40	-19	-9	-5	-8	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
CRA	25-Jan-2013, 11:08	18.90	0.84	240.00	239	242	241	237	
WA62 MB1 TLM	25-Jan-2013, 11:11	0.76	99.00	9.72	-2	7	16	19	
WA62 MB1SPK TLM	25-Jan-2013, 11:14	231.00	0.09	2950.00	2942	2946	2949	2947	
WA62 A TLM	25-Jan-2013, 11:16	27.50	1.00	350.00	347	348	351	354	
WA62 B TLM	25-Jan-2013, 11:19	1.23	11.10	15.70	14	15	15	18	
WA62 BDUP TLM	25-Jan-2013, 11:22	3.76	5.75	47.80	48	51	47	45	
WA62 BSPK TLM	25-Jan-2013, 11:24	112.00	0.52	1430.00	1418	1420	1428	1434	
WA62 C TLM	25-Jan-2013, 11:27	36.60	0.71	465.00	468	467	466	461	
WA62 D TLM	25-Jan-2013, 11:30	51.80	1.50	659.00	669	665	656	647	
WA62 E TLM	25-Jan-2013, 11:32	-4.02	16.90	-51.20	-45	-44	-54	-62	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	25-Jan-2013, 11:35	515.00	0.14	6560.00	6547	6563	6563	6548	

CETAC Hg Analysis Report - 13012500.DB - Friday, January 25, 2013, 1:48:43 PM

Analyst
Date Started Friday, January 25, 2013, 11:38:24
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	25-Jan-2013, 11:38	-0.92	155.00	-11.70	13	-9	-22	-29	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA62 F TLM	25-Jan-2013, 11:41	32.80	1.31	417.00	410	415	421	422	
WA62 G TLM	25-Jan-2013, 11:43	4.63	9.75	58.90	67	57	54	58	
WA62 H TLM	25-Jan-2013, 11:46	3.35	9.30	42.70	40	39	44	48	
WA62 I TLM	25-Jan-2013, 11:49	5.32	6.84	67.70	68	73	68	62	
WA62 J TLM	25-Jan-2013, 11:51	5.38	6.79	68.50	75	69	66	64	
WA62 L TLM	25-Jan-2013, 11:54	2.26	5.93	28.80	30	27	28	30	
WA62 M TLM	25-Jan-2013, 11:57	5.37	35.10	68.30	41	57	79	96	
WA62 N TLM	25-Jan-2013, 11:59	1.44	59.30	18.30	7	14	20	33	
WA62 O TLM	25-Jan-2013, 12:02	9.89	4.96	126.00	117	126	128	132	
WA62 P TLM	25-Jan-2013, 12:05	2.00	12.00	25.50	22	24	27	29	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	25-Jan-2013, 12:08	523.00	0.13	6650.00	6656	6659	6657	6640	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	25-Jan-2013, 12:10	-0.86	158.00	-10.90	-32	-17	-3	8	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA62 Q TLM	25-Jan-2013, 12:13	3.38	4.19	43.00	44	41	42	45	
WA62 R TLM	25-Jan-2013, 12:16	8.60	10.60	110.00	119	116	110	93	
WA62 S TLM	25-Jan-2013, 12:19	40.40	1.05	514.00	515	509	512	521	
WA62 T TLM	25-Jan-2013, 12:21	3.96	9.40	50.40	44	51	51	55	
WA62 MB2 TLM	25-Jan-2013, 12:24	7.67	7.70	97.60	105	102	96	88	
WA62 MB2SPK TLM	25-Jan-2013, 12:27	235.00	0.18	2980.00	2982	2978	2987	2991	
WA62 U TLM	25-Jan-2013, 12:29	22.20	1.34	282.00	286	284	280	278	
WA62 V TLM	25-Jan-2013, 12:32	0.10	735.00	1.22	12	4	-2	-9	
WA62 VDUP TLM	25-Jan-2013, 12:35	0.18	80.70	2.31	-0	3	4	2	
WA62 VSPK TLM	25-Jan-2013, 12:37	119.00	0.49	1510.00	1517	1517	1513	1501	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	25-Jan-2013, 12:40	520.00	0.12	6620.00	6617	6630	6627	6613	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	25-Jan-2013, 12:43	-0.16	471.00	-2.01	11	-1	-10	-9	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA62 W TLM	25-Jan-2013, 12:46	16.80	2.08	213.00	217	217	211	208	
WA62 X TLM	25-Jan-2013, 12:48	37.10	1.75	472.00	462	470	477	481	
WA62 Y TLM	25-Jan-2013, 12:51	-5.39	27.00	-68.60	-85	-82	-64	-45	
WA62 Z TLM	25-Jan-2013, 12:54	-3.30	12.20	-42.00	-35	-43	-46	-45	
WA62 AA TLM	25-Jan-2013, 12:56	1.66	56.20	21.10	34	26	16	7	
WA62 AB TLM	25-Jan-2013, 12:59	-1.45	56.30	-18.40	-5	-17	-24	-28	
WA62 AC TLM	25-Jan-2013, 13:02	-0.21	141.00	-2.72	-1	0	-2	-8	
WA62 AD TLM	25-Jan-2013, 13:04	-1.42	32.70	-18.00	-23	-22	-17	-10	
WA62 AE TLM	25-Jan-2013, 13:07	3.52	35.20	44.90	58	56	41	24	
WA62 AF TLM	25-Jan-2013, 13:10	0.58	217.00	7.37	-7	-2	10	29	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	25-Jan-2013, 13:13	519.00	0.22	6610.00	6620	6612	6604	6586	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	25-Jan-2013, 13:15	-0.83	79.50	-10.50	-3	-5	-13	-21	

CETAC Hg Analysis Report - 13012500.DB - Friday, January 25, 2013, 1:48:43 PM

Analyst
Date Started Friday, January 25, 2013, 13:18:37
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA62 AG TLM	25-Jan-2013, 13:18	1.43	18.50	18.20	18	13	20	21	
WA62 AH TLM	25-Jan-2013, 13:21	2.75	48.40	35.00	53	45	28	15	
WA62 AI TLM	25-Jan-2013, 13:24	-0.56	30.50	-7.14	-8	-5	-6	-10	
WA62 AJ TLM	25-Jan-2013, 13:26	4.30	11.70	54.70	49	51	56	63	
WA62 AK TLM	25-Jan-2013, 13:29	0.36	263.00	4.59	-8	-2	8	20	
WA62 AL TLM	25-Jan-2013, 13:32	17.50	8.66	222.00	200	213	232	244	Q
WA62 AM TLM	25-Jan-2013, 13:34	1.82	31.20	23.20	30	28	18	16	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	25-Jan-2013, 13:37	524.00	0.17	6670.00	6665	6676	6680	6655	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	25-Jan-2013, 13:40	-1.17	44.10	-14.80	-7	-13	-17	-22	

End LLP

Analyst	
Date Created:	Wednesday, November 27, 2002
Worksheet	LOW LEVEL CALIB 20 TO 1000 PPT
Comment	
Sip Duration (Sec.):	55
Rinse Duration (Sec.):	100
Read Delay:	75
Integration Time/Replicate:	2.00
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	20
Baseline Point 1 End Time:	24
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	148
Baseline Point 2 End Time:	152
Gas Flow (ml/min):	30
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	2
Calibration Standard #1 Conc.:	20.00 PPT
Calibration Standard #2 Conc.:	50.00 PPT
Calibration Standard #3 Conc.:	100.00 PPT
Calibration Standard #4 Conc.:	200.00 PPT
Calibration Standard #5 Conc.:	400.00 PPT
Calibration Standard #6 Conc.:	1000.00 PPT
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs. > 200, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 90% .. 110%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -20 .. 20,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Digested 20.0mL.

Prep Code: THM
Analyst: NB
Bath Temp: 90°C

CB 01/23/13

Start Time: ~~1355~~ 1355

Instrument: CETAC
Date: 01-23-13
End Time: 1555

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	3008-4	0.01		0.1	1
STD2		0.05		0.5	1
STD3		0.10		1.0	1
STD4		0.20		2.0	1
STD5		0.50		5.0	1
STD6		1.00		10.0	1
CRA		0.01		0.1	1
ICB/CCB	—	0.00		0.0	1
ICV/LCS	56-18	0.16		8.0	1
CCV		0.08	100.0	4.0	1

Chemical/Reagent ID:

HNO_3: I7970 H_2SO_4: I7677 HCl: —

5% $K_2S_2O_8$: MP2418 5% $KMnO_4$: MP2425

Prep Code: THM
Analyst: DM
Bath Temp: 95°C

Digested 20.0mL

Start Time: 0755

Instrument: CETAC
Date: 1-24-13
End Time: 0955

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	3008-5	0.02		0.02	1
STD2		0.05		0.05	1
STD3		0.10		0.1	1
STD4		0.20		0.2	1
STD5		~~0.50~~ 0.4		0.4	1
STD6		1.00		1.00	1
CRA		0.02		0.02	1
ICB/CCB	—	0.00		0.0	1
ICV/LCS	3008-6	1.0		0.5	1
CCV		1.0	100.0	0.5	1

Chemical/Reagent ID:

HNO_3: I7970 H_2SO_4: I7677 HCl: —

5% $K_2S_2O_8$: MP2418 5% $KMnO_4$: MP2425

WAS1 00294

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM **Matrix:** WATER
Analyst: CB **Date:** 01-23-13
Bath Temp: 90°C **Start Time:** 1145 **End Time:** 1345

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight~~ (g) Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WA62 A	1	J	20.0	20.0	2/02 1	Y	
" B	1	J			1		
" BDup	1	J			1		
" BSpk	1	J			1		
" C	1	J			1		
" D	1	–			1		Preserve in 196
" E	1	J			1		
" F	1	J			1		
" G	1	J			1		
" H	1	J			1		
" I	1	J			1		
" J	1	J			1		
" L	1	J			1		
" M	1	J			1		
" N	1	J			1		
" O	1	J			1		
" P	1	J			1		
" Q	1	J			1		
" R	1	J			1		
" S	1	J			1		
" T	1	J			1		
" MBI	–	–			1		
" MBISPK	–	–	20.0	20.0	1	Y	
			CB 01/23/13				

Chemical/Reagent ID:
HNO_3: MP2342 17970 **H_2SO_4:** I7677 **HCl:**
5% $K_2S_2O_8$: MP2418 **5% $KMnO_4$:** MP2401 **Digest Tube Lot:** 1208057

WA61 00295

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM **Matrix:** WATER
Analyst: CB **Date:** 01-23-13
Bath Temp: 90°C **Start Time:** 1145 **End Time:** 1345

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight~~ (g) Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WA62 U	1	⊥	20.0	20.0	2/02	Y	
" V	1	⊥			1		
" VDUP	1	⊥			1		
" VSPK	1	⊥			1		
" X	1	⊥			1		Preserve in 196
" Y	1	⊥			1		
" Z	1	⊥			1		
" AA	1	⊥			1		
" AB	1	⊥			1		
" AC	1	⊥			1		
" AD	1	⊥			1		
" AE	1	⊥			1		
" AF	1	⊥			1		
" AG	1	⊥			1		
" AH	1	⊥			1		
" AI	1	⊥			1		
" AJ	1	⊥			1		
" AK	1	⊥			1		
" AL	1	⊥			1		
" AM	1	⊥			1		
" W	1	—			1		~~Preserve in 196~~ CB 01/23/13
" MB2	—	—			1		
" MB2SPK	—	—	20.0	20.0	1	Y	
				CB			
				01/23/13			

Chemical/Reagent ID:

HNO_3: I7970 (MP2342) H_2SO_4: I7677 HCl: —
5% $K_2S_2O_8$: MP2418 5% $KMnO_4$: MP2401 Digest Tube Lot: 1208057

WA61 00296

Table of Contents: ARI Job WA66, WA67

Client: GeoEngineers

Project: 0504-068-00 ECY-Everett Lowlands

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Mercury Raw Data		
Preparation Bench Sheets and Notes	296	298
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AV
Signature

February-04-2013
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

February 5, 2013

Garrett Leque
GeoEngineers, Inc.
1101 Fawcett, Suite 200
Tacoma, WA 98402

RE: ECY-Everett Lowlands, 0504-068-00
ARI Job Nos.: WA66 & WA67

Dear Garrett:

Please find enclosed the Chain-of-Custody record (COC), sample receipt documentation, and the data package for samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile WA66_WA67

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: WA66, WA67

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: WAU4	Turn-around Requested: Normal	Page: 1 of 1	
ARI Client Company: GeoEngineers	Phone: 253 383 4940	Date: 1/21/13	Ice Present? Y
Client Contact: Garrett Legue		No. of Coolers: 1	Cooler Temps: 5.9
Client Project Name: ECY - Everett Lowlands			
Client Project #: 0504-068	Samplers: PAR, JGA		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No Containers	Metals Total *	Metals Dissolved *							Notes/Comments
EV19B-130118-W	1/18	1140	W	2	X	X							
EV20B-130118-W	1/18	927	W	2	X	X							
LLMW27D-130121-W	1/21	946	W	2	X	X							
DUP04-130121-W	1/21	900	W	2	X	X							
LLMW24D-130121-W	1/21	935	W	2	X	X							
LLMW25D-130121-W	1/21	1045	W	2	X	X							
LLMW27D-130121-W	1/21	946	W	2	X	X							
LLMW29D-130118-W	1/18	1035	W	2	X	X							
UNK-130121-W	1/21	1217	W	2	X	X							

Comments/Special Instructions	Relinquished by (Signature)	Received by (Signature)	Relinquished by (Signature)	Received by (Signature)
metals: As, Pb, Cd, Hg Tl, Sb	Paul Robinette	[signature]		
	Printed Name: Paul Robinette	Printed Name: Rich Hadson	Printed Name	Printed Name:
	Company: GeoEngineers	Company: ARI	Company:	Company:
	Date & Time: 1/22/13 10:40 AM	Date & Time: 1/22/13 1040	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: GeoEngineer
Project Name: ECY- Everett Lowlands
COC No(s): NA
Delivered by: Fed-Ex UPS Courier Hand Delivered Other:
Assigned ARI Job No:
Tracking No: NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)	5.9	

If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID#: 90877952

Cooler Accepted by: [signature] Date: 1/22/13 Time: 1125

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Was Sample Split by ARI: NA YES Date/Time: Equipment: Split by:

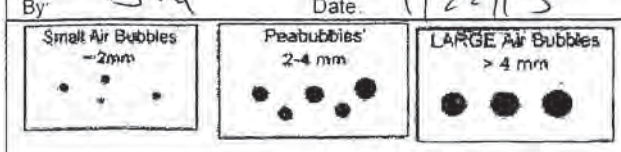
Samples Logged by: JM Date: 1/22/13 Time: 1440

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

All sample IDs on containers missing (- "Date"-W) per client email
Sample LLMW27D-130121-W listed on COC twice. Dissolved
By: JM Date: 1/22/13 Metals for sample UNK-130121-W had fine particulates after it settled, sample was lighter in color than Total metals bottle



Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

WA66 : 00004

PRESERVATION VERIFICATION 01/22/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA66**

Inquiry Number: NONE
Analysis Requested: 01/22/13
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: JM
Sample Set Used: Yes-481
Validatable Package: LV4
Deliverables:

PC: Cheronne
VTSR: 01/22/13

Project #: 0504-068-00
Project: ECY-Everett Lowlands
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1597 **WA66A**	EV19B-130118-W						TOT P															
13-1598 **WA66B**	EV20B-130118-W						TOT P															
13-1599 **WA66C**	LLMW27D-130121-W						TOT P															
13-1600 **WA66D**	DUP04-130121-W						TOT P															
13-1601 **WA66E**	LLMW24D-130121-W						TOT P															
13-1602 **WA66F**	LLMW25D-130121-W						TOT P															
13-1603 **WA66G**	LLMW29D-1301118-W						TOT P															
13-1604 **WA66H**	UNK-130121-W						TOT P															
13-1605 **WA66I**	EV19B-130118-W						DIS P									Y						
13-1606 **WA66J**	EV20B-130118-W						DIS P									Y						
13-1607 **WA66K**	LLMW27D-130121-W						DIS P									Y						
13-1608 **WA66L**	DUP04-130121-W						DIS P									Y						
13-1609 **WA66M**	LLMW24D-130121-W						DIS P									Y						
13-1610 **WA66N**	LLMW25D-130121-W						DIS P									Y						

P = Pass

Checked By JM Date 1/22/13

PRESERVATION VERIFICATION 01/22/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA66**

Client: GeoEngineers

Project #: 0504-068-00
Project: ECY-Everett Lowlands

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1611 **WA66O**	LLMW29D-130118-W						DIS P									Y						
13-1612 **WA66P**	UNK-130121-W						DIS P									Y						

WA66 00005

Checked By JM Date 1/22/13

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client GeoEngineer

Project Name ECY- Everett Lowlands

COC No(s) (NA)

Delivered by Fed-Ex UPS Courier Hand Delivered Other

Assigned ARI Job No 1X1A67

Tracking No (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)		5.9

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID# 90877952

Cooler Accepted by: Date: 1/22/13 Time: 1125

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		YES	(NO)
Did all bottle labels and tags agree with custody papers?		YES	(NO)
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	(YES)	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Was Sample Split by ARI: (NA) YES Date/Time: Equipment Split by

Samples Logged by: JM Date: 1/22/13 Time: 1340

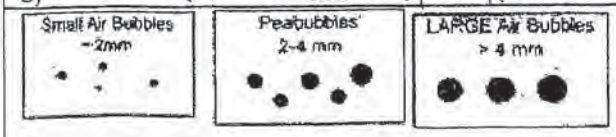
*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

All sample IDs on containers missing (- "Date"-W) per client email.
Sample LLMW27D-130121-W listed on COC twice.
Dissolved metals bottle for sample UWK-130121-W had fine particulates after it settled, sample was lighter in color than total metals bottle.

By: JM Date: 1/22/13



Small → "sm"	
Peabubbles → "pb"	
Large → "lg"	
Headspace → "hs"	

PRESERVATION VERIFICATION 01/22/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA67**

Inquiry Number: NONE
Analysis Requested: 01/22/13
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: JM
Sample Set Used: Yes-481
Validatable Package: LV4
Deliverables:

PC: Cheronne
VTSR: 01/22/13

Project #: 0504-068-00
Project: ECY-Everett Lowlands
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1614 **WA67A**	EV19B-130118-W						TOT P															
13-1615 **WA67B**	EV20B-130118-W						TOT P															
13-1616 **WA67C**	LLMW27D-130121-W						TOT P															
13-1617 **WA67D**	DUP04-130121-W						TOT P															
13-1618 **WA67E**	LLMW24D-130121-W						TOT P															
13-1619 **WA67F**	LLMW25D-130121-W						TOT P															
13-1620 **WA67G**	LLMW29D-130118-W						TOT P															
13-1621 **WA67H**	UNK-130121-W						TOT P															
13-1622 **WA67I**	EV19B-130118-W						DIS P									Y						
13-1623 **WA67J**	EV20B-130118-W						DIS P									Y						
13-1624 **WA67K**	LLMW27D-130121-W						DIS P									Y						
13-1625 **WA67L**	DUP04-130121-W						DIS P									Y						
13-1626 **WA67M**	LLMW24D-130121-W						DIS P									Y						
13-1627 **WA67N**	LLMW25D-130121-W						DIS P									Y						

P = Pass

Checked By JM Date 1/22/13

PRESERVATION VERIFICATION 01/22/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WA67**

Client: GeoEngineers

Project #: 0504-068-00
Project: ECY-Everett Lowlands

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-1628 **WA67O**	LLMW29D-130118-W						DIS									Y						
13-1629 **WA67P**	UNK-130121-W						DIS									Y						

Checked By JM Date 1/22/13

Subject: Re: Bottle Order / labeling
From: Sue Dunnihoo <sue@arilabs.com>
Date: 1/4/2013 4:19 PM
To: "Garrett R. Leque" <gleque@geoengineers.com>
CC: Brian Anderson <banderson@geoengineers.com>, "Paul D. Robinette" <probinette@geoengineers.com>, Cheronne Oreiro <cheronneo@arilabs.com>

Login has you set up for delivery Monday and everyone says we should be fine on the naming.

Cheers - Sue

On 1/4/2013 4:11 PM, Garrett R. Leque wrote:

> Hi Sue,
>
> As we discussed please have delivered about 20 nitric-preserved bottles and labels to the Everett Lowlands project if possible Monday.
>
> Also, just want to confirm that it is okay to do the following labeling scheme:
>
> For a sample called LLMW06S-130107-W, that name will be recorded on the COC, however the sample label name will just be LLMW06S (see attached).
>
> We'd like everything to be recorded and reported and carried forward with the full name, of course...
>
> Have a good weekend, thanks!
>
> **Garrett Leque, LG**
> **Geologist | GeoEngineers**
> **t:** 253.383.4940
> **f:** 253.383.4923
> **c:** 253.312.7958
>
> Confidentiality. This message is confidential and intended solely for use of the individual or entity to whom it is addressed. If you are not the person for whom this message is intended, please delete it and notify me immediately, and please do not copy or send this message to anyone else

--

Susan D. Dunnihoo
Director, Client Services
ANALYTICAL RESOURCES, INC.
206-695-6207
sue@arilabs.com
www.arilabs.com

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If you have received this correspondence in error, please

notify sender immediately. Thank you.

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: WA66, WA67

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative

Client: GeoEngineers
Project: ECY-Everett Lowlands, 0504-068-00
ARI Job Nos.: WA66 & WA67

Sample Receipt

Eight water samples were received on January 22, 2013 under ARI jobs WA66 and WA67. The cooler temperature measured by IR thermometer following ARI SOP was 5.9°C. For details regarding sample receipt, refer to the Cooler Receipt Forms.

Total and Dissolved Metals by 200.8

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial calibrations were within limits.

The ninth continuing calibration verification (CCV) on 1/28/13 was outside the control limits high for arsenic. No sample results were associated with this CCV. No corrective action was taken.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

Total and Dissolved Mercury by SW7470A

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial and continuing calibrations were within limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WA66
Client: GeoEngineers
Project Event: 0504-068-00
Project Name: ECY-Everett Lowlands

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	EV19B-130118-W	WA66A	13-1597	Water	01/18/13 11:40	01/22/13 10:40
2.	EV20B-130118-W	WA66B	13-1598	Water	01/18/13 09:27	01/22/13 10:40
3.	LLMW27D-130121-W	WA66C	13-1599	Water	01/21/13 09:46	01/22/13 10:40
4.	DUP04-130121-W	WA66D	13-1600	Water	01/21/13 09:00	01/22/13 10:40
5.	LLMW24D-130121-W	WA66E	13-1601	Water	01/21/13 09:35	01/22/13 10:40
6.	LLMW25D-130121-W	WA66F	13-1602	Water	01/21/13 10:45	01/22/13 10:40
7.	LLMW29D-1301118-W	WA66G	13-1603	Water	01/18/13 10:35	01/22/13 10:40
8.	UNK-130121-W	WA66H	13-1604	Water	01/21/13 12:17	01/22/13 10:40
9.	EV19B-130118-W	WA66I	13-1605	Water	01/18/13 11:40	01/22/13 10:40
10.	EV20B-130118-W	WA66J	13-1606	Water	01/18/13 09:27	01/22/13 10:40
11.	LLMW27D-130121-W	WA66K	13-1607	Water	01/21/13 09:46	01/22/13 10:40
12.	DUP04-130121-W	WA66L	13-1608	Water	01/21/13 09:00	01/22/13 10:40
13.	LLMW24D-130121-W	WA66M	13-1609	Water	01/21/13 09:35	01/22/13 10:40
14.	LLMW25D-130121-W	WA66N	13-1610	Water	01/21/13 10:45	01/22/13 10:40
15.	LLMW29D-130118-W	WA66O	13-1611	Water	01/18/13 10:35	01/22/13 10:40
16.	UNK-130121-W	WA66P	13-1612	Water	01/21/13 12:17	01/22/13 10:40

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WA67
Client: GeoEngineers
Project Event: 0504-068-00
Project Name: ECY-Everett Lowlands

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	EV19B-130118-W	WA67A	13-1614	Water	01/18/13 11:40	01/22/13 10:40
2.	EV20B-130118-W	WA67B	13-1615	Water	01/18/13 09:27	01/22/13 10:40
3.	LLMW27D-130121-W	WA67C	13-1616	Water	01/21/13 09:46	01/22/13 10:40
4.	DUP04-130121-W	WA67D	13-1617	Water	01/21/13 09:00	01/22/13 10:40
5.	LLMW24D-130121-W	WA67E	13-1618	Water	01/21/13 09:35	01/22/13 10:40
6.	LLMW25D-130121-W	WA67F	13-1619	Water	01/21/13 10:45	01/22/13 10:40
7.	LLMW29D-130118-W	WA67G	13-1620	Water	01/18/13 10:35	01/22/13 10:40
8.	UNK-130121-W	WA67H	13-1621	Water	01/21/13 12:17	01/22/13 10:40
9.	EV19B-130118-W	WA67I	13-1622	Water	01/18/13 11:40	01/22/13 10:40
10.	EV20B-130118-W	WA67J	13-1623	Water	01/18/13 09:27	01/22/13 10:40
11.	LLMW27D-130121-W	WA67K	13-1624	Water	01/21/13 09:46	01/22/13 10:40
12.	DUP04-130121-W	WA67L	13-1625	Water	01/21/13 09:00	01/22/13 10:40
13.	LLMW24D-130121-W	WA67M	13-1626	Water	01/21/13 09:35	01/22/13 10:40
14.	LLMW25D-130121-W	WA67N	13-1627	Water	01/21/13 10:45	01/22/13 10:40
15.	LLMW29D-130118-W	WA67O	13-1628	Water	01/18/13 10:35	01/22/13 10:40
16.	UNK-130121-W	WA67P	13-1629	Water	01/21/13 12:17	01/22/13 10:40

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U Indicates that the target analyte was not detected at the reported concentration

* Duplicate RPD is not within established control limits

B Reported value is less than the CRDL but ≥ the Reporting Limit

N Matrix Spike recovery not within established control limits

NA Not Applicable, analyte not spiked

H The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible

L Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U Indicates that the target analyte was not detected at the reported concentration

* Flagged value is not within established control limits

B Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

J Estimated concentration when the value is less than ARI's established reporting limits

D The spiked compound was not detected due to sample extract dilution

E Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid, a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2 5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions **(Dioxin/Furan analysis only)**

Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Quality Control Parameters for Metals Analysis ICP-MS EPA Methods 200.8 or 6020A

Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[3]	Solids[2]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium[4]	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium[4]	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume Solids LOQ based on 100% solids using 1.0 g sample 100 mL final volume.

(3) Relative Percent Difference in replicate analyzes. $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$ where C_O=Original, C_D=Duplicate

(4) ARI has no accreditation for these elements.

WAGE : 00019

Quality Control Parameters for Mercury Analysis using CVAA
EPA Methods 7470A or 245.1 for Aqueous Samples
EPA Methods 7471B or 245.5 for Solid Samples

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[2]	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.025[3]	75 – 125	80 – 120	≤ 20
	Tissue Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.005[4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

Metals Analysis
Report and Summary QC Forms

ARI Job ID: WA66, WA67

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA66

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
EV19B-130118-W	WA66A	13-1597	
EV19B-130118-WD	WA66ADUP	13-1597	
EV19B-130118-WS	WA66ASPK	13-1597	
EV20B-130118-W	WA66B	13-1598	
PBW	WA66MB1	13-1598	
LCSW	WA66MB1SPK	13-1598	
LLMW27D-130121-W	WA66C	13-1599	
DUP04-130121-W	WA66D	13-1600	
LLMW24D-130121-W	WA66E	13-1601	
LLMW25D-130121-W	WA66F	13-1602	
LLMW29D-1301118-W	WA66G	13-1603	
UNK-130121-W	WA66H	13-1604	
EV19B-130118-W	WA66I	13-1605	
EV19B-130118-WD	WA66IDUP	13-1605	
EV19B-130118-WS	WA66ISPK	13-1605	
EV20B-130118-W	WA66J	13-1606	
PBW	WA66MB2	13-1606	
LCSW	WA66MB2SPK	13-1606	
LLMW27D-130121-W	WA66K	13-1607	
DUP04-130121-W	WA66L	13-1608	
LLMW24D-130121-W	WA66M	13-1609	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 12/4/13 Title: Inorganics Director

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA66

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLMW25D-130121-W	WA66N	13-1610	
LLMW29D-130118-W	WA66O	13-1611	
UNK-130121-W	WA66P	13-1612	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 2/4/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EV19B-130118-W
SAMPLE

Lab Sample ID: WA66A
LIMS ID: 13-1597
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/18/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	**7440-36-0**	**Antimony**	0.2	**0.2**	
200.8	01/23/13	200.8	01/28/13	**7440-38-2**	**Arsenic**	5	**4,050**	
200.8	01/23/13	200.8	01/28/13	**7440-43-9**	**Cadmium**	0.1	**0.3**	
200.8	01/23/13	200.8	01/28/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EV20B-130118-W
SAMPLE

Lab Sample ID: WA66B
LIMS ID: 13-1598
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/18/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	**7440-36-0**	**Antimony**	0.2	**0.7**	
200.8	01/23/13	200.8	01/29/13	**7440-38-2**	**Arsenic**	20	**13,900**	
200.8	01/23/13	200.8	01/28/13	**7440-43-9**	**Cadmium**	0.1	**0.1**	
200.8	01/23/13	200.8	01/28/13	**7439-92-1**	**Lead**	0.1	**0.2**	
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW27D-130121-W
SAMPLE

Lab Sample ID: WA66C
LIMS ID: 13-1599
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/21/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	**7440-36-0**	**Antimony**	0.2	**0.5**	
200.8	01/23/13	200.8	01/28/13	**7440-38-2**	**Arsenic**	2	**941**	
200.8	01/23/13	200.8	01/28/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/23/13	200.8	01/28/13	**7439-92-1**	**Lead**	0.1	**1.0**	
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: DUP04-130121-W
SAMPLE

Lab Sample ID: WA66D
LIMS ID: 13-1600
Matrix: Water
Data Release Authorized
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/21/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/23/13	200.8	01/28/13	**7440-38-2**	**Arsenic**	0.2	**1.6**	
200.8	01/23/13	200.8	01/28/13	**7440-43-9**	**Cadmium**	0.1	**0.3**	
200.8	01/23/13	200.8	01/28/13	**7439-92-1**	**Lead**	0.1	**0.9**	
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW24D-130121-W
SAMPLE

Lab Sample ID: WA66E
LIMS ID: 13-1601
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/21/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/23/13	200.8	01/28/13	**7440-38-2**	**Arsenic**	0.2	**2.6**	
200.8	01/23/13	200.8	01/28/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/23/13	200.8	01/28/13	**7439-92-1**	**Lead**	0.1	**2.1**	
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW25D-130121-W
SAMPLE

Lab Sample ID: WA66F
LIMS ID: 13-1602
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/21/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	**7440-36-0**	**Antimony**	0.2	**0.5**	
200.8	01/23/13	200.8	01/28/13	**7440-38-2**	**Arsenic**	0.2	**1.5**	
200.8	01/23/13	200.8	01/28/13	**7440-43-9**	**Cadmium**	0.1	**0.3**	
200.8	01/23/13	200.8	01/28/13	**7439-92-1**	**Lead**	0.1	**0.9**	
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW29D-1301118-W
SAMPLE

Lab Sample ID: WA66G
LIMS ID: 13-1603
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/18/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/23/13	200.8	01/29/13	**7440-38-2**	**Arsenic**	0.5	**7.1**	
200.8	01/23/13	200.8	01/28/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/23/13	200.8	01/28/13	**7439-92-1**	**Lead**	0.1	**0.9**	
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: UNK-130121-W
SAMPLE

Lab Sample ID: WA66H
LIMS ID: 13-1604
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/21/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	**7440-36-0**	**Antimony**	0.2	**11.6**	
200.8	01/23/13	200.8	01/28/13	**7440-38-2**	**Arsenic**	0.2	**86.9**	
200.8	01/23/13	200.8	01/28/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/23/13	200.8	01/28/13	**7439-92-1**	**Lead**	0.1	**4.2**	
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EV19B-130118-W
MATRIX SPIKE

Lab Sample ID: WA66A
LIMS ID: 13-1597
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/18/13
Date Received: 01/22/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.2	23.2	25.0	92.0%	
Arsenic	200.8	4,050	4,150	25	400%	H
Cadmium	200.8	0.3	24.7	25.0	97.6%	
Lead	200.8	0.1 U	24.1	25.0	96.4%	
Thallium	200.8	0.2 U	23.2	25.0	92.8%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked
NR-Not Recovered

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EV19B-130118-W
DUPLICATE

Lab Sample ID: WA66A
LIMS ID: 13-1597
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/18/13
Date Received: 01/22/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.2	0.3	40.0%	+/- 0.2	L
Arsenic	200.8	4,050	4,090	1.0%	+/- 20%	
Cadmium	200.8	0.3	0.3	0.0%	+/- 0.1	L
Lead	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: EV19B-130118-W
SAMPLE

Lab Sample ID: WA66I
LIMS ID: 13-1605
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/18/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	**7440-36-0**	**Antimony**	0.2	**0.2**	
200.8	01/23/13	200.8	01/28/13	**7440-38-2**	**Arsenic**	5	**3,970**	
200.8	01/23/13	200.8	01/28/13	**7440-43-9**	**Cadmium**	0.1	**0.1**	
200.8	01/23/13	200.8	01/28/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: EV20B-130118-W
SAMPLE

Lab Sample ID: WA66J
LIMS ID: 13-1606
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/18/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	**7440-36-0**	**Antimony**	0.2	**0.3**	
200.8	01/23/13	200.8	01/29/13	**7440-38-2**	**Arsenic**	20	**14,000**	
200.8	01/23/13	200.8	01/28/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/28/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW27D-130121-W
SAMPLE

Lab Sample ID: WA66K
LIMS ID: 13-1607
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/21/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	**7440-36-0**	**Antimony**	0.2	**0.6**	
200.8	01/23/13	200.8	02/01/13	**7440-38-2**	**Arsenic**	1	**814**	
200.8	01/23/13	200.8	01/28/13	**7440-43-9**	**Cadmium**	0.1	**0.1**	
200.8	01/23/13	200.8	01/28/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: DUP04-130121-W
SAMPLE

Lab Sample ID: WA66L
LIMS ID: 13-1608
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/21/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/23/13	200.8	01/28/13	**7440-38-2**	**Arsenic**	0.2	**1.1**	
200.8	01/23/13	200.8	01/28/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	01/23/13	200.8	01/28/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW24D-130121-W
SAMPLE

Lab Sample ID: WA66M
LIMS ID: 13-1609
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/21/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/23/13	200.8	01/29/13	**7440-38-2**	**Arsenic**	0.2	**0.8**	
200.8	01/23/13	200.8	01/28/13	**7440-43-9**	**Cadmium**	0.1	**0.4**	
200.8	01/23/13	200.8	01/28/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW25D-130121-W
SAMPLE

Lab Sample ID: WA66N
LIMS ID: 13-1610
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/21/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	**7440-36-0**	**Antimony**	0.2	**0.5**	
200.8	01/23/13	200.8	01/29/13	**7440-38-2**	**Arsenic**	0.2	**0.9**	
200.8	01/23/13	200.8	01/28/13	**7440-43-9**	**Cadmium**	0.1	**0.7**	
200.8	01/23/13	200.8	01/28/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW29D-130118-W
SAMPLE

Lab Sample ID: WA66O
LIMS ID: 13-1611
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/18/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	01/23/13	200.8	01/29/13	**7440-38-2**	**Arsenic**	0.2	**4.5**	
200.8	01/23/13	200.8	01/28/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/28/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: UNK-130121-W
SAMPLE

Lab Sample ID: WA66P
LIMS ID: 13-1612
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/21/13
Date Received: 01/22/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	**7440-36-0**	**Antimony**	0.2	**7.0**	
200.8	01/23/13	200.8	01/29/13	**7440-38-2**	**Arsenic**	0.2	**71.6**	
200.8	01/23/13	200.8	01/28/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/28/13	**7439-92-1**	**Lead**	0.1	**3.1**	
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: EV19B-130118-W
MATRIX SPIKE

Lab Sample ID: WA66I
LIMS ID: 13-1605
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/18/13
Date Received: 01/22/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.2	23.0	25.0	91.2%	
Arsenic	200.8	3,970	4,140	25.0	680%	H
Cadmium	200.8	0.1	25.1	25.0	100%	
Lead	200.8	0.1 U	24.4	25.0	97.6%	
Thallium	200.8	0.2 U	23.4	25.0	93.6%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: EV19B-130118-W
DUPLICATE

Lab Sample ID: WA66I
LIMS ID: 13-1605
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/18/13
Date Received: 01/22/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.2	0.2	0.0%	+/- 0.2	L
Arsenic	200.8	3,970	4,040	1.7%	+/- 20%	
Cadmium	200.8	0.1	0.1	0.0%	+/- 0.1	L
Lead	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: WA66LCS
LIMS ID: 13-1598
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	24.3	25.0	97.2%	
Arsenic	200.8	28.8	25.0	115%	
Cadmium	200.8	26.2	25.0	105%	
Lead	200.8	26.9	25.0	108%	
Thallium	200.8	25.4	25.0	102%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: METHOD BLANK

Lab Sample ID: WA66MB
LIMS ID: 13-1598
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/28/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	01/23/13	200.8	01/28/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/28/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: WA66LCS
LIMS ID: 13-1606
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	23.6	25.0	94.4%	
Arsenic	200.8	29.7	25.0	119%	
Cadmium	200.8	25.6	25.0	102%	
Lead	200.8	25.6	25.0	102%	
Thallium	200.8	24.1	25.0	96.4%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: METHOD BLANK

Lab Sample ID: WA66MB
LIMS ID: 13-1606
Matrix: Water
Data Release Authorized:
Reported: 02/01/13

QC Report No: WA66-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	01/23/13	200.8	01/28/13	7440-36-0	Antimony	0.2	0.2	U
200.8	01/23/13	200.8	01/28/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	01/23/13	200.8	01/28/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	01/23/13	200.8	01/28/13	7439-92-1	Lead	0.1	0.1	U
200.8	01/23/13	200.8	01/28/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS: ug/L

SDG: WA66

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS012813	50.0	49.86	**99.7**	50.0	49.98	**100.0**	48.44	**96.9**	49.30	**98.6**	49.50	**99.0**	49.55	**99.1**
Arsenic	AS	PMS	MS012813	50.0	52.28	**104.6**	50.0	52.55	**105.1**	52.62	**105.2**	53.80	**107.6**	54.97	**109.9**	53.63	**107.3**
Cadmium	CD	PMS	MS012813	50.0	50.48	**101.0**	50.0	50.46	**100.9**	50.25	**100.5**	50.80	**101.6**	51.37	**102.7**	51.34	**102.7**
Lead	PB	PMS	MS012813	50.0	49.61	**99.2**	50.0	48.74	**97.5**	47.94	**95.9**	48.73	**97.5**	48.80	**97.6**	48.84	**97.7**
Thallium	TL	PMS	MS012813	50.0	52.39	**104.8**	50.0	51.11	**102.2**	50.84	**101.7**	51.28	**102.6**	51.26	**102.5**	51.58	**103.2**

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

WA66 00018

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA66

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	PMS	MS012813	50.0	49.89	**99.8**	49.83	**99.7**	49.98	**100.0**	50.40	**100.8**	50.88	**101.8**		
Arsenic	AS	PMS	MS012813	50.0	53.80	**107.6**	54.44	**108.9**	55.15	**110.3**	55.54	**111.1**	52.75	**105.5**		
Cadmium	CD	PMS	MS012813	50.0	52.07	**104.1**	52.03	**104.1**	52.16	**104.3**	52.51	**105.0**	53.23	**106.5**		
Lead	PB	PMS	MS012813	50.0	48.57	**97.1**	49.43	**98.9**	49.69	**99.4**	49.44	**98.9**	49.79	**99.6**		
Thallium	TL	PMS	MS012813	50.0	52.05	**104.1**	53.74	**107.5**	53.58	**107.2**	54.58	**109.2**	55.07	**110.1**		

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

WA66 - 00009

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA66

UNITS:ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	PMS	MS012911	50.0	50.12	**100.2**	50.0	48.43	**96.9**	51.20	**102.4**	49.09	**98.2**				

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

WA66 00050

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS: ug/L

SDG: WA66

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Arsenic	AS	PMS	MS020111	50.0	50.07	**100.1**	50.0	49.58	**99.2**	49.99	**100.0**	50.68	**101.4**	51.31	**102.6**		

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

WA66 00051

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

UNITS: ug/L

SDG: WA66

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Antimony	SB	PMS	MS012813	0.2	0.19	**95.0**										
Arsenic	AS	PMS	MS012813	0.2	0.23	**115.0**										
Cadmium	CD	PMS	MS012813	0.1	0.11	**110.0**										
Lead	PB	PMS	MS012813	0.1	0.11	**110.0**										
Thallium	TL	PMS	MS012813	0.2	0.19	**95.0**										
Arsenic	AS	PMS	MS012911	0.2	0.22	**110.0**										
Arsenic	AS	PMS	MS020111	0.2	0.19	**95.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

WA66 : 00052

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA66

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS012813	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS012813	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS012813	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Lead	PB	PMS	MS012813	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Thallium	TL	PMS	MS012813	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

PAGE : 000053

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA66

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	PMS	MS012813	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Arsenic	AS	PMS	MS012813	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Cadmium	CD	PMS	MS012813	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		
Lead	PB	PMS	MS012813	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		
Thallium	TL	PMS	MS012813	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA66

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Arsenic	AS	PMS	MS012911	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				

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Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA66

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Arsenic	AS	PMS	MS020111	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		

UA66.00055

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA66

ICS SOURCE: I.V.

RUNID: MS012813

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.2	20.4	**102.0**						
Barium			0.1	0.1							
Cadmium		20	0.1	19.4	**97.0**						
Chromium		20	0.6	18.7	**93.5**						
Cobalt		20	0.0	19.6	**98.0**						
Copper		20	1.4	22.3	**111.5**						
Manganese		20	0.1	19.7	**98.5**						
Molybdenum	400	400	471.0	492.4	**123.1**						
Nickel		20	0.5	21.4	**107.0**						
Selenium			-0.4	-0.3							
Silver		20	0.0	22.5	**112.5**						
Zinc		20	1.3	21.0	**105.0**						

WA66 00057

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA66

ICS SOURCE: I.V.

RUNID: MS012911

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.8	**99.0**						
Cadmium		20	0.3	19.2	**96.0**						
Copper		20	1.2	20.9	**104.5**						
Nickel		20	0.3	20.7	**103.5**						
Selenium			-0.2	-0.2							
Silver		20	0.0	19.1	**95.5**						
Zinc		20	1.1	20.4	**102.0**						

WA66 : 000058

ICP Interference
Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA66

ICS SOURCE: I.V.

RUNID: MS020111

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	20.4	**102.0**						
Cadmium		20	0.3	19.8	**99.0**						
Copper		20	1.5	20.9	**104.5**						
Nickel		20	0.5	20.3	**101.5**						
Selenium			-0.3	-0.3							
Silver		20	0.0	20.2	**101.0**						
Zinc		20	1.1	20.0	**100.0**						

WA66 00059

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA66

UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Antimony	SB	PMS	NEXION 300D MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Cadmium	CD	PMS	NEXION 300D MS	0.00		5	0.1	4/1/2012		
Lead	PB	PMS	NEXION 300D MS	0.00		3	0.1	4/1/2012		
Thallium	TL	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA66

ANALYSIS METHOD: PMS

ARI PREP CODE: REN

PREPDATE: 1/23/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
EV19B-130118-W	WA66A	0.000	50.0	25.0
EV19B-130118-WD	WA66ADUP	0.000	50.0	25.0
EV19B-130118-WS	WA66ASPK	0.000	50.0	25.0
EV20B-130118-W	WA66B	0.000	50.0	25.0
LLMW27D-130121-W	WA66C	0.000	50.0	25.0
DUP04-130121-W	WA66D	0.000	50.0	25.0
LLMW24D-130121-W	WA66E	0.000	50.0	25.0
LLMW25D-130121-W	WA66F	0.000	50.0	25.0
LLMW29D-1301118-W	WA66G	0.000	50.0	25.0
UNK-130121-W	WA66H	0.000	50.0	25.0
EV19B-130118-W	WA66I	0.000	50.0	25.0
EV19B-130118-WD	WA66IDUP	0.000	50.0	25.0
EV19B-130118-WS	WA66ISPK	0.000	50.0	25.0
EV20B-130118-W	WA66J	0.000	50.0	25.0
LLMW27D-130121-W	WA66K	0.000	50.0	25.0
DUP04-130121-W	WA66L	0.000	50.0	25.0
LLMW24D-130121-W	WA66M	0.000	50.0	25.0
PBW	WA66MB1	0.000	50.0	25.0
LCSW	WA66MB1SPK	0.000	50.0	25.0
PBW	WA66MB2	0.000	50.0	25.0
LCSW	WA66MB2SPK	0.000	50.0	25.0
LLMW25D-130121-W	WA66N	0.000	50.0	25.0
LLMW29D-130118-W	WA66O	0.000	50.0	25.0
UNK-130121-W	WA66P	0.000	50.0	25.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: NEXION 300D MS START DATE: 1/28/2013

SDG: WA66 RUNID: MS012813 METHOD: PMS END DATE: 1/28/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10450				X					X												X	X					X			
S1	S1	1.00	10500				X					X												X	X					X			
S2	S2	1.00	10540				X					X												X	X					X			
S3	S3	1.00	10580				X					X												X	X					X			
S4	S4	1.00	11030				X					X												X	X					X			
S5	S5	1.00	11090																														
ZZZZZZ	Rinse sampl	1.00	11160																														
ICV	MICV	1.00	11230				X					X												X	X					X			
ICB	ICB	1.00	11290				X					X												X	X					X			
CCV	MCCV1	1.00	11340				X					X												X	X					X			
CCB	CCB1	1.00	11400				X					X												X	X					X			
ZZZZZZ	ZZZZZZ	1.00	11440																														
ZZZZZZ	ZZZZZZ	1.00	11480																														
ZZZZZZ	ZZZZZZ	1.00	11550																														
ZZZZZZ	LR200	1.00	12020																														
ZZZZZZ	B1	1.00	12090																														
ZZZZZZ	B2	1.00	12140																														
CCV	MCCV2	1.00	12190				X					X												X	X					X			
CCB	CCB2	1.00	12260				X					X												X	X					X			
S0	S0	1.00	12320				X					X												X	X					X			
CCV	MCCV3	1.00	12360				X					X												X	X					X			
CCB	CCB3	1.00	12430				X					X												X	X					X			
CRI	MCRI	1.00	12470				X					X												X	X					X			
ICSA	ICSAI	1.00	12510				X					X												X	X					X			
ICSAB	ICSABI	1.00	12580				X					X												X	X					X			
ZZZZZZ	B3	1.00	13050																														
CCV	MCCV4	1.00	13100				X					X												X	X					X			
CCB	CCB4	1.00	13170				X					X												X	X					X			
ZZZZZZ	DI CHECK	1.00	13320																														
ZZZZZZ	ERAP197	10.00	13360																														
ZZZZZZ	VZ86I	20.00	13400																														
ZZZZZZ	WA61L	50.00	13440																														
ZZZZZZ	WA61Q	5.00	13480																														
ZZZZZZ	WA61R	5.00	13520																														
ZZZZZZ	WA61AE	50.00	13560																														

FORM XIV

WA66 . 00062

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: NEXION 300D MS START DATE: 1/28/2013

SDG: WA66 RUNID: MS012813 METHOD: PMS END DATE: 1/28/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	WA61AH	2.00	14000																														
ZZZZZZ	WA61AJ	5.00	14050																														
ZZZZZZ	WA61AK	5.00	14090																														
CCV	MCCV5	1.00	14140				X					X												X	X					X			
CCB	CCB5	1.00	14210				X					X												X	X					X			
PBW	WA66MB1	2.00	14270																														
EV19B-130118-WD	WA66ADUP	2.00	14310									X												X	X					X			
EV19B-130118-W	WA66A	2.00	14350									X												X	X					X			
EV19B-130118-WS	WA66ASPK	2.00	14390									X												X	X					X			
EV19B-130118-WD	WA66IDUP	2.00	14440									X												X	X					X			
EV19B-130118-W	WA66I	2.00	14480									X												X	X					X			
EV19B-130118-WS	WA66ISPK	2.00	14520									X												X	X					X			
EV20B-130118-W	WA66B	2.00	14560									X												X	X					X			
LLMW27D-130121-W	WA66C	2.00	15000									X												X	X					X			
LCSW	WA66MB1SPK	2.00	15040																														
CCV	MCCV6	1.00	15090				X					X												X	X					X			
CCB	CCB6	1.00	15160				X					X												X	X					X			
PBW	WA66MB1	2.00	15320				X					X												X	X					X			
EV19B-130118-WD	WA66ADUP	50.00	15370				X																										
EV19B-130118-W	WA66A	50.00	15410				X																										
EV19B-130118-WS	WA66ASPK	50.00	15450				X																										
EV19B-130118-WD	WA66IDUP	50.00	15490				X																										
EV19B-130118-W	WA66I	50.00	15530				X																										
EV19B-130118-WS	WA66ISPK	50.00	15570				X																										
EV20B-130118-W	WA66B	100.00	16010																														
LLMW27D-130121-W	WA66C	20.00	16050				X																										
LCSW	WA66MB1SPK	2.00	16100				X					X												X	X					X			
CCV	MCCV7	1.00	16150				X					X												X	X					X			
CCB	CCB7	1.00	16220				X					X												X	X					X			
PBW	WA66MB2	2.00	16260				X					X												X	X					X			
DUP04-130121-W	WA66D	2.00	16300				X					X												X	X					X			
LLMW24D-130121-W	WA66E	2.00	16340				X					X												X	X					X			
LLMW25D-130121-W	WA66F	2.00	16380				X					X												X	X					X			
LLMW29D-1301118-W	WA66G	2.00	16420									X												X	X					X			
UNK-130121-W	WA66H	2.00	16460				X					X												X	X					X			

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: NEXION 300D MS START DATE: 1/28/2013

SDG: WA66 RUNID: MS012813 METHOD: PMS END DATE: 1/28/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
EV20B-130118-W	WA66J	2.00	16500									X												X	X					X			
LLMW27D-130121-W	WA66K	2.00	16550									X												X	X					X			
DUP04-130121-W	WA66L	2.00	16590				X					X												X	X					X			
LCSW	WA66MB2SPK	2.00	17030				X					X												X	X					X			
CCV	MCCV8	1.00	17080				X					X												X	X					X			
CCB	CCB8	1.00	17150				X					X												X	X					X			
ZZZZZZ	WA93MB1	20.00	17190																														
LLMW24D-130121-W	WA66M	2.00	17230									X												X	X					X			
LLMW25D-130121-W	WA66N	2.00	17270									X												X	X					X			
LLMW29D-130118-W	WA66O	2.00	17310									X												X	X					X			
UNK-130121-W	WA66P	2.00	17360									X												X	X					X			
ZZZZZZ	WA93ADUP	20.00	17400																														
ZZZZZZ	WA93A	20.00	17440																														
ZZZZZZ	WA93ASPK	20.00	17480																														
ZZZZZZ	ZZZZZZ	20.00	17520																														
ZZZZZZ	WA93MB1SPK	20.00	17560																														
CCV	MCCV9	1.00	18010				X					X												X	X					X			
CCB	CCB9	1.00	18080				X					X												X	X					X			
ZZZZZZ	WA87MB1	2.00	18120																														
ZZZZZZ	WA87MB2	2.00	18170																														
ZZZZZZ	WA93B	20.00	18210																														
ZZZZZZ	WA93C	20.00	18250																														
ZZZZZZ	WA93D	20.00	18290																														
ZZZZZZ	WA93E	20.00	18330																														
EV20B-130118-W	WA66J	100.00	18370																														
LLMW27D-130121-W	WA66K	20.00	18410																														
ZZZZZZ	WA87MB1SPK	2.00	18450																														
ZZZZZZ	WA87MB2SPK	2.00	18500																														
CCV	MCCV10	1.00	18550				X					X												X	X					X			
CCB	CCB10	1.00	19020				X					X												X	X					X			

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: NEXION 300D MS START DATE: 1/29/2013

SDG: WA66 RUNID: MS012911 METHOD: PMS END DATE: 1/29/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09050				X																										
S1	S1	1.00	09090				X																										
S2	S2	1.00	09130				X																										
S3	S3	1.00	09160				X																										
S4	S4	1.00	09200				X																										
S5	S5	1.00	09260																														
ZZZZZZ	Rinse sampl	1.00	09320																														
ICV	MICV	1.00	09380				X																										
ICB	ICB	1.00	09450				X																										
CCV	MCCV1	1.00	09480				X																										
CCB	CCB1	1.00	09540				X																										
CRI	MCRI	1.00	09580				X																										
ICSA	ICSAI	1.00	10010				X																										
ICSAB	ICSABI	1.00	10070				X																										
ZZZZZZ	LR200	1.00	10130																														
ZZZZZZ	LR300	1.00	10200																														
ZZZZZZ	B1	1.00	10260																														
CCV	MCCV2	1.00	10310				X																										
CCB	CCB2	1.00	10380				X																										
EV20B-130118-W	WA66B	200.00	10430				X																										
EV20B-130118-W	WA66J	200.00	10470				X																										
LLMW29D-1301118-W	WA66G	5.00	10510				X																										
LLMW24D-130121-W	WA66M	2.00	10540				X																										
LLMW25D-130121-W	WA66N	2.00	10580				X																										
LLMW29D-130118-W	WA66O	2.00	11030				X																										
UNK-130121-W	WA66P	2.00	11060				X																										
ZZZZZZ	WA93B	20.00	11100																														
ZZZZZZ	WA93C	20.00	11130																														
ZZZZZZ	WA93MB1SPK	20.00	11170																														
CCV	MCCV3	1.00	11210				X																										
CCB	CCB3	1.00	11280				X																										

WA66:00055

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: NEXION 300D MS START DATE: 2/1/2013

SDG: WA66 RUNID: MS020111 METHOD: PMS END DATE: 2/1/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	11100				X																										
S1	S1	1.00	11140				X																										
S2	S2	1.00	11170				X																										
S3	S3	1.00	11210				X																										
S4	S4	1.00	11250				X																										
S5	S5	1.00	11300																														
ZZZZZZ	Rinse sampl	1.00	11370																														
ICV	MICV	1.00	11450				X																										
ICB	ICB	1.00	11510				X																										
CCV	MCCV1	1.00	11550				X																										
CCB	CCB1	1.00	12010				X																										
CRI	MCRI	1.00	12050				X																										
ICSA	ICSAI	1.00	12080				X																										
ICSAB	ICSABI	1.00	12140				X																										
ZZZZZZ	LR200	1.00	12200																														
ZZZZZZ	B1	1.00	12270																														
ZZZZZZ	B2	1.00	12310																														
CCV	MCCV2	1.00	12360				X																										
CCB	CCB2	1.00	12420				X																										
ZZZZZZ	WB85MB1	20.00	12460																														
LLMW27D-130121-W	WA66K	5.00	12490																														
ZZZZZZ	WB85A-L	100.00	12530																														
ZZZZZZ	WB85A	20.00	12560																														
ZZZZZZ	WB85ADUP	20.00	13000																														
ZZZZZZ	WB85ASPK	20.00	13030																														
ZZZZZZ	ZZZZZZ	20.00	13070																														
ZZZZZZ	WB85REF1	50.00	13100																														
ZZZZZZ	WB85MB1SPK	20.00	13140																														
CCV	MCCV3	1.00	13170				X																										
CCB	CCB3	1.00	13240				X																										
LLMW27D-130121-W	WA66K	10.00	13290				X																										
ZZZZZZ	WB85ADUP	20.00	13330																														
ZZZZZZ	WB85ASPK	20.00	13360																														
ZZZZZZ	WB85REF1	50.00	13400																														
ZZZZZZ	WB85MB1SPK	20.00	13430																														

FORM XIV

WA66 · 00056

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: NEXION 300D MS START DATE: 2/1/2013

SDG: WA66 RUNID: MS020111 METHOD: PMS END DATE: 2/1/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	BG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	WB85REF1	50.00	13520																														
ZZZZZZ	WB85MB1SPK	20.00	13560																														
CCV	MCCV4	1.00	14000				X																										
CCB	CCB4	1.00	14060				X																										

WA66 : 00067

Mercury Analysis
Report and Summary QC Forms

ARI Job ID: WA66, WA67

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA67

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
EV19B-130118-W	WA67A	13-1614	
EV20B-130118-W	WA67B	13-1615	
EV20B-130118-WD	WA67BDUP	13-1615	
EV20B-130118-WS	WA67BSPK	13-1615	
LLMW27D-130121-W	WA67C	13-1616	
PBW	WA67MB1	13-1616	
LCSW	WA67MB1SPK	13-1616	
DUP04-130121-W	WA67D	13-1617	
LLMW24D-130121-W	WA67E	13-1618	
LLMW25D-130121-W	WA67F	13-1619	
LLMW29D-130118-W	WA67G	13-1620	
UNK-130121-W	WA67H	13-1621	
EV19B-130118-W	WA67I	13-1622	
EV20B-130118-W	WA67J	13-1623	
EV20B-130118-WD	WA67JDUP	13-1623	
EV20B-130118-WS	WA67JSPK	13-1623	
LLMW27D-130121-W	WA67K	13-1624	
PBW	WA67MB2	13-1624	
LCSW	WA67MB2SPK	13-1624	
DUP04-130121-W	WA67L	13-1625	
LLMW24D-130121-W	WA67M	13-1626	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 1/24/13 Title: Inorganics Director

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA67

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLMW25D-130121-W	WA67N	13-1627	
LLMW29D-130118-W	WA67O	13-1628	
UNK-130121-W	WA67P	13-1629	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 1/24/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Total Mercury by Method SW7470A

Data Release Authorized:
Reported: 01/24/13
Date Received: 01/22/13
Page 1 of 1

QC Report No: WA67-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
EV19B-130118-W WA67A 13-1614	01/18/13	Water	01/23/13 01/23/13	20.0	20.0 U
EV20B-130118-W WA67B 13-1615	01/18/13	Water	01/23/13 01/23/13	20.0	20.0 U
LLMW27D-130121-W WA67C 13-1616	01/21/13	Water	01/23/13 01/23/13	20.0	20.0 U
DUP04-130121-W WA67D 13-1617	01/21/13	Water	01/23/13 01/23/13	20.0	20.0 U
LLMW24D-130121-W WA67E 13-1618	01/21/13	Water	01/23/13 01/23/13	20.0	20.0 U
LLMW25D-130121-W WA67F 13-1619	01/21/13	Water	01/23/13 01/23/13	20.0	20.0 U
LLMW29D-130118-W WA67G 13-1620	01/18/13	Water	01/23/13 01/23/13	20.0	20.0 U
UNK-130121-W WA67H 13-1621	01/21/13	Water	01/23/13 01/23/13	**20.0**	**59.9**
MB-012313 Method Blank	NA	Water	01/23/13 01/23/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EV20B-130118-W
MATRIX SPIKE

Lab Sample ID: WA67B
LIMS ID: 13-1615
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA67-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/18/13
Date Received: 01/22/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	106	100	106%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: EV20B-130118-W
DUPLICATE

Lab Sample ID: WA67B
LIMS ID: 13-1615
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA67-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/18/13
Date Received: 01/22/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: WA67LCS
LIMS ID: 13-1616
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA67-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	204	200	102%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Dissolved Mercury by Method SW7470A

Data Release Authorized:
Reported: 01/24/13
Date Received: 01/22/13

QC Report No238: WA67-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
EV19B-130118-W WA67I 13-1622	01/18/13	Water	01/23/13 01/23/13	20.0	20.0 U
EV20B-130118-W WA67J 13-1623	01/18/13	Water	01/23/13 01/23/13	20.0	20.0 U
LLMW27D-130121-W WA67K 13-1624	01/21/13	Water	01/23/13 01/23/13	20.0	20.0 U
DUP04-130121-W WA67L 13-1625	01/21/13	Water	01/23/13 01/23/13	20.0	20.0 U
LLMW24D-130121-W WA67M 13-1626	01/21/13	Water	01/23/13 01/23/13	20.0	20.0 U
LLMW25D-130121-W WA67N 13-1627	01/21/13	Water	01/23/13 01/23/13	20.0	20.0 U
LLMW29D-130118-W WA67O 13-1628	01/18/13	Water	01/23/13 01/23/13	20.0	20.0 U
UNK-130121-W WA67P 13-1629	01/21/13	Water	01/23/13 01/23/13	**20.0**	**44.0**
MB-012313 Method Blank	NA	Water	01/23/13 01/23/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: EV20B-130118-W
MATRIX SPIKE

Lab Sample ID: WA67J
LIMS ID: 13-1623
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA67-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/18/13
Date Received: 01/22/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	108	100	108%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: EV20B-130118-W
DUPLICATE

Lab Sample ID: WA67J
LIMS ID: 13-1623
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA67-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: 01/18/13
Date Received: 01/22/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: WA67LCS
LIMS ID: 13-1624
Matrix: Water
Data Release Authorized:
Reported: 01/24/13

QC Report No: WA67-GeoEngineers
Project: ECY-Everett Lowlands
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	189	200	94.5%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA67

UNITS:ng/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Mercury	HG	CVL	HG012301	500.0	470.00	**94.0**	500.0	474.00	**94.8**	474.00	**94.8**	473.00	**94.6**	477.00	**95.4**	477.00	**95.4**

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

WA55 00079

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA67

UNITS:ng/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Mercury	HG	CVL	HG012301	500.0	471.00	**94.2**	473.00	**94.6**	471.00	**94.2**	471.00	**94.2**	470.00	**94.0**	467.00	**93.4**

Control Limits: Mercury 80-120; Other Metals 90-110

WA56 00080

Calibration Verification

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA67

ANALYTICAL RESOURCES INCORPORATED

UNITS:ng/L

ANALYTE	EL	M	RUN	CCVTV	CCV12	%R	CCV13	%R	CCV14	%R	CCV15	%R	CCV16	%R	CCV17	%R
Mercury	HG	CVL	HG012301	500.0	466.00	93.2										

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

WA56 00081

CRDL Standard

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA67

ANALYTICAL RESOURCES INCORPORATED

UNITS:ng/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Mercury	HG	CVL	HG012301		20.0	22.40	**112.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

WA66:00082

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA67

UNITS:ng/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Mercury	HG	CVL	HG012301	25.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U

WA65 00083

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA67

UNITS: ng/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Mercury	HG	CVL	HG012301	25.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U

WA55 . 000581

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA67

UNITS:ng/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB12	C	CCB13	C	CCB14	C	CCB15	C	CCB16	C	CCB17	C
Mercury	HG	CVL	HG012301	25.0	20.0	20.0	U										

WA66 00085

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA67

UNITS: ng/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ng/L)	ICP LR DATE
Mercury	HG	CVL	CETAC MERCURY	253.70		25	20.0	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands

SDG: WA67

ANALYSIS METHOD: CVL

ARI PREP CODE: TLM

PREPDATE: 1/23/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
EV19B-130118-W	WA67A	0.000	20.0	20.0
EV20B-130118-W	WA67B	0.000	20.0	20.0
EV20B-130118-WD	WA67BDUP	0.000	20.0	20.0
EV20B-130118-WS	WA67BSPK	0.000	20.0	20.0
LLMW27D-130121-W	WA67C	0.000	20.0	20.0
DUP04-130121-W	WA67D	0.000	20.0	20.0
LLMW24D-130121-W	WA67E	0.000	20.0	20.0
LLMW25D-130121-W	WA67F	0.000	20.0	20.0
LLMW29D-130118-W	WA67G	0.000	20.0	20.0
UNK-130121-W	WA67H	0.000	20.0	20.0
EV19B-130118-W	WA67I	0.000	20.0	20.0
EV20B-130118-W	WA67J	0.000	20.0	20.0
EV20B-130118-WD	WA67JDUP	0.000	20.0	20.0
EV20B-130118-WS	WA67JSPK	0.000	20.0	20.0
LLMW27D-130121-W	WA67K	0.000	20.0	20.0
DUP04-130121-W	WA67L	0.000	20.0	20.0
LLMW24D-130121-W	WA67M	0.000	20.0	20.0
PBW	WA67MB1	0.000	20.0	20.0
LCSW	WA67MB1SPK	0.000	20.0	20.0
PBW	WA67MB2	0.000	20.0	20.0
LCSW	WA67MB2SPK	0.000	20.0	20.0
LLMW25D-130121-W	WA67N	0.000	20.0	20.0
LLMW29D-130118-W	WA67O	0.000	20.0	20.0
UNK-130121-W	WA67P	0.000	20.0	20.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: CETAC MERCURY START DATE: 1/23/2013

SDG: WA67 RUNID: HG012301 METHOD: CVL END DATE: 1/23/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	08023														X																
S20	S20	1.00	08051														X																
S50	S50	1.00	08080														X																
S100	S100	1.00	08104														X																
S200	S200	1.00	08132														X																
S400	S400	1.00	08160														X																
S1000	S1000	1.00	08185														X																
ICV	AICV	1.00	08260														X																
ICB	ICB	1.00	08284														X																
CCV	ACCV1	1.00	08312														X																
CCB	CCB1	1.00	08340														X																
CRA	CRA	1.00	08365														X																
ZZZZZZ	TEST1STD1	1.00	08393																														
ZZZZZZ	TEST2STD1	1.00	08421																														
ZZZZZZ	TEST2 STD6	1.00	08445																														
ZZZZZZ	TEST2 STD6	1.00	08473																														
ZZZZZZ	TEST1 CV	1.00	08501																														
ZZZZZZ	TEST2 CV	1.00	08525																														
ZZZZZZ	TEST3 CV	1.00	08554																														
ZZZZZZ	WA10MB1	1.00	08582																														
ZZZZZZ	WA10MB1SPK	1.00	09010																														
CCV	ACCV2	1.00	09035														X																
CCB	CCB2	1.00	09063														X																
ZZZZZZ	WA10A	1.00	09092																														
ZZZZZZ	WA10ADUP	1.00	09120																														
ZZZZZZ	WA10ASPK	1.00	09144																														
ZZZZZZ	WA10B	1.00	09172																														
ZZZZZZ	WA10C	1.00	09200																														
ZZZZZZ	WA10D	1.00	09224																														
ZZZZZZ	WA10E	1.00	09252																														
ZZZZZZ	WA10F	1.00	09280																														
ZZZZZZ	WA10MB2	1.00	09305																														
ZZZZZZ	WA10MB2SPK	1.00	09333																														
CCV	ACCV3	1.00	09361														X																
CCB	CCB3	1.00	09390														X																

FORM XIV

UA56 00088

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands | INSTRUMENT ID: CETAC MERCURY | START DATE: 1/23/2013

SDG: WA67 | RUNID: HG012301 METHOD: CVL | END DATE: 1/23/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	WA10G	1.00	09414																														
ZZZZZZ	WA10GDUP	1.00	09443																														
ZZZZZZ	WA10GSPK	1.00	09471																														
ZZZZZZ	WA10H	1.00	09495																														
ZZZZZZ	WA10I	1.00	09523																														
ZZZZZZ	WA10J	1.00	09551																														
ZZZZZZ	WA10K	1.00	09575																														
ZZZZZZ	WA10L	1.00	10003																														
CCV	ACCV4	1.00	10032														X																
CCB	CCB4	1.00	10060														X																
ZZZZZZ	WA16MB1	1.00	10091																														
ZZZZZZ	WA16MB1SPK	1.00	10115																														
ZZZZZZ	WA16A	1.00	10143																														
ZZZZZZ	WA16ADUP	1.00	10171																														
ZZZZZZ	WA16ASPK	1.00	10195																														
ZZZZZZ	WA16B	1.00	10223																														
ZZZZZZ	WA16C	1.00	10251																														
ZZZZZZ	WA16D	1.00	10275																														
ZZZZZZ	WA16E	1.00	10303																														
ZZZZZZ	WA16F	1.00	10331																														
CCV	ACCV5	1.00	10360														X																
CCB	CCB5	1.00	10384														X																
ZZZZZZ	WA16G	1.00	10413																														
ZZZZZZ	WA16H	1.00	10441																														
ZZZZZZ	WA16I	1.00	10465																														
ZZZZZZ	WA16J	1.00	10493																														
ZZZZZZ	WA16K	1.00	10521																														
ZZZZZZ	WA16L	1.00	10545																														
ZZZZZZ	WA16M	1.00	10574																														
ZZZZZZ	WA16N	1.00	11002																														
ZZZZZZ	WA16O	1.00	11030																														
ZZZZZZ	WA16P	1.00	11054																														
CCV	ACCV6	1.00	11083														X																
CCB	CCB6	1.00	11111														X																
ZZZZZZ	WA16Q	1.00	11135																														

FORM XIV

000099 : 55PM

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: CETAC MERCURY START DATE: 1/23/2013

SDG: WA67 RUNID: HG012301 METHOD: CVL END DATE: 1/23/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	WA16MB2	1.00	11164																														
ZZZZZZ	WA16MB2SPK	1.00	11192																														
ZZZZZZ	WA16R	1.00	11220																														
ZZZZZZ	WA16RDUP	1.00	11245																														
ZZZZZZ	WA16RSPK	1.00	11273																														
ZZZZZZ	WA16S	1.00	11301																														
ZZZZZZ	WA16T	1.00	11325																														
ZZZZZZ	WA16U	1.00	11353																														
ZZZZZZ	WA16V	1.00	11381																														
CCV	ACCV7	1.00	11410														X																
CCB	CCB7	1.00	11434														X																
ZZZZZZ	WA16W	1.00	11462																														
ZZZZZZ	WA16X	1.00	11491																														
ZZZZZZ	WA16Y	1.00	11515																														
ZZZZZZ	WA16Z	1.00	11543																														
ZZZZZZ	WA16AA	1.00	11572																														
ZZZZZZ	WA16AB	1.00	12000																														
ZZZZZZ	WA16AC	1.00	12024																														
ZZZZZZ	WA16AD	1.00	12052																														
ZZZZZZ	WA16AE	1.00	12080																														
ZZZZZZ	WA16AF	1.00	12105																														
CCV	ACCV8	1.00	12133														X																
CCB	CCB8	1.00	12162														X																
ZZZZZZ	WA16AG	1.00	12190																														
ZZZZZZ	WA16AH	1.00	12214																														
CCV	ACCV9	1.00	12243														X																
CCB	CCB9	1.00	12271														X																
PBW	WA67MB1	1.00	12301														X																
LCSW	WA67MB1SPK	1.00	12325														X																
EV19B-130118-W	WA67A	1.00	12353														X																
EV20B-130118-W	WA67B	1.00	12381														X																
EV20B-130118-WD	WA67BDUP	1.00	12405														X																
EV20B-130118-WS	WA67BSPK	1.00	12433														X																
LLMW27D-130121-W	WA67C	1.00	12461														X																
DUP04-130121-W	WA67D	1.00	12490														X																

FORM XIV

00000 : 1A55

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowlands INSTRUMENT ID: CETAC MERCURY START DATE: 1/23/2013

SDG: WA67 RUNID: HG012301 METHOD: CVL END DATE: 1/23/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
LLMW24D-130121-W	WA67E	1.00	12514														X																
LLMW25D-130121-W	WA67F	1.00	12542														X																
CCV	ACCV10	1.00	12570														X																
CCB	CCB10	1.00	12595														X																
LLMW29D-130118-W	WA67G	1.00	13023														X																
UNK-130121-W	WA67H	1.00	13052														X																
PBW	WA67MB2	1.00	13080														X																
LCSW	WA67MB2SPK	1.00	13104														X																
EV19B-130118-W	WA67I	1.00	13132														X																
EV20B-130118-W	WA67J	1.00	13160														X																
EV20B-130118-WD	WA67JDUP	1.00	13184														X																
EV20B-130118-WS	WA67JSPK	1.00	13212														X																
LLMW27D-130121-W	WA67K	1.00	13240														X																
DUP04-130121-W	WA67L	1.00	13265														X																
CCV	ACCV11	1.00	13293														X																
CCB	CCB11	1.00	13322														X																
LLMW24D-130121-W	WA67M	1.00	13350														X																
LLMW25D-130121-W	WA67N	1.00	13374														X																
LLMW29D-130118-W	WA67O	1.00	13403														X																
UNK-130121-W	WA67P	1.00	13431														X																
CCV	ACCV12	1.00	13455														X																
CCB	CCB12	1.00	13484														X																

WA66 00091

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WA66, WA67

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: CB

Date: 01-23-13

Final Volume 25.0

Final Volume (Hg):

Sample ID WA66 ASPK, MBISPK, ISPK, MB25PK
WA61 ASPK, MBISPK, TSPK, MB25PK

Prepcode:				
Spike Solution:		ICP Routine	ICP No GFA	GFA
Standard No.:				
Vol Added (mL):				
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	REN ICP-MS #1	REN ICP-MS #2	ICP-MS Minerals
	2987-2	3001-4	
	0.05	0.05	
Ag	25		
Al			500
As	25 ✓		
Ba	25		
Be	25		
Ca			500
Cd	25 ✓		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25 ✓		
Sb		25 ✓	
Se	80		
Tl	25 ✓		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg		CVA	1.0		
Hg MBSPK		CVA	1.0		
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

Revision 14, 11/21/05

5033F

PAGE 00092

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: CA **Date:** 01-23-13 **Time:** 0900

Matrix: WATER **Block ID:** #13 **Block Temp:** 95°C **Thermometer:** M056

ARI Sample ID	Btl #	pH<2	Prep Code: REN Initial ~~Wt (g)~~ Vol (mL)	Prep Code: REN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
WA66 A	1	L	50.0	25.0			
" Adup	1	L					
" Asolk	1	L					
" B	1	L					
" C	1	L					
" D	1	L					
" E	1	L					
" F	1	L					
" G	1	L					
" H	1	L					
" MB1	–	–					
" MB1spk	–	–					
" I	1	L					
" Idup	1	L					
" Ispk	1	L					
" J	1	L					
" K	1	L					
" L	1	L					
" M	1	L					
" N	1	L					
" O	1	L					
" P	1	L					
" MB2	–	–					
" MB2spk	–	–	50.0	25.0			

Chemical/Reagent ID:

HNO_3: M02426 HCl: – H_2O_2: I7845 Tube Lot #: 1208057

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WA66, WA67

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-28-13 **Analyst:** M 1-28-13 **Page:** 1 **of** 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			Recal
		1			
		2			
		3			
		4			
		5 1-29-13			noisy ?
		STD 0			2999-15
		1			3008-3
		2			3008-15
		3			3009-1 51 noisy
		4			3008 8 noisy
		5 ATR			3009-2 check for
		~~Rinse Sample~~ not run			~~Ed~~ clog in sample probe
		STD 0			2999-15
		1			3008-3
		2			3008-15
		3 4			3009-1 3008-8
		5			3009-2
		Rinse Sample			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			
zzz		~~Low Check~~			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-28-13 **Analyst:** AA **Page:** 2 **of** 5

AA 1-28-13

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
zzz		~~ICSA~~ zzzzzz			
↓		~~ICSAAB~~ ↓			^{53}Cr ^{62}Ni ↑
		LR200			Mo Ag ↑
		B1			Li Sc high
		B2			↓
		Cer 2			Li Sc ^{82}Se ↑
		CCB2			
		STD0			
		CCV3			V ^{82}Se Ag ↑
		CCB3			
		Low check			
		ICSA			
		ICSAB			^{62}Ni ↑ Mo ↑
		B3			
		CCV4			^{68}Zn ^{82}Se Mo Ag ↑
		CCB4			
		DI Check			
		ERAP197		10	Ag ^{82}Se ↑ (CV ext); ^{66}Zn, ^{68}Zn w/in ERA limits
		VZ86 I	REN	20	Cr
		VA61 L		50	As
		Q		5	As
		R		5	As Pb
dil		AE		50	As
Label		AH	↓	2	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-28-13 **Analyst:** AK **Page:** 3 **of** 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WA61 AJ	REN	5	As
		AK			As
		CCV5			^{62}Ni, ^{82}Se Mo Ag ↑
		CCB5			^{62}Ni ↑
	✓	WA61 MB1	REN	2	As 0.212 (RR)
		ADup		✓	RR As 1/50
		A			
		Aspk		✓	
		IDup		✓	
		I			
		Ispk		✓	
		B			RR As 1/100
		C			1/20
	✓	MB1spk			As 120.4 RR 80?
		CCV6			^{78}Se Mo Ag ↑
		CCB6			
		WA61 MB1	REN	2	
		ADup		50 ✓	As
		A			
Label		Aspk		✓	STL
		IDup		✓	
		I			
		Ispk		✓	STL
	✓	B		100	RR 1/200

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-28-13 **Analyst:** AA **Page:** 4 **of** 5

AA 1-28-13

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WA66 C	REN	20	As
		↓ MBlspk	↓	2 ✓	
		CCV7			^{66}Zn ^{68}Zn ^{82}Se Ag ↑
		CCB7			
		WA66 MB2	REN	2	
		D			
		E			
		F			
		G			RR As
		H			
		I			
		J			RR As ↑ (K)
		K L			
		↓ MB2spk	↓	↓ ✓	
		CCV8			Se Mo Ag ↑ As 110.3% ✓
		CCB8			^{62}Ni ↑
		WA93 MB1	SWN	20	RR As
		WA66 M	REN	2	
		N			
		O			
		↓ P	↓	↓	
		WA93 ADup	SWN	20	
		A			
		↓ Aspk	↓	↓	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-28-13 **Analyst:** AA **Page:** 5 of 5

All corrections made by analyst unless otherwise noted. AA 1-29-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
ZZZ		WA93 ~~APost~~ ZZZZZZ	SWN	20	
		↓ MBlsdc	↓	↓	RR As
		CCV 9			Ni ^{63}Cu Zn As Se Mo Ag UA
		CCB9			^{62}Ni ↑
		WA87 MB1	REN	2	RR Zn
		↓ MB2	↓	↓	↓
		WA93 B	SWN	20	RR As
		C			
		D			
		E			
	✓	WA66 J	REN	100	CV out (Re 1/200)
	✓	K		20	↓
	X	WA87 MBlsdc		2	RR Zn Pb only (Cu > 120%)
		↓ MB2sdc	↓	↓	↓
		CCV 10			~~Se~~ ^{82}Se Ag UA Tl 110.1% ✓
		CCB10			
		WA92 MB	REN	2	
		ADup			RR Zn
		A			
		Asdc		✓	↓
		WA87 A			
		↓ B			
	✓	WA92 MBsdc			missed tube
		CCV11			^{82}Se Ag ↑
		CCB11			

AA 1-29-13

Rinse DI

WASE : 00100

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Monday, January 28, 2013 08:51:37
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1752
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode. Pulse

Acq. Dead Time (ns): 60
Current Dead Time (ns): 60

Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	3183.7	3183.741	39.224	1.2	Standard
	Mg	24.0	26823.5	26823.509	422.116	1.6	Standard
	In	114.9	66524.3	66524.342	205.461	0.3	Standard
	Pb	208.0	31682.6	31682.647	100.196	0.3	Standard
	U	238.1	51805.7	51805.734	245.125	0.5	Standard
⌈	CeO	155.9	874.3	0.011	0.000	2.6	Standard
|>	Ce	139.9	77195.3	77195.305	383.845	0.5	Standard
⌊	Ce++	70.0	451.0	0.006	0.000	3.2	Standard
	Bkgd	220.0	0.1	0.067	0.091	136.9	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1712.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

WA66 00101

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/28/2013 8:51:35 AM
nd Time: 1/28/2013 8:54:12 AM

aily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 3183.74
Obtained Intensity (Mg 23.985): 26823.51
Obtained Intensity (In 114.904): 66524.34
Obtained Intensity (Pb 207.977): 31682.65
Obtained Intensity (U 238.05): 51805.73
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (CeO 155.9 / Ce 139.905): 0.011 (=874.31 / 77195.31)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.006 (=451.01 / 77195.31)

WA66 : 00102

SmartTune Wizard - Summary

ɔtimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/28/2013 8:58:50 AM
ıd Time: 1/28/2013 8:59:48 AM

ɔrch Alignment - [Passed]

Vertical	Horizontal	Intensity
-1.02 mm	1.80 mm	103460.28

WASE 00103

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 1/28/2013 8:59:57 AM
End Time: 1/28/2013 9:02:09 AM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.694)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.713)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.694)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.695)

WASS 00104

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 1/28/2013 9:03:28 AM
End Time: 1/28/2013 9:07:40 AM

AutoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.998; Intercept = -12.31

WA66 00105

SmartTune Wizard - Details

```
ptimization Details

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

ptimization Status

tart Time: 1/28/2013 9:08:16 AM

aily Performance Check
       Optimization Settings:
              Method: C:\NexIONData\Method\Daily Performancenew.mth.
              Intensity Criterion: Be 9.0122 > 3000
              Intensity Criterion: Mg 23.985 > 20000
              Intensity Criterion: In 114.904 > 50000
              Intensity Criterion: Pb 207.977 > 20000
              Intensity Criterion: U 238.05 > 40000
              Intensity Criterion: Bkgd 220 <= 5
              Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
              Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

       Optimization Results:
       Initial Try
              Obtained Intensity (Be 9.0122): 5112.23
              Obtained Intensity (Mg 23.985): 46371.60
              Obtained Intensity (In 114.904): 101545.31
              Obtained Intensity (Pb 207.977): 45264.61
              Obtained Intensity (U 238.05): 74607.90
              Obtained Intensity (Bkgd 220): 0.00
              Obtained Formula (CeO 155.9 / Ce 139.905): 0.020 (=2083.53 / 106629.63)
              Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.012 (=1281.70 / 106629.63)
Passed]  Optimum value(s): N/A

nd Time: 1/28/2013 9:10:51 AM
```


WAGE 00106

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 10:45:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				1394055	3
	Be	9		ug/L				12	44
	C	13		ug/L				94652	1
	Cl	37		ug/L				4825045	5
>	Sc	45		ug/L				1190279	2
	V	51		ug/L				8541	2
	V-1	51		ug/L				342	4
	Cr	52		ug/L				25207	2
	Cr	53		ug/L				226	5
	Mn	55		ug/L				500	7
	Co	59		ug/L				96	19
>	Ge	72		ug/L				621499	1
	Ni	60		ug/L				50	15
	Ni	62		ug/L				585	8
	Cu	63		ug/L				413	4
	Cu	65		ug/L				47	12
	Zn	66		ug/L				267	17
	Zn	67		ug/L				50	30
	Zn	68		ug/L				337	11
	As	75		ug/L				266	7
	As-1	75		ug/L				10263	1
	Se	82		ug/L				-7	117
	Se	78		ug/L				10445	1
	Mo	98		ug/L				23	15
	Y	89		ug/L				388424	3
	Kr	83		ug/L				635	5
>	In	115		ug/L				1194649	2
	Ag	107		ug/L				59	15
	Cd	111		ug/L				117	1
	Cd	114		ug/L				47	22
	Sb	121		ug/L				397	19
	Sb	123		ug/L				307	27
	Ba	135		ug/L				35	22
	Ba	137		ug/L				38	63
>	Tb	159		ug/L				1537907	0
	Tl	205		ug/L				203	33
	Pb	208		ug/L				229	19
	Bi	209		ug/L				3467919	1
	Th	232		ug/L				2936	21
	U	238		ug/L				59	69

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 10:50:04
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1401005	0
	Be	9	0.200	ug/L	0.010	4	12	784	5
	C	13		ug/L			94652	91637	1
	Cl	37		ug/L			4825045	4820113	2
>	Sc	45		ug/L			1190279	1236413	0
	V	51	0.200	ug/L	0.014	6	8541	13346	2
	V-1	51	0.200	ug/L	0.004	2	342	5087	1
	Cr	52	0.500	ug/L	0.026	5	25207	35494	1
	Cr	53	0.500	ug/L	0.022	4	226	1369	3
	Mn	55	0.500	ug/L	0 011	2	500	14022	2
	Co	59	0.200	ug/L	0.002	0	96	4014	0
>	Ge	72		ug/L			621499	617025	1
	Ni	60	0.500	ug/L	0.027	5	50	2167	3
	Ni	62	0.500	ug/L	0.091	18	585	803	3
	Cu	63	0.500	ug/L	0.010	1	413	5158	0
	Cu	65	0.500	ug/L	0.032	6	47	2189	5
	Zn	66	4.000	ug/L	0.179	4	267	10432	3
	Zn	67	4.000	ug/L	0 108	2	50	1510	1
	Zn	68	4.000	ug/L	0.189	4	337	7177	2
	As	75	0.200	ug/L	0.008	4	266	670	4
	As-1	75	0.200	ug/L	0.082	40	10263	10612	0
	Se	82	0.500	ug/L	0.044	8	-7	108	11
	Se	78	0.500	ug/L	0.302	60	10445	10680	0
	Mo	98	0.200	ug/L	0.004	2	23	992	0
	Y	89		ug/L			388424	382274	1
	Kr	83		ug/L			635	627	4
>	In	115		ug/L			1194649	1207590	0
	Ag	107	0.200	ug/L	0.005	2	59	2730	2
	Cd	111	0.100	ug/L	0.005	5	117	768	3
	Cd	114	0.100	ug/L	0.001	0	47	1565	0
	Sb	121	0.200	ug/L	0.002	0	397	3305	0
	Sb	123	0.200	ug/L	0.004	1	307	2519	1
	Ba	135	0.500	ug/L	0.010	1	35	2811	2
	Ba	137	0.500	ug/L	0.008	1	38	4767	1
>	Tb	159		ug/L			1537907	1551882	1
	Tl	205	0.200	ug/L	0.001	0	203	9760	0
	Pb	208	0.100	ug/L	0.001	0	229	6564	0
	Bi	209		ug/L			3467919	3524397	0
	Th	232	0.200	ug/L	0.009	4	2936	10688	1
	U	238	0.200	ug/L	0.003	1	59	11143	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 10:54:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1364107	1
	Be	9	10.000	ug/L	0.224	2	12	38141	2
	C	13		ug/L			94652	89619	1
	Cl	37		ug/L			4825045	4848355	3
>	Sc	45		ug/L			1190279	1185194	0
	V	51	10.000	ug/L	0.199	1	8541	239670	1
	V-1	51	10.000	ug/L	0.104	1	342	232269	1
	Cr	52	10.002	ug/L	0.256	2	25207	221606	1
	Cr	53	10.001	ug/L	0.118	1	226	22674	1
	Mn	55	10.001	ug/L	0.151	1	500	268667	2
	Co	59	10.000	ug/L	0.211	2	96	196632	1
>	Ge	72		ug/L			621499	613266	0
	Ni	60	10.000	ug/L	0.222	2	50	42454	2
	Ni	62	10.006	ug/L	0.192	1	585	6495	2
	Cu	63	9.999	ug/L	0.024	0	413	91110	0
	Cu	65	10.000	ug/L	0.153	1	47	42389	1
	Zn	66	9.947	ug/L	0.158	1	267	24588	1
	Zn	67	10.136	ug/L	0.285	2	50	4071	2
	Zn	68	10.017	ug/L	0.238	2	337	17556	2
	As	75	10.000	ug/L	0.054	0	266	20994	0
	As-1	75	10.000	ug/L	0.114	1	10263	31095	0
	Se	82	9.999	ug/L	0.042	0	-7	2243	1
	Se	78	9.999	ug/L	0.223	2	10445	16263	0
	Mo	98	10.000	ug/L	0.147	1	23	50509	1
	Y	89		ug/L			388424	374695	1
	Kr	83		ug/L			635	632	5
>	In	115		ug/L			1194649	1187388	1
	Ag	107	10.000	ug/L	0.313	3	59	130141	1
	Cd	111	10.000	ug/L	0.139	1	117	61176	0
	Cd	114	10.000	ug/L	0.145	1	47	151758	1
	Sb	121	10.000	ug/L	0.149	1	397	162443	0
	Sb	123	10.000	ug/L	0.222	2	307	123171	1
	Ba	135	10.000	ug/L	0.259	2	35	55607	1
	Ba	137	10.001	ug/L	0.165	1	38	96848	0
>	Tb	159		ug/L			1537907	1553335	0
	Tl	205	10.000	ug/L	0.112	1	203	470939	0
	Pb	208	10.000	ug/L	0.139	1	229	621539	0
	Bi	209		ug/L			3467919	3394766	0
	Th	232	10.001	ug/L	0.053	0	2936	514987	0
	U	238	10.000	ug/L	0.149	1	59	564611	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 10:58:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1428816	2
	Be	9	19.970	ug/L	0.636	3	12	79263	1
	C	13		ug/L			94652	88603	3
	Cl	37		ug/L			4825045	5068354	2
>	Sc	45		ug/L			1190279	1233446	3
	V	51	19.922	ug/L	0.954	4	8541	480271	1
	V-1	51	19.940	ug/L	0.880	4	342	475489	1
	Cr	52	19.825	ug/L	0.852	4	25207	417412	1
	Cr	53	19.886	ug/L	0.385	1	226	45638	2
	Mn	55	19.912	ug/L	1.010	5	500	545873	1
	Co	59	20.031	ug/L	0.264	1	96	412237	2
>	Ge	72		ug/L			621499	634151	1
	Ni	60	19.911	ug/L	0.817	4	50	85806	3
	Ni	62	19.970	ug/L	0.309	1	585	12736	1
	Cu	63	20.050	ug/L	0.471	2	413	190359	0
	Cu	65	19.896	ug/L	0.669	3	47	85379	2
	Zn	66	19.859	ug/L	0.467	2	267	49292	0
	Zn	67	20.060	ug/L	0.208	1	50	8369	1
	Zn	68	19.917	ug/L	0.512	2	337	35246	1
	As	75	19.959	ug/L	0.340	1	266	42703	1
	As-1	75	19.885	ug/L	0.441	2	10263	52611	1
	Se	82	19.956	ug/L	0 431	2	-7	4594	0
	Se	78	19.669	ug/L	0.835	4	10445	22020	0
	Mo	98	19.877	ug/L	0.621	3	23	101273	1
	Y	89		ug/L			388424	386717	1
	Kr	83		ug/L			635	603	4
>	In	115		ug/L			1194649	1214343	0
	Ag	107	20.001	ug/L	0.437	2	59	266242	1
	Cd	111	19.918	ug/L	0.544	2	117	122483	1
	Cd	114	19.974	ug/L	0.340	1	47	308363	0
	Sb	121	19.928	ug/L	0.041	0	397	325994	0
	Sb	123	19.956	ug/L	0.056	0	307	248911	0
	Ba	135	19.922	ug/L	0.223	1	35	111533	0
	Ba	137	19.955	ug/L	0.431	2	38	195818	1
>	Tb	159		ug/L			1537907	1563470	0
	Tl	205	20.024	ug/L	0.312	1	203	953432	0
	Pb	208	19.987	ug/L	0.286	1	229	1246840	0
	Bi	209		ug/L			3467919	3459380	0
	Th	232	20.133	ug/L	0.206	1	2936	1068722	0
	U	238	19.995	ug/L	0.085	0	59	1135224	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 11:03:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1416968	1
	Be	9	49.990	ug/L	0.855	1	12	196602	0
	C	13		ug/L			94652	86340	2
	Cl	37		ug/L			4825045	4828338	1
>	Sc	45		ug/L			1190279	1224526	3
	V	51	50.177	ug/L	1.586	3	8541	1209814	3
	V-1	51	50.076	ug/L	1.371	2	342	1194639	2
	Cr	52	50.246	ug/L	0.586	1	25207	1036368	3
	Cr	53	49.902	ug/L	1.435	2	226	112256	2
	Mn	55	49.844	ug/L	1.178	2	500	1336202	2
	Co	59	49.816	ug/L	0.765	1	96	999313	1
>	Ge	72		ug/L			621499	631074	2
	Ni	60	49.749	ug/L	1.917	3	50	207994	1
	Ni	62	49.906	ug/L	1.295	2	585	30509	3
	Cu	63	49.710	ug/L	0.955	1	413	455830	0
	Cu	65	49.785	ug/L	0.966	1	47	208058	0
	Zn	66	49.643	ug/L	1.706	3	267	118117	2
	Zn	67	49.831	ug/L	0.061	0	50	20283	2
	Zn	68	49.866	ug/L	1.338	2	337	86161	0
	As	75	49.861	ug/L	0.701	1	266	104307	1
	As-1	75	49.895	ug/L	0.650	1	10263	114546	1
	Se	82	49.717	ug/L	0.564	1	-7	11089	1
	Se	78	49.868	ug/L	1.173	2	10445	38909	2
	Mo	98	50.079	ug/L	2.118	4	23	255806	2
	Y	89		ug/L			388424	386712	2
	Kr	83		ug/L			635	684	3
>	In	115		ug/L			1194649	1166031	2
	Ag	107	49.878	ug/L	0.488	0	59	629724	1
	Cd	111	50.078	ug/L	1.126	2	117	297771	0
	Cd	114	50.126	ug/L	1.321	2	47	752214	0
	Sb	121	50.289	ug/L	1.074	2	397	812496	0
	Sb	123	50.143	ug/L	1.087	2	307	608535	0
	Ba	135	50.287	ug/L	1.614	3	35	278104	0
	Ba	137	50.204	ug/L	1.637	3	38	482613	1
>	Tb	159		ug/L			1537907	1554870	1
	Tl	205	50.634	ug/L	0.677	1	203	2559504	0
	Pb	208	49.866	ug/L	0.370	0	229	3052618	0
	Bi	209		ug/L			3467919	3343105	1
	Th	232	50.794	ug/L	0.357	0	2936	2907889	1
	U	238	50.665	ug/L	0.411	0	59	3064137	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 11:09:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1394055	1404274	1
	Be	9	99.601	ug/L	2.453	2	12	383080	1
	C	13		ug/L			94652	86597	1
	Cl	37		ug/L			4825045	4952893	1
>	Sc	45		ug/L			1190279	1227412	1
	V	51	101.645	ug/L	1.312	1	8541	2589844	2
	V-1	51	101.090	ug/L	1.397	1	342	2509451	2
	Cr	52	101.576	ug/L	2.476	2	25207	2186224	0
	Cr	53	99.585	ug/L	1.050	1	226	221333	1
	Mn	55	101.192	ug/L	0.956	0	500	2831904	1
	Co	59	99.780	ug/L	6.505	6	96	1993253	7
>	Ge	72		ug/L			621499	620257	3
	Ni	60	100.083	ug/L	2.672	2	50	412365	0
	Ni	62	99.914	ug/L	3.366	3	585	59253	3
	Cu	63	99.276	ug/L	2.439	2	413	873084	1
	Cu	65	99.600	ug/L	3.041	3	47	403551	0
	Zn	66	99.764	ug/L	3.480	3	267	231172	1
	Zn	67	99.721	ug/L	3.570	3	50	39461	3
	Zn	68	99.374	ug/L	5.096	5	337	164898	1
	As	75	99.677	ug/L	3.357	3	266	202403	0
	As-1	75	99.768	ug/L	3.453	3	10263	213200	0
	Se	82	99.535	ug/L	2.107	2	-7	21490	1
	Se	78	99.882	ug/L	2.402	2	10445	65901	1
	Mo	98	100.058	ug/L	2.642	2	23	503321	0
	Y	89		ug/L			388424	383020	1
	Kr	83		ug/L			635	711	1
>	In	115		ug/L			1194649	1147392	1
	Ag	107	99.868	ug/L	3.631	3	59	1234922	1
	Cd	111	99.604	ug/L	1.895	1	117	575182	0
	Cd	114	99.835	ug/L	1.839	1	47	1466573	1
	Sb	121	99.734	ug/L	2.235	2	397	1571479	0
	Sb	123	100.022	ug/L	1.309	1	307	1195320	0
	Ba	135	99.923	ug/L	0.869	0	35	542638	1
	Ba	137	100.216	ug/L	1.948	1	38	955144	0
>	Tb	159		ug/L			1537907	1531951	1
	Tl	205	100.078	ug/L	0.727	0	203	4997254	0
	Pb	208	100.574	ug/L	0.883	0	229	6183951	0
	Bi	209		ug/L			3467919	3206735	1
	Th	232	100.266	ug/L	0.156	0	2936	5703029	1
	U	238	100.072	ug/L	0.715	0	59	5977846	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 11:16:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
>	Li	6		ug/L			1394055	1453290	0
	Be	9	0.004	ug/L	0.003	71	12	27	38
	C	13		ug/L			94652	88682	2
	Cl	37		ug/L			4825045	4959015	3
>	Sc	45		ug/L			1190279	1270626	2
	V	51	-0.017	ug/L	0.006	36	8541	8675	3
	V-1	51	-0.000	ug/L	0.003	18188	342	364	21
	Cr	52	-0.064	ug/L	0.022	34	25207	25496	3
	Cr	53	-0.008	ug/L	0.004	52	226	223	4
	Mn	55	0.001	ug/L	0.003	260	500	562	11
	Co	59	0.001	ug/L	0.003	205	96	130	43
>	Ge	72		ug/L			621499	637123	1
	Ni	60	0.002	ug/L	0.004	249	50	58	27
	Ni	62	0.153	ug/L	0.057	37	585	692	4
	Cu	63	0.019	ug/L	0.010	50	413	597	14
	Cu	65	0.004	ug/L	0.002	36	47	66	8
	Zn	66	-0.055	ug/L	0.008	13	267	143	12
	Zn	67	-0.058	ug/L	0.011	19	50	27	17
	Zn	68	-0.054	ug/L	0.006	11	337	254	2
	As	75	-0.009	ug/L	0.004	45	266	255	2
	As-1	75	-0.097	ug/L	0.055	56	10263	10316	0
	Se	82	-0.073	ug/L	0.012	15	-7	-23	9
	Se	78	-0.371	ug/L	0.204	55	10445	10495	0
	Mo	98	0.013	ug/L	0.000	2	23	92	0
	Y	89		ug/L			388424	400269	3
	Kr	83		ug/L			635	669	1
>	In	115		ug/L			1194649	1225416	0
	Ag	107	0.001	ug/L	0 001	119	59	76	23
	Cd	111	0.002	ug/L	0.004	249	117	130	18
	Cd	114	0.001	ug/L	0.001	83	47	71	25
	Sb	121	0.060	ug/L	0.011	18	397	1417	12
	Sb	123	0.060	ug/L	0.015	25	307	1079	17
	Ba	135	0.004	ug/L	0.011	271	35	58	105
	Ba	137	0.005	ug/L	0.009	199	38	87	108
>	Tb	159		ug/L			1537907	1577640	0
	Tl	205	0.013	ug/L	0.007	58	203	862	45
	Pb	208	0.004	ug/L	0.007	175	229	488	90
	Bi	209		ug/L			3467919	3523898	1
	Th	232	0.174	ug/L	0.057	32	2936	13227	25
	U	238	0.004	ug/L	0.004	103	59	294	83

Sample Information

Sample Date/Time: Monday, January 28, 2013 11:09:20
Method File: C:\NexION Data\Method\200.8nomin.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**1.0000**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**0.9995**	0.021	0.20	10	20	50	100
V-1	51	**0.9998**	0.020	0.20	10	20	50	100
Cr	52	**0.9996**	0.017	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**0.9998**	0.023	0.50	10	20	50	100
Co	59	**1.0000**	0.016	0.20	10	20	50	100
Ge	72							
Ni	60	**1.0000**	0.007	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**0.9999**	0.014	0.50	10	20	50	100
Cu	65	**1.0000**	0.007	0.50	10	20	50	100
Zn	66	**1.0000**	0.004	4.00	10	20	50	100
Zn	67	**1.0000**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9998**	0.000	0.50	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Mo	98	**1.0000**	0.008	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.011	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.013	0.10	10	20	50	100
Sb	121	**1.0000**	0.014	0.20	10	20	50	100
Sb	123	**1.0000**	0.010	0.20	10	20	50	100
Ba	135	**1.0000**	0.005	0.50	10	20	50	100
Ba	137	**1.0000**	0.008	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9999**	0.033	0.20	10	20	50	100
Pb	208	**0.9999**	0.040	0.10	10	20	50	100
Bi	209							
Th	232	**0.9998**	0.037	0.20	10	20	50	100
U	238	**0.9999**	0.039	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 11:23:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1394055	1491275	4
	Be	9	50.927	ug/L	1.955	3	12	207845	0
	C	13		ug/L			94652	95837	1
	Cl	37		ug/L			4825045	5105560	2
>	Sc	45		ug/L			1190279	1279142	2
	V	51	48.620	ug/L	1.310	2	8541	1295214	1
	V-1	51	49.886	ug/L	1.536	3	342	1289905	0
	Cr	52	47.794	ug/L	1.624	3	25207	1086217	2
	Cr	53	52.251	ug/L	2.583	4	226	121044	2
	Mn	55	51.578	ug/L	2.353	4	500	1503396	1
	Co	59	50.905	ug/L	1.759	3	96	1058766	2
>	Ge	72		ug/L			621499	642380	1
	Ni	60	53.331	ug/L	0.734	1	50	227729	1
	Ni	62	53.834	ug/L	0.839	1	585	33352	0
	Cu	63	53.568	ug/L	0.242	0	413	488336	0
	Cu	65	52.623	ug/L	0.256	0	47	220971	0
	Zn	66	54.364	ug/L	2.624	4	267	130678	4
	Zn	67	53.004	ug/L	2.206	4	50	21762	5
	Zn	68	53.277	ug/L	1.653	3	337	91838	3
	As	75	52.278	ug/L	0.601	1	266	110142	0
	As-1	75	51.980	ug/L	0.934	1	10263	120188	0
	Se	82	84.328	ug/L	0.418	0	-7	18530	1
	Se	78	81.384	ug/L	1.165	1	10445	57621	0
	Mo	98	51.168	ug/L	1.025	2	23	266699	1
	Y	89		ug/L			388424	407326	1
	Kr	83		ug/L			635	691	1
>	In	115		ug/L			1194649	1216071	0
	Ag	107	51.982	ug/L	1.165	2	59	681524	1
	Cd	111	50.477	ug/L	1.857	3	117	309007	2
	Cd	114	50.046	ug/L	0.959	1	47	779308	1
	Sb	121	49.863	ug/L	0.341	0	397	833100	0
	Sb	123	49.198	ug/L	0.522	1	307	623377	0
	Ba	135	49.673	ug/L	0.498	1	35	285909	0
	Ba	137	49.898	ug/L	0.837	1	38	504149	1
>	Tb	159		ug/L			1537907	1583663	0
	Tl	205	52.388	ug/L	1.078	2	203	2704108	1
	Pb	208	49.607	ug/L	0.635	1	229	3153258	0
	Bi	209		ug/L			3467919	3385988	0
	Th	232	52.417	ug/L	1.052	2	2936	3083121	1
	U	238	53.187	ug/L	0.867	1	59	3284006	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 11:29:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1394055	1452747	1
	Be	9	0.002	ug/L	0 002	97	12	19	35
	C	13		ug/L			94652	87493	2
	Cl	37		ug/L			4825045	5009188	1
>	Sc	45		ug/L			1190279	1216399	1
	V	51	-0.006	ug/L	0.003	48	8541	8582	0
	V-1	51	-0.002	ug/L	0.001	69	342	312	9
	Cr	52	-0.016	ug/L	0.009	54	25207	25429	0
	Cr	53	-0.001	ug/L	0.007	602	226	228	7
	Mn	55	0.001	ug/L	0.001	53	500	548	2
	Co	59	-0.000	ug/L	0.000	9003	96	98	9
>	Ge	72		ug/L			621499	629419	0
	Ni	60	-0.003	ug/L	0.001	54	50	40	15
	Ni	62	-0.099	ug/L	0.042	42	585	534	4
	Cu	63	0.005	ug/L	0.001	21	413	461	2
	Cu	65	0.004	ug/L	0.001	34	47	64	9
	Zn	66	-0.058	ug/L	0.003	4	267	134	4
	Zn	67	-0.061	ug/L	0.021	34	50	26	32
	Zn	68	-0.058	ug/L	0.008	13	337	244	5
	As	75	0.000	ug/L	0.021	6613	266	270	16
	As-1	75	0.043	ug/L	0.079	185	10263	10482	1
	Se	82	0.053	ug/L	0 068	127	-7	3	371
	Se	78	0.162	ug/L	0.244	150	10445	10669	1
	Mo	98	0.009	ug/L	0.001	16	23	68	10
	Y	89		ug/L			388424	384833	2
	Kr	83		ug/L			635	611	5
>	In	115		ug/L			1194649	1206924	1
	Ag	107	0.000	ug/L	0.001	305	59	65	22
	Cd	111	0.001	ug/L	0.001	62	117	127	3
	Cd	114	0.001	ug/L	0.000	55	47	58	9
	Sb	121	0.002	ug/L	0.006	300	397	434	22
	Sb	123	0.001	ug/L	0.005	667	307	319	18
	Ba	135	-0.004	ug/L	0.001	27	35	14	39
	Ba	137	-0.001	ug/L	0.000	40	38	27	17
>	Tb	159		ug/L			1537907	1546738	1
	Tl	205	0.002	ug/L	0.001	43	203	294	13
	Pb	208	-0.000	ug/L	0.000	74	229	207	7
	Bi	209		ug/L			3467919	3471201	1
	Th	232	0.093	ug/L	0.034	36	2936	8301	23
	U	238	0.001	ug/L	0.001	63	59	129	33

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 11:34:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
[>	Li	6		ug/L			1394055	1489967	0
[	Be	9	50.409	ug/L	0.575	1	12	205758	0
	C	13		ug/L			94652	86745	0
	Cl	37		ug/L			4825045	4936619	2
[>	Sc	45		ug/L			1190279	1276597	2
	V	51	47.453	ug/L	0.398	0	8541	1262222	1
	V-1	51	48.360	ug/L	0.753	1	342	1248382	0
	Cr	52	48.251	ug/L	0.122	0	25207	1094604	2
	Cr	53	51.559	ug/L	1.427	2	226	119264	0
	Mn	55	50.424	ug/L	0 645	1	500	1467820	1
[	Co	59	50.946	ug/L	1.604	3	96	1058532	5
[>	Ge	72		ug/L			621499	640930	2
	Ni	60	52.701	ug/L	2.168	4	50	224406	2
	Ni	62	51.418	ug/L	1.300	2	585	31801	0
	Cu	63	53.004	ug/L	3.308	6	413	481693	4
	Cu	65	52.301	ug/L	0.843	1	47	219079	0
	Zn	66	54.096	ug/L	0.100	0	267	129737	2
	Zn	67	53.996	ug/L	0.772	1	50	22110	1
	Zn	68	53.319	ug/L	0.290	0	337	91691	2
	As	75	52.550	ug/L	1 680	3	266	110434	2
	As-1	75	52.445	ug/L	1.783	3	10263	120870	2
	Se	82	53.598	ug/L	1.053	1	-7	11745	0
	Se	78	52.284	ug/L	1.316	2	10445	40780	1
[	Mo	98	51.405	ug/L	1.085	2	23	267285	0
	Y	89		ug/L			388424	395466	1
	Kr	83		ug/L			635	695	6
[>	In	115		ug/L			1194649	1212979	1
	Ag	107	50.899	ug/L	2.372	4	59	665427	3
	Cd	111	50.459	ug/L	0.932	1	117	308121	0
	Cd	114	49.915	ug/L	1.379	2	47	775134	1
	Sb	121	49.984	ug/L	1.281	2	397	832837	1
	Sb	123	49.401	ug/L	1.515	3	307	624213	1
	Ba	135	50.091	ug/L	1.194	2	35	287542	1
[	Ba	137	49.605	ug/L	1.094	2	38	499873	1
[>	Tb	159		ug/L			1537907	1589840	0
	Tl	205	51.109	ug/L	0.653	1	203	2648732	1
	Pb	208	48.739	ug/L	0.605	1	229	3110406	1
	Bi	209		ug/L			3467919	3404762	0
	Th	232	50.948	ug/L	1.050	2	2936	3008871	2
[	U	238	51.403	ug/L	1 032	2	59	3186458	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 11:40:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1465577	3
	Be	9	-0.000	ug/L	0.001	1593	12	12	37
	C	13		ug/L			94652	88367	1
	Cl	37		ug/L			4825045	5037603	2
>	Sc	45		ug/L			1190279	1284822	1
	V	51	-0.023	ug/L	0.011	49	8541	8603	2
	V-1	51	-0.004	ug/L	0.001	26	342	271	8
	Cr	52	-0.081	ug/L	0.034	41	25207	25407	2
	Cr	53	-0.016	ug/L	0.009	53	226	206	11
	Mn	55	-0.001	ug/L	0 001	186	500	524	5
	Co	59	-0.001	ug/L	0.001	90	96	91	12
>	Ge	72		ug/L			621499	663821	2
	Ni	60	-0.005	ug/L	0.001	27	50	31	17
	Ni	62	-0.111	ug/L	0.070	62	585	554	5
	Cu	63	-0.000	ug/L	0.003	3600	413	440	3
	Cu	65	0.003	ug/L	0.001	26	47	62	5
	Zn	66	-0.060	ug/L	0.008	12	267	137	16
	Zn	67	-0.066	ug/L	0.005	7	50	25	6
	Zn	68	-0.070	ug/L	0.007	9	337	236	2
	As	75	-0.013	ug/L	0.014	105	266	256	10
	As-1	75	-0.198	ug/L	0.098	49	10263	10527	0
	Se	82	-0.044	ug/L	0.055	126	-7	-18	71
	Se	78	-0.723	ug/L	0.365	50	10445	10723	0
	Mo	98	0.008	ug/L	0.001	12	23	67	5
	Y	89		ug/L			388424	405818	2
	Kr	83		ug/L			635	674	2
>	In	115		ug/L			1194649	1226156	0
	Ag	107	-0.001	ug/L	0.000	14	59	49	3
	Cd	111	0.002	ug/L	0.003	138	117	132	12
	Cd	114	-0.000	ug/L	0.001	334	47	43	39
	Sb	121	0.021	ug/L	0.005	26	397	754	11
	Sb	123	0.021	ug/L	0.003	16	307	584	7
	Ba	135	-0.004	ug/L	0.000	7	35	13	13
	Ba	137	-0.001	ug/L	0.001	47	38	25	26
>	Tb	159		ug/L			1537907	1556158	1
	Tl	205	0.003	ug/L	0.001	28	203	338	11
	Pb	208	-0.000	ug/L	0.000	18	229	210	1
	Bi	209		ug/L			3467919	3553530	1
	Th	232	0.135	ug/L	0.036	26	2936	10749	19
	U	238	0.001	ug/L	0.000	32	59	106	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~LOW CHECK~~ 222222
Sample Dil Factor:
Comments: 1-28-13
Sample Date/Time: Monday, January 28, 2013 11:44:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1394055	1459237	4
	Be	9	0.204	ug/L	0.005	2	12	827	3
	C	13		ug/L			94652	82972	1
	Cl	37		ug/L			4825045	5109157	0
>	Sc	45		ug/L			1190279	1219823	1
	V	51	0.198	ug/L	0.014	7	8541	13760	3
	V-1	51	0.202	ug/L	0.004	2	342	5344	1
	Cr	52	0.500	ug/L	0.024	4	25207	36399	1
	Cr	53	0.539	ug/L	0.041	7	226	1421	5
	Mn	55	0.516	ug/L	0 016	3	500	14866	2
	Co	59	0.217	ug/L	0.007	3	96	4399	1
>	Ge	72		ug/L			621499	638013	3
	Ni	60	0.535	ug/L	0.015	2	50	2317	0
	Ni	62	0.290	ug/L	0.037	12	585	775	0
	Cu	63	0.555	ug/L	0.010	1	413	5442	1
	Cu	65	0.565	ug/L	0.033	5	47	2400	2
	Zn	66	5.152	ug/L	0.265	5	267	12534	1
	Zn	67	4.584	ug/L	0.056	1	50	1916	4
	Zn	68	4.886	ug/L	0.253	5	337	8670	2
	As	75	0.224	ug/L	0.023	10	266	741	6
	As-1	75	0.225	ug/L	0.203	89	10263	10998	0
	Se	82	0.572	ug/L	0.030	5	-7	117	2
	Se	78	0.565	ug/L	0.763	134	10445	11036	0
	Mo	98	0.199	ug/L	0.006	2	23	1055	1
	Y	89		ug/L			388424	400290	4
	Kr	83		ug/L			635	654	3
>	In	115		ug/L			1194649	1230730	1
	Ag	107	0.206	ug/L	0.012	5	59	2786	4
	Cd	111	0.104	ug/L	0.007	6	117	764	6
	Cd	114	0.100	ug/L	0.002	1	47	1630	0
	Sb	121	0.185	ug/L	0.005	2	397	3527	1
	Sb	123	0.184	ug/L	0.003	1	307	2674	0
	Ba	135	0.489	ug/L	0.011	2	35	2883	3
	Ba	137	0.486	ug/L	0.010	2	38	5005	0
>	Tb	159		ug/L			1537907	1555229	2
	Tl	205	0.195	ug/L	0.005	2	203	10089	0
	Pb	208	0.112	ug/L	0.004	3	229	7190	0
	Bi	209		ug/L			3467919	3537983	1
	Th	232	0.171	ug/L	0.006	3	2936	12810	0
	U	238	0.190	ug/L	0.004	2	59	11563	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~ICSA~~ ZZZZZZ 1-28-13
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 11:48:53
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
> Li	6		ug/L			1394055	1635542	3
Be	9	0.001	ug/L	0.000	37	12	18	11
C	13		ug/L			94652	182244	1
Cl	37		ug/L			4825045	15820009	5
> Sc	45		ug/L			1190279	1324961	3
V	51	0.097	ug/L	0.031	32	8541	12161	6
V-1	51	1.015	ug/L	0.007	0	342	27570	3
Cr	52	0.517	ug/L	0 041	7	25207	39921	0
Cr	53	3.833	ug/L	0.129	3	226	9438	4
Mn	55	0.101	ug/L	0.006	6	500	3609	1
Co	59	0.026	ug/L	0.001	3	96	676	5
> Ge	72		ug/L			621499	638393	1
Ni	60	0.410	ug/L	0.024	5	50	1792	5
Ni	62	8.042	ug/L	1.140	14	585	5469	13
Cu	63	1.399	ug/L	0.109	7	413	13091	8
Cu	65	0.510	ug/L	0.011	2	47	2174	2
Zn	66	1.191	ug/L	0.063	5	267	3115	6
Zn	67	6.044	ug/L	0.428	7	50	2512	8
Zn	68	0.484	ug/L	0.027	5	337	1172	2
As	75	0.069	ug/L	0.033	47	266	417	14
As-1	75	0.246	ug/L	0.105	42	10263	11056	1
Se	82	-0.323	ug/L	0.013	4	-7	-78	2
Se	78	0.785	ug/L	0.308	39	10445	11176	1
Mo	98	451.145	ug/L	5.270	1	23	2336735	1
Y	89		ug/L			388424	399053	2
Kr	83		ug/L			635	977	1
> In	115		ug/L			1194649	1202582	2
Ag	107	0.016	ug/L	0.001	4	59	268	5
Cd	111	0.158	ug/L	0 019	12	117	1072	8
Cd	114	0.308	ug/L	0.006	1	47	4795	0
Sb	121	0.047	ug/L	0.002	4	397	1175	3
Sb	123	0.045	ug/L	0.002	3	307	869	0
Ba	135	0.045	ug/L	0.002	5	35	293	6
Ba	137	0.041	ug/L	0.002	5	38	449	4
> Tb	159		ug/L			1537907	1583110	3
Tl	205	0.034	ug/L	0.003	7	203	1956	7
Pb	208	0.036	ug/L	0.001	3	229	2549	3
Bi	209		ug/L			3467919	3191541	1
Th	232	0.083	ug/L	0.045	54	2936	7845	30
U	238	-0.000	ug/L	0.000	245	59	55	22

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~ICSAB~~ ZZZZZZ
Sample Dil Factor: AA 1-28-13
Comments:
Sample Date/Time: Monday, January 28, 2013 11:55:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			1394055	1652391	1
Be	9	0.001	ug/L	0.001	143	12	18	31
C	13		ug/L			94652	185348	3
Cl	37		ug/L			4825045	15921936	1
Sc	45		ug/L			1190279	1308722	1
V	51	-0.025	ug/L	0.282	1146	8541	8741	88
V-1	51	1.118	ug/L	0.021	1	342	29963	3
Cr	52	19.371	ug/L	0.728	3	25207	466988	2
Cr	53	25.058	ug/L	0.735	2	226	59556	1
Mn	55	19.427	ug/L	0.330	1	500	580068	0
Co	59	20.070	ug/L	0.331	1	96	427408	2
Ge	72		ug/L			621499	643012	2
Ni	60	21.278	ug/L	0.317	1	50	90955	1
Ni	62	28.417	ug/L	0.687	2	585	17904	1
Cu	63	21.776	ug/L	0.376	1	413	198915	0
Cu	65	20.873	ug/L	0.428	2	47	87754	2
Zn	66	20.879	ug/L	0.237	1	267	50399	1
Zn	67	22.818	ug/L	0.311	1	50	9403	1
Zn	68	18.949	ug/L	0.201	1	337	32910	1
As	75	20.198	ug/L	0.384	1	266	42756	1
As-1	75	20.302	ug/L	0.502	2	10263	53449	1
Se	82	-0.328	ug/L	0.082	25	-7	-79	20
Se	78	0.838	ug/L	0.491	58	10445	11284	0
Mo	98	469.153	ug/L	8.345	1	23	2447424	2
Y	89		ug/L			388424	407699	1
Kr	83		ug/L			635	1050	2
In	115		ug/L			1194649	1225122	1
Ag	107	20.844	ug/L	0.741	3	59	275438	4
Cd	111	19.492	ug/L	0.467	2	117	120306	2
Cd	114	19.444	ug/L	0.234	1	47	305042	0
Sb	121	0.050	ug/L	0.003	5	397	1245	4
Sb	123	0.047	ug/L	0 005	10	307	908	8
Ba	135	0.046	ug/L	0 002	3	35	304	2
Ba	137	0.039	ug/L	0.000	1	38	440	2
Tb	159		ug/L			1537907	1621475	0
Tl	205	0.028	ug/L	0.001	4	203	1705	2
Pb	208	0.032	ug/L	0.000	1	229	2317	1
Bi	209		ug/L			3467919	3200566	1
Th	232	0.005	ug/L	0.004	84	2936	3393	7
U	238	-0.000	ug/L	0.000	38	59	37	24

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:02:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1521433	2
	Be	9	199.090	ug/L	8.451	4	12	829280	2
	C	13		ug/L			94652	92512	1
	Cl	37		ug/L			4825045	5255949	4
>	Sc	45		ug/L			1190279	1233869	3
	V	51	212.262	ug/L	9.727	4	8541	5421671	1
	V-1	51	212.503	ug/L	10.484	4	342	5296358	1
	Cr	52	204.155	ug/L	4.475	2	25207	4391206	3
	Cr	53	204.348	ug/L	5.071	2	226	456131	1
	Mn	55	205.193	ug/L	4.614	2	500	5769674	1
	Co	59	214.249	ug/L	4.072	1	96	4298633	1
>	Ge	72		ug/L			621499	595324	1
	Ni	60	208.443	ug/L	6.133	2	50	824619	2
	Ni	62	213.959	ug/L	1.600	0	585	121182	1
	Cu	63	208.198	ug/L	6.441	3	413	1757318	1
	Cu	65	208.153	ug/L	3.911	1	47	809790	0
	Zn	66	205.623	ug/L	6.157	2	267	457263	2
	Zn	67	200.204	ug/L	2.618	1	50	76020	1
	Zn	68	201.425	ug/L	5.672	2	337	320734	1
	As	75	211.189	ug/L	5.661	2	266	411501	1
	As-1	75	208.934	ug/L	5.637	2	10263	417993	1
	Se	82	217.234	ug/L	4.084	1	-7	44242	0
	Se	78	205.484	ug/L	3.423	1	10445	119578	1
	Mo	98	226.147	ug/L	3.282	1	23	1092451	2
	Y	89		ug/L			388424	386625	0
	Kr	83		ug/L			635	942	2
>	In	115		ug/L			1194649	1165583	1
	Ag	107	234.624	ug/L	5.299	2	59	2947774	0
	Cd	111	197.229	ug/L	3.258	1	117	1156966	0
	Cd	114	214.458	ug/L	3.592	1	47	3200311	0
	Sb	121	218.173	ug/L	3.813	1	397	3492005	0
	Sb	123	219.045	ug/L	5.637	2	307	2658605	1
	Ba	135	200.927	ug/L	4.227	2	35	1108213	0
	Ba	137	201.217	ug/L	5.142	2	38	1948050	1
>	Tb	159		ug/L			1537907	1556240	0
	Tl	205	195.198	ug/L	2.871	1	203	9901111	0
	Pb	208	204.673	ug/L	2.951	1	229	12784163	0
	Bi	209		ug/L			3467919	3068445	1
	Th	232	199.652	ug/L	4.429	2	2936	11532137	1
	U	238	196.461	ug/L	0.765	0	59	11920830	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:09:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1825548	0
	Be	9	0.005	ug/L	0.002	37	12	39	22
	C	13		ug/L			94652	95787	1
	Cl	37		ug/L			4825045	5657422	2
>	Sc	45		ug/L			1190279	1472191	2
	V	51	-0.004	ug/L	0.006	142	8541	10443	3
	V-1	51	0.017	ug/L	0.005	31	342	919	15
	Cr	52	0.008	ug/L	0.027	327	25207	31386	3
	Cr	53	0.083	ug/L	0.036	42	226	500	17
	Mn	55	0.083	ug/L	0 038	45	500	3378	35
	Co	59	0.029	ug/L	0.046	158	96	805	134
>	Ge	72		ug/L			621499	721162	1
	Ni	60	0.096	ug/L	0.039	40	50	515	34
	Ni	62	0.985	ug/L	0.259	26	585	1350	11
	Cu	63	0.167	ug/L	0.038	22	413	2185	16
	Cu	65	0.117	ug/L	0.034	29	47	605	25
	Zn	66	1.448	ug/L	0.052	3	267	4208	1
	Zn	67	1.281	ug/L	0.101	7	50	646	6
	Zn	68	1.408	ug/L	0.116	8	337	3102	5
	As	75	-0.001	ug/L	0.024	1703	266	306	18
	As-1	75	-0.174	ug/L	0.107	61	10263	11493	0
	Se	82	0.026	ug/L	0.063	245	-7	-2	710
	Se	78	-0.565	ug/L	0.339	60	10445	11753	0
	Mo	98	0.041	ug/L	0.004	10	23	264	8
	Y	89		ug/L			388424	460054	2
	Kr	83		ug/L			635	770	1
>	In	115		ug/L			1194649	1390203	1
	Ag	107	0.005	ug/L	0.005	93	59	141	46
	Cd	111	0.008	ug/L	0.002	19	117	192	4
	Cd	114	0.004	ug/L	0.002	42	47	131	23
	Sb	121	0.054	ug/L	0.009	16	397	1485	12
	Sb	123	0.054	ug/L	0.008	15	307	1132	11
	Ba	135	0.018	ug/L	0.004	22	35	161	16
	Ba	137	0.018	ug/L	0.002	10	38	252	7
>	Tb	159		ug/L			1537907	1717238	1
	Tl	205	0.013	ug/L	0.003	24	203	979	18
	Pb	208	0.043	ug/L	0.002	4	229	3219	3
	Bi	209		ug/L			3467919	3836963	1
	Th	232	0.191	ug/L	0 055	28	2936	15427	22
	U	238	0.003	ug/L	0.001	34	59	291	25

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:14:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1798235	2
	Be	9	0.003	ug/L	0.001	50	12	28	22
	C	13		ug/L			94652	96300	1
	Cl	37		ug/L			4825045	5531619	5
>	Sc	45		ug/L			1190279	1436442	3
	V	51	0.005	ug/L	0.003	72	8541	10445	3
	V-1	51	0.010	ug/L	0.001	12	342	701	2
	Cr	52	0.014	ug/L	0.000	1	25207	30775	3
	Cr	53	0.034	ug/L	0.011	30	226	361	6
	Mn	55	0.213	ug/L	0.006	3	500	7566	2
	Co	59	0.001	ug/L	0.001	110	96	131	10
>	Ge	72		ug/L			621499	712521	2
	Ni	60	0.034	ug/L	0.006	16	50	216	9
	Ni	62	0.415	ug/L	0.048	11	585	950	3
	Cu	63	0.075	ug/L	0.007	9	413	1226	4
	Cu	65	0.052	ug/L	0.004	7	47	298	8
	Zn	66	1.218	ug/L	0.018	1	267	3546	1
	Zn	67	1.066	ug/L	0.053	4	50	541	6
	Zn	68	1.154	ug/L	0.023	1	337	2584	1
	As	75	-0.007	ug/L	0.013	194	266	290	7
	As-1	75	-0.153	ug/L	0.107	69	10263	11403	0
	Se	82	0.041	ug/L	0.030	72	-7	1	522
	Se	78	-0.471	ug/L	0.399	84	10445	11670	0
	Mo	98	0.016	ug/L	0.005	29	23	121	25
	Y	89		ug/L			388424	450874	2
	Kr	83		ug/L			635	748	0
>	In	115		ug/L			1194649	1353490	0
	Ag	107	0.003	ug/L	0.005	169	59	106	61
	Cd	111	0.006	ug/L	0.003	42	117	174	9
	Cd	114	0.004	ug/L	0.003	84	47	117	45
	Sb	121	0.004	ug/L	0.003	94	397	516	11
	Sb	123	0.002	ug/L	0.004	207	307	375	15
	Ba	135	0.020	ug/L	0.004	21	35	170	16
	Ba	137	0.021	ug/L	0.001	6	38	284	5
>	Tb	159		ug/L			1537907	1677252	0
	Tl	205	0.006	ug/L	0.002	33	203	563	20
	Pb	208	0.020	ug/L	0.001	6	229	1623	5
	Bi	209		ug/L			3467919	3748528	0
	Th	232	0.019	ug/L	0.014	75	2936	4365	20
	U	238	0.001	ug/L	0.001	139	59	107	55

20.7%

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:19:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1394055	1807339	2
	Be	9	49.160	ug/L	2.299	4	12	243196	1
	C	13		ug/L			94652	89312	0
	Cl	37		ug/L			4825045	5839418	2
>	Sc	45		ug/L			1190279	1468013	2
	V	51	45.134	ug/L	2.169	4	8541	1380346	2
	V-1	51	46.545	ug/L	2.299	4	342	1381100	3
	Cr	52	45.545	ug/L	0.842	1	25207	1189605	0
	Cr	53	50.623	ug/L	1.262	2	226	134666	0
	Mn	55	48.463	ug/L	2.098	4	500	1621553	2
	Co	59	49.662	ug/L	0.643	1	96	1185860	1
>	Ge	72		ug/L			621499	714659	1
	Ni	60	52.517	ug/L	1.599	3	50	249437	2
	Ni	62	52.770	ug/L	1.128	2	585	36389	2
	Cu	63	53.426	ug/L	1.643	3	413	541781	2
	Cu	65	52.545	ug/L	1.098	2	47	245513	3
	Zn	66	53.833	ug/L	1.970	3	267	143928	2
	Zn	67	53.046	ug/L	0.418	0	50	24223	0
	Zn	68	54.683	ug/L	1.340	2	337	104821	1
	As	75	52.624	ug/L	0.350	0	266	123347	0
	As-1	75	51.559	ug/L	0.680	1	10263	132729	0
	Se	82	57.506	ug/L	0.574	0	-7	14055	0
	Se	78	52.642	ug/L	1.559	2	10445	45703	1
	Mo	98	52.294	ug/L	0.939	1	23	303240	0
	Y	89		ug/L			388424	456523	3
	Kr	83		ug/L			635	832	2
>	In	115		ug/L			1194649	1353591	0
	Ag	107	53.779	ug/L	1.513	2	59	784834	2
	Cd	111	50.247	ug/L	0 447	0	117	342444	0
	Cd	114	48.686	ug/L	0.356	0	47	843899	0
	Sb	121	48.444	ug/L	0.311	0	397	900954	0
	Sb	123	47.967	ug/L	0.491	1	307	676525	0
	Ba	135	47.282	ug/L	0.718	1	35	302928	1
	Ba	137	47.685	ug/L	0.671	1	38	536273	1
>	Tb	159		ug/L			1537907	1716018	0
	Tl	205	50.840	ug/L	0 406	0	203	2843793	0
	Pb	208	47.936	ug/L	0.311	0	229	3301833	0
	Bi	209		ug/L			3467919	3669833	0
	Th	232	48.497	ug/L	0.320	0	2936	3091616	0
	U	238	51.004	ug/L	0.613	1	59	3412543	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:26:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1394055	1871410	2
	Be	9	0.004	ug/L	0.004	89	12	38	50
	C	13		ug/L			94652	93791	2
	Cl	37		ug/L			4825045	5767139	2
>	Sc	45		ug/L			1190279	1465952	0
	V	51	-0.009	ug/L	0.017	185	8541	10244	4
	V-1	51	0.003	ug/L	0.003	90	342	521	17
	Cr	52	-0.034	ug/L	0.046	135	25207	30176	2
	Cr	53	0.008	ug/L	0.008	100	226	300	8
	Mn	55	0.002	ug/L	0.003	190	500	667	15
	Co	59	-0.000	ug/L	0.002	457	96	109	37
>	Ge	72		ug/L			621499	723831	1
	Ni	60	-0.002	ug/L	0.003	156	50	49	26
	Ni	62	0.051	ug/L	0.070	137	585	716	5
	Cu	63	0.012	ug/L	0.006	52	413	601	8
	Cu	65	0.003	ug/L	0.007	231	47	68	44
	Zn	66	-0.054	ug/L	0.007	12	267	164	9
	Zn	67	-0.060	ug/L	0.003	5	50	30	6
	Zn	68	-0.060	ug/L	0.003	5	337	276	0
	As	75	-0.011	ug/L	0.013	112	266	283	9
	As-1	75	-0.193	ug/L	0.100	51	10263	11493	1
	Se	82	0.010	ug/L	0.043	437	-7	-6	173
	Se	78	-0.622	ug/L	0.321	51	10445	11760	0
	Mo	98	0.010	ug/L	0.001	9	23	86	5
	Y	89		ug/L			388424	460956	2
	Kr	83		ug/L			635	764	3
>	In	115		ug/L			1194649	1364985	1
	Ag	107	0.000	ug/L	0.001	1048	59	69	17
	Cd	111	0.004	ug/L	0.002	60	117	162	9
	Cd	114	0.000	ug/L	0.000	72	47	60	6
	Sb	121	0.022	ug/L	0.006	25	397	868	12
	Sb	123	0.019	ug/L	0.006	32	307	616	13
	Ba	135	-0.002	ug/L	0.003	163	35	27	78
	Ba	137	0.002	ug/L	0.005	250	38	68	87
>	Tb	159		ug/L			1537907	1719231	0
	Tl	205	0.008	ug/L	0.008	104	203	669	67
	Pb	208	0.004	ug/L	0.007	202	229	500	98
	Bi	209		ug/L			3467919	3850507	0
	Th	232	0.128	ug/L	0.046	35	2936	11450	25
	U	238	0.003	ug/L	0.004	140	59	277	106

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:32:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				1844055	1
	Be	9		ug/L				19	25
	C	13		ug/L				90443	1
	Cl	37		ug/L				5576019	1
>	Sc	45		ug/L				1504442	1
	V	51		ug/L				10680	4
	V-1	51		ug/L				452	2
	Cr	52		ug/L				31520	4
	Cr	53		ug/L				291	4
	Mn	55		ug/L				589	1
	Co	59		ug/L				100	8
>	Ge	72		ug/L				718320	2
	Ni	60		ug/L				39	18
	Ni	62		ug/L				575	3
	Cu	63		ug/L				481	2
	Cu	65		ug/L				64	12
	Zn	66		ug/L				170	2
	Zn	67		ug/L				30	21
	Zn	68		ug/L				274	2
	As	75		ug/L				259	5
	As-1	75		ug/L				11343	1
	Se	82		ug/L				-3	416
	Se	78		ug/L				11640	1
	Mo	98		ug/L				40	13
	Y	89		ug/L				458015	1
	Kr	83		ug/L				763	3
>	In	115		ug/L				1367345	0
	Ag	107		ug/L				37	8
	Cd	111		ug/L				156	8
	Cd	114		ug/L				56	13
	Sb	121		ug/L				319	16
	Sb	123		ug/L				235	20
	Ba	135		ug/L				17	11
	Ba	137		ug/L				35	23
>	Tb	159		ug/L				1730482	0
	Tl	205		ug/L				268	12
	Pb	208		ug/L				239	8
	Bi	209		ug/L				3854596	0
	Th	232		ug/L				3454	19
	U	238		ug/L				29	23

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:36:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
>	Li	6		ug/L			1844055	1783863	1
	Be	9	50.306	ug/L	0.993	1	19	245803	1
	C	13		ug/L			90443	86370	2
	Cl	37		ug/L			5576019	5564386	3
>	Sc	45		ug/L			1504442	1463089	2
	V	51	44.517	ug/L	1.586	3	10680	1357198	1
	V-1	51	45.557	ug/L	1.044	2	452	1347755	0
	Cr	52	46.444	ug/L	2.380	5	31520	1207517	2
	Cr	53	50.322	ug/L	1.834	3	291	133429	2
	Mn	55	48.318	ug/L	2.129	4	589	1611524	3
	Co	59	50.068	ug/L	2.483	4	100	1190944	3
>	Ge	72		ug/L			718320	694137	1
	Ni	60	53.412	ug/L	1.261	2	39	246375	1
	Ni	62	53.031	ug/L	2.382	4	575	35412	4
	Cu	63	54.055	ug/L	2.268	4	481	532285	2
	Cu	65	53.409	ug/L	0.808	1	64	242348	1
	Zn	66	55.061	ug/L	0.323	0	170	142869	0
	Zn	67	53.886	ug/L	0.826	1	30	23871	0
	Zn	68	55.040	ug/L	1.559	2	274	102356	1
	As	75	53.801	ug/L	1.522	2	259	122405	1
	As-1	75	53.380	ug/L	1.577	2	11343	132541	1
	Se	82	57.655	ug/L	0.898	1	-3	13690	0
	Se	78	55.126	ug/L	1.176	2	11640	45518	0
	Mo	98	53.564	ug/L	2.502	4	40	301640	3
	Y	89		ug/L			458015	447925	3
	Kr	83		ug/L			763	817	1
>	In	115		ug/L			1367345	1314727	1
	Ag	107	55.975	ug/L	2.994	5	37	793223	4
	Cd	111	50.796	ug/L	1.387	2	156	336194	1
	Cd	114	49.648	ug/L	0.301	0	56	835839	1
	Sb	121	49.304	ug/L	1.362	2	319	890280	1
	Sb	123	49.854	ug/L	1.167	2	235	682704	1
	Ba	135	48.987	ug/L	1.080	2	17	304774	0
	Ba	137	48.643	ug/L	0.613	1	35	531292	0
>	Tb	159		ug/L			1730482	1679206	1
	Tl	205	51.281	ug/L	0.840	1	268	2806660	0
	Pb	208	48.732	ug/L	0.948	1	239	3284098	0
	Bi	209		ug/L			3854596	3622824	1
	Th	232	49.941	ug/L	1.429	2	3454	3114499	1
	U	238	51.719	ug/L	1.127	2	29	3385497	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:43:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas Intens.	Intens RSD
>	Li	6		ug/L			1844055	1802076	2
	Be	9	0.003	ug/L	0.003	102	19	32	40
	C	13		ug/L			90443	90879	1
	Cl	37		ug/L			5576019	5632691	1
>	Sc	45		ug/L			1504442	1417632	2
	V	51	0.003	ug/L	0.016	510	10680	10151	3
	V-1	51	0.000	ug/L	0.003	609	452	438	16
	Cr	52	-0.002	ug/L	0.045	2104	31520	29632	1
	Cr	53	-0.012	ug/L	0.006	52	291	242	6
	Mn	55	0.002	ug/L	0.002	146	589	610	12
	Co	59	0.001	ug/L	0.002	148	100	121	32
>	Ge	72		ug/L			718320	703168	1
	Ni	60	0.001	ug/L	0.001	86	39	42	6
	Ni	62	0.053	ug/L	0.026	48	575	599	3
	Cu	63	-0.002	ug/L	0.002	106	481	450	6
	Cu	65	0.001	ug/L	0.001	112	64	66	7
	Zn	66	-0.010	ug/L	0.001	12	170	141	3
	Zn	67	-0.008	ug/L	0.014	169	30	26	24
	Zn	68	-0.002	ug/L	0.007	331	274	264	4
	As	75	0.009	ug/L	0.002	22	259	273	1
	As-1	75	0.055	ug/L	0.065	118	11343	11229	0
	Se	82	-0.037	ug/L	0.050	132	-3	-12	97
	Se	78	0.179	ug/L	0 237	131	11640	11507	0
	Mo	98	0.006	ug/L	0.002	37	40	72	15
	Y	89		ug/L			458015	451691	2
	Kr	83		ug/L			763	785	5
>	In	115		ug/L			1367345	1342436	0
	Ag	107	0.005	ug/L	0.006	115	37	110	76
	Cd	111	0.004	ug/L	0.009	205	156	181	31
	Cd	114	0.006	ug/L	0.009	152	56	160	99
	Sb	121	0.029	ug/L	0 004	14	319	839	8
	Sb	123	0.031	ug/L	0.005	15	235	662	9
	Ba	135	0.002	ug/L	0.004	194	17	31	89
	Ba	137	0.002	ug/L	0.006	360	35	54	129
>	Tb	159		ug/L			1730482	1691533	0
	Tl	205	0.005	ug/L	0.003	69	268	528	35
	Pb	208	0.002	ug/L	0.004	243	239	339	75
	Bi	209		ug/L			3854596	3771065	1
	Th	232	0.116	ug/L	0.026	22	3454	10666	14
	U	238	0.003	ug/L	0.003	99	29	232	87

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:47:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1835185	2
	Be	9	0.201	ug/L	0.010	5	19	1029	3
	C	13		ug/L			90443	87113	2
	Cl	37		ug/L			5576019	5751241	2
>	Sc	45		ug/L			1504442	1464185	0
	V	51	0.183	ug/L	0.004	2	10680	15947	0
	V-1	51	0.193	ug/L	0.007	3	452	6152	2
	Cr	52	0.448	ug/L	0.012	2	31520	42042	1
	Cr	53	0.504	ug/L	0 011	2	291	1618	0
	Mn	55	0.490	ug/L	0.014	2	589	16935	1
	Co	59	0.205	ug/L	0.004	2	100	4984	1
>	Ge	72		ug/L			718320	726790	3
	Ni	60	0.544	ug/L	0.015	2	39	2663	0
	Ni	62	0.434	ug/L	0.043	9	575	881	4
	Cu	63	0.551	ug/L	0.020	3	481	6162	0
	Cu	65	0.551	ug/L	0.015	2	64	2683	2
	Zn	66	4.726	ug/L	0.268	5	170	12985	3
	Zn	67	4.035	ug/L	0.228	5	30	1898	2
	Zn	68	4.497	ug/L	0.224	4	274	9003	1
	As	75	0.230	ug/L	0 031	13	259	808	7
	As-1	75	0.139	ug/L	0.116	83	11343	11801	0
	Se	82	0.582	ug/L	0 059	10	-3	140	7
	Se	78	0.230	ug/L	0.412	179	11640	11922	1
	Mo	98	0.203	ug/L	0.012	5	40	1234	3
	Y	89		ug/L			458015	455572	5
	Kr	83		ug/L			763	769	2
>	In	115		ug/L			1367345	1364426	2
	Ag	107	0.227	ug/L	0.007	3	37	3372	2
	Cd	111	0.105	ug/L	0.003	3	156	880	4
	Cd	114	0.102	ug/L	0.004	3	56	1836	3
	Sb	121	0.187	ug/L	0.005	2	319	3821	1
	Sb	123	0.187	ug/L	0.002	0	235	2892	2
	Ba	135	0.474	ug/L	0.011	2	17	3075	1
	Ba	137	0.477	ug/L	0.017	3	35	5438	0
>	Tb	159		ug/L			1730482	1685165	1
	Tl	205	0.192	ug/L	0.003	1	268	10804	1
	Pb	208	0.108	ug/L	0.001	0	239	7555	1
	Bi	209		ug/L			3854596	3813830	1
	Th	232	0.163	ug/L	0.007	4	3454	13559	3
	U	238	0.192	ug/L	0.003	1	29	12620	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:51:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1877426	1
	Be	9	0.001	ug/L	0.001	175	19	22	22
	C	13		ug/L			90443	193923	4
	Cl	37		ug/L			5576019	17504359	4
>	Sc	45		ug/L			1504442	1450254	0
	V	51	0.128	ug/L	0.042	32	10680	14120	8
	V-1	51	1.044	ug/L	0.049	4	452	31056	4
	Cr	52	0.564	ug/L	0.027	4	31520	44567	0
	Cr	53	3.877	ug/L	0.070	1	291	10452	1
	Mn	55	0.100	ug/L	0.003	2	589	3866	1
	Co	59	0.028	ug/L	0.002	7	100	749	6
>	Ge	72		ug/L			718320	687932	2
	Ni	60	0.458	ug/L	0.025	5	39	2128	2
	Ni	62	7.032	ug/L	1.053	14	575	5142	15
	Cu	63	1.369	ug/L	0.050	3	481	13821	5
	Cu	65	0.500	ug/L	0.008	1	64	2309	4
	Zn	66	1.266	ug/L	0.061	4	170	3417	7
	Zn	67	6.184	ug/L	0 123	1	30	2740	1
	Zn	68	0.654	ug/L	0.225	34	274	1472	31
	As	75	0.153	ug/L	0.060	39	259	594	26
	As-1	75	0.470	ug/L	0 072	15	11343	11920	1
	Se	82	-0.395	ug/L	0.128	32	-3	-95	29
	Se	78	1.340	ug/L	0.428	31	11640	11969	0
	Mo	98	470.970	ug/L	17.526	3	40	2628456	3
	Y	89		ug/L			458015	437775	1
	Kr	83		ug/L			763	1170	4
>	In	115		ug/L			1367345	1284339	1
	Ag	107	0.022	ug/L	0.006	26	37	346	24
	Cd	111	0.136	ug/L	0.011	8	156	1028	6
	Cd	114	0.307	ug/L	0.001	0	56	5093	0
	Sb	121	0.055	ug/L	0 006	10	319	1276	9
	Sb	123	0.055	ug/L	0 007	12	235	962	10
	Ba	135	0.054	ug/L	0.003	6	17	346	7
	Ba	137	0.042	ug/L	0.002	4	35	480	4
>	Tb	159		ug/L			1730482	1682902	0
	Tl	205	0.035	ug/L	0.004	10	268	2155	9
	Pb	208	0.037	ug/L	0.002	6	239	2728	5
	Bi	209		ug/L			3854596	3333956	1
	Th	232	0.064	ug/L	0.035	54	3454	7354	28
	U	238	0.001	ug/L	0.001	123	29	96	87

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 12:58:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1989013	5
	Be	9	0.001	ug/L	0.002	164	19	25	29
	C	13		ug/L			90443	198816	4
	Cl	37		ug/L			5576019	18384400	2
>	Sc	45		ug/L			1504442	1477887	1
	V	51	0.012	ug/L	0.099	835	10680	10842	27
	V-1	51	1.077	ug/L	0.012	1	452	32624	1
	Cr	52	18.689	ug/L	0.436	2	31520	509529	0
	Cr	53	24.040	ug/L	0.411	1	291	64542	0
	Mn	55	19.651	ug/L	0.403	2	589	662590	1
	Co	59	19.563	ug/L	0.434	2	100	470300	1
>	Ge	72		ug/L			718320	698289	2
	Ni	60	21.394	ug/L	0.509	2	39	99283	0
	Ni	62	28.307	ug/L	1.009	3	575	19268	1
	Cu	63	22.270	ug/L	0.501	2	481	220887	0
	Cu	65	20.964	ug/L	0.442	2	64	95719	2
	Zn	66	21.021	ug/L	0.256	1	170	54973	2
	Zn	67	23.363	ug/L	0.551	2	30	10426	0
	Zn	68	19.442	ug/L	0.787	4	274	36529	1
	As	75	20.417	ug/L	0 596	2	259	46876	0
	As-1	75	20.659	ug/L	0.693	3	11343	58350	0
	Se	82	-0.313	ug/L	0 051	16	-3	-78	17
	Se	78	1.351	ug/L	0.440	32	11640	12157	1
	Mo	98	492.379	ug/L	15.743	3	40	2788625	1
	Y	89		ug/L			458015	456502	1
	Kr	83		ug/L			763	1166	3
>	In	115		ug/L			1367345	1304903	1
	Ag	107	22.521	ug/L	0 047	0	37	316860	1
	Cd	111	19.440	ug/L	0.298	1	156	127799	0
	Cd	114	19.455	ug/L	0 475	2	56	325058	1
	Sb	121	0.054	ug/L	0.003	4	319	1267	4
	Sb	123	0.055	ug/L	0.005	8	235	967	8
	Ba	135	0.050	ug/L	0.002	4	17	322	2
	Ba	137	0.041	ug/L	0.003	6	35	481	4
>	Tb	159		ug/L			1730482	1714248	1
	Tl	205	0.028	ug/L	0.001	2	268	1844	3
	Pb	208	0.030	ug/L	0.000	1	239	2324	1
	Bi	209		ug/L			3854596	3359642	1
	Th	232	-0.002	ug/L	0.003	154	3454	3279	7
	U	238	0.000	ug/L	0.000	104	29	40	30

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 13:05:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1840661	1
	Be	9	0.001	ug/L	0.001	163	19	23	30
	C	13		ug/L			90443	91860	4
	Cl	37		ug/L			5576019	5812337	4
>	Sc	45		ug/L			1504442	1484262	2
	V	51	-0.009	ug/L	0.008	93	10680	10262	1
	V-1	51	0.039	ug/L	0.006	16	452	1608	10
	Cr	52	-0.018	ug/L	0.038	203	31520	30611	2
	Cr	53	0.151	ug/L	0.030	19	291	691	9
	Mn	55	0.060	ug/L	0.003	4	589	2614	0
	Co	59	0.001	ug/L	0.001	61	100	128	12
>	Ge	72		ug/L			718320	725373	2
	Ni	60	0.076	ug/L	0.005	6	39	408	3
	Ni	62	0.613	ug/L	0.128	20	575	1001	6
	Cu	63	0.119	ug/L	0.009	7	481	1710	3
	Cu	65	0.092	ug/L	0.008	8	64	501	5
	Zn	66	1.459	ug/L	0.050	3	170	4124	4
	Zn	67	1.305	ug/L	0.031	2	30	634	2
	Zn	68	1.410	ug/L	0.073	5	274	3010	3
	As	75	0.030	ug/L	0.018	58	259	332	10
	As-1	75	-0.013	ug/L	0.159	1269	11343	11419	1
	Se	82	0.007	ug/L	0.018	250	-3	-1	285
	Se	78	-0.085	ug/L	0.571	672	11640	11695	1
	Mo	98	0.049	ug/L	0.001	2	40	330	1
	Y	89		ug/L			458015	470633	0
	Kr	83		ug/L			763	822	3
>	In	115		ug/L			1367345	1371522	0
	Ag	107	0.002	ug/L	0.000	23	37	60	9
	Cd	111	0.000	ug/L	0.002	6305	156	157	8
	Cd	114	0.001	ug/L	0.000	24	56	76	7
	Sb	121	-0.008	ug/L	0.002	24	319	163	23
	Sb	123	-0.007	ug/L	0.001	13	235	133	11
	Ba	135	0.020	ug/L	0.001	4	17	149	3
	Ba	137	0.020	ug/L	0.002	12	35	261	10
>	Tb	159		ug/L			1730482	1700846	1
	Tl	205	-0.002	ug/L	0.000	17	268	164	11
	Pb	208	0.044	ug/L	0.001	2	239	3247	1
	Bi	209		ug/L			3854596	3843925	1
	Th	232	-0.046	ug/L	0 002	5	3454	499	31
	U	238	-0.000	ug/L	0.000	105	29	24	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 13:10:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1844055	1885338	1
	Be	9	51.065	ug/L	1.785	3	19	263662	1
	C	13		ug/L			90443	89651	2
	Cl	37		ug/L			5576019	5765326	1
>	Sc	45		ug/L			1504442	1471887	4
	V	51	46.872	ug/L	1.131	2	10680	1436728	1
	V-1	51	48.118	ug/L	1.346	2	452	1431361	1
	Cr	52	46.855	ug/L	1.672	3	31520	1225222	2
	Cr	53	51.306	ug/L	2.190	4	291	136733	1
	Mn	55	48.488	ug/L	1.634	3	589	1626128	1
	Co	59	50.921	ug/L	1.485	2	100	1218314	1
>	Ge	72		ug/L			718320	706201	0
	Ni	60	53.948	ug/L	1.573	2	39	253190	2
	Ni	62	53.786	ug/L	1.227	2	575	36532	1
	Cu	63	54.350	ug/L	1 634	3	481	544601	2
	Cu	65	54.021	ug/L	1.293	2	64	249413	2
	Zn	66	54.932	ug/L	0.432	0	170	145025	1
	Zn	67	54.811	ug/L	0.752	1	30	24707	2
	Zn	68	55.522	ug/L	0.875	1	274	105064	1
	As	75	54.974	ug/L	0.748	1	259	127263	0
	As-1	75	53.225	ug/L	0.883	1	11343	134507	0
	Se	82	62.233	ug/L	0.969	1	-3	15035	0
	Se	78	54.765	ug/L	1.385	2	11640	46082	0
	Mo	98	55.989	ug/L	1.069	1	40	320834	0
	Y	89		ug/L			458015	468268	0
	Kr	83		ug/L			763	855	3
>	In	115		ug/L			1367345	1345432	0
	Ag	107	59.951	ug/L	0.775	1	37	869585	0
	Cd	111	51.370	ug/L	0.586	1	156	347988	0
	Cd	114	50.697	ug/L	0.370	0	56	873479	1
	Sb	121	49.504	ug/L	0.997	2	319	914859	1
	Sb	123	49.797	ug/L	1.106	2	235	697899	1
	Ba	135	49.522	ug/L	0.849	1	17	315325	0
	Ba	137	48.562	ug/L	0.383	0	35	542824	0
>	Tb	159		ug/L			1730482	1719397	0
	Tl	205	51.263	ug/L	0.595	1	268	2873199	1
	Pb	208	48.798	ug/L	0.379	0	239	3367753	0
	Bi	209		ug/L			3854596	3646617	0
	Th	232	49.693	ug/L	1.127	2	3454	3173783	1
	U	238	51.789	ug/L	0.634	1	29	3471734	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 13:17:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1844055	1915600	3
	Be	9	0.001	ug/L	0.000	20	19	25	0
	C	13		ug/L			90443	91000	1
	Cl	37		ug/L			5576019	5793930	2
>	Sc	45		ug/L			1504442	1477441	1
	V	51	-0.003	ug/L	0.008	245	10680	10384	2
	V-1	51	0.010	ug/L	0.001	6	452	745	1
	Cr	52	-0.021	ug/L	0 025	119	31520	30408	2
	Cr	53	0.025	ug/L	0.007	27	291	353	4
	Mn	55	-0.000	ug/L	0.001	499	589	572	4
	Co	59	0.001	ug/L	0.001	97	100	113	11
>	Ge	72		ug/L			718320	708518	1
	Ni	60	0.001	ug/L	0.001	43	39	45	5
	Ni	62	0.146	ug/L	0.077	53	575	665	6
	Cu	63	0.006	ug/L	0.004	70	481	531	6
	Cu	65	-0.001	ug/L	0.002	423	64	61	18
	Zn	66	-0.010	ug/L	0.006	59	170	142	9
	Zn	67	-0.009	ug/L	0.006	69	30	26	11
	Zn	68	-0.001	ug/L	0.008	1171	274	269	6
	As	75	0.043	ug/L	0.008	18	259	354	4
	As-1	75	0.035	ug/L	0.044	126	11343	11268	1
	Se	82	0.041	ug/L	0.126	305	-3	6	481
	Se	78	0.097	ug/L	0.185	190	11640	11542	0
	Mo	98	0.014	ug/L	0.001	9	40	121	8
	Y	89		ug/L			458015	457971	2
	Kr	83		ug/L			763	822	7
>	In	115		ug/L			1367345	1369256	1
	Ag	107	0.002	ug/L	0.001	42	37	60	14
	Cd	111	0.001	ug/L	0.002	232	156	162	6
	Cd	114	0.000	ug/L	0.001	854	56	58	33
	Sb	121	0.021	ug/L	0.004	18	319	712	10
	Sb	123	0.022	ug/L	0.003	13	235	555	8
	Ba	135	0.000	ug/L	0.001	1225	17	17	47
	Ba	137	-0.001	ug/L	0.000	32	35	27	8
>	Tb	159		ug/L			1730482	1687990	0
	Tl	205	0.001	ug/L	0.000	26	268	334	6
	Pb	208	-0.000	ug/L	0.000	270	239	221	13
	Bi	209		ug/L			3854596	3844906	2
	Th	232	0.116	ug/L	0.042	36	3454	10622	24
	U	238	0.002	ug/L	0.000	16	29	134	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 13:32:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1929000	2
	Be	9	0.000	ug/L	0.001	1162	19	20	27
	C	13		ug/L			90443	84738	1
	Cl	37		ug/L			5576019	5860088	4
>	Sc	45		ug/L			1504442	1481673	3
	V	51	-0.021	ug/L	0.015	71	10680	9880	3
	V-1	51	0.004	ug/L	0.001	24	452	558	4
	Cr	52	-0.072	ug/L	0.049	68	31520	29176	2
	Cr	53	0.011	ug/L	0.006	56	291	315	2
	Mn	55	0.016	ug/L	0 001	8	589	1122	3
	Co	59	0.001	ug/L	0.001	80	100	114	7
>	Ge	72		ug/L			718320	719406	3
	Ni	60	0.024	ug/L	0 001	3	39	153	3
	Ni	62	-0.146	ug/L	0.054	36	575	476	6
	Cu	63	-0.006	ug/L	0.004	67	481	423	7
	Cu	65	0.005	ug/L	0.001	26	64	88	7
	Zn	66	0.327	ug/L	0.018	5	170	1047	1
	Zn	67	0.275	ug/L	0.030	10	30	156	5
	Zn	68	0.304	ug/L	0.023	7	274	859	2
	As	75	0.019	ug/L	0.017	90	259	303	10
	As-1	75	0.017	ug/L	0.172	1005	11343	11391	0
	Se	82	-0.029	ug/L	0.050	169	-3	-10	114
	Se	78	0.032	ug/L	0.612	1912	11640	11670	0
	Mo	98	-0.000	ug/L	0.002	1838	40	39	21
	Y	89		ug/L			458015	461747	0
	Kr	83		ug/L			763	818	3
>	In	115		ug/L			1367345	1372254	1
	Ag	107	0.001	ug/L	0.001	58	37	52	17
	Cd	111	-0.001	ug/L	0.004	429	156	149	18
	Cd	114	0.000	ug/L	0.000	96	56	63	9
	Sb	121	-0.005	ug/L	0.002	48	319	225	21
	Sb	123	-0.004	ug/L	0.003	59	235	172	23
	Ba	135	0.012	ug/L	0.002	19	17	98	17
	Ba	137	0.012	ug/L	0.001	12	35	166	8
>	Tb	159		ug/L			1730482	1711285	2
	Tl	205	-0.001	ug/L	0.001	36	268	186	15
	Pb	208	0.014	ug/L	0.001	4	239	1165	1
	Bi	209		ug/L			3854596	3862300	0
	Th	232	-0.018	ug/L	0.013	69	3454	2251	34
	U	238	-0.000	ug/L	0.000	42	29	22	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ERAP197
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, January 28, 2013 13:36:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1936838	1
	Be	9	6.091	ug/L	0 098	1	19	32335	0
	C	13		ug/L			90443	90413	4
	Cl	37		ug/L			5576019	5969892	1
>	Sc	45		ug/L			1504442	1488908	1
	V	51	48.726	ug/L	0.720	1	10680	1511187	0
	V-1	51	50.007	ug/L	0.728	1	452	1505730	1
	Cr	52	52.111	ug/L	1.081	2	31520	1375620	0
	Cr	53	56.968	ug/L	0.970	1	291	153699	0
	Mn	55	46.943	ug/L	1.645	3	589	1593498	2
	Co	59	100.883	ug/L 110.56	1.833	1	100	2442951	0
>	Ge	72		ug/L			718320	728299	1
	Ni	60	74.965	ug/L	2.096	2	39	362747	1
	Ni	62	76.196	ug/L	1.994	2	575	53123	1
	Cu	63	33.268	ug/L	0.642	1	481	343954	0
	Cu	65	33.465	ug/L	0.632	1	64	159328	1
	Zn	66	54.134	ug/L 113.26	0.750	1	170	147364	0
	Zn	67	51.714	ug/L	0.989	1	30	24035	0
	Zn	68	53.388	ug/L 111.72	0.521	0	274	104193	1
	As	75	23.979	ug/L	0.541	2	259	57384	1
	As-1	75	22.977	ug/L	0.498	2	11343	66410	0
	Se	82	~~38.560~~	ug/L 120	1.333 CV out	3	-3	9602	1
	Se	78	34.105	ug/L	1.216	3	11640	34041	0
	Mo	98	61.212	ug/L	1.644	2	40	361667	1
	Y	89		ug/L			458015	474043	3
	Kr	83		ug/L			763	832	5
>	In	115		ug/L			1367345	1384214	1
	Ag	107	48.577	ug/L 120	0.930 CV out	1	37	724866	0
	Cd	111	15.085	ug/L	0.246	1	156	105239	0
	Cd	114	14.795	ug/L	0.082	0	56	262290	0
	Sb	121	29.878	ug/L	0.477	1	319	568209	0
	Sb	123	29.927	ug/L	0.631	2	235	431583	0
	Ba	135	44.142	ug/L	0.543	1	17	289170	0
	Ba	137	43.195	ug/L	0 602	1	35	496716	0
>	Tb	159		ug/L			1730482	1730421	1
	Tl	205	16.950	ug/L	0.198	1	268	956217	0
	Pb	208	225.839	ug/L	2.205	0	239	15685250	1
	Bi	209		ug/L			3854596	3819797	0
	Th	232	-0.036	ug/L	0.003	7	3454	1154	14
	U	238	0.000	ug/L	0.000	72	29	32	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VZ86 I REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, January 28, 2013 13:40:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1887088	1
	Be	9	0.000	ug/L	0.000	143	19	21	9
	C	13		ug/L			90443	95236	2
	Cl	37		ug/L			5576019	18441188	3
>	Sc	45		ug/L			1504442	1413978	1
	V	51	0.276	ug/L	0.019	6	10680	18099	2
	V-1	51	1.549	ug/L	0.157	10	452	44674	8
	Cr	52	0.145	ug/L	0.010	7	31520	33167	0
	Cr	53	4.686	ug/L	0.514	10	291	12246	9
	Mn	55	10.583	ug/L	0.280	2	589	341619	1
	Co	59	0.048	ug/L	0.003	5	100	1195	6
>	Ge	72		ug/L			718320	646974	1
	Ni	60	0.634	ug/L	0.022	3	39	2763	4
	Ni	62	50.043	ug/L	14.231	28	575	31215	28
	Cu	63	9.711	ug/L	1.717	17	481	89562	18
	Cu	65	0.312	ug/L	0.016	4	64	1375	5
	Zn	66	0.727	ug/L	0.033	4	170	1909	4
	Zn	67	0.941	ug/L	0.105	11	30	415	9
	Zn	68	0.762	ug/L	0.036	4	274	1565	2
	As	75	0.195	ug/L	0.055	28	259	646	19
	As-1	75	0.589	ug/L	0.037	6	11343	11467	0
	Se	82	0.295	ug/L	0.081	27	-3	62	29
	Se	78	2.112	ug/L	0 254	12	11640	11707	0
	Mo	98	0.261	ug/L	0.009	3	40	1408	3
	Y	89		ug/L			458015	437059	1
	Kr	83		ug/L			763	967	4
>	In	115		ug/L			1367345	1237464	0
	Ag	107	0.003	ug/L	0.001	28	37	77	15
	Cd	111	-0.069	ug/L	0.010	15	156	-286	22
	Cd	114	0.004	ug/L	0.001	33	56	119	19
	Sb	121	0.007	ug/L	0.003	34	319	412	10
	Sb	123	0.007	ug/L	0.001	8	235	303	2
	Ba	135	3.086	ug/L	0.027	0	17	18087	1
	Ba	137	3.098	ug/L	0.034	1	35	31884	1
>	Tb	159		ug/L			1730482	1631186	1
	Tl	205	0.004	ug/L	0.001	13	268	490	4
	Pb	208	0.010	ug/L	0.002	17	239	886	14
	Bi	209		ug/L			3854596	3087861	0
	Th	232	-0.031	ug/L	0.001	2	3454	1367	2
	U	238	0.017	ug/L	0.000	2	29	1107	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 L REN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Monday, January 28, 2013 13:44:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1844055	1931033	2
	Be	9	-0.000	ug/L	0.002	471	19	18	52
	C	13		ug/L			90443	92259	1
	Cl	37		ug/L			5576019	5950890	5
>	Sc	45		ug/L			1504442	1455991	0
	V	51	0.304	ug/L	0.010	3	10680	19497	1
	V-1	51	0.372	ug/L	0.020	5	452	11399	4
	Cr	52	0.124	ug/L	0.005	4	31520	33635	0
	Cr	53	0.353	ug/L	0.040	11	291	1211	8
	Mn	55	1.277	ug/L	0.014	1	589	42959	1
	Co	59	0.028	ug/L	0.000	0	100	750	0
>	Ge	72		ug/L			718320	715782	1
	Ni	60	0.104	ug/L	0.004	3	39	532	2
	Ni	62	5.082	ug/L	1.047	20	575	4024	18
	Cu	63	0.363	ug/L	0.056	15	481	4167	14
	Cu	65	0.094	ug/L	0.006	6	64	505	5
	Zn	66	0.671	ug/L	0.126	18	170	1959	15
	Zn	67	0.635	ug/L	0.110	17	30	320	14
	Zn	68	0.730	ug/L	0.149	20	274	1667	15
	As	75	75.306	ug/L	1.731	2	259	176573	0
	As-1	75	75.066	ug/L	1.795	2	11343	187613	0
	Se	82	0.011	ug/L	0.041	387	-3	0	1118
	Se	78	0.042	ug/L	0.285	676	11640	11625	0
	Mo	98	0.048	ug/L	0.003	6	40	319	4
	Y	89		ug/L			458015	464860	1
	Kr	83		ug/L			763	791	2
>	In	115		ug/L			1367345	1361633	0
	Ag	107	0.000	ug/L	0.001	281	37	41	30
	Cd	111	0.013	ug/L	0.000	1	156	247	0
	Cd	114	0.016	ug/L	0.001	4	56	328	4
	Sb	121	-0.003	ug/L	0.001	37	319	256	8
	Sb	123	-0.003	ug/L	0.002	53	235	193	11
	Ba	135	0.277	ug/L	0.002	0	17	1804	0
	Ba	137	0.275	ug/L	0.008	3	35	3145	3
>	Tb	159		ug/L			1730482	1688987	0
	Tl	205	-0.002	ug/L	0.000	7	268	177	4
	Pb	208	0.022	ug/L	0.000	2	239	1708	1
	Bi	209		ug/L			3854596	3787790	0
	Th	232	-0.042	ug/L	0.001	1	3454	738	4
	U	238	0.006	ug/L	0.000	4	29	400	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 Q REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, January 28, 2013 13:48:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1844055	1946498	3
	Be	9	0.002	ug/L	0.001	21	19	33	9
	C	13		ug/L			90443	97870	2
	Cl	37		ug/L			5576019	22078365	2
>	Sc	45		ug/L			1504442	1385582	2
	V	51	0.875	ug/L	0.029	3	10680	34903	3
	V-1	51	2.708	ug/L	0.064	2	452	76288	4
	Cr	52	0.586	ug/L	0.042	7	31520	43099	2
	Cr	53	7.115	ug/L	0.281	3	291	18105	5
	Mn	55	9.231	ug/L	0.246	2	589	292019	0
	Co	59	0.363	ug/L	0.009	2	100	8280	0
>	Ge	72		ug/L			718320	620605	1
	Ni	60	1.684	ug/L	0.034	2	39	6979	2
	Ni	62	35.087	ug/L	5.502	15	575	21102	14
	Cu	63	11.827	ug/L	0.659	5	481	104446	4
	Cu	65	2.822	ug/L	0.028	1	64	11500	1
	Zn	66	4.707	ug/L	0.210	4	170	11049	3
	Zn	67	5.610	ug/L	0.151	2	30	2246	3
	Zn	68	5.503	ug/L	0.202	3	274	9363	2
	As	75	2.627	ug/L	0 087	3	259	5556	2
	As-1	75	3.147	ug/L	0.249	7	11343	16206	1
	Se	82	0.860	ug/L	0.124	14	-3	179	15
	Se	78	3.091	ug/L	0.638	20	11640	11772	1
	Mo	98	0.530	ug/L	0.012	2	40	2702	0
	Y	89		ug/L			458015	439571	1
	Kr	83		ug/L			763	888	5
>	In	115		ug/L			1367345	1205258	0
	Ag	107	0.011	ug/L	0.001	9	37	171	7
	Cd	111	-0.029	ug/L	0.016	54	156	-40	244
	Cd	114	0.067	ug/L	0.004	5	56	1078	5
	Sb	121	0.494	ug/L	0.004	0	319	8457	0
	Sb	123	0.512	ug/L	0.010	2	235	6639	1
	Ba	135	19.179	ug/L	0.166	0	17	109413	0
	Ba	137	18.932	ug/L	0.109	0	35	189600	0
>	Tb	159		ug/L			1730482	1604689	0
	Tl	205	0.003	ug/L	0.000	6	268	413	1
	Pb	208	0.317	ug/L	0.005	1	239	20617	0
	Bi	209		ug/L			3854596	2970871	1
	Th	232	-0.022	ug/L	0.002	7	3454	1874	5
	U	238	0.033	ug/L	0.000	0	29	2107	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 R REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, January 28, 2013 13:52:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1844055	1916397	0
	Be	9	0.004	ug/L	0.000	9	19	38	5
	C	13		ug/L			90443	94157	2
	Cl	37		ug/L			5576019	5830207	2
>	Sc	45		ug/L			1504442	1440091	1
	V	51	0.272	ug/L	0.010	3	10680	18323	3
	V-1	51	0.365	ug/L	0.023	6	452	11062	7
	Cr	52	1.091	ug/L	0.042	3	31520	57400	2
	Cr	53	1.491	ug/L	0.036	2	291	4164	3
	Mn	55	249.700	ug/L	3.798	1	589	8197183	0
	Co	59	3.399	ug/L	0.057	1	100	79733	2
>	Ge	72		ug/L			718320	700282	2
	Ni	60	7.582	ug/L	0.187	2	39	35312	0
	Ni	62	17.582	ug/L	1.984	11	575	12202	8
	Cu	63	74.455	ug/L	1.183	1	481	739650	1
	Cu	65	73.750	ug/L	1.743	2	64	337489	0
	Zn	66	17717.648	ug/L	597.333	3	170	46319549	3
	Zn	67	15133.306	ug/L	226.945	1	30	6754430	0
	Zn	68	16781.681	ug/L	670.434	3	274	31410343	4
	As	75	54.552	ug/L	0.931	1	259	125209	0
	As-1	75	54.351	ug/L	1.111	2	11343	135945	0
	Se	82	0.710	ug/L	0.067	9	-3	166	7
	Se	78	0.802	ug/L	0.749	93	11640	11844	1
	Mo	98	1.336	ug/L	0.041	3	40	7628	1
	Y	89		ug/L			458015	460323	1
	Kr	83		ug/L			763	914	6
>	In	115		ug/L			1367345	1263338	0
	Ag	107	0.068	ug/L	0.007	10	37	965	10
	Cd	111	11.543	ug/L	0.050	0	156	73541	1
	Cd	114	11.168	ug/L	0.186	1	56	180708	1
	Sb	121	6.380	ug/L	0.126	1	319	110974	1
	Sb	123	6.435	ug/L	0.016	0	235	84881	0
	Ba	135	21.380	ug/L	0.385	1	17	127839	1
	Ba	137	21.087	ug/L	0.391	1	35	221338	1
>	Tb	159		ug/L			1730482	1664833	1
	Tl	205	0.124	ug/L	0.002	1	268	6977	0
	Pb	208	116.589	ug/L	2.541	2	239	7789418	0
	Bi	209		ug/L			3854596	3688273	1
	Th	232	-0.030	ug/L	0.001	4	3454	1444	5
	U	238	0.010	ug/L	0.001	5	29	687	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AE REN
Sample Dil Factor: ~~20~~ 50 1-28-13
Comments:
Sample Date/Time: Monday, January 28, 2013 13:56:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1844055	1912660	2
	Be	9	0.000	ug/L	0.002	444	19	22	39
	C	13		ug/L			90443	89759	0
	Cl	37		ug/L			5576019	5986428	8
>	Sc	45		ug/L			1504442	1427273	1
	V	51	0.172	ug/L	0.014	8	10680	15221	1
	V-1	51	0.237	ug/L	0.013	5	452	7273	3
	Cr	52	0.040	ug/L	0.024	60	31520	30898	1
	Cr	53	0.261	ug/L	0.019	7	291	949	3
	Mn	55	1.035	ug/L	0.048	4	589	34220	2
	Co	59	0.025	ug/L	0.003	11	100	671	8
>	Ge	72		ug/L			718320	702682	1
	Ni	60	0.049	ug/L	0.003	5	39	268	5
	Ni	62	6.115	ug/L	0.436	7	575	4633	6
	Cu	63	0.347	ug/L	0.026	7	481	3929	7
	Cu	65	0.052	ug/L	0.022	43	64	302	34
	Zn	66	2.205	ug/L	2.474	112	170	5969	109
	Zn	67	2.010	ug/L	2.330	115	30	933	112
	Zn	68	2.235	ug/L	2.483	111	274	4480	104
	As	75	79.392	ug/L	0 881	1	259	182764	0
	As-1	75	79.215	ug/L	0.898	1	11343	193776	0
	Se	82	-0.020	ug/L	0.031	151	-3	-8	89
	Se	78	0.320	ug/L	0.078	24	11640	11588	0
	Mo	98	0.055	ug/L	0.004	7	40	353	6
	Y	89		ug/L			458015	466134	3
	Kr	83		ug/L			763	803	2
>	In	115		ug/L			1367345	1351858	0
	Ag	107	-0.000	ug/L	0.000	24	37	30	5
	Cd	111	-0.001	ug/L	0.001	55	156	146	3
	Cd	114	-0.000	ug/L	0.000	109	56	47	17
	Sb	121	-0.005	ug/L	0.000	6	319	223	2
	Sb	123	-0.005	ug/L	0.000	4	235	158	2
	Ba	135	0.189	ug/L	0.003	1	17	1228	1
	Ba	137	0.182	ug/L	0.007	3	35	2079	3
>	Tb	159		ug/L			1730482	1697344	1
	Tl	205	-0.002	ug/L	0.000	23	268	161	14
	Pb	208	0.007	ug/L	0.001	20	239	693	12
	Bi	209		ug/L			3854596	3765019	1
	Th	232	-0.049	ug/L	0.001	2	3454	306	24
	U	238	0.002	ug/L	0.000	8	29	171	5

See 1-28-13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61AH REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 14:00:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1782801	1
	Be	9	0.031	ug/L	0.002	6	19	168	5
	C	13		ug/L			90443	114004	1
	Cl	37		ug/L			5576019	7209370	1
>	Sc	45		ug/L			1504442	1445367	1
	V	51	3.679	ug/L	0.134	3	10680	120232	2
	V-1	51	3.902	ug/L	0.055	1	452	114456	0
	Cr	52	11.550	ug/L	0.336	2	31520	319533	1
	Cr	53	12.997	ug/L	0.095	0	291	34260	0
	Mn	55	1462.415	ug/L	21.077	1	589	48181911	0
	Co	59	0.914	ug/L	0.018	2	100	21580	1
>	Ge	72		ug/L			718320	631781	1
	Ni	60	1.443	ug/L	0.051	3	39	6093	3
	Ni	62	51.773	ug/L	16.701	32	575	31534	32
	Cu	63	6.440	ug/L	1.386	21	481	58180	21
	Cu	65	0.424	ug/L	0.030	7	64	1809	7
	Zn	66	2.954	ug/L	0.121	4	170	7114	2
	Zn	67	5.917	ug/L	0.090	1	30	2409	0
	Zn	68	6.250	ug/L	0.228	3	274	10792	2
	As	75	130.829	ug/L	2.499	1	259	270595	0
	As-1	75	131.044	ug/L	2.494	1	11343	281648	0
	Se	82	0.536	ug/L	0.028	5	-3	112	5
	Se	78	3.055	ug/L	0.369	12	11640	11967	2
	Mo	98	0.130	ug/L	0.006	4	40	700	3
	Y	89		ug/L			458015	450861	3
	Kr	83		ug/L			763	841	2
>	In	115		ug/L			1367345	1222444	1
	Ag	107	0.003	ug/L	0.001	37	37	72	18
	Cd	111	0.004	ug/L	0.001	22	156	162	4
	Cd	114	0.002	ug/L	0.001	24	56	84	8
	Sb	121	0.243	ug/L	0.008	3	319	4368	3
	Sb	123	0.238	ug/L	0.006	2	235	3237	2
	Ba	135	46.897	ug/L	0.954	2	17	271300	1
	Ba	137	46.497	ug/L	0.590	1	35	472219	1
>	Tb	159		ug/L			1730482	1631676	0
	Tl	205	-0.002	ug/L	0.000	22	268	164	12
	Pb	208	0.018	ug/L	0.001	3	239	1371	3
	Bi	209		ug/L			3854596	3041480	1
	Th	232	0.010	ug/L	0.011	108	3454	3869	17
	U	238	0.051	ug/L	0.001	2	29	3256	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AJ REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, January 28, 2013 14:05:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1825173	3
	Be	9	0.001	ug/L	0.001	113	19	25	26
	C	13		ug/L			90443	98624	4
	Cl	37		ug/L			5576019	21173999	2
>	Sc	45		ug/L			1504442	1435405	3
	V	51	0.510	ug/L	0.028	5	10680	25350	5
	V-1	51	1.795	ug/L	0.327	18	452	52490	18
	Cr	52	0.317	ug/L	0.050	15	31520	37955	3
	Cr	53	4.892	ug/L	1.133	23	291	12968	22
	Mn	55	7.595	ug/L	0.153	2	589	249036	2
	Co	59	0.383	ug/L	0.004	1	100	9044	2
>	Ge	72		ug/L			718320	620056	2
	Ni	60	1.527	ug/L	0.075	4	39	6327	5
	Ni	62	70.956	ug/L	9.774	13	575	42103	12
	Cu	63	14.072	ug/L	1.005	7	481	124025	5
	Cu	65	2.314	ug/L	0.058	2	64	9428	1
	Zn	66	2.939	ug/L	0.107	3	170	6949	3
	Zn	67	3.943	ug/L	0.135	3	30	1585	4
	Zn	68	3.713	ug/L	0.017	0	274	6389	2
	As	75	2.342	ug/L	0.033	1	259	4975	1
	As-1	75	3.000	ug/L	0.148	4	11343	15892	1
	Se	82	0.589	ug/L	0.119	20	-3	122	22
	Se	78	3.452	ug/L	0.451	13	11640	11962	1
	Mo	98	0.527	ug/L	0.021	3	40	2685	1
	Y	89		ug/L			458015	429610	1
	Kr	83		ug/L			763	976	6
>	In	115		ug/L			1367345	1216875	1
	Ag	107	0.006	ug/L	0.001	17	37	110	12
	Cd	111	-0.056	ug/L	0.007	13	156	-203	22
	Cd	114	0.031	ug/L	0.001	2	56	527	1
	Sb	121	0.499	ug/L	0 008	1	319	8615	1
	Sb	123	0.504	ug/L	0.009	1	235	6594	0
	Ba	135	17.291	ug/L	0.214	1	17	99589	1
	Ba	137	17.119	ug/L	0.321	1	35	173093	2
>	Tb	159		ug/L			1730482	1610888	1
	Tl	205	0.002	ug/L	0.000	18	268	338	5
	Pb	208	0.050	ug/L	0.001	1	239	3454	1
	Bi	209		ug/L			3854596	2977778	0
	Th	232	-0.047	ug/L	0.000	0	3454	411	7
	U	238	0.024	ug/L	0.000	0	29	1515	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA61 AK REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, January 28, 2013 14:09:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1976887	0
	Be	9	0.001	ug/L	0.002	292	19	23	36
	C	13		ug/L			90443	94577	0
	Cl	37		ug/L			5576019	6042969	3
>	Sc	45		ug/L			1504442	1470173	2
	V	51	0.042	ug/L	0.007	15	10680	11706	3
	V-1	51	0.156	ug/L	0.017	11	452	5082	11
	Cr	52	-0.022	ug/L	0.026	118	31520	30250	4
	Cr	53	0.381	ug/L	0.063	16	291	1300	14
	Mn	55	235.773	ug/L	3.725	1	589	7901394	1
	Co	59	3.412	ug/L	0.070	2	100	81662	0
>	Ge	72		ug/L			718320	700128	2
	Ni	60	7.301	ug/L	0.252	3	39	33992	1
	Ni	62	25.788	ug/L	2.808	10	575	17687	12
	Cu	63	56.036	ug/L	1.147	2	481	556571	0
	Cu	65	54.268	ug/L	2.168	3	64	248228	1
	Zn	66	17505.887	ug/L	661.523	3	170	45738006	1
	Zn	67	15042.121	ug/L	708.602	4	30	6708757	2
	Zn	68	16248.012	ug/L	905.644	5	274	30378407	3
	As	75	11.337	ug/L	0.407	3	259	26208	1
	As-1	75	11.239	ug/L	0.486	4	11343	36864	0
	Se	82	0.702	ug/L	0.050	7	-3	164	5
	Se	78	0.738	ug/L	0.418	56	11640	11804	0
	Mo	98	1.257	ug/L	0.070	5	40	7173	3
	Y	89		ug/L			458015	459262	1
	Kr	83		ug/L			763	970	2
>	In	115		ug/L			1367345	1292374	0
	Ag	107	0.067	ug/L	0.002	3	37	965	3
	Cd	111	10.790	ug/L	0.088	0	156	70334	0
	Cd	114	10.708	ug/L	0.094	0	56	177247	0
	Sb	121	5.868	ug/L	0.075	1	319	104446	1
	Sb	123	5.796	ug/L	0.089	1	235	78232	1
	Ba	135	19.933	ug/L	0.110	0	17	121940	0
	Ba	137	19.769	ug/L	0.295	1	35	212292	1
>	Tb	159		ug/L			1730482	1663855	1
	Tl	205	0.122	ug/L	0.001	0	268	6882	0
	Pb	208	25.964	ug/L	0.312	1	239	1734101	0
	Bi	209		ug/L			3854596	3691550	0
	Th	232	-0.050	ug/L	0.000	0	3454	251	9
	U	238	0.004	ug/L	0.000	5	29	312	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 14:14:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1899840	1
	Be	9	48.965	ug/L	1.637	3	19	254794	2
	C	13		ug/L			90443	86702	4
	Cl	37		ug/L			5576019	6057967	3
>	Sc	45		ug/L			1504442	1414737	1
	V	51	46.875	ug/L	0.770	1	10680	1381823	1
	V-1	51	47.672	ug/L	0.961	2	452	1364007	1
	Cr	52	47.388	ug/L	0.832	1	31520	1191404	0
	Cr	53	50.281	ug/L	0.892	1	291	128931	0
	Mn	55	50.398	ug/L	1.034	2	589	1625963	2
	Co	59	51.488	ug/L	0 407	0	100	1185093	2
>	Ge	72		ug/L			718320	701345	1
	Ni	60	53.124	ug/L	0.810	1	39	247633	1
	Ni	62	62.560	ug/L	2.909	4	575	42100	3
	Cu	63	53.445	ug/L	1.183	2	481	531868	1
	Cu	65	53.336	ug/L	1.271	2	64	244500	1
	Zn	66	53.697	ug/L	1.726	3	170	140790	3
	Zn	67	53.811	ug/L	0.908	1	30	24089	2
	Zn	68	53.741	ug/L	1.211	2	274	100995	1
	As	75	53.630	ug/L	0.955	1	259	123299	0
	As-1	75	52.031	ug/L	1.013	1	11343	130831	0
	Se	82	60.576	ug/L	0.895	1	-3	14534	0
	Se	78	53.690	ug/L	0.880	1	11640	45091	0
	Mo	98	55.893	ug/L	1.285	2	40	318068	1
	Y	89		ug/L			458015	456725	2
	Kr	83		ug/L			763	850	4
>	In	115		ug/L			1367345	1328283	0
	Ag	107	58.687	ug/L	0.822	1	37	840496	1
	Cd	111	51.335	ug/L	0.514	1	156	343352	1
	Cd	114	50.141	ug/L	0.577	1	56	852867	1
	Sb	121	49.546	ug/L	0.370	0	319	904075	0
	Sb	123	49.999	ug/L	0.595	1	235	691888	1
	Ba	135	49.129	ug/L	0.322	0	17	308873	1
	Ba	137	48.340	ug/L	0.112	0	35	533482	0
>	Tb	159		ug/L			1730482	1695707	0
	Tl	205	51.575	ug/L	0.518	1	268	2850782	0
	Pb	208	48.843	ug/L	0.464	0	239	3324396	0
	Bi	209		ug/L			3854596	3633504	0
	Th	232	49.984	ug/L	0.787	1	3454	3148506	0
	U	238	52.475	ug/L	0.359	0	29	3469368	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 14:21:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Méan	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1844055	1814292	3
	Be	9	0.000	ug/L	0.001	205	19	20	15
	C	13		ug/L			90443	85303	5
	Cl	37		ug/L			5576019	5777380	1
>	Sc	45		ug/L			1504442	1430190	2
	V	51	-0.013	ug/L	0.011	86	10680	9772	1
	V-1	51	0.017	ug/L	0.004	21	452	931	8
	Cr	52	-0.058	ug/L	0.033	57	31520	28519	0
	Cr	53	0.046	ug/L	0.010	20	291	395	3
	Mn	55	0.004	ug/L	0.001	16	589	676	0
	Co	59	0.001	ug/L	0.001	58	100	121	13
>	Ge	72		ug/L			718320	695871	1
	Ni	60	0.000	ug/L	0.001	1461	39	38	9
	Ni	62	5.982	ug/L	0.348	5	575	4498	4
	Cu	63	0.255	ug/L	0.012	4	481	2980	3
	Cu	65	0.004	ug/L	0.003	84	64	79	17
	Zn	66	0.066	ug/L	0.011	16	170	336	7
	Zn	67	0.056	ug/L	0.017	29	30	54	12
	Zn	68	0.057	ug/L	0.007	12	274	372	2
	As	75	0.049	ug/L	0.014	28	259	363	8
	As-1	75	0.138	ug/L	0.035	25	11343	11302	0
	Se	82	-0.007	ug/L	0.028	406	-3	-4	132
	Se	78	0.418	ug/L	0.145	34	11640	11537	0
	Mo	98	0.008	ug/L	0 002	26	40	85	13
	Y	89		ug/L			458015	452543	1
	Kr	83		ug/L			763	820	1
>	In	115		ug/L			1367345	1329782	1
	Ag	107	0.003	ug/L	0.002	63	37	77	33
	Cd	111	0.004	ug/L	0.003	76	156	177	9
	Cd	114	0.001	ug/L	0.001	89	56	75	24
	Sb	121	0.021	ug/L	0.004	20	319	696	9
	Sb	123	0.020	ug/L	0.004	19	235	503	8
	Ba	135	0.001	ug/L	0.002	279	17	20	55
	Ba	137	-0.000	ug/L	0.001	363	35	31	32
>	Tb	159		ug/L			1730482	1660606	0
	Tl	205	0.002	ug/L	0.001	56	268	367	17
	Pb	208	0.001	ug/L	0.001	83	239	275	14
	Bi	209		ug/L			3854596	3758121	0
	Th	232	0.117	ug/L	0.043	36	3454	10529	25
	U	238	0.002	ug/L	0.000	12	29	160	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 14:27:37
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012813a.cal

Del. 1-28-13

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1994844	4
	Be	9	0.001	ug/L	0.001	105	19	27	22
	C	13		ug/L			90443	92676	4
	Cl	37		ug/L			5576019	5888112	3
>	Sc	45		ug/L			1504442	1451080	3
	V	51	-0.001	ug/L	0.015	2085	10680	10273	2
	V-1	51	0.018	ug/L	0.002	13	452	973	4
	Cr	52	-0.014	ug/L	0.044	307	31520	30026	1
	Cr	53	0.053	ug/L	0.004	7	291	419	1
	Mn	55	0.132	ug/L	0.006	4	589	4935	2
	Co	59	0.002	ug/L	0.000	20	100	143	4
>	Ge	72		ug/L			718320	717858	1
	Ni	60	0.025	ug/L	0.001	3	39	159	3
	Ni	62	4.234	ug/L	0.360	8	575	3452	6
	Cu	63	0.402	ug/L	0.015	3	481	4573	2
	Cu	65	0.224	ug/L	0.007	3	64	1117	4
	Zn	66	1.111	ug/L	0.015	1	170	3147	2
	Zn	67	0.933	ug/L	0.072	7	30	457	6
	Zn	68	1.050	ug/L	0.037	3	274	2288	1
	As	75	0.212	ug/L	0.017	7	259	757	3
	As-1	75	0.223	ug/L	0.034	15	11343	11859	0
	Se	82	0.009	ug/L	0.040	454	-3	-1	740
	Se	78	0.095	ug/L	0.107	113	11640	11693	0
	Mo	98	0.015	ug/L	0.001	9	40	128	5
	Y	89		ug/L			458015	460076	1
	Kr	83		ug/L			763	801	5
>	In	115		ug/L			1367345	1363817	1
	Ag	107	0.001	ug/L	0.000	24	37	46	4
	Cd	111	0.002	ug/L	0.001	22	156	172	0
	Cd	114	0.001	ug/L	0.001	125	56	66	19
	Sb	121	-0.002	ug/L	0.002	134	319	288	15
	Sb	123	-0.002	ug/L	0.002	138	235	210	17
	Ba	135	0.016	ug/L	0.001	3	17	123	4
	Ba	137	0.016	ug/L	0.001	6	35	216	5
>	Tb	159		ug/L			1730482	1698579	0
	Tl	205	0.003	ug/L	0.000	13	268	425	4
	Pb	208	0.029	ug/L	0.001	5	239	2187	3
	Bi	209		ug/L			3854596	3830321	0
	Th	232	0.033	ug/L	0.003	8	3454	5491	3
	U	238	0.000	ug/L	0.000	39	29	54	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 14:31:44
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012813a.cal

RAS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1930084	2
	Be	9	0.005	ug/L	0.001	21	19	46	9
	C	13		ug/L			90443	104292	3
	Cl	37		ug/L			5576019	7268478	1
>	Sc	45		ug/L			1504442	1588139	2
	V	51	20.498	ug/L	0.065	0	10680	684692	2
	V-1	51	21.349	ug/L	0.095	0	452	686010	2
	Cr	52	3.339	ug/L	0.084	2	31520	125147	1
	Cr	53	4.964	ug/L	0.115	2	291	14563	0
	Mn	55	2.159	ug/L	0.038	1	589	78777	2
	Co	59	0.115	ug/L	0.004	3	100	3066	4
>	Ge	72		ug/L			718320	676587	2
	Ni	60	5.940	ug/L	0.004	0	39	26748	2
	Ni	62	9.226	ug/L	0.514	5	575	6448	2
	Cu	63	2.038	ug/L	0.083	4	481	19994	2
	Cu	65	1.532	ug/L	0.018	1	64	6836	3
	Zn	66	3.381	ug/L	0.134	3	170	8698	2
	Zn	67	5.266	ug/L	0.208	3	30	2298	2
	Zn	68	6.453	ug/L	0.111	1	274	11924	1
	As	75	4135.809	ug/L	81.976	1	259	9152172	0
	As-1	75	4122.635	ug/L	81.913	1	11343	9162393	0
	Se	82	7.519	ug/L	0.115	1	-3	1737	1
	Se	78	7.139	ug/L	0.810	11	11640	15282	0
	Mo	98	0.711	ug/L	0.004	0	40	3943	2
	Y	89		ug/L			458015	461696	2
	Kr	83		ug/L			763	864	1
>	In	115		ug/L			1367345	1291793	2
	Ag	107	0.001	ug/L	0.000	30	37	48	10
	Cd	111	0.289	ug/L	0.015	5	156	2024	5
	Cd	114	0.290	ug/L	0.004	1	56	4850	0
	Sb	121	0.266	ug/L	0.006	2	319	5011	1
	Sb	123	0.265	ug/L	0.008	3	235	3786	1
	Ba	135	22.594	ug/L	0.436	1	17	138111	0
	Ba	137	22.281	ug/L	0.517	2	35	239074	0
>	Tb	159	U	ug/L			1730482	1660232	1
	Tl	205	0.003	ug/L	0.000	4	268	394	1
	Pb	208	0.092	ug/L	0.003	2	239	6373	2
	Bi	209	U	ug/L			3854596	3264208	0
	Th	232	-0.005	ug/L	0.006	119	3454	3003	11
	U	238	0.258	ug/L	0.006	2	29	16732	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 14:35:52
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012813a.cal

RF A's

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1932502	0
	Be	9	0.004	ug/L	0.002	47	19	41	23
	C	13		ug/L			90443	104614	3
	Cl	37		ug/L			5576019	7439842	2
>	Sc	45		ug/L			1504442	1595792	0
	V	51	20.124	ug/L	0.230	1	10680	675697	1
	V-1	51	20.974	ug/L	0.251	1	452	677259	1
	Cr	52	3.268	ug/L	0.055	1	31520	123805	0
	Cr	53	4.912	ug/L	0.106	2	291	14489	2
	Mn	55	2.192	ug/L	0 030	1	589	80384	1
	Co	59	0.109	ug/L	0.001	0	100	2937	0
>	Ge	72		ug/L			718320	681543	0
	Ni	60	6.085	ug/L	0.199	3	39	27602	3
	Ni	62	7.644	ug/L	0.400	5	575	5480	4
	Cu	63	2.266	ug/L	0.028	1	481	22356	1
	Cu	65	1.735	ug/L	0.018	1	64	7786	0
	Zn	66	3.659	ug/L	0.097	2	170	9474	3
	Zn	67	5.348	ug/L	0.080	1	30	2352	2
	Zn	68	6.927	ug/L	0.304	4	274	12877	3
	As	75	4101.569	ug/L	16.488	0	259	9146069	0
	As-1	75	4088.547	ug/L	16 442	0	11343	9156470	0
	Se	82	7.501	ug/L	0.175	2	-3	1746	2
	Se	78	7.255	ug/L	0.316	4	11640	15473	0
	Mo	98	0.694	ug/L	0.025	3	40	3877	3
	Y	89		ug/L			458015	466772	3
	Kr	83		ug/L			763	849	2
>	In	115		ug/L			1367345	1303778	1
	Ag	107	0.001	ug/L	0.000	39	37	43	6
	Cd	111	0.294	ug/L	0.008	2	156	2075	0
	Cd	114	0.283	ug/L	0.009	3	56	4772	1
	Sb	121	0.251	ug/L	0.004	1	319	4793	0
	Sb	123	0.255	ug/L	0.010	3	235	3691	2
	Ba	135	22.107	ug/L	0.362	1	17	136401	0
	Ba	137	22.005	ug/L	0 666	3	35	238296	1
>	Tb	159		ug/L			1730482	1709844	1
	Tl	205	0.001	ug/L	0.000	35	268	337	8
	Pb	208	0.069	ug/L	0.001	1	239	4995	0
	Bi	209		ug/L			3854596	3351020	1
	Th	232	-0.028	ug/L	0.001	3	3454	1658	3
	U	238	0.253	ug/L	0.003	1	29	16920	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 14:39:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RR As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1844055	2102643	0
	Be	9	22.087	ug/L	0.698	3	19	127229	2
	C	13		ug/L			90443	106098	3
	Cl	37		ug/L			5576019	7755111	2
>	Sc	45		ug/L			1504442	1595668	0
	V	51	43.063	ug/L	1.079	2	10680	1432816	2
	V-1	51	44.556	ug/L	0.940	2	452	1438027	2
	Cr	52	25.249	ug/L	0.678	2	31520	731637	2
	Cr	53	29.111	ug/L	0.325	1	291	84341	1
	Mn	55	24.939	ug/L	0 091	0	589	907847	0
	Co	59	23.985	ug/L	0.323	1	100	622622	0
>	Ge	72		ug/L			718320	690625	1
	Ni	60	33.750	ug/L	1.614	4	39	154875	3
	Ni	62	33.765	ug/L	1.171	3	575	22630	2
	Cu	63	29.331	ug/L	1.204	4	481	287580	2
	Cu	65	28.314	ug/L	0.311	1	64	127848	0
	Zn	66	84.413	ug/L	0.354	0	170	217843	1
	Zn	67	78.824	ug/L	1.308	1	30	34731	1
	Zn	68	85.485	ug/L	1.172	1	274	158076	2
	As	75	4162.249	ug/L	113.537	2	259	9402932	1
	As-1	75	4146.407	ug/L	113.553	2	11343	9407509	1
	Se	82	101.204	ug/L	1.078	1	-3	23915	1
	Se	78	88.616	ug/L	2 308	2	11640	66003	1
	Mo	98	30.759	ug/L	0.917	2	40	172371	1
	Y	89		ug/L			458015	482155	1
	Kr	83		ug/L			763	889	1
>	In	115		ug/L			1367345	1321701	0
	Ag	107	25.965	ug/L	0.852	3	37	370008	3
	Cd	111	24.723	ug/L	0.415	1	156	164609	1
	Cd	114	24.177	ug/L	0.167	0	56	409221	0
	Sb	121	23.221	ug/L	0.177	0	319	421783	0
	Sb	123	23.193	ug/L	0.174	0	235	319476	0
	Ba	135	48.711	ug/L	0.412	0	17	304721	0
	Ba	137	48.263	ug/L	0.454	0	35	529986	0
>	Tb	159		ug/L			1730482	1701955	0
	Tl	205	23.221	ug/L	0.186	0	268	1288417	0
	Pb	208	24.106	ug/L	0.308	1	239	1646902	0
	Bi	209		ug/L			3854596	3340180	1
	Th	232	22.688	ug/L	0.315	1	3454	1436305	1
	U	238	24.305	ug/L	0.224	0	29	1612896	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 I REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 14:48:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	2077838	4
	Be	9	0.001	ug/L	0.001	79	19	28	15
	C	13		ug/L			90443	102393	0
	Cl	37		ug/L			5576019	7946709	2
>	Sc	45		ug/L			1504442	1676651	3
	V	51	19.231	ug/L	0.585	3	10680	678523	0
	V-1	51	20.033	ug/L	0.620	3	452	679236	0
	Cr	52	2.961	ug/L	0.138	4	31520	121083	0
	Cr	53	4.484	ug/L	0.220	4	291	13910	1
	Mn	55	0.663	ug/L	0.020	3	589	25977	0
	Co	59	0.116	ug/L	0.003	2	100	3284	1
>	Ge	72		ug/L			718320	684776	1
	Ni	60	5.744	ug/L	0.038	0	39	26179	1
	Ni	62	5.538	ug/L	0.037	0	575	4140	0
	Cu	63	1.694	ug/L	0.031	1	481	16907	1
	Cu	65	1.282	ug/L	0.006	0	64	5800	1
	Zn	66	2.274	ug/L	0.029	1	170	5978	2
	Zn	67	4.261	ug/L	0.080	1	30	1889	2
	Zn	68	5.372	ug/L	0.049	0	274	10093	1
	As	75	4118.901	ug/L	63.000	1	259	9227307	0
	As-1	75	4105.691	ug/L	62.815	1	11343	9237462	0
	Se	82	7.670	ug/L	0.120	1	-3	1793	0
	Se	78	6.976	ug/L	0.166	2	11640	15375	0
	Mo	98	0.703	ug/L	0.022	3	40	3942	3
	Y	89		ug/L			458015	482144	1
	Kr	83		ug/L			763	885	2
>	In	115		ug/L			1367345	1330443	1
	Ag	107	0.002	ug/L	0.001	45	37	61	19
	Cd	111	0.139	ug/L	0.005	3	156	1083	2
	Cd	114	0.139	ug/L	0.004	3	56	2419	2
	Sb	121	0.232	ug/L	0.003	1	319	4541	2
	Sb	123	0.234	ug/L	0.004	1	235	3465	1
	Ba	135	21.431	ug/L	0.531	2	17	134939	1
	Ba	137	21.239	ug/L	0.190	0	35	234800	1
>	Tb	159		ug/L			1730482	1752132	0
	Tl	205	0.000	ug/L	0.000	22	268	295	1
	Pb	208	0.017	ug/L	0.000	2	239	1430	2
	Bi	209		ug/L			3854596	3381111	1
	Th	232	-0.016	ug/L	0.002	14	3454	2461	6
	U	238	0.242	ug/L	0.003	1	29	16575	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 IDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 14:44:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RBAB

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1844055	2073357	4
	Be	9	0.004	ug/L	0.002	50	19	43	28
	C	13		ug/L			90443	103494	2
	Cl	37		ug/L			5576019	7766077	4
>	Sc	45		ug/L			1504442	1632703	1
	V	51	19.505	ug/L	0.508	2	10680	670253	1
	V-1	51	20.329	ug/L	0.550	2	452	671460	1
	Cr	52	3.065	ug/L	0.031	1	31520	120949	1
	Cr	53	4.652	ug/L	0.106	2	291	14053	2
	Mn	55	0.635	ug/L	0.022	3	589	24260	3
	Co	59	0.126	ug/L	0.004	2	100	3464	3
>	Ge	72		ug/L			718320	680466	0
	Ni	60	5.817	ug/L	0.071	1	39	26345	1
	Ni	62	6.049	ug/L	0.133	2	575	4443	2
	Cu	63	1.725	ug/L	0.010	0	481	17101	0
	Cu	65	1.273	ug/L	0.051	4	64	5722	4
	Zn	66	2.236	ug/L	0.097	4	170	5842	3
	Zn	67	4.300	ug/L	0.239	5	30	1894	6
	Zn	68	5.466	ug/L	0.179	3	274	10200	2
	As	75	4110.757	ug/L	34.305	0	259	9151893	0
	As-1	75	4097.659	ug/L	34.179	0	11343	9162175	0
	Se	82	7.574	ug/L	0.128	1	-3	1760	1
	Se	78	7.206	ug/L	0.253	3	11640	15419	0
	Mo	98	0.717	ug/L	0.022	3	40	3997	3
	Y	89		ug/L			458015	476234	1
	Kr	83		ug/L			763	887	2
>	In	115		ug/L			1367345	1325691	0
	Ag	107	0.005	ug/L	0.005	104	37	110	70
	Cd	111	0.143	ug/L	0.011	7	156	1102	6
	Cd	114	0.144	ug/L	0.009	6	56	2502	5
	Sb	121	0.240	ug/L	0.010	4	319	4679	3
	Sb	123	0.242	ug/L	0.007	2	235	3572	1
	Ba	135	21.545	ug/L	0.196	0	17	135197	1
	Ba	137	21.190	ug/L	0.272	1	35	233408	0
>	Tb	159		ug/L			1730482	1694802	0
	Tl	205	0.003	ug/L	0.002	96	268	401	32
	Pb	208	0.021	ug/L	0.002	10	239	1676	8
	Bi	209		ug/L			3854596	3328900	0
	Th	232	0.101	ug/L	0.056	55	3454	9723	36
	U	238	0.255	ug/L	0.005	1	29	16887	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 ISPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 14:52:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

FR AS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1938773	1
	Be	9	23.954	ug/L	0.287	1	19	127251	2
	C	13		ug/L			90443	104027	2
	Cl	37		ug/L			5576019	7575392	1
>	Sc	45		ug/L			1504442	1566006	1
	V	51	42.876	ug/L	0.752	1	10680	1399944	0
	V-1	51	44.281	ug/L	0.719	1	452	1402439	1
	Cr	52	25.141	ug/L	0.385	1	31520	715103	1
	Cr	53	28.697	ug/L	0.308	1	291	81604	2
	Mn	55	23.599	ug/L	0.380	1	589	843107	1
	Co	59	23.988	ug/L	0.438	1	100	611076	0
>	Ge	72		ug/L			718320	662772	0
	Ni	60	33.198	ug/L	0.384	1	39	146265	1
	Ni	62	33.374	ug/L	0.515	1	575	21480	2
	Cu	63	29.857	ug/L	0.660	2	481	280995	1
	Cu	65	29.096	ug/L	0.657	2	64	126094	2
	Zn	66	86.426	ug/L	2.176	2	170	214056	3
	Zn	67	80.576	ug/L	1.581	1	30	34068	1
	Zn	68	87.397	ug/L	1.018	1	274	155060	0
	As	75	4221.900	ug/L	36.293	0	259	9154779	0
	As-1	75	4205.303	ug/L	35.850	0	11343	9157949	0
	Se	82	106.213	ug/L	1.469	1	-3	24085	0
	Se	78	91.420	ug/L	0.752	0	11640	65013	0
	Mo	98	31.244	ug/L	0.435	1	40	168060	1
	Y	89		ug/L			458015	458427	0
	Kr	83		ug/L			763	864	5
>	In	115		ug/L			1367345	1289179	0
	Ag	107	25.407	ug/L	0.228	0	37	353164	1
	Cd	111	25.090	ug/L	0.129	0	156	162949	1
	Cd	114	24.583	ug/L	0.201	0	56	405847	0
	Sb	121	22.990	ug/L	0.086	0	319	407323	1
	Sb	123	22.790	ug/L	0 182	0	235	306217	1
	Ba	135	48.099	ug/L	0.550	1	17	293502	1
	Ba	137	48.031	ug/L	0.257	0	35	514461	0
>	Tb	159		ug/L			1730482	1664272	0
	Tl	205	23.424	ug/L	0.215	0	268	1270922	0
	Pb	208	24.434	ug/L	0 124	0	239	1632440	0
	Bi	209		ug/L			3854596	3300542	0
	Th	232	22.991	ug/L	0.242	1	3454	1423243	0
	U	238	24.759	ug/L	0.131	0	29	1606653	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 14:56:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RAS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	2134096	1
	Be	9	0.010	ug/L	0.004	37	19	78	25
	C	13		ug/L			90443	104587	1
	Cl	37		ug/L			5576019	7172628	3
>	Sc	45		ug/L			1504442	1644708	3
	V	51	26.069	ug/L	0.930	3	10680	898036	0
	V-1	51	27.016	ug/L	0 938	3	452	898323	0
	Cr	52	2.286	ug/L	0.141	6	31520	99552	1
	Cr	53	3.707	ug/L	0.159	4	291	11341	3
	Mn	55	12.052	ug/L	0.431	3	589	452277	1
	Co	59	0.297	ug/L	0.006	2	100	8048	0
>	Ge	72		ug/L			718320	708081	1
	Ni	60	14.346	ug/L	0.263	1	39	67539	0
	Ni	62	13.546	ug/L	0.456	3	575	9648	1
	Cu	63	2.258	ug/L	0.033	1	481	23143	0
	Cu	65	1.863	ug/L	0.078	4	64	8684	3
	Zn	66	3.308	ug/L	0.253	7	170	8907	6
	Zn	67	5.414	ug/L	0.247	4	30	2473	3
	Zn	68	6.929	ug/L	0.303	4	274	13378	3
	As	75	15154.219	ug/L	203.897	1	259	35103895	0
	As-1	75	15106.073	ug/L	203.376	1	11343	35114305	0
	Se	82	3.538	ug/L	0.068	1	-3	853	0
	Se	78	2.813	ug/L	0.533	18	11640	13256	1
	Mo	98	0.373	ug/L	0.027	7	40	2180	5
	Y	89		ug/L			458015	474421	2
	Kr	83		ug/L			763	901	2
>	In	115		ug/L			1367345	1313839	1
	Ag	107	0.007	ug/L	0.005	67	37	140	50
	Cd	111	0.123	ug/L	0.011	8	156	960	6
	Cd	114	0.135	ug/L	0.010	7	56	2321	6
	Sb	121	0.705	ug/L	0.028	3	319	13015	2
	Sb	123	0.710	ug/L	0.011	1	235	9939	2
	Ba	135	20.425	ug/L	0.176	0	17	127016	1
	Ba	137	20.661	ug/L	0.251	1	35	225533	0
>	Tb	159		ug/L			1730482	1676248	0
	Tl	205	0.007	ug/L	0.006	97	268	622	56
	Pb	208	0.174	ug/L	0.007	4	239	11937	4
	Bi	209		ug/L			3854596	3342445	0
	Th	232	0.140	ug/L	0.054	38	3454	12095	28
	U	238	0.038	ug/L	0.004	10	29	2485	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 15:00:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

22-5

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1844055	2029239	3
	Be	9	0.074	ug/L	0.006	7	19	434	5
	C	13		ug/L			90443	107912	1
	Cl	37		ug/L			5576019	6054747	2
>	Sc	45		ug/L			1504442	1558451	1
	V	51	12.657	ug/L	0.406	3	10680	419128	3
	V-1	51	13.160	ug/L	0.386	2	452	415177	3
	Cr	52	9.377	ug/L	0.133	1	31520	285916	1
	Cr	53	10.906	ug/L	0.099	0	291	31044	0
	Mn	55	477.636	ug/L	0.952	0	589	16970414	1
	Co	59	3.543	ug/L	0.088	2	100	89911	2
>	Ge	72		ug/L			718320	671867	1
	Ni	60	15.262	ug/L	0.188	1	39	68177	1
	Ni	62	15.513	ug/L	0.873	5	575	10406	4
	Cu	63	6.131	ug/L	0.128	2	481	58843	0
	Cu	65	5.052	ug/L	0.155	3	64	22235	1
	Zn	66	8.374	ug/L	0.213	2	170	21160	1
	Zn	67	10.560	ug/L	0 148	1	30	4552	2
	Zn	68	11.494	ug/L	0.060	0	274	20897	1
	As	75	897.712	ug/L	5.582	0	259	1973517	1
	As-1	75	894.837	ug/L	5.605	0	11343	1983803	1
	Se	82	4.597	ug/L	0.194	4	-3	1053	2
	Se	78	4.609	ug/L	0 421	9	11640	13659	0
	Mo	98	47.246	ug/L	1.847	3	40	257579	3
	Y	89		ug/L			458015	515972	4
	Kr	83		ug/L			763	928	2
>	In	115		ug/L			1367345	1310161	0
	Ag	107	0.012	ug/L	0.001	6	37	199	4
	Cd	111	0.200	ug/L	0.008	3	156	1471	3
	Cd	114	0.214	ug/L	0.006	2	56	3636	2
	Sb	121	0.540	ug/L	0.005	0	319	10021	1
	Sb	123	0.527	ug/L	0.005	0	235	7412	0
	Ba	135	33.801	ug/L	0.210	0	17	209609	0
	Ba	137	33.528	ug/L	0.407	1	35	364976	1
>	Tb	159		ug/L			1730482	1713433	0
	Tl	205	U 0.018	ug/L	0.000	2	268	1264	1
	Pb	208	0.963	ug/L	0.008	0	239	66483	1
	Bi	209		ug/L			3854596	3389210	0
	Th	232	1.270	ug/L	0.006	0	3454	84142	0
	U	238	0.923	ug/L	0.010	1	29	61673	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 15:04:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

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RAB

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	2020037	5
	Be	9	24.478	ug/L	1.239	5	19	135247	0
	C	13		ug/L			90443	99394	1
	Cl	37		ug/L			5576019	5932831	4
>	Sc	45		ug/L			1504442	1431578	4
	V	51	25.273	ug/L	1.711	6	10680	757294	2
	V-1	51	25.830	ug/L	1.837	7	452	746690	3
	Cr	52	25.156	ug/L	0.786	3	31520	653657	1
	Cr	53	27.138	ug/L	1.179	4	291	70472	0
	Mn	55	26.950	ug/L	1.243	4	589	879011	0
	Co	59	27.828	ug/L	1.475	5	100	647211	1
>	Ge	72		ug/L			718320	708121	1
	Ni	60	28.888	ug/L	1.147	3	39	135919	2
	Ni	62	28.956	ug/L	0.218	0	575	19987	2
	Cu	63	30.504	ug/L	1.502	4	481	306610	3
	Cu	65	29.999	ug/L	0.409	1	64	138875	0
	Zn	66	90.086	ug/L	3.688	4	170	238259	2
	Zn	67	81.661	ug/L	1.191	1	30	36899	3
	Zn	68	86.882	ug/L	1.651	1	274	164670	0
	As	75	~~30.099~~	ug/L	1.211	4	259	69956	2
	As-1	75	27.538	ug/L	0.969	3	11343	75157	1
	Se	82	96.860	ug/L	2.567	2	-3	23461	1
	Se	78	85.104	ug/L	1.619	1	11640	65444	0
	Mo	98	28.114	ug/L	0.513	1	40	161556	1
	Y	89		ug/L			458015	463571	1
	Kr	83		ug/L			763	853	1
>	In	115		ug/L			1367345	1370580	0
	Ag	107	31.789	ug/L	0.825	2	37	469716	1
	Cd	111	26.053	ug/L	0.666	2	156	179860	2
	Cd	114	25.381	ug/L	0.579	2	56	445432	1
	Sb	121	24.060	ug/L	0.390	1	319	453138	0
	Sb	123	24.147	ug/L	0.359	1	235	344902	1
	Ba	135	25.571	ug/L	0.510	1	17	165875	1
	Ba	137	25.195	ug/L	0.233	0	35	286911	0
>	Tb	159		ug/L			1730482	1709778	0
	Tl	205	24.984	ug/L	0.200	0	268	1392575	0
	Pb	208	26.654	ug/L	0.183	0	239	1829330	0
	Bi	209		ug/L			3854596	3805231	0
	Th	232	23.792	ug/L	0.142	0	3454	1512977	0
	U	238	24.508	ug/L	0.353	1	29	1633737	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 15:09:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1844055	1889304	0
	Be	9	49.249	ug/L	0.776	1	19	254901	1
	C	13		ug/L			90443	80853	2
	Cl	37		ug/L			5576019	5862467	1
>	Sc	45		ug/L			1504442	1410861	2
	V	51	47.031	ug/L	1.408	2	10680	1382041	0
	V-1	51	47.666	ug/L	1.128	2	452	1359680	0
	Cr	52	47.272	ug/L	2.046	4	31520	1184625	1
	Cr	53	49.560	ug/L	1.142	2	291	126711	0
	Mn	55	50.158	ug/L	1.403	2	589	1613083	0
	Co	59	49.394	ug/L	1.119	2	100	1133438	2
>	Ge	72		ug/L			718320	696986	2
	Ni	60	53.512	ug/L	1.742	3	39	247757	0
	Ni	62	52.355	ug/L	1.907	3	575	35097	2
	Cu	63	53.632	ug/L	1.800	3	481	530164	0
	Cu	65	52.344	ug/L	0.712	1	64	238452	1
	Zn	66	53.586	ug/L	1.314	2	170	139571	1
	Zn	67	54.486	ug/L	0.602	1	30	24240	3
	Zn	68	53.177	ug/L	2.174	4	274	99273	2
	As	75	53.797	ug/L	0.858	1	259	122895	1
	As-1	75	52.092	ug/L	0.774	1	11343	130144	1
	Se	82	59.889	ug/L	1.442	2	-3	14275	0
	Se	78	52.676	ug/L	0.921	1	11640	44171	1
	Mo	98	55.210	ug/L	2.559	4	40	312010	1
	Y	89		ug/L			458015	446808	2
	Kr	83		ug/L			763	874	4
>	In	115		ug/L			1367345	1301473	1
	Ag	107	59.146	ug/L	2 042	3	37	829676	2
	Cd	111	52.073	ug/L	1.157	2	156	341169	0
	Cd	114	50.584	ug/L	1.310	2	56	842819	1
	Sb	121	49.887	ug/L	1 094	2	319	891725	0
	Sb	123	49.349	ug/L	1.506	3	235	668927	1
	Ba	135	48.793	ug/L	0.891	1	17	300502	0
	Ba	137	49.167	ug/L	1.556	3	35	531480	1
>	Tb	159		ug/L			1730482	1677408	0
	Tl	205	52.050	ug/L	0.686	1	268	2845894	0
	Pb	208	48.568	ug/L	0.618	1	239	3269977	0
	Bi	209		ug/L			3854596	3639233	2
	Th	232	50.552	ug/L	0.938	1	3454	3150029	1
	U	238	52.403	ug/L	0.437	0	29	3427162	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 15:16:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1844055	1877119	1
	Be	9	-0.001	ug/L	0.001	166	19	16	29
	C	13		ug/L			90443	83449	0
	Cl	37		ug/L			5576019	6083830	3
>	Sc	45		ug/L			1504442	1454594	2
	V	51	-0.011	ug/L	0.014	122	10680	9985	2
	V-1	51	0.007	ug/L	0.001	7	452	645	2
	Cr	52	-0.051	ug/L	0.039	76	31520	29185	1
	Cr	53	0.011	ug/L	0.007	66	291	311	8
	Mn	55	0.001	ug/L	0.001	107	589	614	6
	Co	59	0.001	ug/L	0.000	72	100	111	7
>	Ge	72		ug/L			718320	690558	4
	Ni	60	0.000	ug/L	0.001	14757	39	38	11
	Ni	62	0.325 ✓	ug/L	0.097	29	575	764	3
	Cu	63	0.009	ug/L	0.009	96	481	549	10
	Cu	65	-0.002	ug/L	0.001	35	64	51	2
	Zn	66	0.005	ug/L	0.008	148	170	176	8
	Zn	67	-0.002	ug/L	0.008	480	30	28	8
	Zn	68	0.008	ug/L	0.005	69	274	277	0
	As	75	0.082 ✓	ug/L	0.017	20	259	433	6
	As-1	75	0.153	ug/L	0.223	145	11343	11236	0
	Se	82	0.005	ug/L	0.018	373	-3	-2	188
	Se	78	0.334	ug/L	0.809	242	11640	11383	0
	Mo	98	0.007	ug/L	0.003	46	40	78	26
	Y	89		ug/L			458015	435496	2
	Kr	83		ug/L			763	787	1
>	In	115		ug/L			1367345	1322833	2
	Ag	107	0.002	ug/L	0.000	23	37	61	8
	Cd	111	-0.002	ug/L	0.002	97	156	138	7
	Cd	114	0.000	ug/L	0.001	230	56	59	20
	Sb	121	0.023	ug/L	0.004	19	319	731	13
	Sb	123	0.025	ug/L	0.000	1	235	576	2
	Ba	135	0.000	ug/L	0.001	226	17	19	29
	Ba	137	-0.001	ug/L	0.000	62	35	25	19
>	Tb	159		ug/L			1730482	1639098	1
	Tl	205	0.002	ug/L	0.000	9	268	353	3
	Pb	208	0.000	ug/L	0.000	99	239	258	11
	Bi	209		ug/L			3854596	3770176	1
	Th	232	0.125	ug/L	0.038	30	3454	10914	22
	U	238	0.002	ug/L	0.000	13	29	132	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 15:32:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1894430	1
	Be	9	0.002	ug/L	0.001	80	19	28	22
	C	13		ug/L			90443	94907	2
	Cl	37		ug/L			5576019	5996103	4
>	Sc	45		ug/L			1504442	1455663	2
	V	51	0.008	ug/L	0.027	349	10680	10550	5
	V-1	51	0.008	ug/L	0.001	6	452	685	4
	Cr	52	0.008	ug/L	0.087	1164	31520	30646	4
	Cr	53	0.010	ug/L	0.005	46	291	308	6
	Mn	55	0.023	ug/L	0.003	15	589	1325	6
	Co	59	0.001	ug/L	0.000	30	100	128	4
>	Ge	72		ug/L			718320	704826	1
	Ni	60	0.008	ug/L	0 002	23	39	77	12
	Ni	62	-0.124	ug/L	0.026	20	575	481	2
	Cu	63	0.219	ug/L	0.003	1	481	2657	1
	Cu	65	0.219	ug/L	0.005	2	64	1071	0
	Zn	66	4.601	ug/L	0.117	2	170	12275	2
	Zn	67	3.829	ug/L	0.151	3	30	1750	3
	Zn	68	4.323	ug/L	0.027	0	274	8413	1
	As	75	0.056	ug/L	0.020	36	259	383	13
	As-1	75	0.100	ug/L	0.061	61	11343	11358	0
	Se	82	-0.010	ug/L	0.061	608	-3	-5	248
	Se	78	0.246	ug/L	0.286	116	11640	11575	0
	Mo	98	0.001	ug/L	0.000	33	40	44	4
	Y	89		ug/L			458015	450965	1
	Kr	83		ug/L			763	825	3
>	In	115		ug/L			1367345	1340301	0
	Ag	107	0.001	ug/L	0 000	39	37	44	7
	Cd	111	-0.003	ug/L	0.003	96	156	135	13
	Cd	114	0.000	ug/L	0.001	221	56	62	26
	Sb	121	-0.002	ug/L	0.003	152	319	273	22
	Sb	123	-0.001	ug/L	0.004	262	235	210	26
	Ba	135	0.007	ug/L	0.001	8	17	61	5
	Ba	137	0.006	ug/L	0.001	13	35	100	8
>	Tb	159		ug/L			1730482	1677167	1
	Tl	205	0.000	ug/L	0.000	112	268	274	4
	Pb	208	0.077	ug/L	0.001	1	239	5382	2
	Bi	209		ug/L			3854596	3768608	1
	Th	232	0.018	ug/L	0.015	82	3454	4499	22
	U	238	0.000	ug/L	0.000	40	29	34	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 ADUP REN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Monday, January 28, 2013 15:37:01
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012813a.cal

As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1844055	1856338	1
	Be	9	0.000	ug/L	0.003	44353	19	19	70
	C	13		ug/L			90443	82811	3
	Cl	37		ug/L			5576019	5640814	1
>	Sc	45		ug/L			1504442	1433380	2
	V	51	0.918	ug/L	0.051	5	10680	37372	1
	V-1	51	0.971	ug/L	0.050	5	452	28555	2
	Cr	52	0.120	ug/L	0.017	14	31520	33001	2
	Cr	53	0.244	ug/L	0.012	4	291	909	3
	Mn	55	0.116	ug/L	0.011	9	589	4345	9
	Co	59	0.009	ug/L	0.001	9	100	296	6
>	Ge	72		ug/L			718320	703212	1
	Ni	60	0.263	ug/L	0.017	6	39	1268	5
	Ni	62	0.058	ug/L	0.039	68	575	602	4
	Cu	63	0.073	ug/L	0.003	3	481	1199	2
	Cu	65	0.071	ug/L	0.007	9	64	388	8
	Zn	66	0.363	ug/L	0.052	14	170	1118	11
	Zn	67	0.411	ug/L	0.061	14	30	214	12
	Zn	68	0.483	ug/L	0.046	9	274	1176	7
	As	75	163.780	ug/L	2.085	1	259	377044	0
	As-1	75	163.231	ug/L	2.135	1	11343	387824	0
	Se	82	0.330	ug/L	0.063	19	-3	76	21
	Se	78	0.292	ug/L	0.194	66	11640	11579	1
	Mo	98	0.021	ug/L	0.001	6	40	158	5
	Y	89		ug/L			458015	439480	2
	Kr	83		ug/L			763	812	2
>	In	115		ug/L			1367345	1334357	0
	Ag	107	0.008	ug/L	0.013	174	37	146	130
	Cd	111	0.021	ug/L	0.017	80	156	292	37
	Cd	114	0.020	ug/L	0.013	62	56	399	52
	Sb	121	0.005	ug/L	0.011	222	319	397	47
	Sb	123	0.006	ug/L	0.009	165	235	306	40
	Ba	135	0.900	ug/L	0.011	1	17	5697	0
	Ba	137	0.878	ug/L	0.019	2	35	9765	1
>	Tb	159		ug/L			1730482	1675450	0
	Tl	205	0.002	ug/L	0.005	271	268	356	73
	Pb	208	0.009	ug/L	0.006	65	239	803	46
	Bi	209		ug/L			3854596	3791059	0
	Th	232	-0.039	ug/L	0.005	11	3454	920	31
	U	238	0.012	ug/L	0.003	22	29	806	22

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 A REN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Monday, January 28, 2013 15:41:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
[>	Li	6		ug/L			1844055	1874163	0
[	Be	9	-0.001	ug/L	0.000	8	19	12	4
	C	13		ug/L			90443	82897	2
	Cl	37		ug/L			5576019	5829497	4
[>	Sc	45		ug/L			1504442	1430448	2
[	V	51	0.890	ug/L	0.036	4	10680	36469	0
[	V-1	51	0.945	ug/L	0.032	3	452	27754	1
[	Cr	52	0.104	ug/L	0.021	20	31520	32534	1
[	Cr	53	0.237	ug/L	0.009	3	291	889	3
[	Mn	55	0.107	ug/L	0.006	5	589	4044	2
[	Co	59	0.006	ug/L	0.000	6	100	241	6
[>	Ge	72		ug/L			718320	711378	1
[	Ni	60	0.257	ug/L	0.015	5	39	1252	4
[	Ni	62	-0.010	ug/L	0.029	279	575	563	2
[	Cu	63	0.075	ug/L	0.003	3	481	1233	3
[	Cu	65	0.076	ug/L	0.005	6	64	416	6
[	Zn	66	0.538	ug/L	0.022	4	170	1598	2
[	Zn	67	0.545	ug/L	0.062	11	30	277	9
[	Zn	68	0.617	ug/L	0.066	10	274	1444	7
[	As	75	162.108	ug/L	3.678	2	259	377483	1
[	As-1	75	161.492	ug/L	3.727	2	11343	388219	1
[	Se	82	0.331	ug/L	0.023	6	-3	77	5
[	Se	78	-0.036	ug/L	0.249	687	11640	11503	0
[	Mo	98	0.023	ug/L	0.003	12	40	170	10
	Y	89		ug/L			458015	442749	2
	Kr	83		ug/L			763	769	3
[>	In	115		ug/L			1367345	1334759	0
[	Ag	107	-0.000	ug/L	0.000	634	37	35	14
[	Cd	111	0.012	ug/L	0.002	16	156	231	5
[	Cd	114	0.012	ug/L	0.002	15	56	261	12
[	Sb	121	-0.002	ug/L	0.000	10	319	269	1
[	Sb	123	-0.001	ug/L	0.001	90	235	209	8
[	Ba	135	0.881	ug/L	0.009	1	17	5584	0
[	Ba	137	0.880	ug/L	0.004	0	35	9795	0
[>	Tb	159		ug/L			1730482	1674971	0
[	Tl	205	-0.002	ug/L	0.000	7	268	164	4
[	Pb	208	0.007	ug/L	0.001	12	239	705	8
[	Bi	209		ug/L			3854596	3780984	0
[	Th	232	-0.044	ug/L	0.001	3	3454	623	13
[	U	238	0.010	ug/L	0.001	6	29	681	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WAA66~~ WA ASPK REN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Monday, January 28, 2013 15:45:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1844055	1858968	1
[	Be	9	1.059	ug/L	0.031	2	19	5415	4
	C	13		ug/L			90443	79044	1
	Cl	37		ug/L			5576019	5685200	3
[>	Sc	45		ug/L			1504442	1419570	0
	V	51	1.931	ug/L	0.056	2	10680	66791	1
	V-1	51	1.991	ug/L	0.040	2	452	57571	1
	Cr	52	1.171	ug/L	0.075	6	31520	58550	3
	Cr	53	1.321	ug/L	0.023	1	291	3667	2
	Mn	55	1.185	ug/L	0.022	1	589	38914	0
[	Co	59	1.116	ug/L	0.014	1	100	25874	1
[>	Ge	72		ug/L			718320	700066	1
	Ni	60	1.411	ug/L	0 049	3	39	6599	2
	Ni	62	1.061	ug/L	0.030	2	575	1264	2
	Cu	63	1.279	ug/L	0.013	0	481	13166	1
	Cu	65	1.245	ug/L	0.025	2	64	5760	1
	Zn	66	4.115	ug/L	0.055	1	170	10922	2
	Zn	67	3.882	ug/L	0.024	0	30	1762	0
	Zn	68	4.045	ug/L	0.121	3	274	7834	1
	As	75	165.883	ug/L SL	2.007	1	259	380171	0
	As-1	75	165.317	ug/L	2 046	1	11343	390878	0
	Se	82	4.394	ug/L	0.131	2	-3	1049	2
	Se	78	4.126	ug/L	0.356	8	11640	13930	0
[	Mo	98	1.094	ug/L	0.036	3	40	6251	2
	Y	89		ug/L			458015	451442	1
	Kr	83		ug/L			763	753	5
[>	In	115		ug/L			1367345	1324196	0
	Ag	107	1.050	ug/L	0.007	0	37	15019	0
	Cd	111	1.121	ug/L	0.029	2	156	7620	2
	Cd	114	1.059	ug/L	0.013	1	56	18015	1
	Sb	121	0.975	ug/L	0.006	0	319	18047	0
	Sb	123	0.967	ug/L	0.013	1	235	13565	1
	Ba	135	1.946	ug/L	0.028	1	17	12210	1
[	Ba	137	1.926	ug/L	0.006	0	35	21220	0
[>	Tb	159		ug/L			1730482	1657804	1
	Tl	205	1.024	ug/L	0.024	2	268	55587	1
	Pb	208	1.085	ug/L	0.012	1	239	72401	0
	Bi	209		ug/L			3854596	3725940	0
	Th	232	0.831	ug/L	0.011	1	3454	54446	0
[	U	238	1.011	ug/L	0.016	1	29	65376	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 IDUP REN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Monday, January 28, 2013 15:49:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

AS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1888232	4
	Be	9	-0.001	ug/L	0.000	34	19	15	6
	C	13		ug/L			90443	79857	1
	Cl	37		ug/L			5576019	5730702	1
>	Sc	45		ug/L			1504442	1430994	1
	V	51	0.899	ug/L	0.015	1	10680	36767	0
	V-1	51	0.949	ug/L	0.016	1	452	27895	1
	Cr	52	0.116	ug/L	0.039	33	31520	32843	2
	Cr	53	0.231	ug/L	0.008	3	291	874	1
	Mn	55	0.035	ug/L	0.001	1	589	1708	2
	Co	59	0.012	ug/L	0.001	12	100	373	9
>	Ge	72		ug/L			718320	712248	0
	Ni	60	0.251	ug/L	0.014	5	39	1228	6
	Ni	62	-0.181	ug/L	0.020	11	575	448	2
	Cu	63	0.055	ug/L	0.002	3	481	1034	1
	Cu	65	0.057	ug/L	0.002	3	64	329	3
	Zn	66	0.221	ug/L	0.016	7	170	757	4
	Zn	67	0.300	ug/L	0.046	15	30	166	13
	Zn	68	0.346	ug/L	0.006	1	274	931	0
	As	75	161.481	ug/L	3.197	1	259	376520	1
	As-1	75	160.918	ug/L	3.213	1	11343	387389	1
	Se	82	0.297	ug/L	0.052	17	-3	69	18
	Se	78	0.124	ug/L	0.122	98	11640	11621	0
	Mo	98	0.021	ug/L	0.002	9	40	163	6
	Y	89		ug/L			458015	451174	1
	Kr	83		ug/L			763	776	2
>	In	115		ug/L			1367345	1332938	1
	Ag	107	-0.000	ug/L	0.001	834	37	35	34
	Cd	111	0.001	ug/L	0.001	244	156	156	4
	Cd	114	0.007	ug/L	0.000	2	56	171	3
	Sb	121	-0.002	ug/L	0.002	99	319	280	8
	Sb	123	-0.002	ug/L	0.002	100	235	206	9
	Ba	135	0.886	ug/L	0.025	2	17	5605	1
	Ba	137	0.874	ug/L	0.006	0	35	9716	1
>	Tb	159		ug/L			1730482	1675315	0
	Tl	205	-0.002	ug/L	0.000	6	268	157	5
	Pb	208	0.003	ug/L	0.000	13	239	402	6
	Bi	209		ug/L			3854596	3783230	0
	Th	232	-0.019	ug/L	0.001	4	3454	2176	3
	U	238	0.011	ug/L	0.000	4	29	719	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 I REN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Monday, January 28, 2013 15:53:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1831055	4
	Be	9	-0.002	ug/L	0.001	58	19	11	44
	C	13		ug/L			90443	77549	5
	Cl	37		ug/L			5576019	5601563	0
>	Sc	45		ug/L			1504442	1433707	2
	V	51	0.876	ug/L	0.033	3	10680	36133	0
	V-1	51	0.926	ug/L	0.027	2	452	27255	1
	Cr	52	0.100	ug/L	0.049	48	31520	32510	1
	Cr	53	0.215	ug/L	0.016	7	291	834	2
	Mn	55	0.037	ug/L	0.002	6	589	1757	2
	Co	59	0.009	ug/L	0.001	7	100	294	2
>	Ge	72		ug/L			718320	707408	1
	Ni	60	0.249	ug/L	0.009	3	39	1211	4
	Ni	62	-0.211	ug/L	0.068	32	575	425	8
	Cu	63	0.060	ug/L	0.002	3	481	1074	0
	Cu	65	0.066	ug/L	0.002	2	64	366	3
	Zn	66	0.259	ug/L	0.014	5	170	851	4
	Zn	67	0.320	ug/L	0.005	1	30	174	3
	Zn	68	0.371	ug/L	0.007	1	274	971	0
	As	75	158.636	ug/L	4.115	2	259	367290	0
	As-1	75	158.069	ug/L	4.142	2	11343	378055	0
	Se	82	0.293	ug/L	0.057	19	-3	67	19
	Se	78	0.067	ug/L	0.198	296	11640	11504	0
	Mo	98	0.023	ug/L	0.003	13	40	170	12
	Y	89		ug/L			458015	444933	0
	Kr	83		ug/L			763	765	0
>	In	115		ug/L			1367345	1327860	0
	Ag	107	-0.001	ug/L	0.001	74	37	25	34
	Cd	111	0.004	ug/L	0.002	66	156	176	9
	Cd	114	0.005	ug/L	0.001	21	56	145	13
	Sb	121	-0.003	ug/L	0.001	24	319	254	6
	Sb	123	-0.003	ug/L	0.002	76	235	190	15
	Ba	135	0.848	ug/L	0.018	2	17	5346	2
	Ba	137	0.862	ug/L	0.003	0	35	9541	0
>	Tb	159		ug/L			1730482	1665817	1
	Tl	205	-0.002	ug/L	0.000	17	268	155	10
	Pb	208	0.013	ug/L	0.001	3	239	1112	3
	Bi	209		ug/L			3854596	3789569	2
	Th	232	-0.039	ug/L	0.001	2	3454	890	4
	U	238	0.010	ug/L	0.000	4	29	685	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 ISPK REN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Monday, January 28, 2013 15:57:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1844055	1892352	2
	Be	9	1.054	ug/L	0.043	4	19	5480	1
	C	13		ug/L			90443	80633	2
	Cl	37		ug/L			5576019	5658626	2
>	Sc	45		ug/L			1504442	1463461	3
	V	51	1.833	ug/L	0.113	6	10680	65795	2
	V-1	51	1.903	ug/L	0.125	6	452	56677	3
	Cr	52	1.087	ug/L	0.048	4	31520	58215	2
	Cr	53	1.278	ug/L	0.055	4	291	3662	0
	Mn	55	1.109	ug/L	0.054	4	589	37532	2
	Co	59	1.096	ug/L	0.060	5	100	26166	2
>	Ge	72		ug/L			718320	705055	1
	Ni	60	1.430	ug/L	0.045	3	39	6739	3
	Ni	62	0.905	ug/L	0.058	6	575	1168	1
	Cu	63	1.236	ug/L	0.024	1	481	12827	1
	Cu	65	1.228	ug/L	0.056	4	64	5718	3
	Zn	66	4.328	ug/L	0.071	1	170	11562	2
	Zn	67	4.005	ug/L	0 200	4	30	1829	3
	Zn	68	4.338	ug/L	0.165	3	274	8440	1
	As	75	165.482	ug/L STL	3.106	1	259	381913	0
	As-1	75	164.863	ug/L	3.158	1	11343	392567	0
	Se	82	4.472	ug/L	0.023	0	-3	1075	2
	Se	78	4.002	ug/L	0.326	8	11640	13950	0
	Mo	98	1.088	ug/L	0.017	1	40	6262	0
	Y	89		ug/L			458015	455006	3
	Kr	83		ug/L			763	760	2
>	In	115		ug/L			1367345	1352160	0
	Ag	107	0.958	ug/L	0 029	3	37	14004	2
	Cd	111	1.068	ug/L	0.022	2	156	7426	1
	Cd	114	1.059	ug/L	0.034	3	56	18393	3
	Sb	121	0.922	ug/L	0.015	1	319	17428	1
	Sb	123	0.924	ug/L	0.013	1	235	13244	0
	Ba	135	1.881	ug/L	0.016	0	17	12057	0
	Ba	137	1.865	ug/L	0.019	0	35	20982	1
>	Tb	159		ug/L			1730482	1663410	1
	Tl	205	1.010	ug/L	0.017	1	268	54993	0
	Pb	208	1.083	ug/L	0.018	1	239	72560	0
	Bi	209		ug/L			3854596	3816163	1
	Th	232	0.832	ug/L	0.007	0	3454	54670	0
	U	238	1.017	ug/L	0.017	1	29	65985	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 B REN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, January 28, 2013 16:01:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

Dil

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1844055	1838603	0
	Be	9	-0.001	ug/L	0.001	61	19	13	26
	C	13		ug/L			90443	79179	4
	Cl	37		ug/L			5576019	5610600	0
>	Sc	45		ug/L			1504442	1427792	0
	V	51	0.562	ug/L	0.011	1	10680	26740	0
	V-1	51	0.596	ug/L	0.013	2	452	17645	1
	Cr	52	0.009	ug/L	0.011	125	31520	30142	1
	Cr	53	0.086	ug/L	0.007	8	291	497	3
	Mn	55	0.283	ug/L	0.005	1	589	9785	1
	Co	59	0.021	ug/L	0.001	6	100	594	5
>	Ge	72		ug/L			718320	692161	1
	Ni	60	0.290	ug/L	0.003	1	39	1374	2
	Ni	62	-0.201	ug/L	0.012	5	575	423	3
	Cu	63	0.031	ug/L	0.003	8	481	767	1
	Cu	65	0.047	ug/L	0.003	7	64	275	7
	Zn	66	0.284	ug/L	0.016	5	170	898	6
	Zn	67	0.308	ug/L	0.017	5	30	165	5
	Zn	68	0.350	ug/L	0 007	2	274	911	1
	As	75	306.911	ug/L	1.188	0	259	695276	1
	As-1	75	305.992	ug/L	1.242	0	11343	706072	1
	Se	82	0.061	ug/L	0.022	36	-3	11	45
	Se	78	0.302	ug/L	0.287	95	11640	11402	0
	Mo	98	0.005	ug/L	0.001	29	40	66	13
	Y	89		ug/L			458015	444720	1
	Kr	83		ug/L			763	778	2
>	In	115		ug/L			1367345	1311587	1
	Ag	107	-0.000	ug/L	0.000	899	37	35	14
	Cd	111	0.000	ug/L	0.003	1401	156	151	10
	Cd	114	0.002	ug/L	0.000	25	56	85	10
	Sb	121	0.001	ug/L	0.002	224	319	324	12
	Sb	123	0.001	ug/L	0.001	130	235	235	5
	Ba	135	0.412	ug/L	0.012	2	17	2574	1
	Ba	137	0.410	ug/L	0.008	2	35	4504	0
>	Tb	159		ug/L			1730482	1656251	0
	Tl	205	-0.003	ug/L	0.000	2	268	120	2
	Pb	208	0.007	ug/L	0.000	5	239	721	3
	Bi	209		ug/L			3854596	3762301	0
	Th	232	-0.020	ug/L	0.002	12	3454	2051	7
	U	238	0.001	ug/L	0.000	22	29	68	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 C REN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, January 28, 2013 16:05:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

A-3

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1838995	3
	Be	9	0.007	ug/L	0.001	13	19	53	4
	C	13		ug/L			90443	81471	2
	Cl	37		ug/L			5576019	5779860	7
>	Sc	45		ug/L			1504442	1439241	1
	V	51	1.401	ug/L	0.069	4	10680	51900	2
	V-1	51	1.463	ug/L	0.056	3	452	42980	1
	Cr	52	0.997	ug/L	0.093	9	31520	55013	3
	Cr	53	1.185	ug/L	0.034	2	291	3363	0
	Mn	55	50.911	ug/L	1.370	2	589	1670657	1
	Co	59	0.409	ug/L	0.016	3	100	9667	3
>	Ge	72		ug/L			718320	706636	0
	Ni	60	1.545	ug/L	0.022	1	39	7292	0
	Ni	62	1.015	ug/L	0.008	0	575	1245	0
	Cu	63	0.599	ug/L	0.009	1	481	6474	0
	Cu	65	0.528	ug/L	0.006	1	64	2500	1
	Zn	66	1.269	ug/L	0.015	1	170	3515	1
	Zn	67	1.491	ug/L	0.064	4	30	701	4
	Zn	68	1.548	ug/L	0.040	2	274	3194	2
	As	75	94.059	ug/L	0 673	0	259	217712	0
	As-1	75	93.745	ug/L	0.683	0	11343	228577	0
	Se	82	0.492	ug/L	0.051	10	-3	115	11
	Se	78	0.453	ug/L	0.100	22	11640	11737	0
	Mo	98	4.111	ug/L	0.041	1	40	23613	0
	Y	89		ug/L			458015	452886	1
	Kr	83		ug/L			763	778	1
>	In	115		ug/L			1367345	1331841	0
	Ag	107	0.001	ug/L	0.001	89	37	45	16
	Cd	111	0.020	ug/L	0.003	16	156	288	7
	Cd	114	0.023	ug/L	0.002	8	56	449	6
	Sb	121	0.050	ug/L	0.001	2	319	1221	1
	Sb	123	0.049	ug/L	0.001	2	235	912	1
	Ba	135	3.424	ug/L	0.049	1	17	21600	1
	Ba	137	3.358	ug/L	0.061	1	35	37189	1
>	Tb	159		ug/L			1730482	1667208	1
	Tl	205	-0.000	ug/L	0.000	107	268	236	9
	Pb	208	0.115	ug/L	0.001	0	239	7891	0
	Bi	209		ug/L			3854596	3715760	1
	Th	232	0.090	ug/L	0.001	1	3454	8867	1
	U	238	0.098	ug/L	0.003	3	29	6372	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 16:10:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1915462	1
	Be	9	25.000	ug/L	0.057	0	19	131203	1
	C	13		ug/L			90443	87934	1
	Cl	37		ug/L			5576019	5616344	3
>	Sc	45		ug/L			1504442	1455658	0
	V	51	24.743	ug/L	0.242	0	10680	755440	1
	V-1	51	25.309	ug/L	0.288	1	452	745384	1
	Cr	52	24.714	ug/L	0.531	2	31520	653953	1
	Cr	53	26.735	ug/L	0.070	0	291	70681	0
	Mn	55	26.891	ug/L	0.609	2	589	892917	1
	Co	59	26.826	ug/L	0.500	1	100	635263	1
>	Ge	72		ug/L			718320	705356	3
	Ni	60	29.304	ug/L	0.749	2	39	137324	0
	Ni	62	28.527	ug/L	1.189	4	575	19605	1
	Cu	63	30.749	ug/L	1.007	3	481	307820	2
	Cu	65	29.889	ug/L	0.537	1	64	137815	2
	Zn	66	91.242	ug/L	5.159	5	170	240191	2
	Zn	67	83.148	ug/L	1.511	1	30	37403	1
	Zn	68	89.062	ug/L	3.366	3	274	168032	0
	As	75	28.759	ug/L	1.332	4	259	66554	1
	As-1	75	27.278	ug/L	1.142	4	11343	74230	0
	Se	82	93.476	ug/L	3.528	3	-3	22541	0
	Se	78	85.671	ug/L	2.816	3	11640	65520	0
	Mo	98	27.245	ug/L	1.057	3	40	155854	1
	Y	89		ug/L			458015	454402	1
	Kr	83		ug/L			763	784	2
>	In	115		ug/L			1367345	1330225	3
	Ag	107	30.668	ug/L	0.666	2	37	439706	2
	Cd	111	26.238	ug/L	1.030	3	156	175676	0
	Cd	114	25.868	ug/L	0.543	2	56	440485	1
	Sb	121	24.313	ug/L	0.994	4	319	444105	1
	Sb	123	24.662	ug/L	0.590	2	235	341721	0
	Ba	135	26.068	ug/L	0.364	1	17	164083	1
	Ba	137	25.640	ug/L	0.748	2	35	283220	0
>	Tb	159		ug/L			1730482	1666755	0
	Tl	205	25.357	ug/L	0.229	0	268	1377902	1
	Pb	208	26.907	ug/L	0.081	0	239	1800267	0
	Bi	209		ug/L			3854596	3764547	0
	Th	232	23.975	ug/L	0.068	0	3454	1486224	0
	U	238	25.133	ug/L	0.205	0	29	1633377	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 16:15:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1820640	3
	Be	9	50.747	ug/L	2.414	4	19	252848	1
	C	13		ug/L			90443	77349	4
	Cl	37		ug/L			5576019	5667068	0
>	Sc	45		ug/L			1504442	1398886	2
	V	51	47.545	ug/L	2.148	4	10680	1384699	1
	V-1	51	48.778	ug/L	2.410	4	452	1378880	2
	Cr	52	47.442	ug/L	1.317	2	31520	1179161	2
	Cr	53	51.841	ug/L	1.756	3	291	131384	1
	Mn	55	49.384	ug/L	1.703	3	589	1574503	1
	Co	59	51.431	ug/L	1.305	2	100	1169919	1
>	Ge	72		ug/L			718320	679515	0
	Ni	60	53.886	ug/L	0.727	1	39	243360	0
	Ni	62	53.687	ug/L	0.643	1	575	35092	0
	Cu	63	55.093	ug/L	2.238	4	481	531160	3
	Cu	65	52.919	ug/L	0.397	0	64	235084	1
	Zn	66	55.801	ug/L	1.426	2	170	141725	1
	Zn	67	54.020	ug/L	0.499	0	30	23429	1
	Zn	68	55.409	ug/L	2 277	4	274	100870	3
	As	75	54.443	ug/L	0 840	1	259	121275	1
	As-1	75	53.392	ug/L	1.176	2	11343	129797	1
	Se	82	59.873	ug/L	0.430	0	-3	13920	1
	Se	78	55.056	ug/L	1.019	1	11640	44520	0
	Mo	98	53.844	ug/L	0.893	1	40	296891	0
	Y	89		ug/L			458015	433803	1
	Kr	83		ug/L			763	852	2
>	In	115		ug/L			1367345	1282458	2
	Ag	107	56.539	ug/L	1.557	2	37	781580	2
	Cd	111	52.033	ug/L	0.928	1	156	335916	0
	Cd	114	50.226	ug/L	1.600	3	56	824446	1
	Sb	121	49.830	ug/L	0.868	1	319	877655	0
	Sb	123	49.737	ug/L	1.210	2	235	664272	0
	Ba	135	49.359	ug/L	1.182	2	17	299498	0
	Ba	137	48.987	ug/L	1.112	2	35	521798	0
>	Tb	159		ug/L			1730482	1623327	0
	Tl	205	53.743	ug/L	0.410	0	268	2843903	0
	Pb	208	49.431	ug/L	0.172	0	239	3220949	0
	Bi	209		ug/L			3854596	3586678	0
	Th	232	51.989	ug/L	0.242	0	3454	3135149	0
	U	238	53.961	ug/L	0.274	0	29	3415374	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 16:22:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1844055	1807031	2
	Be	9	0.002	ug/L	0.005	309	19	27	93
	C	13		ug/L			90443	80295	1
	Cl	37		ug/L			5576019	5828902	0
>	Sc	45		ug/L			1504442	1396506	1
	V	51	0.002	ug/L	0.012	611	10680	9965	1
	V-1	51	0.003	ug/L	0.003	99	452	493	15
	Cr	52	-0.005	ug/L	0.049	950	31520	29120	2
	Cr	53	-0.003	ug/L	0.009	256	291	261	6
	Mn	55	0.002	ug/L	0.003	133	589	615	14
	Co	59	0.002	ug/L	0.003	130	100	139	43
>	Ge	72		ug/L			718320	692125	1
	Ni	60	0.003	ug/L	0.002	69	39	52	20
	Ni	62	-0.362	ug/L	0.042	11	575	317	10
	Cu	63	-0.022	ug/L	0.003	14	481	249	14
	Cu	65	-0.001	ug/L	0.002	228	64	58	12
	Zn	66	-0.002	ug/L	0.006	416	170	160	11
	Zn	67	-0.007	ug/L	0.012	163	30	26	18
	Zn	68	-0.008	ug/L	0.005	58	274	250	2
	As	75	0.045	ug/L	0.004	8	259	352	2
	As-1	75	0.161	ug/L	0.135	83	11343	11291	1
	Se	82	0.025	ug/L	0.021	83	-3	2	183
	Se	78	0.494	ug/L	0.489	99	11640	11519	1
	Mo	98	0.006	ug/L	0.000	6	40	71	3
	Y	89		ug/L			458015	444790	2
	Kr	83		ug/L			763	773	4
>	In	115		ug/L			1367345	1287561	3
	Ag	107	0.002	ug/L	0.001	35	37	63	12
	Cd	111	-0.000	ug/L	0.003	1907	156	146	16
	Cd	114	0.001	ug/L	0.001	124	56	63	20
	Sb	121	0.023	ug/L	0.003	12	319	709	10
	Sb	123	0.025	ug/L	0.001	4	235	552	5
	Ba	135	0.000	ug/L	0.002	516	17	18	58
	Ba	137	0.002	ug/L	0.005	257	35	54	99
>	Tb	159		ug/L			1730482	1625260	1
	Tl	205	0.007	ug/L	0.008	108	268	640	65
	Pb	208	0.006	ug/L	0.009	169	239	588	104
	Bi	209		ug/L			3854596	3733292	2
	Th	232	0.118	ug/L	0.037	31	3454	10396	22
	U	238	0.005	ug/L	0.006	116	29	345	106

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 16:26:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1900096	1
	Be	9	0.001	ug/L	0.001	99	19	24	18
	C	13		ug/L			90443	88588	0
	Cl	37		ug/L			5576019	5971908	3
>	Sc	45		ug/L			1504442	1474862	1
	V	51	-0.003	ug/L	0.010	364	10680	10382	2
	V-1	51	0.003	ug/L	0.002	67	452	531	11
	Cr	52	-0.015	ug/L	0.024	164	31520	30516	1
	Cr	53	0.005	ug/L	0.005	96	291	298	5
	Mn	55	0.017	ug/L	0.001	5	589	1165	0
	Co	59	0.001	ug/L	0.001	53	100	121	9
>	Ge	72		ug/L			718320	710158	2
	Ni	60	0.013	ug/L	0.003	25	39	102	18
	Ni	62	-0.398	ug/L	0.019	4	575	301	2
	Cu	63	0.132	ug/L	0.009	6	481	1807	2
	Cu	65	0.158	ug/L	0.006	3	64	795	5
	Zn	66	0.789	ug/L	0.016	1	170	2260	1
	Zn	67	0.690	ug/L	0.043	6	30	342	5
	Zn	68	0.771	ug/L	0.031	4	274	1734	1
	As	75	0.045	ug/L	0.012	26	259	359	5
	As-1	75	0.084	ug/L	0.111	133	11343	11404	0
	Se	82	-0.010	ug/L	0.026	273	-3	-5	112
	Se	78	0.222	ug/L	0.419	188	11640	11645	0
	Mo	98	0.002	ug/L	0.002	103	40	49	20
	Y	89		ug/L			458015	454101	0
	Kr	83		ug/L			763	826	1
>	In	115		ug/L			1367345	1323498	0
	Ag	107	0.001	ug/L	0.000	38	37	46	7
	Cd	111	0.001	ug/L	0.001	67	156	159	4
	Cd	114	0.000	ug/L	0 000	147	56	59	13
	Sb	121	-0.002	ug/L	0 001	73	319	278	8
	Sb	123	0.001	ug/L	0.001	149	235	241	9
	Ba	135	0.006	ug/L	0.000	1	17	57	1
	Ba	137	0.006	ug/L	0.001	13	35	96	9
>	Tb	159		ug/L			1730482	1657965	0
	Tl	205	0.006	ug/L	0.001	20	268	595	12
	Pb	208	0.011	ug/L	0.000	3	239	947	2
	Bi	209		ug/L			3854596	3754101	0
	Th	232	0.052	ug/L	0.011	21	3454	6478	10
	U	238	0.000	ug/L	0.000	15	29	53	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 16:30:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1844055	1951304	0
	Be	9	0.030	ug/L	0.003	9	19	179	8
	C	13		ug/L			90443	95807	0
	Cl	37		ug/L			5576019	6141531	0
>	Sc	45		ug/L			1504442	1602986	0
	V	51	5.961	ug/L	0.168	2	10680	209034	2
	V-1	51	6.222	ug/L	0.089	1	452	202134	1
	Cr	52	4.737	ug/L	0.169	3	31520	165199	2
	Cr	53	5.570	ug/L	0.137	2	291	16460	2
	Mn	55	633.544	ug/L	15.981	2	589	23150732	1
	Co	59	4.494	ug/L	0.038	0	100	117301	1
>	Ge	72		ug/L			718320	703733	1
	Ni	60	17.089	ug/L	0.428	2	39	79937	0
	Ni	62	17.123	ug/L	0.298	1	575	11977	3
	Cu	63	5.426	ug/L	0.123	2	481	54605	1
	Cu	65	4.727	ug/L	0.147	3	64	21806	4
	Zn	66	12.450	ug/L	0.095	0	170	32882	1
	Zn	67	12.881	ug/L	0.488	3	30	5806	2
	Zn	68	14.710	ug/L	0.034	0	274	27937	1
	As	75	1.649	ug/L	0.035	2	259	4051	2
	As-1	75	1.612	ug/L	0.090	5	11343	14834	0
	Se	82	0.171	ug/L	0.057	33	-3	38	37
	Se	78	0.199	ug/L	0.346	173	11640	11527	0
	Mo	98	7.038	ug/L	0.111	1	40	40223	1
	Y	89		ug/L			458015	479940	0
	Kr	83		ug/L			763	866	4
>	In	115		ug/L			1367345	1316587	1
	Ag	107	0.008	ug/L	0.002	21	37	151	15
	Cd	111	0.308	ug/L	0.018	5	156	2189	5
	Cd	114	0.302	ug/L	0.008	2	56	5143	1
	Sb	121	0.439	ug/L	0.003	0	319	8246	1
	Sb	123	0.440	ug/L	0.016	3	235	6259	3
	Ba	135	22.542	ug/L	0.294	1	17	140456	0
	Ba	137	22.275	ug/L	0.269	1	35	243647	0
>	Tb	159		ug/L			1730482	1681224	1
	Tl	205	4 0.018	ug/L	0.001	5	268	1229	4
	Pb	208	0.916	ug/L	0.018	2	239	62017	0
	Bi	209		ug/L			3854596	3419838	1
	Th	232	0.190	ug/L	0 013	6	3454	15213	4
	U	238	0.241	ug/L	0.002	0	29	15834	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 16:34:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1844055	1963313	1
	Be	9	**0.062**	ug/L	0.005	7	19	353	5
	C	13		ug/L			90443	99458	1
	Cl	37		ug/L			5576019	5857143	0
>	Sc	45		ug/L			1504442	1666265	3
	V	51	**9.894**	ug/L	0.310	3	10680	352638	0
	V-1	51	**10.083**	ug/L	0 395	3	452	339901	0
	Cr	52	**12.554**	ug/L	0.287	2	31520	397357	2
	Cr	53	**13.449**	ug/L	0.533	3	291	40828	1
	Mn	55	**479.854**	ug/L	12.476	2	589	18219129	1
	Co	59	**5.522**	ug/L	0.175	3	100	149685	0
>	Ge	72		ug/L			718320	702191	2
	Ni	60	**33.134**	ug/L	0.598	1	39	154655	2
	Ni	62	**32.851**	ug/L	1.312	3	575	22397	1
	Cu	63	**10.373**	ug/L	0.471	4	481	103686	2
	Cu	65	**9.800**	ug/L	0.064	0	64	45035	2
	Zn	66	**21.471**	ug/L	0.838	3	170	56431	1
	Zn	67	**23.128**	ug/L	0.815	3	30	10378	1
	Zn	68	**25.047**	ug/L	0.768	3	274	47263	2
	As	75	**2.565**	ug/L	0.665	25	259	6126	22
	As-1	75	**2.497**	ug/L	0.793	31	11343	16819	8
	Se	82	**0.701**	ug/L	0 076	10	-3	164	10
	Se	78	**0.751**	ug/L	0.496	66	11640	11847	0
	Mo	98	**2.791**	ug/L	0.058	2	40	15938	0
	Y	89		ug/L			458015	500247	1
	Kr	83		ug/L			763	976	1
>	In	115		ug/L			1367345	1288147	0
	Ag	107	**0.025**	ug/L	0.002	8	37	378	7
	Cd	111	**0.155**	ug/L	0.013	8	156	1150	6
	Cd	114	**0.150**	ug/L	0.000	0	56	2520	0
	Sb	121	**0.374**	ug/L	0.006	1	319	6919	1
	Sb	123	**0.379**	ug/L	0 011	2	235	5307	2
	Ba	135	**44.671**	ug/L	0.850	1	17	272336	1
	Ba	137	**44.318**	ug/L	0 385	0	35	474316	1
>	Tb	159		ug/L			1730482	1670509	0
	Tl	205	4 **0.030**	ug/L	0.001	2	268	1875	2
	Pb	208	**2.099**	ug/L	0.032	1	239	140986	0
	Bi	209		ug/L			3854596	3385172	0
	Th	232	**0.287**	ug/L	0.007	2	3454	21097	1
	U	238	**0.226**	ug/L	0.002	0	29	14752	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 16:38:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1844055	1961197	0
	Be	9	0.024	ug/L	0.002	9	19	152	8
	C	13		ug/L			90443	97537	5
	Cl	37		ug/L			5576019	5999178	1
>	Sc	45		ug/L			1504442	1620888	2
	V	51	5.096	ug/L	0.104	2	10680	182340	0
	V-1	51	5.281	ug/L	0.140	2	452	173497	0
	Cr	52	4.364	ug/L	0.086	1	31520	156530	0
	Cr	53	4.964	ug/L	0.236	4	291	14859	2
	Mn	55	616.429	ug/L	24.559	3	589	22767055	2
	Co	59	4.330	ug/L	0.087	2	100	114240	1
>	Ge	72		ug/L			718320	684361	3
	Ni	60	16.244	ug/L	0.417	2	39	73881	1
	Ni	62	16.554	ug/L	0.454	2	575	11271	1
	Cu	63	6.130	ug/L	0.191	3	481	59904	0
	Cu	65	5.477	ug/L	0.091	1	64	24551	1
	Zn	66	12.425	ug/L	0.618	4	170	31882	2
	Zn	67	12.646	ug/L	0.641	5	30	5541	2
	Zn	68	14.790	ug/L	0.309	2	274	27305	2
	As	75	1.466	ug/L	0.054	3	259	3526	1
	As-1	75	1.542	ug/L	0.186	12	11343	14262	0
	Se	82	0.187	ug/L	0.064	34	-3	40	39
	Se	78	0.670	ug/L	0.518	77	11640	11494	0
	Mo	98	7.497	ug/L	0.209	2	40	41643	0
	Y	89		ug/L			458015	475656	1
	Kr	83		ug/L			763	874	3
>	In	115		ug/L			1367345	1298198	0
	Ag	107	0.007	ug/L	0.001	8	37	131	5
	Cd	111	0.335	ug/L	0.011	3	156	2339	2
	Cd	114	0.317	ug/L	0.005	1	56	5326	1
	Sb	121	0.469	ug/L	0.009	1	319	8660	0
	Sb	123	0.469	ug/L	0.009	1	235	6569	2
	Ba	135	20.457	ug/L	0.371	1	17	125694	0
	Ba	137	20.477	ug/L	0.257	1	35	220879	0
>	Tb	159		ug/L			1730482	1665037	0
	Tl	205	U 0.013	ug/L	0.001	4	268	967	2
	Pb	208	0.939	ug/L	0.002	0	239	62977	0
	Bi	209		ug/L			3854596	3415387	0
	Th	232	0.097	ug/L	0.002	2	3454	9326	0
	U	238	0.238	ug/L	0.003	1	29	15468	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 16:42:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RR AS

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
> Li	6		ug/L			1844055	1993631	2
Be	9	0.032	ug/L	0 000	1	19	195	2
C	13		ug/L			90443	97043	1
Cl	37		ug/L			5576019	5988096	1
> Sc	45		ug/L			1504442	1618548	2
V	51	6.222	ug/L	0.111	1	10680	219760	1
V-1	51	6.515	ug/L	0.111	1	452	213642	1
Cr	52	5.143	ug/L	0.077	1	31520	178152	1
Cr	53	6.101	ug/L	0.042	0	291	18174	2
Mn	55	123.393	ug/L	2.141	1	589	4552498	1
Co	59	1.780	ug/L	0.075	4	100	46945	2
> Ge	72		ug/L			718320	689607	1
Ni	60	11.610	ug/L	0.389	3	39	53224	1
Ni	62	11.780	ug/L	0.066	0	575	8246	1
Cu	63	5.397	ug/L	0.122	2	481	53221	1
Cu	65	4.895	ug/L	0.115	2	64	22118	0
Zn	66	12.191	ug/L	0.203	1	170	31550	0
Zn	67	12.885	ug/L	0.314	2	30	5692	0
Zn	68	14.440	ug/L	0.376	2	274	26872	1
As	75	7.129	ug/L	0.126	1	259	16330	1
As-1	75	7.172	ug/L	0.191	2	11343	27119	0
Se	82	1.029	ug/L	0.137	13	-3	239	12
Se	78	1.471	ug/L	0.390	26	11640	12081	0
Mo	98	3.218	ug/L	0.117	3	40	18039	2
Y	89		ug/L			458015	502406	2
Kr	83		ug/L			763	913	2
> In	115		ug/L			1367345	1304124	2
Ag	107	0.007	ug/L	0.002	27	37	133	17
Cd	111	0.186	ug/L	0 014	7	156	1370	8
Cd	114	0.180	ug/L	0.007	3	56	3049	1
Sb	121	0.433	ug/L	0.013	2	319	8058	0
Sb	123	0.439	ug/L	0.027	6	235	6175	3
Ba	135	26.619	ug/L	0.529	1	17	164255	1
Ba	137	26.298	ug/L	0.922	3	35	284780	0
> Tb	159		ug/L			1730482	1682752	0
Tl	205	0.011	ug/L	0.001	5	268	851	3
Pb	208	0.903	ug/L	0.004	0	239	61202	0
Bi	209		ug/L			3854596	3451574	0
Th	232	0.143	ug/L	0.003	2	3454	12275	1
U	238	0.306	ug/L	0.003	0	29	20129	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 16:46:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	2046115	5
	Be	9	0.095	ug/L	0.007	7	19	551	1
	C	13		ug/L			90443	135430	2
	Cl	37		ug/L			5576019	6763830	2
>	Sc	45		ug/L			1504442	1554664	1
	V	51	50.139	ug/L	1.344	2	10680	1623054	0
	V-1	51	51.487	ug/L	1.480	2	452	1618384	1
	Cr	52	12.956	ug/L	0.262	2	31520	381714	3
	Cr	53	14.703	ug/L	0.284	1	291	41640	0
	Mn	55	21.673	ug/L	0.416	1	589	768580	0
	Co	59	5.794	ug/L	0.129	2	100	146599	0
>	Ge	72		ug/L			718320	654627	2
	Ni	60	18.688	ug/L	0.453	2	39	81311	0
	Ni	62	99.161	ug/L	36.679	36	575	62055	36
	Cu	63	51.554	ug/L	3.857	7	481	478815	7
	Cu	65	38.881	ug/L	1.530	3	64	166365	3
	Zn	66	20.153	ug/L	0.128	0	170	49411	1
	Zn	67	21.432	ug/L	0.206	0	30	8971	1
	Zn	68	20.930	ug/L	0.397	1	274	36862	0
	As	75	86.865	ug/L	2.627	3	259	186206	1
	As-1	75	86.821	ug/L	2.679	3	11343	196802	1
	Se	82	0.939	ug/L	0.077	8	-3	206	6
	Se	78	2.260	ug/L	0.361	15	11640	11932	1
	Mo	98	41.172	ug/L	1.641	3	40	218623	2
	Y	89		ug/L			458015	681428	3
	Kr	83		ug/L			763	1070	2
>	In	115		ug/L			1367345	1240897	2
	Ag	107	0.190	ug/L	0.007	3	37	2572	3
	Cd	111	0.167	ug/L	0.017	10	156	1184	7
	Cd	114	0.170	ug/L	0.007	4	56	2754	1
	Sb	121	11.549	ug/L	0.196	1	319	197047	0
	Sb	123	11.448	ug/L	0.193	1	235	148128	1
	Ba	135	20.124	ug/L	0.402	1	17	118168	0
	Ba	137	20.004	ug/L	0.294	1	35	206217	0
>	Tb	159		ug/L			1730482	1663349	0
	Tl	205	0.006	ug/L	0.000	8	268	563	4
	Pb	208	4.164	ug/L	0.015	0	239	278197	0
	Bi	209		ug/L			3854596	3108794	0
	Th	232	1.060	ug/L	0 009	0	3454	68772	0
	U	238	3.240	ug/L	0.027	0	29	210188	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 J REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 16:50:59
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012813a.cal

RR A5

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	2238041	1
	Be	9	0.001	ug/L	0.001	71	19	31	17
	C	13		ug/L			90443	104972	2
	Cl	37		ug/L			5576019	7550299	3
>	Sc	45		ug/L			1504442	1690493	1
	V	51	25.006	ug/L	0.702	2	10680	886338	1
	V-1	51	25.863	ug/L	0.716	2	452	884365	1
	Cr	52	1.836	ug/L	0.066	3	31520	89188	1
	Cr	53	2.983	ug/L	0.074	2	291	9447	1
	Mn	55	4.393	ug/L	0.104	2	589	169963	2
	Co	59	0.210	ug/L	0.003	1	100	5896	0
>	Ge	72		ug/L			718320	717717	1
	Ni	60	16.227	ug/L	0.221	1	39	77430	0
	Ni	62	19.639	ug/L	3.160	16	575	13906	14
	Cu	63	1.671	ug/L	0.204	12	481	17472	10
	Cu	65	1.065	ug/L	0.046	4	64	5058	2
	Zn	66	1.897	ug/L	0.052	2	170	5253	2
	Zn	67	3.925	ug/L	0.283	7	30	1825	5
	Zn	68	5.409	ug/L	0.307	5	274	10645	4
	As	75	15412.402	ug/L	180.870	1	259	36187958	0
	As-1	75	15363.453	ug/L	180.417	1	11343	36198543	0
	Se	82	3.636	ug/L	0.063	1	-3	889	2
	Se	78	3.040	ug/L	0.476	15	11640	13583	1
	Mo	98	0.389	ug/L	0.026	6	40	2306	5
	Y	89		ug/L			458015	493442	1
	Kr	83		ug/L			763	981	1
>	In	115		ug/L			1367345	1341891	0
	Ag	107	0.001	ug/L	0.001	107	37	46	22
	Cd	111	0.040	ug/L	0.002	4	156	427	3
	Cd	114	0.054	ug/L	0.003	6	56	988	6
	Sb	121	0.276	ug/L	0 004	1	319	5403	1
	Sb	123	0.274	ug/L	0.009	3	235	4057	2
	Ba	135	17.799	ug/L	0.219	1	17	113052	0
	Ba	137	17.576	ug/L	0.241	1	35	195962	0
>	Tb	159		ug/L			1730482	1696868	1
	Tl	205	0.001	ug/L	0.000	19	268	324	2
	Pb	208	0.010	ug/L	0.000	2	239	902	3
	Bi	209		ug/L			3854596	3378590	1
	Th	232	-0.042	ug/L	0.001	1	3454	728	7
	U	238	0.022	ug/L	0.001	3	29	1489	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 K REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 16:55:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RRAS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	2185079	0
	Be	9	0.005	ug/L	0.002	37	19	50	19
	C	13		ug/L			90443	107641	3
	Cl	37		ug/L			5576019	6556552	3
>	Sc	45		ug/L			1504442	1593880	1
	V	51	9.358	ug/L	0.233	2	10680	319803	0
	V-1	51	9.713	ug/L	0.239	2	452	313427	0
	Cr	52	0.358	ug/L	0.017	4	31520	43292	1
	Cr	53	0.883	ug/L	0.025	2	291	2853	2
	Mn	55	438.663	ug/L	12.361	2	589	15936163	1
	Co	59	3.289	ug/L	0.049	1	100	85379	1
>	Ge	72		ug/L			718320	694172	1
	Ni	60	8.144	ug/L	0.290	3	39	37592	1
	Ni	62	9.817	ug/L	0.366	3	575	7007	1
	Cu	63	2.376	ug/L	0.046	1	481	23850	1
	Cu	65	1.254	ug/L	0.042	3	64	5748	1
	Zn	66	2.857	ug/L	0.083	2	170	7566	1
	Zn	67	4.065	ug/L	0.176	4	30	1827	2
	Zn	68	5.406	ug/L	0.226	4	274	10290	2
	As	75	801.108	ug/L	21.566	2	259	1819139	1
	As-1	75	798.383	ug/L	21.545	2	11343	1829411	0
	Se	82	4.708	ug/L	0.213	4	-3	1115	4
	Se	78	4.206	ug/L	0.293	6	11640	13862	0
	Mo	98	51.462	ug/L	0.842	1	40	289907	2
	Y	89		ug/L			458015	499077	0
	Kr	83		ug/L			763	1003	3
>	In	115		ug/L			1367345	1329846	0
	Ag	107	0.003	ug/L	0.001	34	37	77	18
	Cd	111	0.127	ug/L	0.007	5	156	999	4
	Cd	114	0.151	ug/L	0.006	3	56	2624	3
	Sb	121	0.559	ug/L	0.008	1	319	10522	1
	Sb	123	0.556	ug/L	0.005	0	235	7929	1
	Ba	135	18.791	ug/L	0.271	1	17	118284	1
	Ba	137	18.609	ug/L	0.100	0	35	205632	0
>	Tb	159		ug/L			1730482	1717033	1
	Tl	205	0.006	ug/L	0.000	4	268	580	2
	Pb	208	0.041	ug/L	0.001	2	239	3090	0
	Bi	209		ug/L			3854596	3419668	0
	Th	232	-0.026	ug/L	0.000	1	3454	1785	3
	U	238	0.567	ug/L	0.003	0	29	38011	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 L REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 16:59:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1844055	2168043	0
	Be	9	0.000	ug/L	0.001	124	19	25	12
	C	13		ug/L			90443	103409	2
	Cl	37		ug/L			5576019	6513878	6
>	Sc	45		ug/L			1504442	1607419	0
	V	51	1.726	ug/L	0.011	0	10680	68816	0
	V-1	51	1.877	ug/L	0.007	0	452	61496	0
	Cr	52	0.183	ug/L	0.016	8	31520	38784	1
	Cr	53	0.595	ug/L	0.016	2	291	2041	1
	Mn	55	606.215	ug/L	14.098	2	589	22216037	2
	Co	59	3.841	ug/L	0.031	0	100	100532	0
>	Ge	72		ug/L			718320	702440	2
	Ni	60	10.005	ug/L	0.284	2	39	46722	1
	Ni	62	11.438	ug/L	0.628	5	575	8165	3
	Cu	63	1.560	ug/L	0.062	3	481	16002	1
	Cu	65	0.789	ug/L	0.003	0	64	3682	2
	Zn	66	4.775	ug/L	0.189	3	170	12682	1
	Zn	67	5.011	ug/L	0.194	3	30	2272	2
	Zn	68	6.711	ug/L	0.079	1	274	12867	1
	As	75	1.073	ug/L	0.031	2	259	2719	1
	As-1	75	1.021	ug/L	0.128	12	11343	13442	0
	Se	82	0.240	ug/L	0.084	34	-3	53	35
	Se	78	0.336	ug/L	0.395	117	11640	11591	0
	Mo	98	7.897	ug/L	0.210	2	40	45033	0
	Y	89		ug/L			458015	498988	1
	Kr	83		ug/L			763	970	6
>	In	115		ug/L			1367345	1358148	0
	Ag	107	-0.000	ug/L	0.000	85	37	34	7
	Cd	111	0.234	ug/L	0.006	2	156	1753	2
	Cd	114	0.232	ug/L	0.002	0	56	4086	1
	Sb	121	0.364	ug/L	0.006	1	319	7107	1
	Sb	123	0.366	ug/L	0.005	1	235	5408	1
	Ba	135	11.603	ug/L	0.111	0	17	74600	0
	Ba	137	11.441	ug/L	0 089	0	35	129126	1
>	Tb	159		ug/L			1730482	1731178	0
	Tl	205	0.003	ug/L	0 000	10	268	437	4
	Pb	208	-0.064	ug/L	0.001	1	239	4715	1
	Bi	209		ug/L			3854596	3503487	1
	Th	232	-0.044	ug/L	0.001	2	3454	606	10
	U	238	0.210	ug/L	0.003	1	29	14216	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 17:03:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1844055	2157809	2
	Be	9	23.101	ug/L	0.654	2	19	136524	0
	C	13		ug/L			90443	95831	2
	Cl	37		ug/L			5576019	5850805	2
>	Sc	45		ug/L			1504442	1477818	2
	V	51	23.669	ug/L	0.789	3	10680	733757	2
	V-1	51	24.206	ug/L	0.988	4	452	723291	2
	Cr	52	24.268	ug/L	0.750	3	31520	652486	3
	Cr	53	26.237	ug/L	1.219	4	291	70383	3
	Mn	55	25.926	ug/L	0.558	2	589	873739	1
	Co	59	26.529	ug/L	1.440	5	100	637209	2
>	Ge	72		ug/L			718320	718881	1
	Ni	60	27.900	ug/L	0.763	2	39	133289	1
	Ni	62	28.812	ug/L	0.213	0	575	20191	1
	Cu	63	28.547	ug/L	0.359	1	481	291476	2
	Cu	65	28.496	ug/L	0.235	0	64	133961	2
	Zn	66	87.696	ug/L	2.310	2	170	235513	1
	Zn	67	79.373	ug/L	0.336	0	30	36403	1
	Zn	68	84.653	ug/L	3.822	4	274	162843	2
	As	75	29.696	ug/L	0.377	1	259	70099	1
	As-1	75	26.302	ug/L	0.738	2	11343	73396	1
	Se	82	97.216	ug/L	0.562	0	-3	23912	1
	Se	78	82.605	ug/L	1.951	2	11640	64829	1
	Mo	98	27.559	ug/L	1.044	3	40	160731	2
	Y	89		ug/L			458015	487014	1
	Kr	83		ug/L			763	1028	1
>	In	115		ug/L			1367345	1373313	1
	Ag	107	31.658	ug/L	0.325	1	37	468735	0
	Cd	111	25.554	ug/L	0.826	3	156	176728	1
	Cd	114	24.449	ug/L	0.487	1	56	429919	0
	Sb	121	23.599	ug/L	0.613	2	319	445277	1
	Sb	123	23.751	ug/L	0.607	2	235	339868	1
	Ba	135	24.886	ug/L	0.418	1	17	161753	1
	Ba	137	24.374	ug/L	0.321	1	35	278088	0
>	Tb	159		ug/L			1730482	1723589	1
	Tl	205	24.113	ug/L	0.190	0	268	1354891	0
	Pb	208	25.554	ug/L	0.342	1	239	1767947	0
	Bi	209		ug/L			3854596	3877939	1
	Th	232	22.817	ug/L	0.540	2	3454	1462623	1
	U	238	23.790	ug/L	0.458	1	29	1598623	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 17:08:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1944794	2
	Be	9	50.001	ug/L	1.773	3	19	266274	1
	C	13		ug/L			90443	85546	1
	Cl	37		ug/L			5576019	5979567	0
>	Sc	45		ug/L			1504442	1440270	1
	V	51	46.243	ug/L	0.422	0	10680	1387935	0
	V-1	51	47.435	ug/L	0.659	1	452	1381697	1
	Cr	52	46.168	ug/L	0.628	1	31520	1182642	2
	Cr	53	50.422	ug/L	0.762	1	291	131643	1
	Mn	55	48.873	ug/L	0 631	1	589	1605094	0
	Co	59	50.638	ug/L	0.737	1	100	1186587	2
>	Ge	72		ug/L			718320	689106	2
	Ni	60	54.048	ug/L	1.342	2	39	247436	0
	Ni	62	54.003	ug/L	1.926	3	575	35775	2
	Cu	63	53.729	ug/L	1.574	2	481	525152	0
	Cu	65	53.693	ug/L	1.453	2	64	241754	0
	Zn	66	54.704	ug/L	1.852	3	170	140838	1
	Zn	67	53.939	ug/L	1.035	1	30	23716	1
	Zn	68	53.685	ug/L	2.763	5	274	99044	2
	As	75	55.152	ug/L	1.987	3	259	124509	0
	As-1	75	53.435	ug/L	1.815	3	11343	131660	0
	Se	82	53.024	ug/L	2.540	4	-3	14848	1
	Se	78	55.968	ug/L	1.859	3	11640	45693	0
	Mo	98	57.959	ug/L	2.196	3	40	323894	1
	Y	89		ug/L			458015	453011	2
	Kr	83		ug/L			763	1082	3
>	In	115		ug/L			1367345	1303048	0
	Ag	107	60.754	ug/L	1.958	3	37	853431	2
	Cd	111	52.157	ug/L	0.428	0	156	342219	1
	Cd	114	51.004	ug/L	0.481	0	56	851037	0
	Sb	121	49.975	ug/L	0.168	0	319	894564	0
	Sb	123	50.264	ug/L	0.149	0	235	682336	0
	Ba	135	49.057	ug/L	0.402	0	17	302562	1
	Ba	137	48.875	ug/L	0.599	1	35	529110	0
>	Tb	159		ug/L			1730482	1648039	0
	Tl	205	53.580	ug/L	0.483	0	268	2878410	0
	Pb	208	49.694	ug/L	0.241	0	239	3287403	0
	Bi	209		ug/L			3854596	3627119	1
	Th	232	52.403	ug/L	0.605	1	3454	3208197	1
	U	238	54.379	ug/L	0.251	0	29	3494350	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 17:15:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1915992	1
	Be	9	-0.001	ug/L	0.001	100	19	15	35
	C	13		ug/L			90443	83644	1
	Cl	37		ug/L			5576019	5954792	3
>	Sc	45		ug/L			1504442	1418457	2
	V	51	-0.017	ug/L	0.007	39	10680	9557	0
	V-1	51	-0.002	ug/L	0.001	48	452	370	4
	Cr	52	-0.069	ug/L	0.021	30	31520	28009	1
	Cr	53	-0.018	ug/L	0.006	31	291	227	7
	Mn	55	0.002	ug/L	0.001	42	589	636	6
	Co	59	0.001	ug/L	0.001	71	100	126	15
>	Ge	72		ug/L			718320	699803	2
	Ni	60	0.001	ug/L	0.001	57	39	44	6
	Ni	62	0.555	ug/L	0.040	7	575	928	0
	Cu	63	0.019	ug/L	0.005	25	481	659	5
	Cu	65	-0.003	ug/L	0.002	65	64	50	18
	Zn	66	0.005	ug/L	0.016	305	170	178	21
	Zn	67	0.005	ug/L	0.019	408	30	32	27
	Zn	68	0.012	ug/L	0.011	92	274	289	5
	As	75	0.134	ug/L	0.019	13	259	560	7
	As-1	75	0.007	ug/L	0.102	1389	11343	11063	0
	Se	82	-0.047	ug/L	0.024	50	-3	-14	40
	Se	78	-0.118	ug/L	0.381	324	11640	11263	0
	Mo	98	0.005	ug/L	0.001	10	40	67	3
	Y	89		ug/L			458015	446452	1
	Kr	83		ug/L			763	1053	3
>	In	115		ug/L			1367345	1308956	1
	Ag	107	0.001	ug/L	0.001	56	37	55	20
	Cd	111	0.002	ug/L	0.002	116	156	163	10
	Cd	114	0.001	ug/L	0.001	126	56	62	18
	Sb	121	0.024	ug/L	0.005	19	319	740	11
	Sb	123	0.024	ug/L	0.003	12	235	557	6
	Ba	135	-0.000	ug/L	0.000	656	17	16	10
	Ba	137	-0.000	ug/L	0.000	105	35	31	8
>	Tb	159		ug/L			1730482	1637833	1
	Tl	205	0.001	ug/L	0.001	50	268	312	9
	Pb	208	0.000	ug/L	0.001	142	239	253	15
	Bi	209		ug/L			3854596	3747726	0
	Th	232	0.116	ug/L	0.035	30	3454	10290	19
	U	238	0.002	ug/L	0.001	33	29	146	27

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA93 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, January 28, 2013 17:19:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RRA

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1844055	1996000	2
[	Be	9	-0.001	ug/L	0.001	148	19	17	31
	C	13		ug/L			90443	87859	1
	Cl	37		ug/L			5576019	5840956	0
[>	Sc	45		ug/L			1504442	1474584	2
[	V	51	-0.016	ug/L	0.013	86	10680	9996	5
[	V-1	51	-0.002	ug/L	0.002	80	452	380	13
[	Cr	52	-0.058	ug/L	0.036	61	31520	29410	4
[	Cr	53	-0.014	ug/L	0.007	51	291	248	5
[	Mn	55	0.014	ug/L	0.001	5	589	1043	2
[	Co	59	0.001	ug/L	0.001	43	100	134	9
[>	Ge	72		ug/L			718320	704288	0
[	Ni	60	0.008	ug/L	0 002	29	39	75	14
[	Ni	62	0.401	ug/L	0.028	7	575	832	2
[	Cu	63	0.024	ug/L	0.006	24	481	712	9
[	Cu	65	0.014	ug/L	0.003	18	64	127	10
[	Zn	66	0.334	ug/L	0.012	3	170	1044	3
[	Zn	67	0.295	ug/L	0.053	17	30	162	13
[	Zn	68	0.311	ug/L	0.017	5	274	854	3
[	As	75	0.113	ug/L	0.011	9	259	515	5
[	As-1	75	0.063	ug/L	0.039	62	11343	11266	0
[	Se	82	-0.054	ug/L	0.011	19	-3	-16	15
[	Se	78	0.109	ug/L	0.119	109	11640	11481	0
[	Mo	98	-0.002	ug/L	0.000	21	40	28	8
	Y	89		ug/L			458015	468291	1
	Kr	83		ug/L			763	1023	0
[>	In	115		ug/L			1367345	1340028	1
[	Ag	107	0.001	ug/L	0.000	37	37	48	8
[	Cd	111	0.002	ug/L	0.004	150	156	169	13
[	Cd	114	0.001	ug/L	0.002	171	56	74	45
[	Sb	121	-0.001	ug/L	0.003	205	319	285	19
[	Sb	123	-0.000	ug/L	0.003	775	235	225	19
[	Ba	135	0.007	ug/L	0.003	36	17	64	27
[	Ba	137	0.007	ug/L	0 001	21	35	107	13
[>	Tb	159		ug/L			1730482	1678566	1
[	Tl	205	0.001	ug/L	0.001	112	268	320	20
[	Pb	208	0.006	ug/L	0.002	27	239	638	17
[	Bi	209		ug/L			3854596	3879654	0
[	Th	232	0.029	ug/L	0.006	19	3454	5142	6
[	U	238	0.001	ug/L	0.001	128	29	76	81

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 M REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 17:23:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RR As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens RSD
[>	Li	6		ug/L			1844055	2065349	3
[	Be	9	0.000	ug/L	0.001	122	19	24	12
	C	13		ug/L			90443	99025	3
	Cl	37		ug/L			5576019	6200045	0
[>	Sc	45		ug/L			1504442	1583136	0
[	V	51	1.692	ug/L	0.024	1	10680	66655	1
[	V-1	51	1.835	ug/L	0.008	0	452	59222	1
[	Cr	52	0.154	ug/L	0 050	32	31520	37393	3
[	Cr	53	0.538	ug/L	0 005	0	291	1848	1
[	Mn	55	664.521	ug/L	14.920	2	589	23987834	3
[	Co	59	3.953	ug/L	0.072	1	100	101904	1
[>	Ge	72		ug/L			718320	685213	0
[	Ni	60	10.809	ug/L	0.116	1	39	49259	1
[	Ni	62	11.109	ug/L	0.443	3	575	7756	3
[	Cu	63	1.688	ug/L	0.072	4	481	16854	3
[	Cu	65	0.967	ug/L	0.023	2	64	4390	1
[	Zn	66	4.837	ug/L	0.034	0	170	12537	1
[	Zn	67	4.966	ug/L	0.061	1	30	2198	2
[	Zn	68	6.855	ug/L	0.085	1	274	12817	2
[	As	75	0.984	ug/L	0.019	1	259	2452	1
[	As-1	75	0.952	ug/L	0.040	4	11343	12960	0
[	Se	82	0.160	ug/L	0.074	46	-3	34	51
[	Se	78	0.492	ug/L	0.076	15	11640	11406	0
[	Mo	98	8.079	ug/L	0.165	2	40	44954	1
	Y	89		ug/L			458015	476402	2
	Kr	83		ug/L			763	1072	2
[>	In	115		ug/L			1367345	1295901	0
[	Ag	107	0.001	ug/L	0.001	46	37	53	16
[	Cd	111	0.366	ug/L	0.012	3	156	2536	2
[	Cd	114	0.355	ug/L	0.005	1	56	5941	1
[	Sb	121	0.427	ug/L	0.011	2	319	7907	1
[	Sb	123	0.429	ug/L	0 005	1	235	6014	1
[	Ba	135	12.735	ug/L	0.136	1	17	78120	0
[	Ba	137	12.763	ug/L	0.025	0	35	137446	0
[>	Tb	159		ug/L			1730482	1657762	0
[	Tl	205	0.010	ug/L	0.001	14	268	789	9
[	Pb	208	0.049	ug/L	0.000	0	239	3466	0
[	Bi	209		ug/L			3854596	3431640	0
[	Th	232	0.021	ug/L	0.013	61	3454	4626	17
[	U	238	0.244	ug/L	0.005	2	29	15783	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 N REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 17:27:50
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012813a.cal

RR A3

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	2155504	0
	Be	9	0.004	ug/L	0.000	10	19	45	5
	C	13		ug/L			90443	104126	1
	Cl	37		ug/L			5576019	5980872	1
>	Sc	45		ug/L			1504442	1623646	0
	V	51	1.637	ug/L	0.036	2	10680	66499	1
	V-1	51	1.767	ug/L	0.030	1	452	58501	1
	Cr	52	0.557	ug/L	0.044	7	31520	49687	2
	Cr	53	0.934	ug/L	0.026	2	291	3057	1
	Mn	55	349.138	ug/L	7.015	2	589	12923114	1
	Co	59	3.177	ug/L	0.072	2	100	83996	1
>	Ge	72		ug/L			718320	695975	1
	Ni	60	14.650	ug/L	0.220	1	39	67808	2
	Ni	62	14.423	ug/L	0.506	3	575	10061	2
	Cu	63	1.889	ug/L	0.030	1	481	19107	1
	Cu	65	1.376	ug/L	0.064	4	64	6317	3
	Zn	66	10.441	ug/L	0.327	3	170	27291	1
	Zn	67	10.610	ug/L	0.749	7	30	4734	5
	Zn	68	13.003	ug/L	0.314	2	274	24449	1
	As	75	1.110	ug/L	0.038	3	259	2778	3
	As-1	75	0.988	ug/L	0.107	10	11343	13245	1
	Se	82	0.732	ug/L	0.095	12	-3	170	13
	Se	78	0.685	ug/L	0.345	50	11640	11704	1
	Mo	98	2.976	ug/L	0.110	3	40	16841	2
	Y	89		ug/L			458015	482208	2
	Kr	83		ug/L			763	1060	3
>	In	115		ug/L			1367345	1309392	0
	Ag	107	0.001	ug/L	0.001	80	37	45	17
	Cd	111	0.664	ug/L	0.008	1	156	4523	1
	Cd	114	0.635	ug/L	0.008	1	56	10698	1
	Sb	121	0.495	ug/L	0.007	1	319	9207	2
	Sb	123	0.503	ug/L	0.012	2	235	7083	2
	Ba	135	19.696	ug/L	0.289	1	17	122065	0
	Ba	137	19.559	ug/L	0.019	0	35	212802	0
>	Tb	159		ug/L			1730482	1683575	1
	Tl	205	0.006	ug/L	0.000	2	268	576	3
	Pb	208	0.057	ug/L	0.001	1	239	4090	0
	Bi	209		ug/L			3854596	3490942	1
	Th	232	-0.021	ug/L	0.001	4	3454	2024	3
	U	238	0.135	ug/L	0.001	0	29	8901	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 O REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 17:31:58
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\012813a.cal

PR AS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	2169891	1
	Be	9	-0.001	ug/L	0.001	112	19	19	19
	C	13		ug/L			90443	98887	3
	Cl	37		ug/L			5576019	6393964	2
>	Sc	45		ug/L			1504442	1588865	1
	V	51	1.817	ug/L	0.059	3	10680	70999	1
	V-1	51	1.998	ug/L	0.058	2	452	64661	1
	Cr	52	0.155	ug/L	0.049	31	31520	37556	2
	Cr	53	0.665	ug/L	0.025	3	291	2216	2
	Mn	55	82.149	ug/L	1.462	1	589	2976173	2
	Co	59	0.928	ug/L	0.010	1	100	24102	2
>	Ge	72		ug/L			718320	699523	1
	Ni	60	4.052	ug/L	0.187	4	39	18866	3
	Ni	62	3.637	ug/L	0.122	3	575	2969	2
	Cu	63	1.299	ug/L	0.025	1	481	13352	0
	Cu	65	0.916	ug/L	0.021	2	64	4251	3
	Zn	66	7.062	ug/L	0.130	1	170	18609	1
	Zn	67	7.107	ug/L	0.092	1	30	3199	2
	Zn	68	8.698	ug/L	0.276	3	274	16525	1
	As	75	4.900	ug/L	0 028	0	259	11466	1
	As-1	75	4.748	ug/L	0.106	2	11343	21945	0
	Se	82	1.136	ug/L	0.101	8	-3	268	10
	Se	78	0.987	ug/L	0.294	29	11640	11953	0
	Mo	98	3.249	ug/L	0.051	1	40	18479	1
	Y	89		ug/L			458015	493302	1
	Kr	83		ug/L			763	1047	2
>	In	115		ug/L			1367345	1320558	2
	Ag	107	0.000	ug/L	0.000	50	37	42	9
	Cd	111	0.036	ug/L	0.004	9	156	391	5
	Cd	114	0.044	ug/L	0.002	5	56	792	3
	Sb	121	0.385	ug/L	0.010	2	319	7296	0
	Sb	123	0.390	ug/L	0.010	2	235	5583	1
	Ba	135	14.749	ug/L	0.444	3	17	92159	1
	Ba	137	14.584	ug/L	0.369	2	35	159985	1
>	Tb	159		ug/L			1730482	1713439	1
	Tl	205	0.000	ug/L	0.000	223	268	277	8
	Pb	208	0.036	ug/L	0.001	1	239	2704	1
	Bi	209		ug/L			3854596	3536227	0
	Th	232	-0.037	ug/L	0 001	3	3454	1098	5
	U	238	0.250	ug/L	0.005	2	29	16699	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 P REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 17:36:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RA As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1995196	0
	Be	9	0.084	ug/L	0.001	1	19	481	1
	C	13		ug/L			90443	135200	3
	Cl	37		ug/L			5576019	6753865	3
>	Sc	45		ug/L			1504442	1559276	1
	V	51	45.186	ug/L	0.760	1	10680	1468454	0
	V-1	51	46.339	ug/L	0 768	1	452	1461251	0
	Cr	52	11.667	ug/L	0.128	1	31520	347942	0
	Cr	53	13.017	ug/L	0.152	1	291	37014	0
	Mn	55	20.615	ug/L	0.818	3	589	733411	4
	Co	59	3.015	ug/L	0.075	2	100	76596	3
>	Ge	72		ug/L			718320	646017	1
	Ni	60	7.583	ug/L	0.276	3	39	32581	2
	Ni	62	23.345	ug/L	6.950	29	575	14804	29
	Cu	63	34.780	ug/L	0.998	2	481	318959	2
	Cu	65	28.119	ug/L	0.188	0	64	118778	1
	Zn	66	6.389	ug/L	0.148	2	170	15561	1
	Zn	67	8.960	ug/L	0.398	4	30	3718	5
	Zn	68	7.756	ug/L	0.200	2	274	13637	1
	As	75	76.374	ug/L	1.482	1	259	161635	0
	As-1	75	76.242	ug/L	1.569	2	11343	171835	0
	Se	82	0.849	ug/L	0.062	7	-3	184	8
	Se	78	1.912	ug/L	0.353	18	11640	11574	0
	Mo	98	41.032	ug/L	0.488	1	40	215114	1
	Y	89		ug/L			458015	664014	2
	Kr	83		ug/L			763	1188	2
>	In	115		ug/L			1367345	1239946	0
	Ag	107	0.112	ug/L	0.003	2	37	1525	3
	Cd	111	0.092	ug/L	0.010	10	156	715	8
	Cd	114	0.076	ug/L	0.000	0	56	1256	0
	Sb	121	6.972	ug/L	0 037	0	319	118999	0
	Sb	123	7.043	ug/L	0.082	1	235	91155	0
	Ba	135	15.881	ug/L	0.275	1	17	93207	1
	Ba	137	15.799	ug/L	0.097	0	35	162779	0
>	Tb	159		ug/L			1730482	1656614	2
	Tl	205	0.003	ug/L	0.001	17	268	414	6
	Pb	208	3.114	ug/L	0.046	1	239	207248	0
	Bi	209		ug/L			3854596	3132372	1
	Th	232	0.925	ug/L	0.021	2	3454	60142	1
	U	238	3.127	ug/L	0.057	1	29	201989	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA93 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, January 28, 2013 17:40:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RRA3

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1844055	2146500	1
	Be	9	0.266	ug/L	0.009	3	19	1589	4
	C	13		ug/L			90443	99632	3
	Cl	37		ug/L			5576019	6128157	2
>	Sc	45		ug/L			1504442	1592839	1
	V	51	34.018	ug/L	0.390	1	10680	1132272	1
	V-1	51	34.849	ug/L	0.108	0	452	1122844	0
	Cr	52	26.224	ug/L	0.932	3	31520	757269	3
	Cr	53	28.548	ug/L	0.577	2	291	82556	0
	Mn	55	831.149	ug/L	20.212	2	589	30177437	1
	Co	59	15.953	ug/L	0.126	0	100	413467	1
>	Ge	72		ug/L			718320	688318	1
	Ni	60	48.690	ug/L	0.114	0	39	222765	1
	Ni	62	55.521	ug/L	2.497	4	575	36730	3
	Cu	63	87.811	ug/L	1.188	1	481	857567	2
	Cu	65	88.924	ug/L	0.592	0	64	400080	1
	Zn	66	2164.197	ug/L	57.113	2	170	5561755	2
	Zn	67	1771.979	ug/L	40.437	2	30	777454	1
	Zn	68	2091.479	ug/L	48.296	2	274	3848119	2
	As	75	71.123	ug/L	0.910	1	259	160402	0
	As-1	75	70.691	ug/L	0.913	1	11343	170555	0
	Se	82	0.180	ug/L	0.089	49	-3	39	54
	Se	78	0.338	ug/L	0 042	12	11640	11362	1
	Mo	98	1.592	ug/L	0.029	1	40	8930	1
	Y	89		ug/L			458015	683894	2
	Kr	83		ug/L			763	1446	2
>	In	115		ug/L			1367345	1293146	0
	Ag	107	2.097	ug/L	0.061	2	37	29263	2
	Cd	111	0.631	ug/L	0.003	0	156	4252	0
	Cd	114	0.480	ug/L	0.006	1	56	8004	1
	Sb	121	0.092	ug/L	0 001	1	319	1929	0
	Sb	123	0.091	ug/L	0.003	3	235	1451	3
	Ba	135	179.228	ug/L	3.966	2	17	1096847	1
	Ba	137	180.923	ug/L	1.886	1	35	1943698	0
>	Tb	159		ug/L			1730482	1675734	1
	Tl	205	U 0.054	ug/L	0.001	2	268	3217	1
	Pb	208	988.804	ug/L	13.912	1	239	66499641	0
	Bi	209		ug/L			3854596	3544056	0
	Th	232	1.096	ug/L	0.017	1	3454	71524	1
	U	238	0.397	ug/L	0.003	0	29	25980	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA93 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, January 28, 2013 17:44:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RRAs

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
[>	Li	6		ug/L			1844055	2189630	1
[	Be	9	**0.230**	ug/L	0.004	1	19	1400	1
	C	13		ug/L			90443	101698	1
	Cl	37		ug/L			5576019	6096391	2
[>	Sc	45		ug/L			1504442	1654147	1
[	V	51	**32.306**	ug/L	0.893	2	10680	1117188	2
[	V-1	51	**33.257**	ug/L	0.813	2	452	1112725	2
[	Cr	52	**24.112**	ug/L	0.482	1	31520	725804	0
[	Cr	53	**26.835**	ug/L	1.380	5	291	80588	4
[	Mn	55	**443.230**	ug/L	17 482	3	589	16709865	2
[	Co	59	**10.729**	ug/L	0.274	2	100	288746	1
[>	Ge	72		ug/L			718320	702363	0
[	Ni	60	**45.566**	ug/L	0.467	1	39	212740	1
[	Ni	62	**52.454**	ug/L	0.624	1	575	35455	2
[	Cu	63	**57.573**	ug/L	0.784	1	481	573782	0
[	Cu	65	**57.897**	ug/L	0.130	0	64	265830	0
[	Zn	66	**660.517**	ug/L	8.717	1	170	1732310	0
[	Zn	67	**583.418**	ug/L	21 560	3	30	261207	3
[	Zn	68	**634.255**	ug/L	9 424	1	274	1190932	1
[	As	75	**60.020**	ug/L	0.141	0	259	138176	0
[	As-1	75	**59.627**	ug/L	0.161	0	11343	148546	0
[	Se	82	**-0.074**	ug/L	0.156	212	-3	-21	177
[	Se	78	**0.042**	ug/L	0.086	203	11640	11408	0
[	Mo	98	**0.543**	ug/L	0.013	2	40	3135	2
	Y	89		ug/L			458015	640990	0
	Kr	83		ug/L			763	1426	4
[>	In	115		ug/L			1367345	1322958	1
[	Ag	107	**0.728**	ug/L	0.011	1	37	10418	1
[	Cd	111	**0.662**	ug/L	0 018	2	156	4560	1
[	Cd	114	**0.501**	ug/L	0.003	0	56	8544	0
[	Sb	121	**0.066**	ug/L	0.002	3	319	1498	1
[	Sb	123	**0.064**	ug/L	0.003	5	235	1105	3
[	Ba	135	**108.299**	ug/L	1.361	1	17	678061	0
[	Ba	137	**110.301**	ug/L	2.922	2	35	1212121	1
[>	Tb	159		ug/L			1730482	1687049	1
[	Tl	205	**0.064**	ug/L	0.001	1	268	3801	1
[	Pb	208	**405.338**	ug/L	6 403	1	239	27442810	0
[	Bi	209		ug/L			3854596	3645499	0
[	Th	232	**1.153**	ug/L	0.021	1	3454	75564	0
[	U	238	**0.339**	ug/L	0.006	1	29	22346	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA93 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, January 28, 2013 17:48:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RR A>

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
⌈>	Li	6		ug/L			1844055	2213845	2
⌊	Be	9	23.293	ug/L	0.892	3	19	141207	2
	C	13		ug/L			90443	99161	2
	Cl	37		ug/L			5576019	6116814	3
⌈>	Sc	45		ug/L			1504442	1687253	2
|	V	51	55.467	ug/L	1.988	3	10680	1946819	1
|	V-1	51	56.499	ug/L	1.663	2	452	1927009	0
|	Cr	52	61.444	ug/L	2.554	4	31520	1830814	1
|	Cr	53	65.626	ug/L	1.768	2	291	200547	1
|	Mn	55	434.277	ug/L	19.894	4	589	16692300	2
⌊	Co	59	32.377	ug/L	1.004	3	100	888231	0
⌈>	Ge	72		ug/L			718320	717209	1
|	Ni	60	73.773	ug/L	1.793	2	39	351615	1
|	Ni	62	75.516	ug/L	1 356	1	575	51859	0
|	Cu	63	80.800	ug/L	1.746	2	481	822026	0
|	Cu	65	79.148	ug/L	1.892	2	64	371068	2
|	Zn	66	565.392	ug/L	3.135	0	170	1514302	1
|	Zn	67	505.967	ug/L	5.228	1	30	231354	1
|	Zn	68	542.895	ug/L	14.296	2	274	1040796	1
|	As	75	91.497	ug/L	2.336	2	259	214917	1
|	As-1	75	89.320	ug/L	2.594	2	11343	221536	1
|	Se	82	92.981	ug/L	0.176	0	-3	22818	1
|	Se	78	84.211	ug/L	1.017	1	11640	65718	0
⌊	Mo	98	0.507	ug/L	0.001	0	40	2991	1
	Y	89		ug/L			458015	666424	2
	Kr	83		ug/L			763	1479	1
⌈>	In	115		ug/L			1367345	1334277	0
|	Ag	107	27.322	ug/L	0.203	0	37	393046	0
|	Cd	111	25.765	ug/L	0.739	2	156	173157	2
|	Cd	114	25.115	ug/L	0.711	2	56	429101	2
|	Sb	121	0.059	ug/L	0.001	1	319	1400	0
|	Sb	123	0.059	ug/L	0.001	2	235	1053	1
|	Ba	135	135.509	ug/L	2.330	1	17	855657	0
⌊	Ba	137	134.969	ug/L	1.701	1	35	1496096	0
⌈>	Tb	159		ug/L			1730482	1720187	1
|	Tl	205	22.899	ug/L	0.691	3	268	1283736	1
|	Pb	208	299.832	ug/L	6.563	2	239	20696751	0
|	Bi	209		ug/L			3854596	3667019	1
|	Th	232	23.545	ug/L	0.742	3	3454	1505913	1
⌊	U	238	23.797	ug/L	0.389	1	29	1595823	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WA93 APOST SWN~~ ZZZZZZ A1-29-13
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, January 28, 2013 17:52:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	2211426	2
	Be	9	22.177	ug/L	1.377	6	19	134245	3
	C	13		ug/L			90443	101155	3
	Cl	37		ug/L			5576019	6358499	1
>	Sc	45		ug/L			1504442	1635924	3
	V	51	52.335	ug/L	3.135	5	10680	1780313	2
	V-1	51	53.518	ug/L	2.837	5	452	1768631	1
	Cr	52	45.432	ug/L	3.276	7	31520	1320241	3
	Cr	53	49.090	ug/L	2.106	4	291	145451	1
	Mn	55	465.486	ug/L	23.350	5	589	17341289	1
	Co	59	33.393	ug/L	1.043	3	100	888120	1
>	Ge	72		ug/L			718320	715016	1
	Ni	60	71.652	ug/L	1.380	1	39	340426	0
	Ni	62	75.217	ug/L	1.706	2	575	51491	0
	Cu	63	83.036	ug/L	2.873	3	481	841937	1
	Cu	65	82.157	ug/L	4.389	5	64	383732	3
	Zn	66	710.154	ug/L	15.668	2	170	1895658	0
	Zn	67	623.486	ug/L	25.630	4	30	284085	2
	Zn	68	689.700	ug/L	13.427	1	274	1318155	1
	As	75	84.970	ug/L	2.267	2	259	198969	1
	As-1	75	82.344	ug/L	2.568	3	11343	204458	1
	Se	82	95.422	ug/L	1.094	1	-3	23342	0
	Se	78	84.749	ug/L	2.260	2	11640	65848	0
	Mo	98	0.537	ug/L	0.018	3	40	3152	1
	Y	89		ug/L			458015	654131	2
	Kr	83		ug/L			763	1383	1
>	In	115		ug/L			1367345	1319142	0
	Ag	107	29.534	ug/L	0.123	0	37	420063	0
	Cd	111	25.420	ug/L	0.245	0	156	168924	1
	Cd	114	24.593	ug/L	0.697	2	56	415401	2
	Sb	121	0.063	ug/L	0.001	2	319	1441	1
	Sb	123	0.064	ug/L	0.000	0	235	1110	0
	Ba	135	130.266	ug/L	2.595	1	17	813222	1
	Ba	137	129.637	ug/L	3.548	2	35	1420589	2
>	Tb	159		ug/L			1730482	1693499	0
	Tl	205	23.271	ug/L	0.492	2	268	1284670	1
	Pb	208	414.286	ug/L	8.206	1	239	28157322	1
	Bi	209		ug/L			3854596	3722388	1
	Th	232	23.753	ug/L	0.330	1	3454	1496040	0
	U	238	23.450	ug/L	0.367	1	29	1548304	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA93 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, January 28, 2013 17:56:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RR +S

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	2126036	5
	Be	9	24.444	ug/L	1.069	4	19	142148	1
	C	13		ug/L			90443	89502	5
	Cl	37		ug/L			5576019	6220744	1
>	Sc	45		ug/L			1504442	1515838	1
	V	51	23.910	ug/L	0.377	1	10680	760509	1
	V-1	51	24.493	ug/L	0.429	1	452	751160	1
	Cr	52	24.304	ug/L	0.785	3	31520	670123	1
	Cr	53	26.421	ug/L	0.669	2	291	72734	1
	Mn	55	25.706	ug/L	0 663	2	589	888798	1
	Co	59	26.387	ug/L	0.413	1	100	650671	0
>	Ge	72		ug/L			718320	728765	1
	Ni	60	27.969	ug/L	1.511	5	39	135419	3
	Ni	62	29.600	ug/L	1.180	3	575	21003	2
	Cu	63	28.926	ug/L	0.712	2	481	299357	2
	Cu	65	29.223	ug/L	1.346	4	64	139185	2
	Zn	66	91.081	ug/L	4 036	4	170	247899	2
	Zn	67	82.934	ug/L	0.917	1	30	38557	1
	Zn	68	85.051	ug/L	1.419	1	274	165934	2
	As	75	29.183	ug/L	0.464	1	259	69833	0
	As-1	75	27.123	ug/L	0 743	2	11343	76364	0
	Se	82	97.005	ug/L	0.777	0	-3	24187	1
	Se	78	87.274	ug/L	1.690	1	11640	68769	0
	Mo	98	0.011	ug/L	0.010	87	40	106	53
	Y	89		ug/L			458015	466402	1
	Kr	83		ug/L			763	1051	1
>	In	115		ug/L			1367345	1344945	0
	Ag	107	31.179	ug/L	0.466	1	37	452122	1
	Cd	111	26.523	ug/L	0.271	1	156	179690	0
	Cd	114	25.481	ug/L	0.405	1	56	438863	1
	Sb	121	-0.008	ug/L	0.007	81	319	158	80
	Sb	123	-0.007	ug/L	0.006	79	235	132	60
	Ba	135	25.377	ug/L	0.358	1	17	161547	1
	Ba	137	25.139	ug/L	0.343	1	35	280927	1
>	Tb	159		ug/L			1730482	1685542	2
	Tl	205	24.775	ug/L	0.579	2	268	1360968	0
	Pb	208	26.274	ug/L	0.679	2	239	1777106	0
	Bi	209		ug/L			3854596	3845438	2
	Th	232	23.496	ug/L	0.715	3	3454	1472360	0
	U	238	24.302	ug/L	0.678	2	29	1596506	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 18:01:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1936736	2
	Be	9	51.722	ug/L	1.943	3	19	274237	0
	C	13		ug/L			90443	83231	1
	Cl	37		ug/L			5576019	5934006	2
>	Sc	45		ug/L			1504442	1480189	3
	V	51	47.153	ug/L	1.800	3	10680	1453365	1
	V-1	51	48.350	ug/L	2.158	4	452	1446301	2
	Cr	52	46.952	ug/L	2.444	5	31520	1234236	2
	Cr	53	51.212	ug/L	3.602	7	291	137209	3
	Mn	55	49.545	ug/L	1.437	2	589	1671462	0
	Co	59	49.617	ug/L	3.748	7	100	1192951	4
>	Ge	72		ug/L			718320	684861	2
	Ni	60	55.169	ug/L	2.469	4	39	250915	1
	Ni	62	55.270	ug/L	2.309	4	575	36374	2
	Cu	63	55.787	ug/L	0.562	1	481	542180	2
	Cu	65	54.056	ug/L	2.455	4	64	241811	1
	Zn	66	56.025	ug/L	0.895	1	170	143399	1
	Zn	67	56.468	ug/L	1.637	2	30	24670	1
	Zn	68	55.411	ug/L	2.098	3	274	101617	0
	As	75	55.536	ug/L	2.294	4	259	124593	1
	As-1	75	54.464	ug/L	2.307	4	11343	133142	1
	Se	82	61.721	ug/L	1.900	3	-3	14455	1
	Se	78	57.037	ug/L	1.929	3	11640	46066	0
	Mo	98	56.544	ug/L	2.955	5	40	313947	2
	Y	89		ug/L			458015	445591	0
	Kr	83		ug/L			763	1055	3
>	In	115		ug/L			1367345	1286237	1
	Ag	107	58.679	ug/L	1.499	2	37	813635	1
	Cd	111	52.513	ug/L	1 126	2	156	340084	2
	Cd	114	51.471	ug/L	0.867	1	56	847719	1
	Sb	121	50.400	ug/L	0.231	0	319	890525	0
	Sb	123	50.782	ug/L	1.359	2	235	680346	1
	Ba	135	49.854	ug/L	0 690	1	17	303475	0
	Ba	137	49.742	ug/L	1 309	2	35	531473	1
>	Tb	159		ug/L			1730482	1634717	2
	Tl	205	54.576	ug/L	0.994	1	268	2907411	0
	Pb	208	49.441	ug/L	1.172	2	239	3242976	0
	Bi	209		ug/L			3854596	3595635	2
	Th	232	53.410	ug/L	1.127	2	3454	3242245	0
	U	238	55.664	ug/L	1.803	3	29	3546125	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 18:08:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1844055	1871934	0
	Be	9	-0.001	ug/L	0.000	16	19	14	7
	C	13		ug/L			90443	83082	0
	Cl	37		ug/L			5576019	6037471	5
>	Sc	45		ug/L			1504442	1424263	1
	V	51	-0.013	ug/L	0.014	111	10680	9732	2
	V-1	51	-0.005	ug/L	0.001	10	452	278	6
	Cr	52	-0.053	ug/L	0.049	91	31520	28506	2
	Cr	53	-0.030	ug/L	0.002	7	291	197	2
	Mn	55	0.003	ug/L	0.001	33	589	644	4
	Co	59	0.001	ug/L	0.001	97	100	109	10
>	Ge	72		ug/L			718320	689379	2
	Ni	60	0.000	ug/L	0.001	380	39	39	12
	Ni	62	1.455	ug/L	0.063	4	575	1502	3
	Cu	63	0.064	ug/L	0.001	1	481	1084	1
	Cu	65	0.001	ug/L	0.003	250	64	66	16
	Zn	66	0.001	ug/L	0.008	579	170	166	12
	Zn	67	-0.001	ug/L	0.017	2327	30	29	22
	Zn	68	0.023	ug/L	0.016	72	274	305	9
	As	75	0.107	ug/L	0.018	16	259	490	10
	As-1	75	0.127	ug/L	0.110	86	11343	11169	0
	Se	82	0.030	ug/L	0.025	81	-3	3	149
	Se	78	0.387	ug/L	0 413	106	11640	11406	0
	Mo	98	0.005	ug/L	0 001	17	40	67	7
	Y	89		ug/L			458015	449238	2
	Kr	83		ug/L			763	953	5
>	In	115		ug/L			1367345	1296106	0
	Ag	107	0.002	ug/L	0.000	15	37	60	6
	Cd	111	0.001	ug/L	0.001	106	156	157	6
	Cd	114	0.000	ug/L	0.001	159	56	58	14
	Sb	121	0.023	ug/L	0 005	20	319	705	11
	Sb	123	0.021	ug/L	0.004	20	235	512	11
	Ba	135	0.001	ug/L	0.001	125	17	21	30
	Ba	137	-0.001	ug/L	0.000	27	35	24	10
>	Tb	159		ug/L			1730482	1626180	1
	Tl	205	0.000	ug/L	0.001	212	268	269	12
	Pb	208	0.002	ug/L	0.000	22	239	343	7
	Bi	209		ug/L			3854596	3768934	0
	Th	232	0.104	ug/L	0.039	37	3454	9491	23
	U	238	0.001	ug/L	0.000	23	29	92	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA87 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 18:12:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RR Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1983178	6
	Be	9	-0.001	ug/L	0.000	11	19	14	10
	C	13		ug/L			90443	89289	0
	Cl	37		ug/L			5576019	6066859	1
>	Sc	45		ug/L			1504442	1490646	3
	V	51	-0.012	ug/L	0.011	88	10680	10196	1
	V-1	51	-0.002	ug/L	0.000	5	452	374	2
	Cr	52	-0.051	ug/L	0.038	73	31520	29887	1
	Cr	53	-0.019	ug/L	0.003	17	291	236	5
	Mn	55	0.017	ug/L	0.002	8	589	1172	2
	Co	59	0.004	ug/L	0.000	6	100	196	2
>	Ge	72		ug/L			718320	699071	1
	Ni	60	0.004	ug/L	0.002	64	39	56	18
	Ni	62	1.065	ug/L	0.093	8	575	1264	3
	Cu	63	0.161	ug/L	0.009	5	481	2066	3
	Cu	65	0.119	ug/L	0.006	4	64	607	3
	Zn	66	0.575	ug/L	0.025	4	170	1665	4
	Zn	67	0.483	ug/L	0 036	7	30	245	7
	Zn	68	0.582	ug/L	0.007	1	274	1354	1
	As	75	0.089	ug/L	0 003	3	259	456	0
	As-1	75	0.104	ug/L	0.045	43	11343	11275	0
	Se	82	-0.044	ug/L	0.054	122	-3	-13	93
	Se	78	0.339	ug/L	0 158	46	11640	11540	0
	Mo	98	0.001	ug/L	0.003	583	40	42	42
	Y	89		ug/L			458015	459159	0
	Kr	83		ug/L			763	1003	5
>	In	115		ug/L			1367345	1311006	0
	Ag	107	0.001	ug/L	0.001	87	37	44	16
	Cd	111	0.002	ug/L	0.001	61	156	163	5
	Cd	114	0.000	ug/L	0.000	364	56	55	8
	Sb	121	-0.004	ug/L	0 000	12	319	239	3
	Sb	123	-0.002	ug/L	0.000	16	235	192	3
	Ba	135	0.006	ug/L	0.001	22	17	56	15
	Ba	137	0.006	ug/L	0.001	10	35	104	7
>	Tb	159		ug/L			1730482	1645671	0
	Tl	205	0.003	ug/L	0.001	35	268	392	13
	Pb	208	0.006	ug/L	0.000	4	239	613	2
	Bi	209		ug/L			3854596	3745966	1
	Th	232	0.018	ug/L	0.003	18	3454	4360	3
	U	238	0.000	ug/L	0.000	39	29	42	13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA87 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 18:17:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RREN

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1844055	2093328	5
	Be	9	0.002	ug/L	0.002	78	19	33	27
	C	13		ug/L			90443	88977	1
	Cl	37		ug/L			5576019	5884645	3
>	Sc	45		ug/L			1504442	1547431	1
	V	51	-0.009	ug/L	0.004	48	10680	10706	1
	V-1	51	0.003	ug/L	0.000	5	452	551	1
	Cr	52	-0.052	ug/L	0.008	15	31520	31035	0
	Cr	53	-0.014	ug/L	0.011	74	291	259	11
	Mn	55	0.028	ug/L	0.002	7	589	1600	3
	Co	59	0.002	ug/L	0.001	41	100	162	13
>	Ge	72		ug/L			718320	720366	1
	Ni	60	0.009	ug/L	0.002	19	39	82	10
	Ni	62	0.813	ug/L	0.034	4	575	1131	1
	Cu	63	0.347	ug/L	0.016	4	481	4024	2
	Cu	65	0.317	ug/L	0 009	2	64	1557	2
	Zn	66	1.115	ug/L	0.049	4	170	3167	2
	Zn	67	0.931	ug/L	0.050	5	30	458	5
	Zn	68	1.047	ug/L	0.016	1	274	2291	0
	As	75	0.085	ug/L	0.020	23	259	461	9
	As-1	75	0.069	ug/L	0.119	172	11343	11536	1
	Se	82	-0.011	ug/L	0.092	864	-3	-5	379
	Se	78	0.195	ug/L	0.421	216	11640	11797	1
	Mo	98	-0.000	ug/L	0.001	120	40	37	8
	Y	89		ug/L			458015	467267	0
	Kr	83		ug/L			763	981	3
>	In	115		ug/L			1367345	1342420	0
	Ag	107	0.001	ug/L	0.001	46	37	55	16
	Cd	111	-0.000	ug/L	0.000	68	156	150	1
	Cd	114	0.000	ug/L	0.001	4914	56	55	22
	Sb	121	-0.008	ug/L	0.000	1	319	166	1
	Sb	123	-0.007	ug/L	0.001	8	235	127	7
	Ba	135	0.032	ug/L	0.002	7	17	221	6
	Ba	137	0.030	ug/L	0.002	5	35	368	5
>	Tb	159		ug/L			1730482	1658907	0
	Tl	205	-0.000	ug/L	0.000	46	268	244	2
	Pb	208	0.017	ug/L	0.000	0	239	1372	0
	Bi	209		ug/L			3854596	3858753	1
	Th	232	-0.004	ug/L	0.003	62	3454	3048	5
	U	238	0.000	ug/L	0.000	39	29	47	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA93 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, January 28, 2013 18:21:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

DRAS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1844055	2080681	3
	Be	9	0.211	ug/L	0.006	3	19	1224	2
	C	13		ug/L			90443	89929	1
	Cl	37		ug/L			5576019	5920415	2
>	Sc	45		ug/L			1504442	1654409	1
	V	51	33.233	ug/L	0.978	2	10680	1148753	1
	V-1	51	34.263	ug/L	1.037	3	452	1146250	1
	Cr	52	25.295	ug/L	0.271	1	31520	759866	0
	Cr	53	28.321	ug/L	0.538	1	291	85064	1
	Mn	55	272.357	ug/L	7.021	2	589	10271047	1
	Co	59	7.382	ug/L	0.183	2	100	198772	2
>	Ge	72		ug/L			718320	706002	0
	Ni	60	37.752	ug/L	0.794	2	39	177169	2
	Ni	62	40.627	ug/L	1.184	2	575	27728	2
	Cu	63	20.468	ug/L	0.179	0	481	205366	0
	Cu	65	20.676	ug/L	0.313	1	64	95466	1
	Zn	66	61.024	ug/L	1.655	2	170	161041	2
	Zn	67	67.493	ug/L	0.840	1	30	30407	1
	Zn	68	64.020	ug/L	1.417	2	274	121076	2
	As	75	12.803	ug/L	0.028	0	259	29829	0
	As-1	75	12.643	ug/L	0.055	0	11343	40445	0
	Se	82	-0.580	ug/L	0 103	17	-3	-143	17
	Se	78	0.120	ug/L	0.104	86	11640	11517	0
	Mo	98	0.178	ug/L	0.004	2	40	1059	2
	Y	89		ug/L			458015	576337	2
	Kr	83		ug/L			763	1644	3
>	In	115		ug/L			1367345	1281043	1
	Ag	107	0.126	ug/L	0.003	2	37	1777	1
	Cd	111	0.218	ug/L	0.007	3	156	1552	3
	Cd	114	0.089	ug/L	0.004	5	56	1508	3
	Sb	121	0.001	ug/L	0.001	84	319	317	4
	Sb	123	0.001	ug/L	0.001	95	235	236	6
	Ba	135	125.237	ug/L	0.831	0	17	759304	1
	Ba	137	125.419	ug/L	2.909	2	35	1334630	1
>	Tb	159		ug/L			1730482	1647987	1
	Tl	205	0.070	ug/L	0.002	3	268	4028	2
	Pb	208	26.099	ug/L	0.343	1	239	1726490	1
	Bi	209		ug/L			3854596	3612759	0
	Th	232	1.279	ug/L	0.025	1	3454	81481	1
	U	238	0.311	ug/L	0.003	0	29	20037	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA93 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, January 28, 2013 18:25:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RRAS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1844055	1981813	0
	Be	9	0.158	ug/L	0.009	5	19	880	5
	C	13		ug/L			90443	85272	0
	Cl	37		ug/L			5576019	5818879	1
>	Sc	45		ug/L			1504442	1652031	2
	V	51	27.106	ug/L	0.696	2	10680	937775	0
	V-1	51	27.761	ug/L	0.549	1	452	927574	0
	Cr	52	24.498	ug/L	1.100	4	31520	735639	2
	Cr	53	26.623	ug/L	0.489	1	291	79865	0
	Mn	55	244.084	ug/L	11.931	4	589	9187129	2
	Co	59	6.507	ug/L	0.153	2	100	174919	0
>	Ge	72		ug/L			718320	705600	1
	Ni	60	49.534	ug/L	0.938	1	39	232276	0
	Ni	62	51.962	ug/L	0.526	1	575	35290	2
	Cu	63	15.227	ug/L	0.288	1	481	152790	1
	Cu	65	15.346	ug/L	0.413	2	64	70817	1
	Zn	66	35.128	ug/L	0.920	2	170	92697	1
	Zn	67	37.088	ug/L	0.962	2	30	16708	1
	Zn	68	35.396	ug/L	1.528	4	274	67001	3
	As	75	4.429	ug/L	0.104	2	259	10476	0
	As-1	75	4.296	ug/L	0.135	3	11343	21087	0
	Se	82	-0.097	ug/L	0.061	62	-3	-26	56
	Se	78	0.023	ug/L	0 198	875	11640	11448	0
	Mo	98	0.175	ug/L	0.006	3	40	1041	3
	Y	89		ug/L			458015	604790	2
	Kr	83		ug/L			763	1191	1
>	In	115		ug/L			1367345	1282890	0
	Ag	107	0.053	ug/L	0.003	4	37	761	4
	Cd	111	0.141	ug/L	0.017	12	156	1055	10
	Cd	114	0.071	ug/L	0.002	3	56	1212	2
	Sb	121	-0.009	ug/L	0.001	9	319	137	10
	Sb	123	-0.008	ug/L	0.001	13	235	111	12
	Ba	135	40.704	ug/L	0.417	1	17	247164	1
	Ba	137	40.419	ug/L	0.557	1	35	430825	1
>	Tb	159		ug/L			1730482	1653412	0
	Tl	205	0.039	ug/L	0.001	2	268	2350	1
	Pb	208	3.139	ug/L	0.007	0	239	208536	0
	Bi	209		ug/L			3854596	3645178	0
	Th	232	0.879	ug/L	0.003	0	3454	57250	0
	U	238	0.202	ug/L	0.002	0	29	13031	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA93 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, January 28, 2013 18:29:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RR AS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	2064376	5
	Be	9	0.198	ug/L	0.014	7	19	1139	2
	C	13		ug/L			90443	82242	2
	Cl	37		ug/L			5576019	5706275	3
>	Sc	45		ug/L			1504442	1658907	1
	V	51	34.550	ug/L	0.581	1	10680	1197256	0
	V-1	51	35.311	ug/L	0.521	1	452	1184741	0
	Cr	52	28.058	ug/L	0.871	3	31520	841192	1
	Cr	53	30.242	ug/L	0.808	2	291	91052	1
	Mn	55	260.726	ug/L	4.365	1	589	9859367	0
	Co	59	7.331	ug/L	0.185	2	100	197884	1
>	Ge	72		ug/L			718320	713994	2
	Ni	60	46.799	ug/L	2.233	4	39	221928	2
	Ni	62	49.314	ug/L	1.375	2	575	33902	0
	Cu	63	20.240	ug/L	1 381	6	481	205162	4
	Cu	65	20.361	ug/L	0.816	4	64	95022	2
	Zn	66	42.066	ug/L	1.688	4	170	112249	1
	Zn	67	45.827	ug/L	1.100	2	30	20882	1
	Zn	68	43.631	ug/L	2.230	5	274	83480	3
	As	75	2.202	ug/L	0.039	1	259	5400	1
	As-1	75	1.941	ug/L	0.126	6	11343	15818	0
	Se	82	-0.024	ug/L	0.093	379	-3	-9	245
	Se	78	-0.364	ug/L	0.399	109	11640	11333	0
	Mo	98	0.114	ug/L	0.008	6	40	703	7
	Y	89		ug/L			458015	614628	2
	Kr	83		ug/L			763	1232	3
>	In	115		ug/L			1367345	1272979	3
	Ag	107	0.049	ug/L	0.002	4	37	710	6
	Cd	111	0.155	ug/L	0.007	4	156	1136	6
	Cd	114	0.088	ug/L	0.004	4	56	1492	2
	Sb	121	-0.010	ug/L	0.001	5	319	128	5
	Sb	123	-0.009	ug/L	0.000	5	235	106	5
	Ba	135	54.962	ug/L	1.570	2	17	330958	0
	Ba	137	54.755	ug/L	1.741	3	35	578775	1
>	Tb	159		ug/L			1730482	1644017	1
	Tl	205	u 0.057	ug/L	0.001	2	268	3289	0
	Pb	208	2.762	ug/L	0.039	1	239	182432	0
	Bi	209		ug/L			3854596	3578364	0
	Th	232	1.099	ug/L	0.019	1	3454	70298	0
	U	238	0.290	ug/L	0 008	2	29	18589	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA93 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, January 28, 2013 18:33:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RRAs

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1844055	1952540	0
	Be	9	0.134	ug/L	0.002	1	19	737	2
	C	13		ug/L			90443	87148	1
	Cl	37		ug/L			5576019	6076882	2
>	Sc	45		ug/L			1504442	1619136	1
	V	51	28.279	ug/L	1.458	5	10680	958209	3
	V-1	51	28.829	ug/L	1.435	4	452	943841	3
	Cr	52	24.868	ug/L	0.705	2	31520	731536	0
	Cr	53	26.552	ug/L	0.463	1	291	78068	0
	Mn	55	252.887	ug/L	4.058	1	589	9334127	1
	Co	59	6.442	ug/L	0.150	2	100	169725	1
>	Ge	72		ug/L			718320	699460	3
	Ni	60	63.693	ug/L	2.105	3	39	295934	2
	Ni	62	65.040	ug/L	1.789	2	575	43619	1
	Cu	63	12.541	ug/L	0.473	3	481	124739	0
	Cu	65	12.852	ug/L	0.306	2	64	58785	1
	Zn	66	33.524	ug/L	2.061	6	170	87603	2
	Zn	67	34.966	ug/L	1.065	3	30	15610	0
	Zn	68	33.592	ug/L	1.744	5	274	63005	2
	As	75	2.000	ug/L	0 106	5	259	4824	1
	As-1	75	1.879	ug/L	0.263	14	11343	15346	1
	Se	82	-0.143	ug/L	0.033	22	-3	-37	20
	Se	78	-0.007	ug/L	0.582	8734	11640	11323	0
	Mo	98	0.169	ug/L	0.009	5	40	998	5
	Y	89		ug/L			458015	583948	3
	Kr	83		ug/L			763	1179	3
>	In	115		ug/L			1367345	1281242	1
	Ag	107	0.042	ug/L	0.001	2	37	608	0
	Cd	111	0.116	ug/L	0.015	12	156	892	9
	Cd	114	0.070	ug/L	0 004	6	56	1196	4
	Sb	121	-0.011	ug/L	0.001	8	319	109	14
	Sb	123	-0.011	ug/L	0.000	4	235	74	8
	Ba	135	29.598	ug/L	0.791	2	17	179437	0
	Ba	137	29.518	ug/L	0 633	2	35	314173	1
>	Tb	159		ug/L			1730482	1645124	1
	Tl	205	0.024	ug/L	0.001	3	268	1549	1
	Pb	208	1.480	ug/L	0.035	2	239	97909	0
	Bi	209		ug/L			3854596	3613992	0
	Th	232	0.652	ug/L	0.009	1	3454	43057	0
	U	238	0.155	ug/L	0.005	3	29	9954	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 J REN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, January 28, 2013 18:37:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1881782	1
	Be	9	-0.001	ug/L	0.001	52	19	13	23
	C	13		ug/L			90443	78481	0
	Cl	37		ug/L			5576019	5965308	5
>	Sc	45		ug/L			1504442	1445596	2
	V	51	0.570	ug/L	0.028	4	10680	27301	0
	V-1	51	0.600	ug/L	0.021	3	452	17962	1
	Cr	52	-0.021	ug/L	0.036	171	31520	29750	0
	Cr	53	0.037	ug/L	0.015	40	291	375	9
	Mn	55	0.136	ug/L	0.007	5	589	5035	2
	Co	59	0.008	ug/L	0.001	8	100	275	5
>	Ge	72		ug/L			718320	723588	4
	Ni	60	0.347	ug/L	0.017	5	39	1705	0
	Ni	62	0.424	ug/L	0.059	13	575	869	2
	Cu	63	0.035	ug/L	0.010	28	481	838	7
	Cu	65	0.032	ug/L	0.002	7	64	215	6
	Zn	66	0.404	ug/L	0.039	9	170	1259	4
	Zn	67	0.400	ug/L	0 026	6	30	215	6
	Zn	68	0.451	ug/L	0.011	2	274	1147	2
	As	75	307.058	ug/L	13.305	4	259	726255	0
	As-1	75	305.890	ug/L	13.493	4	11343	736938	0
	Se	82	0.072	ug/L	0 074	102	-3	14	129
	Se	78	-0.463	ug/L	0.874	188	11640	11409	0
	Mo	98	0.001	ug/L	0.001	196	40	44	15
	Y	89		ug/L			458015	443260	1
	Kr	83		ug/L			763	918	2
>	In	115		ug/L			1367345	1297530	0
	Ag	107	0.001	ug/L	0.000	57	37	44	10
	Cd	111	0.001	ug/L	0.003	220	156	157	12
	Cd	114	0.000	ug/L	0.001	275	56	56	17
	Sb	121	-0.006	ug/L	0.002	28	319	200	13
	Sb	123	-0.006	ug/L	0.001	13	235	146	6
	Ba	135	0.446	ug/L	0.020	4	17	2752	3
	Ba	137	0.433	ug/L	0.007	1	35	4703	1
>	Tb	159		ug/L			1730482	1618007	0
	Tl	205	-0.002	ug/L	0.000	5	268	149	4
	Pb	208	0.010	ug/L	0.000	1	239	904	1
	Bi	209		ug/L			3854596	3761490	0
	Th	232	-0.046	ug/L	0.001	1	3454	455	9
	U	238	0.000	ug/L	0.000	11	29	41	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, January 28, 2013 18:41:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

Dil

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	2026811	5
	Be	9	-0.001	ug/L	0.001	105	19	18	16
	C	13		ug/L			90443	78119	1
	Cl	37		ug/L			5576019	5744468	4
>	Sc	45		ug/L			1504442	1553557	3
	V	51	0.914	ug/L	0.058	6	10680	40369	1
	V-1	51	0.975	ug/L	0.048	4	452	31049	1
	Cr	52	-0.082	ug/L	0.056	67	31520	30305	3
	Cr	53	0.051	ug/L	0 006	11	291	444	3
	Mn	55	43.269	ug/L	0.959	2	589	1532346	1
	Co	59	0.345	ug/L	0.014	4	100	8803	1
>	Ge	72		ug/L			718320	728873	1
	Ni	60	0.836	ug/L	0.013	1	39	4089	2
	Ni	62	0.934	ug/L	0.051	5	575	1228	3
	Cu	63	0.452	ug/L	0.010	2	481	5163	0
	Cu	65	0.344	ug/L	0.011	3	64	1702	1
	Zn	66	0.756	ug/L	0.028	3	170	2230	2
	Zn	67	0.826	ug/L	0.058	7	30	414	5
	Zn	68	1.038	ug/L	0.033	3	274	2301	3
	As	75	82.510	ug/L	0.735	0	259	197013	0
	As-1	75	82.063	ug/L	0.781	0	11343	207813	0
	Se	82	0.427	ug/L	0.062	14	-3	102	15
	Se	78	-0.073	ug/L	0 248	339	11640	11762	0
	Mo	98	4.284	ug/L	0.104	2	40	25374	1
	Y	89		ug/L			458015	462930	0
	Kr	83		ug/L			763	934	1
>	In	115		ug/L			1367345	1325004	0
	Ag	107	0.001	ug/L	0.001	112	37	46	25
	Cd	111	0.013	ug/L	0.003	21	156	237	7
	Cd	114	0.017	ug/L	0 001	7	56	338	5
	Sb	121	0.044	ug/L	0.001	3	319	1103	3
	Sb	123	0.046	ug/L	0.001	2	235	864	2
	Ba	135	1.879	ug/L	0 042	2	17	11796	1
	Ba	137	1.877	ug/L	0.020	1	35	20694	0
>	Tb	159		ug/L			1730482	1667400	0
	Tl	205	-0.001	ug/L	0.000	7	268	191	2
	Pb	208	0.013	ug/L	0 000	3	239	1094	2
	Bi	209		ug/L			3854596	3851254	1
	Th	232	-0.045	ug/L	0.001	2	3454	559	10
	U	238	0.056	ug/L	0.000	0	29	3679	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA87 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 18:45:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1844055	2018402	5
[	Be	9	24.780	ug/L	0.717	2	19	136899	2
	C	13		ug/L			90443	88541	1
	Cl	37		ug/L			5576019	5776118	1
[>	Sc	45		ug/L			1504442	1546936	3
[	V	51	24.521	ug/L	0 684	2	10680	795319	1
[	V-1	51	25.085	ug/L	0.910	3	452	784595	1
[	Cr	52	24.602	ug/L	0.381	1	31520	692038	3
[	Cr	53	26.626	ug/L	0.970	3	291	74770	2
[	Mn	55	26.833	ug/L	1.012	3	589	946273	1
[	Co	59	27.220	ug/L	0.738	2	100	684682	0
[>	Ge	72		ug/L			718320	728746	1
[	Ni	60	30.089	ug/L	0.544	1	39	145746	1
[	Ni	62	29.883	ug/L	0.198	0	575	21207	1
[	Cu	63	30.734	ug/L	1.269	4	481	318032	3
[	Cu	65	29.978	ug/L	1.135	3	64	142808	2
[	Zn	66	96.255	ug/L	0.227	0	170	262090	0
[	Zn	67	83.570	ug/L	0.975	1	30	38851	0
[	Zn	68	91.215	ug/L	1.137	1	274	177928	0
[	As	75	29.097	ug/L	0.741	2	259	69627	1
[	As-1	75	28.400	ug/L	0.729	2	11343	79426	1
[	Se	82	95.642	ug/L	2.408	2	-3	23844	1
[	Se	78	90.861	ug/L	2.257	2	11640	71112	1
[	Mo	98	0.004	ug/L	0 001	31	40	66	11
	Y	89		ug/L			458015	471812	1
	Kr	83		ug/L			763	995	4
[>	In	115		ug/L			1367345	1349357	0
[	Ag	107	30.494	ug/L	0.261	0	37	443668	1
[	Cd	111	26.175	ug/L	0.483	1	156	177914	1
[	Cd	114	26.148	ug/L	0.356	1	56	451815	0
[	Sb	121	-0.011	ug/L	0.000	4	319	119	6
[	Sb	123	-0.010	ug/L	0.001	6	235	86	9
[	Ba	135	26.683	ug/L	0.113	0	17	170428	1
[	Ba	137	25.966	ug/L	0.349	1	35	291099	0
[>	Tb	159		ug/L			1730482	1684447	1
[	Tl	205	25.049	ug/L	0.530	2	268	1375330	0
[	Pb	208	26.673	ug/L	0.082	0	239	1803568	0
[	Bi	209		ug/L			3854596	3873021	0
[	Th	232	24.141	ug/L	0.313	1	3454	1512256	0
[	U	238	24.891	ug/L	0.184	0	29	1634684	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA87 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, January 28, 2013 18:50:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

RRZ

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1844055	1953396	1
	Be	9	24.591	ug/L	0.684	2	19	131567	0
	C	13		ug/L			90443	89966	0
	Cl	37		ug/L			5576019	5652519	1
>	Sc	45		ug/L			1504442	1500330	0
	V	51	23.997	ug/L	0.315	1	10680	755481	1
	V-1	51	24.494	ug/L	0.306	1	452	743537	1
	Cr	52	25.411	ug/L	0.313	1	31520	692188	1
	Cr	53	27.306	ug/L	0.375	1	291	74397	1
	Mn	55	26.565	ug/L	0.546	2	589	909242	2
	Co	59	26.740	ug/L	0.418	1	100	652684	1
>	Ge	72		ug/L			718320	715767	0
	Ni	60	30.019	ug/L	0.037	0	39	142829	0
	Ni	62	29.221	ug/L	0.528	1	575	20379	1
	Cu	63	29.892	ug/L	0.187	0	481	303863	1
	Cu	65	30.308	ug/L	0.433	1	64	141855	2
	Zn	66	88.581	ug/L	0.372	0	170	236913	0
	Zn	67	81.576	ug/L	0.920	1	30	37253	1
	Zn	68	86.381	ug/L	2.500	2	274	165509	2
	As	75	28.068	ug/L	0 799	2	259	65976	1
	As-1	75	26.888	ug/L	0.932	3	11343	74457	2
	Se	82	89.232	ug/L	2.015	2	-3	21854	2
	Se	78	82.875	ug/L	0.868	1	11640	64733	1
	Mo	98	0.006	ug/L	0 001	21	40	75	9
	Y	89		ug/L			458015	458593	3
	Kr	83		ug/L			763	983	4
>	In	115		ug/L			1367345	1321427	1
	Ag	107	29.822	ug/L	0.329	1	37	424887	1
	Cd	111	25.560	ug/L	0.272	1	156	170123	0
	Cd	114	25.233	ug/L	0.537	2	56	426909	0
	Sb	121	-0.010	ug/L	0.001	5	319	118	7
	Sb	123	-0.010	ug/L	0.001	8	235	87	11
	Ba	135	26.285	ug/L	0.381	1	17	164378	0
	Ba	137	26.123	ug/L	0.661	2	35	286746	1
>	Tb	159		ug/L			1730482	1642965	1
	Tl	205	25.150	ug/L	0.497	1	268	1346795	0
	Pb	208	26.841	ug/L	0.370	1	239	1770001	0
	Bi	209		ug/L			3854596	3763447	0
	Th	232	24.546	ug/L	0.580	2	3454	1499499	1
	U	238	24.644	ug/L	0 317	1	29	1578651	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV10
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 18:55:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1844055	1828588	0
	Be	9	52.412	ug/L	1.516	2	19	262556	2
	C	13		ug/L			90443	78417	2
	Cl	37		ug/L			5576019	5818342	1
>	Sc	45		ug/L			1504442	1462306	1
	V	51	46.590	ug/L	0.555	1	10680	1419711	1
	V-1	51	47.285	ug/L	0.289	0	452	1398569	2
	Cr	52	47.896	ug/L	1.649	3	31520	1244049	1
	Cr	53	50.490	ug/L	0.804	1	291	133816	0
	Mn	55	49.672	ug/L	1.914	3	589	1655694	2
	Co	59	49.670	ug/L	0.642	1	100	1181408	0
>	Ge	72		ug/L			718320	718219	1
	Ni	60	53.374	ug/L	0.287	0	39	254802	1
	Ni	62	52.657	ug/L	0.560	1	575	36390	1
	Cu	63	53.530	ug/L	0.649	1	481	545574	0
	Cu	65	52.552	ug/L	1.401	2	64	246696	1
	Zn	66	53.715	ug/L	1.302	2	170	144205	1
	Zn	67	54.708	ug/L	2.074	3	30	25072	2
	Zn	68	52.665	ug/L	1.180	2	274	101353	1
	As	75	52.754	ug/L	1.228	2	259	124200	1
	As-1	75	52.243	ug/L	1.081	2	11343	134475	0
	Se	82	56.546	ug/L	2.081	3	-3	13890	2
	Se	78	53.886	ug/L	1.491	2	11640	46299	0
	Mo	98	52.147	ug/L	0.852	1	40	303942	1
	Y	89		ug/L			458015	444552	1
	Kr	83		ug/L			763	987	4
>	In	115		ug/L			1367345	1259362	1
	Ag	107	56.197	ug/L	1.958	3	37	762951	3
	Cd	111	53.228	ug/L	1.001	1	156	337461	0
	Cd	114	51.401	ug/L	0.921	1	56	828806	1
	Sb	121	50.877	ug/L	0 630	1	319	880087	0
	Sb	123	50.315	ug/L	1.153	2	235	659978	0
	Ba	135	50.825	ug/L	1.330	2	17	302879	1
	Ba	137	50.755	ug/L	0 574	1	35	531025	1
>	Tb	159		ug/L			1730482	1603744	1
	Tl	205	~~55.071~~	ug/L	1.035	1	268	2878497	0
	Pb	208	49.790	ug/L	1.086	2	239	3204532	0
	Bi	209		ug/L			3854596	3595277	1
	Th	232	54.304	ug/L	1.794	3	3454	3233958	1
	U	238	55.753	ug/L	1.200	2	29	3485483	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB10
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, January 28, 2013 19:02:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012813a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1844055	1900351	3
	Be	9	0.001	ug/L	0.003	380	19	23	59
	C	13		ug/L			90443	77281	0
	Cl	37		ug/L			5576019	5936356	2
>	Sc	45		ug/L			1504442	1446524	1
	V	51	-0.019	ug/L	0.009	48	10680	9702	1
	V-1	51	-0.004	ug/L	0.002	45	452	303	18
	Cr	52	-0.077	ug/L	0.028	36	31520	28377	1
	Cr	53	-0.030	ug/L	0.005	15	291	201	5
	Mn	55	0.003	ug/L	0.002	72	589	664	9
	Co	59	0.002	ug/L	0.001	60	100	154	21
>	Ge	72		ug/L			718320	706315	1
	Ni	60	0.003	ug/L	0.002	83	39	51	19
	Ni	62	0.110	ug/L	0.017	15	575	639	1
	Cu	63	-0.002	ug/L	0.004	175	481	450	8
	Cu	65	-0.004	ug/L	0.001	21	64	47	6
	Zn	66	-0.005	ug/L	0.004	77	170	153	7
	Zn	67	-0.001	ug/L	0.001	49	30	29	1
	Zn	68	0.001	ug/L	0.009	708	274	272	7
	As	75	0.076	ug/L	0.009	11	259	431	5
	As-1	75	0.041	ug/L	0.060	146	11343	11247	0
	Se	82	0.020	ug/L	0.023	112	-3	1	371
	Se	78	0.096	ug/L	0.221	231	11640	11506	0
	Mo	98	0.003	ug/L	0.002	54	40	57	17
	Y	89		ug/L			458015	436567	1
	Kr	83		ug/L			763	914	3
>	In	115		ug/L			1367345	1252315	0
	Ag	107	0.002	ug/L	0.001	58	37	57	23
	Cd	111	-0.002	ug/L	0.001	43	156	128	5
	Cd	114	0.000	ug/L	0.001	278	56	56	26
	Sb	121	0.024	ug/L	0.003	10	319	712	6
	Sb	123	0.029	ug/L	0.006	19	235	592	12
	Ba	135	0.004	ug/L	0.007	185	17	38	110
	Ba	137	0.003	ug/L	0.007	207	35	65	104
>	Tb	159		ug/L			1730482	1565153	0
	Tl	205	0.003	ug/L	0.005	157	268	413	65
	Pb	208	0.003	ug/L	0.005	151	239	408	71
	Bi	209		ug/L			3854596	3650491	0
	Th	232	0.115	ug/L	0.034	29	3454	9788	19
	U	238	0.003	ug/L	0.003	117	29	191	101

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-29-13 **Analyst:** MT **Page:** 1 **of** 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2999-15
		1			3008-3
		2			3008-15
		3			3009-1
		4			3008-8
		5			3009-2
		Rinse Sample			Tl R= 0.9987
		ICV			2926-7
		ICB			
		CCV1			Tl ↑
		CCB1			
		Low check			
		ICSA			Cd ↑
		ICSAB			^{62}Ni ↑
		LR200			^{114}Cd ^{121}Sb ↑
		LR300			Sb ↑
		B1			
		CCV2			
		CCB2			^{62}Ni ↑
		WA66 B	REN	200	As
		J		↓	
		G		5	
		M		2	
		N		↓	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-29-13 **Analyst:** M **Page:** 2 **of** 4

All corrections made by analyst unless otherwise noted. AJ 1-29-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WA66 O	REN	2	As
		↓ P	↓	↓	↓
		WA93 B	SWN	20	↓
~~Label~~		↓ C	↓	↓	↓
WA93		↓ MBlspk	↓	↓	↓
		CCV3			Tl ↓
		CCB3			62 Ni ↑
	✓	WA87 MB1	REN	2	Zn AIR No sample in place
	✓	↓ MB2	↓	↓	↓ ↓
	✓	WA93 MB1	SWN	20	As ↓
		↓ D	↓	↓	↓ not Run here ↓
		E			
		ADup			
		A			
		Aspk			
		↓ Apost	↓	↓	↓
		WA87 MB1spk	REN	2	Zn Cu ↓
		CCV4			Tl ↓
		CCB4			62 Ni ↑
		WA87 MB1	REN	2	Zn
		↓ MB2	↓	↓	↓
		WA93 MB1	SWN	20	As
		↓ D	↓	↓	↓
		↓ E	↓	↓	↓

AJ 1-29-13

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Tuesday, January 29, 2013 08:15:43
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1759
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time (ns): 60
Current Dead Time (ns): 60

Torch Z position (mm): 0.00

Initial

Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
Be	9.0	4778.0	4778.036	52.570	1.1	Standard
Mg	24.0	46116.2	46116.193	446.069	1.0	Standard
In	114.9	87404.0	87403.967	1106.845	1.3	Standard
Pb	208.0	39205.2	39205.216	456.589	1.2	Standard
U	238.1	65746.3	65746.304	858.129	1.3	Standard
CeO	155.9	1677.9	0.017	0.001	3.0	Standard
> Ce	139.9	98505.5	98505.468	696.574	0.7	Standard
Ce++	70.0	1083.0	0.011	0.000	0.9	Standard
Bkgd	220.0	0.1	0.067	0.091	136.9	Standard

Current Conditions File Data

Current Value	Description
1.06	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1712.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

WASE 00210

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/29/2013 8:15:41 AM
nd Time: 1/29/2013 8:18:18 AM

aily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 4778.04
Obtained Intensity (Mg 23.985): 46116.19
Obtained Intensity (In 114.904): 87403.97
Obtained Intensity (Pb 207.977): 39205.22
Obtained Intensity (U 238.05): 65746.30
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (CeO 155.9 / Ce 139.905): 0.017 (=1677.90 / 98505.47)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.011 (=1083.00 / 98505.47)

UASE 00211

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/29/2013 8:24:49 AM
nd Time: 1/29/2013 8:25:55 AM

orch Alignment - [Passed]

Vertical	Horizontal	Intensity
-1.05 mm	1.83 mm	100923.45

WA66 00212

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/29/2013 8:26:10 AM
nd Time: 1/29/2013 8:28:22 AM

ass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.709)
Target/Obtained mass (23.985/23.925), Target/Obtained resolution (0.7/0.719)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.690)

WA66 00213

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/29/2013 8:28:34 AM
nd Time: 1/29/2013 8:32:45 AM

utoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 1.000; Intercept = -11.44

WASE 00214

SmartTune Wizard - Summary

ɔtimization Summary

nartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 1/29/2013 8:32:54 AM
nd Time: 1/29/2013 8:35:29 AM

A26 1.06

aily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 6250.61
Obtained Intensity (Mg 23.985): 53112.13
Obtained Intensity (In 114.904): 97971.92
Obtained Intensity (Pb 207.977): 43890.75
Obtained Intensity (U 238.05): 73951.89
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.022 (=2397.08 / 109388.18)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.013 (=1448.93 / 109388.18)

WA66 00215

SmartTune Wizard - Details

ptimization Details

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

ptimization Status

tart Time: 1/29/2013 8:38:24 AM

Neb 1.01

aily Performance Check

Optimization Settings:

Method: C:\NexIONData\Method\Daily Performancenew.mth.
Intensity Criterion: Be 9.0122 > 3000
Intensity Criterion: Mg 23.985 > 20000
Intensity Criterion: In 114.904 > 50000
Intensity Criterion: Pb 207.977 > 20000
Intensity Criterion: U 238.05 > 40000
Intensity Criterion: Bkgd 220 <= 5
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

Optimization Results:

Initial Try

Obtained Intensity (Be 9.0122): 4578.99
Obtained Intensity (Mg 23.985): 40766.51
Obtained Intensity (In 114.904): 76492.04
Obtained Intensity (Pb 207.977): 37061.10
Obtained Intensity (U 238.05): 61818.19
Obtained Intensity (Bkgd 220): 0.10
Obtained Formula (CeO 155.9 / Ce 139.905): 0.014 (=1285.83 / 92737.87)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.010 (=916.45 / 92737.87)

Passed] Optimum value(s): N/A

nd Time: 1/29/2013 8:40:59 AM

WA66 : 00216

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 09:05:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L				59988	3
	Cl	37		ug/L				3942625	2
>	Ge	72		ug/L				513172	1
	Ni	60		ug/L				271	5
	Ni	62		ug/L				372	4
	Cu	63		ug/L				254	5
	Cu	65		ug/L				35	15
	Zn	66		ug/L				112	10
	Zn	67		ug/L				24	19
	Zn	68		ug/L				176	5
	As	75		ug/L				332	10
	As-1	75		ug/L				8415	0
	Se	82		ug/L				7	102
	Se	78		ug/L				8534	0
	Y	89		ug/L				340849	3
	Kr	83		ug/L				580	3
>	In	115		ug/L				838628	0
	Ag	107		ug/L				16	18
	Cd	111		ug/L				35	128
	Cd	114		ug/L				25	28
	Sb	121		ug/L				18	30
	Sb	123		ug/L				14	46
>	Tb	159		ug/L				1204600	2
	Tl	205		ug/L				62	6
	Pb	208		ug/L				130	3
	Bi	209		ug/L				2881698	1
	Th	232		ug/L				40	28
	U	238		ug/L				2	78

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 09:09:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			59988	61607	3
	Cl	37		ug/L			3942625	4002357	2
>	Ge	72		ug/L			513172	519076	1
	Ni	60	0.500	ug/L	0.014	2	271	2057	3
	Ni	62	0.500	ug/L	0.085	16	372	594	4
	Cu	63	0.500	ug/L	0.018	3	254	4076	1
	Cu	65	0.500	ug/L	0.011	2	35	1759	1
	Zn	66	4.000	ug/L	0.147	3	112	8211	1
	Zn	67	4.000	ug/L	0.031	0	24	1195	2
	Zn	68	4.000	ug/L	0.075	1	176	5761	1
	As	75	0.200	ug/L	0.017	8	332	696	6
	As-1	75	0.200	ug/L	0.156	78	8415	8752	0
	Se	82	0.500	ug/L	0.059	11	7	92	9
	Se	78	0.500	ug/L	0.892	178	8534	8756	0
	Y	89		ug/L			340849	347758	2
	Kr	83		ug/L			580	624	4
>	In	115		ug/L			838628	836245	1
	Ag	107	0.200	ug/L	0.006	2	16	1502	3
	Cd	111	0.100	ug/L	0.004	4	35	507	3
	Cd	114	0.100	ug/L	0.003	2	25	1202	3
	Sb	121	0.200	ug/L	0.010	5	18	2468	3
	Sb	123	0.200	ug/L	0.006	3	14	1922	1
>	Tb	159		ug/L			1204600	1203927	1
	Tl	205	0.200	ug/L	0.001	0	62	7948	1
	Pb	208	0.100	ug/L	0.003	3	130	5447	2
	Bi	209		ug/L			2881698	2839039	0
	Th	232	0.200	ug/L	0.003	1	40	7661	1
	U	238	0.200	ug/L	0.001	0	2	9074	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 09:13:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59988	60460	2
	Cl	37		ug/L			3942625	4079336	2
>	Ge	72		ug/L			513172	529610	0
	Ni	60	10.000	ug/L	0.463	4	271	36300	4
	Ni	62	10.002	ug/L	0.212	2	372	5215	1
	Cu	63	9.999	ug/L	0.022	0	254	74522	1
	Cu	65	9.999	ug/L	0.242	2	35	33991	2
	Zn	66	9.931	ug/L	0.228	2	112	19787	1
	Zn	67	10.150	ug/L	0.187	1	24	3370	2
	Zn	68	10.032	ug/L	0.054	0	176	14766	1
	As	75	10.000	ug/L	0.158	1	332	18655	1
	As-1	75	10.001	ug/L	0.286	2	8415	26616	1
	Se	82	10.003	ug/L	0.057	0	7	1955	0
	Se	78	10.011	ug/L	0.606	6	8534	13374	1
	Y	89		ug/L			340849	344662	2
	Kr	83		ug/L			580	600	1
>	In	115		ug/L			838628	847229	0
	Ag	107	10.000	ug/L	0.202	2	16	73789	1
	Cd	111	10.000	ug/L	0.103	1	35	42366	0
	Cd	114	10.000	ug/L	0.191	1	25	111987	2
	Sb	121	10.000	ug/L	0.231	2	18	128694	1
	Sb	123	10.000	ug/L	0.065	0	14	98928	0
>	Tb	159		ug/L			1204600	1215616	2
	Tl	205	10.000	ug/L	0.174	1	62	395001	1
	Pb	208	10.000	ug/L	0.306	3	130	511304	1
	Bi	209		ug/L			2881698	2879810	0
	Th	232	10.001	ug/L	0.195	1	40	445165	0
	U	238	10.000	ug/L	0.174	1	2	458488	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 09:16:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59988	60715	2
	Cl	37		ug/L			3942625	4245754	3
>	Ge	72		ug/L			513172	518574	2
	Ni	60	19.998	ug/L	0.647	3	271	70780	3
	Ni	62	20.112	ug/L	0.674	3	372	10103	1
	Cu	63	20.068	ug/L	0.766	3	254	148136	1
	Cu	65	19.962	ug/L	0.627	3	35	65923	4
	Zn	66	20.068	ug/L	0.156	0	112	39499	2
	Zn	67	20.053	ug/L	0.885	4	24	6554	3
	Zn	68	20.107	ug/L	0.771	3	176	29322	2
	As	75	20.090	ug/L	0.126	0	332	37024	1
	As-1	75	20.139	ug/L	0.363	1	8415	44868	1
	Se	82	20.187	ug/L	0.328	1	7	4003	0
	Se	78	20.382	ug/L	1.186	5	8534	18475	1
	Y	89		ug/L			340849	347974	3
	Kr	83		ug/L			580	622	1
>	In	115		ug/L			838628	837989	1
	Ag	107	20.101	ug/L	1.092	5	16	149649	3
	Cd	111	20.030	ug/L	0.498	2	35	84388	1
	Cd	114	20.025	ug/L	0.441	2	25	222832	1
	Sb	121	20.030	ug/L	0.641	3	18	256435	1
	Sb	123	20.028	ug/L	0.317	1	14	197048	0
>	Tb	159		ug/L			1204600	1219713	1
	Tl	205	19.945	ug/L	0.662	3	62	781735	1
	Pb	208	20.012	ug/L	0.258	1	130	1029432	0
	Bi	209		ug/L			2881698	2850232	0
	Th	232	20.096	ug/L	0.188	0	40	915364	0
	U	238	20.014	ug/L	0.602	3	2	923114	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 09:20:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens	Intens. RSD
	C	13		ug/L			59988	61773	5
	Cl	37		ug/L			3942625	4080598	0
>	Ge	72		ug/L			513172	516773	0
	Ni	60	49.735	ug/L	2.299	4	271	170543	4
	Ni	62	49.931	ug/L	1.090	2	372	24283	2
	Cu	63	49.722	ug/L	1.094	2	254	355676	1
	Cu	65	49.827	ug/L	0.920	1	35	161127	1
	Zn	66	49.853	ug/L	0.488	0	112	96240	1
	Zn	67	49.780	ug/L	0.245	0	24	15846	0
	Zn	68	49.644	ug/L	0.826	1	176	69522	1
	As	75	49.888	ug/L	0.714	1	332	90117	1
	As-1	75	49.921	ug/L	0.749	1	8415	97611	0
	Se	82	49.780	ug/L	0.885	1	7	9617	1
	Se	78	49.895	ug/L	0.930	1	8534	32390	1
	Y	89		ug/L			340849	338772	1
	Kr	83		ug/L			580	630	7
>	In	115		ug/L			838628	823406	2
	Ag	107	49.649	ug/L	1.885	3	16	350934	2
	Cd	111	50.033	ug/L	0.959	1	35	207764	0
	Cd	114	49.907	ug/L	1.563	3	25	540522	1
	Sb	121	50.017	ug/L	1.384	2	18	630236	1
	Sb	123	49.928	ug/L	1 335	2	14	479116	0
>	Tb	159		ug/L			1204600	1207671	1
	Tl	205	49.877	ug/L	1.601	3	62	1911993	1
	Pb	208	49.806	ug/L	0.762	1	130	2488135	0
	Bi	209		ug/L			2881698	2757328	0
	Th	232	51.159	ug/L	0.354	0	40	2609645	1
	U	238	51.155	ug/L	1.170	2	2	2641460	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 09:26:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			59988	62639	2
	Cl	37		ug/L			3942625	4032499	3
>	Ge	72		ug/L			513172	506430	2
	Ni	60	100.007	ug/L	1.578	1	271	335766	0
	Ni	62	100.722	ug/L	0.759	0	372	48801	2
	Cu	63	100.489	ug/L	2.873	2	254	715593	0
	Cu	65	99.581	ug/L	2.076	2	35	311113	0
	Zn	66	99.498	ug/L	4.825	4	112	184932	3
	Zn	67	99.893	ug/L	6.437	6	24	31006	4
	Zn	68	99.548	ug/L	2.736	2	176	134383	0
	As	75	100.180	ug/L	2.037	2	332	178037	0
	As-1	75	100.278	ug/L	2.477	2	8415	185363	0
	Se	82	99.578	ug/L	1.979	1	7	18580	1
	Se	78	99.940	ug/L	3.420	3	8534	55020	1
	Y	89		ug/L			340849	328907	3
	Kr	83		ug/L			580	672	5
>	In	115		ug/L			838628	805349	1
	Ag	107	100.121	ug/L	3.093	3	16	695009	1
	Cd	111	99.559	ug/L	1.182	1	35	398598	2
	Cd	114	100.027	ug/L	1.272	1	25	1060865	0
	Sb	121	99.932	ug/L	0.653	0	18	1229126	1
	Sb	123	100.144	ug/L	1.507	1	14	944661	0
>	Tb	159		ug/L			1204600	1200571	2
	Tl	205	102.812	ug/L	2.531	2	62	4323484	0
	Pb	208	101.311	ug/L	2.317	2	130	5260581	0
	Bi	209		ug/L			2881698	2674467	1
	Th	232	100.746	ug/L	3.172	3	40	5237397	1
	U	238	100.491	ug/L	1.476	1	2	5244714	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 09:32:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			59988	61155	5
	Cl	37		ug/L			3942625	4019851	4
>	Ge	72		ug/L			513172	520624	1
	Ni	60	0.002	ug/L	0.005	277	271	281	4
	Ni	62	0.174	ug/L	0.048	27	372	463	4
	Cu	63	0.013	ug/L	0.006	43	254	354	12
	Cu	65	0.004	ug/L	0.000	8	35	50	1
	Zn	66	0.041	ug/L	0.001	3	112	191	2
	Zn	67	0.051	ug/L	0.012	23	24	40	11
	Zn	68	0.046	ug/L	0.010	22	176	242	7
	As	75	0.023	ug/L	0.017	71	332	379	9
	As-1	75	-0.112	ug/L	0.072	64	8415	8333	1
	Se	82	0.054	ug/L	0.082	151	7	18	85
	Se	78	-0.470	ug/L	0.275	58	8534	8431	1
	Y	89		ug/L			340849	346730	2
	Kr	83		ug/L			580	579	3
>	In	115		ug/L			838628	840198	0
	Ag	107	0.015	ug/L	0.019	126	16	126	109
	Cd	111	0.017	ug/L	0.015	88	35	108	59
	Cd	114	0.008	ug/L	0.011	141	25	115	110
	Sb	121	0.074	ug/L	0.007	9	18	972	8
	Sb	123	0.072	ug/L	0.005	7	14	726	7
>	Tb	159		ug/L			1204600	1209713	1
	Tl	205	0.013	ug/L	0.004	30	62	614	27
	Pb	208	0.005	ug/L	0.006	107	130	399	72
	Bi	209		ug/L			2881698	2882926	0
	Th	232	0.186	ug/L	0.032	17	40	9752	15
	U	238	0.004	ug/L	0.003	84	2	210	83

Sample Information

Sample Date/Time: Tuesday, January 29, 2013 09:26:19
Method File: C:\NexION Data\Method\200.8GFA+.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Ge	72							
Ni	60	**1.0000**	0.007	0.50	10	20	50	100
Ni	62	**0.9999**	0.001	0.50	10	20	50	100
Cu	63	**0.9999**	0.014	0.50	10	20	50	100
Cu	65	**1.0000**	0.006	0.50	10	20	50	100
Zn	66	**1.0000**	0.004	4.00	10	20	50	100
Zn	67	**1.0000**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.004	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9998**	0.000	0.50	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.009	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.013	0.10	10	20	50	100
Sb	121	**1.0000**	0.015	0.20	10	20	50	100
Sb	123	**1.0000**	0.012	0.20	10	20	50	100
Tb	159							
Tl	205	**0.9987**	0.035	0.20	10	20	50	100
Pb	208	**0.9997**	0.043	0.10	10	20	50	100
Bi	209							
Th	232	**0.9996**	0.043	0.20	10	20	50	100
U	238	**0.9997**	0.043	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 09:38:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59988	65340	3
	Cl	37		ug/L			3942625	4218847	2
>	Ge	72		ug/L			513172	529027	2
	Ni	60	**50.364**	ug/L	2.894	5	271	176620	2
	Ni	62	**48.667**	ug/L	0.743	1	372	24826	2
	Cu	63	**50.448**	ug/L	1.146	2	254	375423	1
	Cu	65	**50.743**	ug/L	0.540	1	35	165638	2
	Zn	66	**49.515**	ug/L	2.348	4	112	96167	1
	Zn	67	**49.443**	ug/L	1.953	3	24	16043	1
	Zn	68	**49.799**	ug/L	2.754	5	176	70276	3
	As	75	**50.116**	ug/L	1.701	3	332	93178	1
	As-1	75	**49.986**	ug/L	1.921	3	8415	100836	1
	Se	82	**79.936**	ug/L	2.142	2	7	15278	0
	Se	78	**78.325**	ug/L	3.206	4	8534	46925	0
	Y	89		ug/L			340849	348697	0
	Kr	83		ug/L			580	620	3
>	In	115		ug/L			838628	830767	0
	Ag	107	**51.234**	ug/L	0.902	1	16	366948	1
	Cd	111	**49.485**	ug/L	1.384	2	35	204342	1
	Cd	114	**48.957**	ug/L	0.779	1	25	535650	1
	Sb	121	**49.515**	ug/L	1.110	2	18	628164	1
	Sb	123	**48.228**	ug/L	0.679	1	14	469321	0
>	Tb	159		ug/L			1204600	1215976	2
	Tl	205	**45.795**	ug/L	1.152	2	62	1950531	0
	Pb	208	**48.147**	ug/L	1.364	2	130	2531971	0
	Bi	209		ug/L			2881698	2768269	1
	Th	232	**51.792**	ug/L	0.687	1	40	2727636	0
	U	238	**51.259**	ug/L	1.321	2	2	2709149	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 09:45:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			59988	63249	3
	Cl	37		ug/L			3942625	4008841	4
>	Ge	72		ug/L			513172	522404	1
	Ni	60	-0.009	ug/L	0.003	32	271	245	3
	Ni	62	0.047	ug/L	0.054	114	372	402	5
	Cu	63	0.005	ug/L	0.002	45	254	299	5
	Cu	65	0.003	ug/L	0.003	105	35	46	23
	Zn	66	0.034	ug/L	0.003	9	112	179	1
	Zn	67	0.027	ug/L	0.004	16	24	33	6
	Zn	68	0.035	ug/L	0.011	30	176	228	7
	As	75	0.025	ug/L	0.008	30	332	383	2
	As-1	75	-0.067	ug/L	0.090	134	8415	8443	0
	Se	82	-0.008	ug/L	0.060	798	7	6	175
	Se	78	-0.338	ug/L	0.373	110	8534	8523	0
	Y	89		ug/L			340849	340456	0
	Kr	83		ug/L			580	600	3
>	In	115		ug/L			838628	838110	1
	Ag	107	0.005	ug/L	0.004	74	16	52	49
	Cd	111	0.010	ug/L	0.002	15	35	78	7
	Cd	114	0.001	ug/L	0.002	175	25	37	54
	Sb	121	0.020	ug/L	0.002	11	18	273	9
	Sb	123	0.020	ug/L	0.005	22	14	208	20
>	Tb	159		ug/L			1204600	1194874	0
	Tl	205	0.004	ug/L	0.001	28	62	229	21
	Pb	208	0.002	ug/L	0.001	48	130	246	23
	Bi	209		ug/L			2881698	2835184	1
	Th	232	0.110	ug/L	0.023	21	40	5761	21
	U	238	0.002	ug/L	0.001	27	2	104	27

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 09:48:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			59988	58323	3
	Cl	37		ug/L			3942625	4139112	5
>	Ge	72		ug/L			513172	527949	3
	Ni	60	48.816	ug/L	2.993	6	271	170830	3
	Ni	62	47.127	ug/L	0.627	1	372	23998	2
	Cu	63	48.090	ug/L	1.056	2	254	357114	1
	Cu	65	49.904	ug/L	1.112	2	35	162526	1
	Zn	66	48.581	ug/L	2.779	5	112	94125	2
	Zn	67	50.170	ug/L	2.794	5	24	16238	2
	Zn	68	48.651	ug/L	2.670	5	176	68501	2
	As	75	48.428	ug/L	1.930	3	332	89841	0
	As-1	75	48.338	ug/L	2.193	4	8415	97569	0
	Se	82	50.687	ug/L	1.783	3	7	9668	0
	Se	78	49.336	ug/L	2.813	5	8534	32734	0
	Y	89		ug/L			340849	345170	0
	Kr	83		ug/L			580	605	4
>	In	115		ug/L			838628	824987	3
	Ag	107	49.472	ug/L	0.189	0	16	351861	2
	Cd	111	49.207	ug/L	0.805	1	35	201748	1
	Cd	114	49.355	ug/L	1.989	4	25	535852	1
	Sb	121	49.641	ug/L	1.975	3	18	624972	1
	Sb	123	49.319	ug/L	1.707	3	14	476294	0
>	Tb	159		ug/L			1204600	1230950	2
	Tl	205	44.238	ug/L	1.255	2	62	1907053	0
	Pb	208	46.602	ug/L	1.628	3	130	2480266	0
	Bi	209		ug/L			2881698	2771936	1
	Th	232	49.061	ug/L	2.250	4	40	2614006	2
	U	238	49.111	ug/L	1.811	3	2	2626779	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 09:54:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59988	61529	1
	Cl	37		ug/L			3942625	4110609	2
>	Ge	72		ug/L			513172	517264	2
	Ni	60	0.068	ug/L	0.005	7	271	505	4
	Ni	62	0.117	ug/L	0.047	39	372	432	5
	Cu	63	0.006	ug/L	0.003	47	254	297	8
	Cu	65	0.000	ug/L	0.003	635	35	37	23
	Zn	66	0.046	ug/L	0.008	16	112	199	8
	Zn	67	0.050	ug/L	0.017	33	24	40	11
	Zn	68	0.048	ug/L	0.011	22	176	244	7
	As	75	0.015	ug/L	0.013	89	332	362	8
	As-1	75	-0.020	ug/L	0.096	486	8415	8444	0
	Se	82	0.006	ug/L	0.048	861	7	9	101
	Se	78	-0.108	ug/L	0.396	366	8534	8548	0
	Y	89		ug/L			340849	358418	1
	Kr	83		ug/L			580	595	2
>	In	115		ug/L			838628	838379	1
	Ag	107	0.003	ug/L	0.002	61	16	38	36
	Cd	111	0.008	ug/L	0.002	24	35	69	10
	Cd	114	0.001	ug/L	0.001	94	25	35	27
	Sb	121	0.037	ug/L	0.003	8	18	489	7
	Sb	123	0.037	ug/L	0.004	9	14	376	7
>	Tb	159		ug/L			1204600	1195970	0
	Tl	205	0.005	ug/L	0.001	28	62	254	21
	Pb	208	0.002	ug/L	0.000	7	130	218	3
	Bi	209		ug/L			2881698	2901316	0
	Th	232	0.145	ug/L	0.029	19	40	7574	19
	U	238	0.001	ug/L	0.000	18	2	80	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 09:58:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59988	60038	0
	Cl	37		ug/L			3942625	4085936	1
>	Ge	72		ug/L			513172	533099	1
	Ni	60	0.484	ug/L	0.030	6	271	1991	4
	Ni	62	0.464	ug/L	0.022	4	372	621	0
	Cu	63	0.507	ug/L	0.013	2	254	4060	1
	Cu	65	0.531	ug/L	0.006	1	35	1784	2
	Zn	66	4.212	ug/L	0.098	2	112	8357	2
	Zn	67	3.803	ug/L	0.017	0	24	1267	0
	Zn	68	3.970	ug/L	0.023	0	176	5820	1
	As	75	0.220	ug/L	0.026	11	332	754	5
	As-1	75	0.057	ug/L	0.060	105	8415	8848	0
	Se	82	0.520	ug/L	0.066	12	7	108	10
	Se	78	-0.067	ug/L	0.249	372	8534	8832	0
	Y	89		ug/L			340849	351886	1
	Kr	83		ug/L			580	622	4
>	In	115		ug/L			838628	822837	1
	Ag	107	0.228	ug/L	0.031	13	16	1630	12
	Cd	111	0.130	ug/L	0.029	21	35	565	20
	Cd	114	0.121	ug/L	0.022	18	25	1338	17
	Sb	121	0.217	ug/L	0.018	8	18	2744	7
	Sb	123	0.214	ug/L	0.017	7	14	2080	7
>	Tb	159		ug/L			1204600	1203814	1
	Tl	205	0.196	ug/L	0.008	4	62	8319	4
	Pb	208	0.110	ug/L	0.008	7	130	5856	7
	Bi	209		ug/L			2881698	2901288	0
	Th	232	0.210	ug/L	0.005	2	40	10976	3
	U	238	0.180	ug/L	0.002	1	2	9415	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 10:01:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			59988	145094	1
	Cl	37		ug/L			3942625	11406517	1
>	Ge	72		ug/L			513172	504661	0
	Ni	60	0.321	ug/L	0.006	1	271	1341	1
	Ni	62	6.552	ug/L	0.396	6	372	3505	5
	Cu	63	1.198	ug/L	0.031	2	254	8750	2
	Cu	65	0.423	ug/L	0.023	5	35	1352	5
	Zn	66	1.078	ug/L	0.035	3	112	2106	3
	Zn	67	5.456	ug/L	0.358	6	24	1710	6
	Zn	68	0.519	ug/L	0.041	7	176	871	6
	As	75	0.119	ug/L	0.038	31	332	536	12
	As-1	75	0.355	ug/L	0.017	4	8415	8900	0
	Se	82	-0.244	ug/L	0.010	4	7	-36	5
	Se	78	1.093	ug/L	0.130	11	8534	8900	0
	Y	89		ug/L			340849	341787	1
	Kr	83		ug/L			580	833	3
>	In	115		ug/L			838628	837044	2
	Ag	107	0.018	ug/L	0.001	7	16	150	7
	Cd	111	0.281	ug/L	0.015	5	35	1204	7
	Cd	114	0.326	ug/L	0.014	4	25	3615	5
	Sb	121	0.068	ug/L	0.004	6	18	881	5
	Sb	123	0.067	ug/L	0.003	5	14	668	7
>	Tb	159		ug/L			1204600	1236942	2
	Tl	205	0.033	ug/L	0.002	5	62	1511	3
	Pb	208	0.032	ug/L	0.001	3	130	1857	5
	Bi	209		ug/L			2881698	2685106	0
	Th	232	0.113	ug/L	0.034	30	40	6129	31
	U	238	0.001	ug/L	0.000	16	2	37	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 10:07:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens RSD
	C	13		ug/L			59988	154940	1
	Cl	37		ug/L			3942625	11823525	6
>	Ge	72		ug/L			513172	507444	3
	Ni	60	20.737	ug/L	0.771	3	271	69938	1
	Ni	62	26.324	ug/L	0.854	3	372	13043	2
	Cu	63	20.877	ug/L	0.705	3	254	149164	3
	Cu	65	20.475	ug/L	1.045	5	35	64075	2
	Zn	66	20.361	ug/L	1.284	6	112	37977	2
	Zn	67	22.527	ug/L	1.160	5	24	7021	1
	Zn	68	18.831	ug/L	0.561	2	176	25608	1
	As	75	19.778	ug/L	0.652	3	332	35469	1
	As-1	75	20.090	ug/L	0.857	4	8415	43844	0
	Se	82	-0.157	ug/L	0.086	55	7	-21	75
	Se	78	1.053	ug/L	0.920	87	8534	8921	1
	Y	89		ug/L			340849	341388	4
	Kr	83		ug/L			580	795	4
>	In	115		ug/L			838628	888131	2
	Ag	107	19.052	ug/L	0.177	0	16	145887	1
	Cd	111	19.188	ug/L	0.610	3	35	84707	1
	Cd	114	19.096	ug/L	0.544	2	25	223344	2
	Sb	121	0.066	ug/L	0 003	4	18	917	3
	Sb	123	0.064	ug/L	0.007	10	14	680	9
>	Tb	159		ug/L			1204600	1291082	2
	Tl	205	0.028	ug/L	0 001	2	62	1322	4
	Pb	208	0.031	ug/L	0.002	6	130	1875	3
	Bi	209		ug/L			2881698	2712437	0
	Th	232	0.044	ug/L	0.003	6	40	2485	6
	U	238	0.001	ug/L	0.000	27	2	33	22

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 10:13:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			59988	66850	1
	Cl	37		ug/L			3942625	4431303	2
>	Ge	72		ug/L			513172	487151	1
	Ni	60	202.347	ug/L	2.863	1	271	653260	0
	Ni	62	200.423	ug/L	5.934	2	372	93018	1
	Cu	63	200.719	ug/L	4.005	1	254	1374878	0
	Cu	65	204.202	ug/L	7.458	3	35	613583	2
	Zn	66	192.742	ug/L	5.478	2	112	344586	0
	Zn	67	201.317	ug/L	9.380	4	24	60096	2
	Zn	68	196.912	ug/L	3.574	1	176	255568	0
	As	75	201.402	ug/L	8.689	4	332	343892	2
	As-1	75	203.297	ug/L	9.028	4	8415	353198	2
	Se	82	198.496	ug/L	7.222	3	7	34928	2
	Se	78	201.847	ug/L	8.278	4	8534	98602	1
	Y	89		ug/L			340849	319922	0
	Kr	83		ug/L			580	784	1
>	In	115		ug/L			838628	860378	2
	Ag	107	191.387	ug/L	1.490	0	16	1419519	1
	Cd	111	191.989	ug/L	2.563	1	35	820937	1
	Cd	114	221.511	ug/L	6.247	2	25	2509017	0
	Sb	121	225.736	ug/L	3.949	1	18	2965448	0
	Sb	123	205.060	ug/L	14.091	6	14	2068770	9
>	Tb	159		ug/L			1204600	1226431	3
	Tl	205	200.281	ug/L	7.536	3	62	8599881	1
	Pb	208	211.372	ug/L	7.732	3	130	11206511	0
	Bi	209		ug/L			2881698	2607923	1
	Th	232	196.281	ug/L	6.708	3	40	10420246	0
	U	238	195.581	ug/L	8.270	4	2	10420041	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 10:20:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59988	70066	1
	Cl	37		ug/L			3942625	4263392	3
>	Ge	72		ug/L			513172	478032	3
	Ni	60	293.236	ug/L	9.691	3	271	928421	1
	Ni	62	294.368	ug/L	7.032	2	372	133884	1
	Cu	63	293.432	ug/L	8.333	2	254	1971610	1
	Cu	65	296.691	ug/L	16.590	5	35	874095	2
	Zn	66	278.162	ug/L	12.990	4	112	487650	1
	Zn	67	282.059	ug/L	9.317	3	24	82603	0
	Zn	68	277.712	ug/L	8 881	3	176	353501	1
	As	75	294.739	ug/L	13.768	4	332	493491	1
	As-1	75	297.167	ug/L	12.451	4	8415	502850	1
	Se	82	288.737	ug/L	13.517	4	7	49825	1
	Se	78	292.354	ug/L	8.576	2	8534	136567	0
	Y	89		ug/L			340849	318493	0
	Kr	83		ug/L			580	881	2
>	In	115		ug/L			838628	813958	1
	Ag	107	277.987	ug/L	9.610	3	16	1950331	2
	Cd	111	287.800	ug/L	5.809	2	35	1164381	1
	Cd	114	327.615	ug/L	9.469	2	25	3511383	1
	Sb	121	333.626	ug/L	1.922	0	18	4147202	0
	Sb	123	330.306	ug/L	4.638	1	14	3149163	0
>	Tb	159		ug/L			1204600	1205309	0
	Tl	205	296.368	ug/L	5.029	1	62	12515738	1
	Pb	208	307.119	ug/L	2.241	0	130	16014467	0
	Bi	209		ug/L			2881698	2505087	1
	Th	232	287.514	ug/L	2.099	0	40	15011800	1
	U	238	286.602	ug/L	5.656	1	2	15019118	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 10:26:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59988	60738	0
	Cl	37		ug/L			3942625	4218919	1
>	Ge	72		ug/L			513172	524448	1
	Ni	60	-0.030	ug/L	0.011	36	271	172	21
	Ni	62	1.343	ug/L	0.204	15	372	1048	8
	Cu	63	0.117	ug/L	0.018	15	254	1120	10
	Cu	65	0.044	ug/L	0.005	11	35	178	7
	Zn	66	0.869	ug/L	0.023	2	112	1786	2
	Zn	67	0.796	ug/L	0.082	10	24	280	7
	Zn	68	0.847	ug/L	0.036	4	176	1362	2
	As	75	0.032	ug/L	0.035	109	332	397	15
	As-1	75	-0.081	ug/L	0.078	96	8415	8451	0
	Se	82	-0.008	ug/L	0.118	1491	7	6	359
	Se	78	-0.386	ug/L	0.281	72	8534	8534	0
	Y	89		ug/L			340849	353851	2
	Kr	83		ug/L			580	622	6
>	In	115		ug/L			838628	894875	1
	Ag	107	0.012	ug/L	0.003	27	16	110	23
	Cd	111	0.015	ug/L	0.005	34	35	103	22
	Cd	114	0.006	ug/L	0.003	49	25	102	37
	Sb	121	0.122	ug/L	0.012	9	18	1687	9
	Sb	123	0.123	ug/L	0.014	11	14	1303	10
>	Tb	159		ug/L			1204600	1244104	1
	Tl	205	0.021	ug/L	0.001	6	62	964	8
	Pb	208	0.022	ug/L	0.002	10	130	1321	8
	Bi	209		ug/L			2881698	2970541	0
	Th	232	0.250	ug/L	0.060	23	40	13545	25
	U	238	0.005	ug/L	0.003	55	2	296	54

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 10:31:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			59988	60202	5
	Cl	37		ug/L			3942625	4249423	1
>	Ge	72		ug/L			513172	515579	2
	Ni	60	49.787	ug/L	1.833	3	271	170271	2
	Ni	62	49.333	ug/L	1.183	2	372	24522	3
	Cu	63	51.345	ug/L	0.730	1	254	372519	2
	Cu	65	50.594	ug/L	2.062	4	35	160944	3
	Zn	66	51.195	ug/L	2.909	5	112	96902	3
	Zn	67	50.549	ug/L	0.081	0	24	15996	2
	Zn	68	51.141	ug/L	1.062	2	176	70377	1
	As	75	51.204	ug/L	1.675	3	332	92787	1
	As-1	75	51.020	ug/L	1.527	2	8415	100157	1
	Se	82	52.297	ug/L	1.689	3	7	9744	1
	Se	78	50.570	ug/L	1.148	2	8534	32576	1
	Y	89		ug/L			340849	346596	1
	Kr	83		ug/L			580	610	4
>	In	115		ug/L			838628	853450	2
	Ag	107	50.536	ug/L	3.121	6	16	371532	4
	Cd	111	50.218	ug/L	1.284	2	35	212990	0
	Cd	114	50.720	ug/L	0.952	1	25	569977	0
	Sb	121	50.074	ug/L	0.786	1	18	652550	0
	Sb	123	49.758	ug/L	2.916	5	14	497057	3
>	Tb	159		ug/L			1204600	1212421	0
	Tl	205	45.914	ug/L	0.286	0	62	1950465	0
	Pb	208	48.049	ug/L	0.043	0	130	2520448	0
	Bi	209		ug/L			2881698	2807284	0
	Th	232	51.374	ug/L	0.310	0	40	2698287	1
	U	238	51.140	ug/L	0.787	1	2	2695738	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 10:38:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
C	13		ug/L			59988	59265	1
Cl	37		ug/L			3942625	4213059	2
> Ge	72		ug/L			513172	517202	1
Ni	60	0.024	ug/L	0.055	234	271	354	52
Ni	62	0.751	ug/L	0.053	7	372	744	2
Cu	63	0.055	ug/L	0.038	69	254	657	41
Cu	65	0.024	ug/L	0.032	134	35	111	90
Zn	66	0.062	ug/L	0.041	66	112	230	33
Zn	67	0.045	ug/L	0.038	84	24	38	30
Zn	68	0.049	ug/L	0.029	59	176	246	15
As	75	0.020	ug/L	0.038	188	332	371	17
As-1	75	-0.049	ug/L	0.073	148	8415	8392	0
Se	82	-0.057	ug/L	0.040	70	7	-2	266
Se	78	-0.268	ug/L	0.275	102	8534	8473	1
Y	89		ug/L			340849	341452	2
Kr	83		ug/L			580	615	2
> In	115		ug/L			838628	857252	0
Ag	107	0.006	ug/L	0.004	67	16	61	48
Cd	111	0.011	ug/L	0.004	39	35	83	22
Cd	114	0.004	ug/L	0.004	104	25	66	63
Sb	121	0.054	ug/L	0.010	18	18	720	17
Sb	123	0.053	ug/L	0.008	14	14	541	13
> Tb	159		ug/L			1204600	1227021	0
Tl	205	0.011	ug/L	0.007	62	62	526	55
Pb	208	0.030	ug/L	0.049	162	130	1735	150
Bi	209		ug/L			2881698	2914209	0
Th	232	0.186	ug/L	0.088	47	40	9935	48
U	238	0.035	ug/L	0.059	166	2	1900	166

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 B REN
Sample Dil Factor: 200
Comments:
Sample Date/Time: Tuesday, January 29, 2013 10:43:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			59988	61274	3
	Cl	37		ug/L			3942625	4105678	2
>	Ge	72		ug/L			513172	529247	2
	Ni	60	0.088	ug/L	0.008	8	271	586	2
	Ni	62	0.692	ug/L	0.064	9	372	731	3
	Cu	63	0.051	ug/L	0.003	6	254	639	4
	Cu	65	0.030	ug/L	0.001	4	35	134	5
	Zn	66	0.136	ug/L	0.008	5	112	378	3
	Zn	67	0.145	ug/L	0.065	44	24	71	26
	Zn	68	0.161	ug/L	0.011	6	176	409	4
	As	75	138.557	ug/L	5.764	4	332	257093	1
	As-1	75	138.955	ug/L	5.944	4	8415	264982	1
	Se	82	0.081	ug/L	0.061	74	7	23	47
	Se	78	-0.836	ug/L	0.626	74	8534	8389	1
	Y	89		ug/L			340849	351286	2
	Kr	83		ug/L			580	591	5
>	In	115		ug/L			838628	870486	1
	Ag	107	0.002	ug/L	0.001	30	16	30	13
	Cd	111	0.009	ug/L	0.001	6	35	75	1
	Cd	114	0.002	ug/L	0.001	26	25	51	12
	Sb	121	0.029	ug/L	0.005	16	18	407	14
	Sb	123	0.030	ug/L	0.004	14	14	324	12
>	Tb	159		ug/L			1204600	1244259	1
	Tl	205	0.015	ug/L	0 001	10	62	700	7
	Pb	208	0.021	ug/L	0.001	4	130	1274	3
	Bi	209		ug/L			2881698	2943145	1
	Th	232	0.047	ug/L	0.009	18	40	2556	16
	U	238	0.001	ug/L	0.000	2	2	47	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 J REN
Sample Dil Factor: 200
Comments:
Sample Date/Time: Tuesday, January 29, 2013 10:47:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
	C	13		ug/L			59988	58660	3
	Cl	37		ug/L			3942625	4150890	2
>	Ge	72		ug/L			513172	527389	2
	Ni	60	0.109	ug/L	0.005	4	271	661	4
	Ni	62	0.618	ug/L	0.058	9	372	691	1
	Cu	63	0.044	ug/L	0.004	8	254	587	5
	Cu	65	0.019	ug/L	0.005	24	35	98	15
	Zn	66	0.164	ug/L	0.015	9	112	431	4
	Zn	67	0.179	ug/L	0.015	8	24	82	3
	Zn	68	0.185	ug/L	0.014	7	176	442	4
	As	75	139.973	ug/L	5.749	4	332	258798	1
	As-1	75	140.451	ug/L	5.916	4	8415	266795	1
	Se	82	0.040	ug/L	0.038	94	7	15	43
	Se	78	-0.570	ug/L	0.604	106	8534	8489	1
	Y	89		ug/L			340849	345951	3
	Kr	83		ug/L			580	607	5
>	In	115		ug/L			838628	871548	0
	Ag	107	0.001	ug/L	0.001	82	16	26	28
	Cd	111	0.007	ug/L	0.002	34	35	65	15
	Cd	114	0.001	ug/L	0.001	87	25	36	23
	Sb	121	0.016	ug/L	0.002	14	18	238	12
	Sb	123	0.016	ug/L	0.002	11	14	180	10
>	Tb	159		ug/L			1204600	1240845	0
	Tl	205	0.006	ug/L	0.001	15	62	306	11
	Pb	208	0.014	ug/L	0.000	3	130	904	2
	Bi	209		ug/L			2881698	2948242	1
	Th	232	0.024	ug/L	0.002	9	40	1353	8
	U	238	0.001	ug/L	0.000	15	2	36	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 G REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, January 29, 2013 10:51:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

AS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59988	64982	1
	Cl	37		ug/L			3942625	4155097	4
>	Ge	72		ug/L			513172	528941	1
	Ni	60	4.472	ug/L	0.167	3	271	15946	2
	Ni	62	4.637	ug/L	0.129	2	372	2712	2
	Cu	63	2.062	ug/L	0.005	0	254	15602	1
	Cu	65	1.902	ug/L	0.028	1	35	6242	0
	Zn	66	4.891	ug/L	0.150	3	112	9609	2
	Zn	67	5.160	ug/L	0.338	6	24	1696	5
	Zn	68	5.453	ug/L	0 134	2	176	7862	1
	As	75	2.852	ug/L	0.061	2	332	5626	0
	As-1	75	2.710	ug/L	0 148	5	8415	13671	0
	Se	82	0.419	ug/L	0.051	12	7	88	11
	Se	78	-0.144	ug/L	0.331	229	8534	8725	0
	Y	89		ug/L			340849	351969	1
	Kr	83		ug/L			580	612	2
>	In	115		ug/L			838628	871948	0
	Ag	107	0.003	ug/L	0.001	25	16	40	15
	Cd	111	0.087	ug/L	0.010	11	35	412	11
	Cd	114	0.074	ug/L	0.002	2	25	879	2
	Sb	121	0.200	ug/L	0.003	1	18	2676	1
	Sb	123	0.195	ug/L	0.001	0	14	2011	0
>	Tb	159		ug/L			1204600	1265419	0
	Tl	205	0.012	ug/L	0.001	6	62	594	6
	Pb	208	0.375	ug/L	0.007	1	130	20672	1
	Bi	209		ug/L			2881698	2876991	1
	Th	232	0.117	ug/L	0.004	3	40	6438	2
	U	238	0.113	ug/L	0.002	1	2	6230	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 M REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 29, 2013 10:54:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			59988	75757	1
	Cl	37		ug/L			3942625	4339326	4
>	Ge	72		ug/L			513172	527083	1
	Ni	60	9.902	ug/L	0.325	3	271	34846	1
	Ni	62	9.976	ug/L	0.278	2	372	5373	0
	Cu	63	1.444	ug/L	0.042	2	254	10961	2
	Cu	65	0.887	ug/L	0.002	0	35	2921	1
	Zn	66	4.319	ug/L	0.155	3	112	8466	1
	Zn	67	4.529	ug/L	0.067	1	24	1487	3
	Zn	68	5.726	ug/L	0.333	5	176	8216	4
	As	75	0.797	ug/L	0.015	1	332	1813	3
	As-1	75	0.671	ug/L	0.074	11	8415	9875	0
	Se	82	0.106	ug/L	0.089	84	7	28	60
	Se	78	-0.303	ug/L	0.337	110	8534	8616	0
	Y	89		ug/L			340849	350428	1
	Kr	83		ug/L			580	646	1
>	In	115		ug/L			838628	872955	1
	Ag	107	0.001	ug/L	0 000	7	16	28	4
	Cd	111	0.366	ug/L	0.014	3	35	1625	2
	Cd	114	0.348	ug/L	0.002	0	25	4029	2
	Sb	121	0.449	ug/L	0 006	1	18	5999	2
	Sb	123	0.449	ug/L	0 012	2	14	4609	1
>	Tb	159		ug/L			1204600	1244360	0
	Tl	205	0.010	ug/L	0.001	6	62	517	6
	Pb	208	0.048	ug/L	0.001	2	130	2699	1
	Bi	209		ug/L			2881698	2739558	1
	Th	232	0.048	ug/L	0.009	18	40	2649	16
	U	238	0.226	ug/L	0.001	0	2	12214	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 N REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 29, 2013 10:58:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

AS

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59988	80966	3
	Cl	37		ug/L			3942625	4393996	1
>	Ge	72		ug/L			513172	521920	2
	Ni	60	**13.524**	ug/L	0.305	2	271	47024	1
	Ni	62	**13.471**	ug/L	0.366	2	372	7050	1
	Cu	63	**1.704**	ug/L	0.086	5	254	12752	3
	Cu	65	**1.275**	ug/L	0.031	2	35	4145	5
	Zn	66	**9.995**	ug/L	0.399	3	112	19244	1
	Zn	67	**9.821**	ug/L	0.539	5	24	3163	4
	Zn	68	**11.708**	ug/L	0.208	1	176	16448	1
	As	75	**0.918**	ug/L	0.038	4	332	2015	2
	As-1	75	**0.792**	ug/L	0.152	19	8415	9994	0
	Se	82	**0.560**	ug/L	0.121	21	7	113	19
	Se	78	**0.129**	ug/L	0.518	402	8534	8737	0
	Y	89		ug/L			340849	352508	1
	Kr	83		ug/L			580	628	4
>	In	115		ug/L			838628	882055	1
	Ag	107	**0.000**	ug/L	0 000	27	16	20	2
	Cd	111	**0.656**	ug/L	0 031	4	35	2911	3
	Cd	114	**0.645**	ug/L	0.020	3	25	7515	1
	Sb	121	**0.517**	ug/L	0.018	3	18	6982	2
	Sb	123	**0.514**	ug/L	0.011	2	14	5326	0
>	Tb	159		ug/L			1204600	1263506	1
	Tl	205	**0.010**	ug/L	0.001	8	62	528	8
	Pb	208	**0.059**	ug/L	0.002	3	130	3338	2
	Bi	209		ug/L			2881698	2784871	1
	Th	232	**0.027**	ug/L	0.000	1	40	1504	2
	U	238	**0.125**	ug/L	0.003	2	2	6876	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 O REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 29, 2013 11:03:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens RSD
	C	13		ug/L			59988	77258	2
	Cl	37		ug/L			3942625	4459545	2
>	Ge	72		ug/L			513172	514233	1
	Ni	60	**3.582**	ug/L	0.089	2	271	12481	4
	Ni	62	**4.122**	ug/L	0.151	3	372	2385	2
	Cu	63	**1.155**	ug/L	0.016	1	254	8608	1
	Cu	65	**0.859**	ug/L	0.033	3	35	2761	2
	Zn	66	**6.733**	ug/L	0.283	4	112	12813	2
	Zn	67	**6.642**	ug/L	0.116	1	24	2116	1
	Zn	68	**7.673**	ug/L	0 085	1	176	10684	0
	As	75	**4.507**	ug/L	0.106	2	332	8451	1
	As-1	75	**4.420**	ug/L	0.221	4	8415	16355	0
	Se	82	**0.872**	ug/L	0.068	7	7	169	5
	Se	78	**0.542**	ug/L	0.544	100	8534	8805	1
	Y	89		ug/L			340849	355199	0
	Kr	83		ug/L			580	629	3
>	In	115		ug/L			838628	883727	1
	Ag	107	**0.001**	ug/L	0.001	56	16	28	21
	Cd	111	**0.044**	ug/L	0.000	0	35	229	1
	Cd	114	**0.043**	ug/L	0.001	2	25	521	3
	Sb	121	**0.407**	ug/L	0.005	1	18	5518	2
	Sb	123	**0.406**	ug/L	0.009	2	14	4217	3
>	Tb	159		ug/L			1204600	1266789	3
	Tl	205	**0.005**	ug/L	0.001	23	62	283	14
	Pb	208	**0.037**	ug/L	0.001	3	130	2150	0
	Bi	209		ug/L			2881698	2784394	1
	Th	232	**0.019**	ug/L	0.003	14	40	1065	10
	U	238	**0.229**	ug/L	0.007	2	2	12622	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 P REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, January 29, 2013 11:06:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

As

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			59988	98340	2
	Cl	37		ug/L			3942625	4618202	2
>	Ge	72		ug/L			513172	487998	0
	Ni	60	7.126	ug/L	0.379	5	271	23296	4
	Ni	62	23.471	ug/L	9.182	39	372	11231	38
	Cu	63	31.649	ug/L	1.006	3	254	217433	3
	Cu	65	26.792	ug/L	0.935	3	35	80707	3
	Zn	66	5.917	ug/L	0.071	1	112	10703	1
	Zn	67	7.917	ug/L	0.421	5	24	2390	5
	Zn	68	7.023	ug/L	0.098	1	176	9294	1
	As	75	71.593	ug/L	0.531	0	332	122728	1
	As-1	75	72.007	ug/L	0.537	0	8415	130558	0
	Se	82	0.520	ug/L	0.075	14	7	99	13
	Se	78	1.089	ug/L	0.040	3	8534	8605	0
	Y	89		ug/L			340849	464028	1
	Kr	83		ug/L			580	695	1
>	In	115		ug/L			838628	841499	2
	Ag	107	0.081	ug/L	0.005	6	16	605	5
	Cd	111	0.101	ug/L	0.007	6	35	458	6
	Cd	114	0.078	ug/L	0.006	8	25	892	7
	Sb	121	6.969	ug/L	0.186	2	18	89549	0
	Sb	123	6.943	ug/L	0.176	2	14	68429	0
>	Tb	159		ug/L			1204600	1249385	1
	Tl	205	0.007	ug/L	0.000	5	62	362	4
	Pb	208	3.108	ug/L	0.060	1	130	168107	1
	Bi	209		ug/L			2881698	2561455	0
	Th	232	0.927	ug/L	0.003	0	40	50185	0
	U	238	2.887	ug/L	0.054	1	2	156826	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA93 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, January 29, 2013 11:10:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

AB

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			59988	68772	1
	Cl	37		ug/L			3942625	4230596	4
>	Ge	72		ug/L			513172	519619	2
	Ni	60	**35.475**	ug/L	1 381	3	271	122370	3
	Ni	62	**40.032**	ug/L	1.700	4	372	20115	2
	Cu	63	**18.801**	ug/L	0.335	1	254	137601	1
	Cu	65	**20.162**	ug/L	0.190	0	35	64669	1
	Zn	66	**55.885**	ug/L	2.190	3	112	106632	1
	Zn	67	**63.344**	ug/L	3.412	5	24	20182	3
	Zn	68	**58.946**	ug/L	1.146	1	176	81766	3
	As	75	**12.061**	ug/L	0.265	2	332	22288	0
	As-1	75	**11.943**	ug/L	0.352	2	8415	30155	0
	Se	82	**-0.303**	ug/L	0.045	14	7	-49	16
	Se	78	**-0.303**	ug/L	0.413	136	8534	8494	0
	Y	89		ug/L			340849	447650	1
	Kr	83		ug/L			580	984	1
>	In	115		ug/L			838628	861348	1
	Ag	107	**0.102**	ug/L	0 002	1	16	775	1
	Cd	111	**0.150**	ug/L	0 002	1	35	678	2
	Cd	114	**0.089**	ug/L	0.002	1	25	1037	2
	Sb	121	**0.020**	ug/L	0.001	6	18	279	5
	Sb	123	**0.021**	ug/L	0.002	8	14	224	7
>	Tb	159		ug/L			1204600	1260331	1
	Tl	205	**0.070**	ug/L	0.002	2	62	3162	1
	Pb	208	**25.140**	ug/L	0.650	2	130	1370574	1
	Bi	209		ug/L			2881698	2881093	1
	Th	232	**1.242**	ug/L	0.029	2	40	67833	1
	U	238	**0.284**	ug/L	0 007	2	2	15545	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA93 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, January 29, 2013 11:13:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59988	65598	1
	Cl	37		ug/L			3942625	4292605	2
>	Ge	72		ug/L			513172	522065	2
	Ni	60	**47.500**	ug/L	1.043	2	271	164542	1
	Ni	62	**47.977**	ug/L	0.686	1	372	24159	2
	Cu	63	**13.868**	ug/L	0.164	1	254	102065	2
	Cu	65	**14.188**	ug/L	0.240	1	35	45727	0
	Zn	66	**31.744**	ug/L	1.202	3	112	60905	1
	Zn	67	**34.895**	ug/L	1.218	3	24	11184	1
	Zn	68	**32.406**	ug/L	0.546	1	176	45225	0
	As	75	**4.060**	ug/L	0.125	3	332	7761	2
	As-1	75	**3.911**	ug/L	0.219	5	8415	15677	1
	Se	82	**-0.014**	ug/L	0.089	621	7	5	315
	Se	78	**-0.381**	ug/L	0.426	111	8534	8497	1
	Y	89		ug/L			340849	455859	1
	Kr	83		ug/L			580	752	3
>	In	115		ug/L			838628	865744	3
	Ag	107	**0.056**	ug/L	0.035	61	16	441	62
	Cd	111	**0.135**	ug/L	0.043	31	35	620	33
	Cd	114	**0.090**	ug/L	0.032	35	25	1056	37
	Sb	121	**0.021**	ug/L	0.020	97	18	303	94
	Sb	123	**0.019**	ug/L	0 020	105	14	216	101
>	Tb	159		ug/L			1204600	1258100	3
	Tl	205	**0.048**	ug/L	0.014	28	62	2192	31
	Pb	208	**3.017**	ug/L	0.081	2	130	164259	1
	Bi	209		ug/L			2881698	2878957	1
	Th	232	**0.882**	ug/L	0.021	2	40	48088	1
	U	238	**0.186**	ug/L	0.005	2	2	10201	6

#1-29-13

93

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA92 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, January 29, 2013 11:17:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			59988	64498	2
	Cl	37		ug/L			3942625	4187385	1
>	Ge	72		ug/L			513172	544848	3
	Ni	60	26.117	ug/L	1.224	4	271	94455	0
	Ni	62	27.192	ug/L	1.331	4	372	14443	0
	Cu	63	26.640	ug/L	1.295	4	254	204120	1
	Cu	65	26.476	ug/L	0.898	3	35	88973	1
	Zn	66	83.295	ug/L	3.756	4	112	166500	1
	Zn	67	77.302	ug/L	4.632	5	24	25799	2
	Zn	68	82.178	ug/L	3.865	4	176	119281	0
	As	75	25.092	ug/L	0.877	3	332	48209	0
	As-1	75	24.555	ug/L	1.153	4	8415	55539	0
	Se	82	81.315	ug/L	2.779	3	7	16000	0
	Se	78	78.585	ug/L	3.874	4	8534	48440	0
	Y	89		ug/L			340849	363638	2
	Kr	83		ug/L			580	629	2
>	In	115		ug/L			838628	896188	0
	Ag	107	25.670	ug/L	1.474	5	16	198282	4
	Cd	111	25.497	ug/L	0.587	2	35	113603	1
	Cd	114	24.897	ug/L	0.313	1	25	293866	0
	Sb	121	0.007	ug/L	0.001	12	18	120	9
	Sb	123	0.008	ug/L	0.002	28	14	94	23
>	Tb	159		ug/L			1204600	1265148	1
	Tl	205	23.824	ug/L	0.281	1	62	1056013	0
	Pb	208	25.096	ug/L	0.444	1	130	1373485	0
	Bi	209		ug/L			2881698	2998377	1
	Th	232	21.923	ug/L	0.472	2	40	1201226	0
	U	238	22.137	ug/L	0.531	2	2	1217467	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 11:21:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59988	59565	2
	Cl	37		ug/L			3942625	4246044	2
>	Ge	72		ug/L			513172	514814	1
	Ni	60	49.470	ug/L	0.927	1	271	169012	2
	Ni	62	50.133	ug/L	0.675	1	372	24880	2
	Cu	63	49.526	ug/L	1.007	2	254	358790	2
	Cu	65	49.991	ug/L	1.293	2	35	158831	3
	Zn	66	48.852	ug/L	1.878	3	112	92381	2
	Zn	67	50.020	ug/L	0.907	1	24	15805	1
	Zn	68	49.220	ug/L	0.629	1	176	67652	1
	As	75	49.085	ug/L	0.814	1	332	88858	0
	As-1	75	49.020	ug/L	0.768	1	8415	96446	0
	Se	82	50.530	ug/L	0.645	1	7	9405	0
	Se	78	49.354	ug/L	0.634	1	8534	31956	0
	Y	89		ug/L			340849	335167	2
	Kr	83		ug/L			580	642	2
>	In	115		ug/L			838628	850074	2
	Ag	107	49.336	ug/L	2.204	4	16	361337	2
	Cd	111	50.225	ug/L	0.937	1	35	212181	0
	Cd	114	50.098	ug/L	1.223	2	25	560671	0
	Sb	121	49.386	ug/L	2.160	4	18	640666	1
	Sb	123	48.820	ug/L	2.041	4	14	485788	1
>	Tb	159		ug/L			1204600	1225595	1
	Tl	205	44.763	ug/L	1.260	2	62	1921612	1
	Pb	208	47.270	ug/L	0.818	1	130	2505971	0
	Bi	209		ug/L			2881698	2822933	3
	Th	232	50.348	ug/L	1 072	2	40	2672350	0
	U	238	50.452	ug/L	1.471	2	2	2687552	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, January 29, 2013 11:28:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\012913.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59988	60821	1
	Cl	37		ug/L			3942625	4223633	0
>	Ge	72		ug/L			513172	525498	1
	Ni	60	-0.020	ug/L	0.002	9	271	209	5
	Ni	62	1.584	ug/L	0.086	5	372	1172	5
	Cu	63	0.066	ug/L	0.005	7	254	750	3
	Cu	65	0.005	ug/L	0.002	38	35	53	10
	Zn	66	0.033	ug/L	0.006	18	112	177	4
	Zn	67	0.014	ug/L	0.016	113	24	29	15
	Zn	68	0.040	ug/L	0.005	12	176	237	4
	As	75	0.031	ug/L	0.016	52	332	397	8
	As-1	75	-0.159	ug/L	0.111	69	8415	8323	1
	Se	82	-0.023	ug/L	0 077	334	7	3	399
	Se	78	-0.686	ug/L	0.426	62	8534	8405	1
	Y	89		ug/L			340849	335927	1
	Kr	83		ug/L			580	628	1
>	In	115		ug/L			838628	869546	1
	Ag	107	0.003	ug/L	0.001	36	16	43	20
	Cd	111	0.009	ug/L	0 003	38	35	75	18
	Cd	114	0.001	ug/L	0.001	48	25	39	14
	Sb	121	0.032	ug/L	0.004	12	18	438	10
	Sb	123	0.031	ug/L	0.004	12	14	325	10
>	Tb	159		ug/L			1204600	1210518	1
	Tl	205	0.005	ug/L	0.001	22	62	271	15
	Pb	208	0.002	ug/L	0.001	28	130	230	10
	Bi	209		ug/L			2881698	2920397	1
	Th	232	0.121	ug/L	0.030	25	40	6354	24
	U	238	0.001	ug/L	0.000	9	2	69	7

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 2-1-13 **Analyst:** [illegible] **Page:** ~~X~~ 1 **of** 2

All corrections made by analyst unless otherwise noted. 2-1-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD0			3009-9
		1			
		2			
		3			
		4			3010-2
		5			
		Rinse Sample			
		ICV			
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			Cd low
		ICSAB			^{62}Ni high
		LR200			
		B1			
		B2			
		CCV2			
		CCB2			
		WB85 MB1	SWN	20	
	—	WA66 K	REW	5	RR 4/10
WB		WB ~~WA85~~ A-L	SWN	100	
		WB85 A			
	✓	" ADup			RR NOISY

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 2-1-13 **Analyst:** AA **Page:** 2 **of** 2

All corrections made by analyst unless otherwise noted. AA 2-1-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
WB	OK	WB85 Aspk	SUN	20	~~noisy RR~~
222		ZZZZZ ~~APSST~~		↓	
	✓	Refl		50	noisy RR
	✓	MBispk		20	↓
		CCV3			Th ↑
		CCB 3			^{62}Ni ↓
		WA66 K	REN	10	
		ADup		20	
	✓	Aspk		↓	noisy use previous dog ?
	✓	Refl		50	noisy RR
	✓	MBispk		20	Flush sample probe ↓
		refl		50	✓
		MBispk		20	✓
		CCV4			
		CCB4			^{62}Ni ↓
		AA 2-1-13			

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Friday, February 01, 2013 10:14:30
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File. C:\NexION Data\Dataset\Default\Daily Performance Check.1782
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default dac
Dual Detector Mode: Pulse

Acq Dead Time (ns): 60
Current Dead Time (ns): 60

Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	3044.6	3044.623	42.978	1.4	Standard
	Mg	24.0	22209.3	22209.292	259.411	1.2	Standard
	In	114.9	49476.4	49476.377	261.713	0.5	Standard
	Pb	208.0	22824.3	22824.285	295.750	1.3	Standard
	U	238.1	36006.0	36006.025	375.729	1.0	Standard
[	CeO	155.9	868.6	0.015	0.000	2.2	Standard
| >	Ce	139.9	58536.9	58536.875	122.841	0.2	Standard
L	Ce++	70.0	358.2	0.006	0.000	1.1	Standard
	Bkgd	220.0	0.0	0.033	0.075	223.6	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

WA66 00251

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 2/1/2013 10:19:27 AM
End Time: 2/1/2013 10:20:17 AM

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
-1.10 mm	1.86 mm	62088.44

WA66 : 00252

SmartTune Wizard - Summary

)ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 2/1/2013 10:20:28 AM
nd Time: 2/1/2013 10:22:40 AM

ass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/6.925), Target/Obtained resolution (0.7/0.693)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.708)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.702)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.695)

WA66 00253

SmartTune Wizard - Summary

)ptimization Summary

;martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

,tart Time: 2/1/2013 10:23:54 AM
:nd Time: 2/1/2013 10:28:05 AM

\utoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.996; Intercept = -11.54

WA66 00254

SmartTune Wizard - Details

```
ptimization Details

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

ptimization Status

tart Time: 2/1/2013 10:30:03 AM

aily Performance Check
        Optimization Settings:
                Method: C:\NexIONData\Method\Daily Performancenew.mth.
                Intensity Criterion: Be 9.0122 > 3000
                Intensity Criterion: Mg 23.985 > 20000
                Intensity Criterion: In 114.904 > 50000
                Intensity Criterion: Pb 207.977 > 20000
                Intensity Criterion: U 238.05 > 40000
                Intensity Criterion: Bkgd 220 <= 5
                Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
                Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

        Optimization Results:
        Initial Try
                Obtained Intensity (Be 9.0122): 3590.04
                Obtained Intensity (Mg 23.985): 28189.74
                Obtained Intensity (In 114.904): 61615.42
                Obtained Intensity (Pb 207.977): 29347.59
                Obtained Intensity (U 238.05): 46912.28
                Obtained Intensity (Bkgd 220): 0.10
                Obtained Formula (CeO 155.9 / Ce 139.905): 0.017 (=1178.22 / 70416.46)
                Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.008 (=554.82 / 70416.46)
[Passed]  Optimum value(s): N/A

nd Time: 2/1/2013 10:32:38 AM
```


WA66 00255

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 11:10:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		ug/L				45844	0
Cl	37		ug/L				4367465	0
> Ge	72		ug/L				487325	0
Ni	60		ug/L				31	19
Ni	62		ug/L				732	5
Cu	63		ug/L				510	4
Cu	65		ug/L				38	20
Zn	66		ug/L				159	12
Zn	67		ug/L				33	25
Zn	68		ug/L				201	5
As	75		ug/L				180	9
As-1	75		ug/L				6630	1
Se	82		ug/L				8	89
Se	78		ug/L				6771	1
Y	89		ug/L				300256	0
Kr	83		ug/L				408	4
> In	115		ug/L				797557	1
Ag	107		ug/L				19	5
Cd	111		ug/L				72	15
Cd	114		ug/L				23	11
Sb	121		ug/L				18	22
Sb	123		ug/L				14	24
> Tb	159		ug/L				1082195	1
Tl	205		ug/L				49	6
Pb	208		ug/L				115	10
Bi	209		ug/L				2090241	0
Th	232		ug/L				12	18
U	238		ug/L				0	173

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 11:14:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas Intens	Intens. RSD
	C	13		ug/L			45844	49144	1
	Cl	37		ug/L			4367465	4440294	1
>	Ge	72		ug/L			487325	499203	3
	Ni	60	0.500	ug/L	0 012	2	31	1600	2
	Ni	62	0.500	ug/L	0.156	31	732	906	2
	Cu	63	0.500	ug/L	0.029	5	510	3911	4
	Cu	65	0.500	ug/L	0.009	1	38	1594	2
	Zn	66	4.000	ug/L	0.211	5	159	7711	3
	Zn	67	4.000	ug/L	0.388	9	33	1159	6
	Zn	68	4.000	ug/L	0.111	2	201	5444	0
	As	75	0.200	ug/L	0.026	13	180	491	8
	As-1	75	0.200	ug/L	0.206	102	6630	6955	0
	Se	82	0.500	ug/L	0.031	6	8	86	3
	Se	78	0.500	ug/L	1.264	252	6771	7006	0
	Y	89		ug/L			300256	302658	1
	Kr	83		ug/L			408	437	6
>	In	115		ug/L			797557	797201	2
	Ag	107	0.200	ug/L	0.004	2	19	1485	0
	Cd	111	0.100	ug/L	0.005	5	72	503	5
	Cd	114	0.100	ug/L	0.005	5	23	1090	2
	Sb	121	0.200	ug/L	0.002	1	18	2130	2
	Sb	123	0.200	ug/L	0.004	1	14	1631	1
>	Tb	159		ug/L			1082195	1082325	0
	Tl	205	0.200	ug/L	0.001	0	49	6446	0
	Pb	208	0.100	ug/L	0.002	1	115	4487	1
	Bi	209		ug/L			2090241	2104605	1
	Th	232	0.200	ug/L	0 005	2	12	6530	2
	U	238	0.200	ug/L	0.001	0	0	7299	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 11:17:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	48526	4
	Cl	37		ug/L			4367465	4564446	1
>	Ge	72		ug/L			487325	499879	3
	Ni	60	10.000	ug/L	0.071	0	31	31724	3
	Ni	62	10.008	ug/L	0.182	1	732	5259	2
	Cu	63	10.000	ug/L	0.240	2	510	68301	0
	Cu	65	10.000	ug/L	0.230	2	38	31459	0
	Zn	66	10.011	ug/L	0.184	1	159	19224	1
	Zn	67	10.118	ug/L	0.629	6	33	3116	5
	Zn	68	10.036	ug/L	0.308	3	201	13668	0
	As	75	10.000	ug/L	0.389	3	180	16331	1
	As-1	75	10.002	ug/L	0.489	4	6630	23245	1
	Se	82	10.002	ug/L	0.307	3	8	1718	1
	Se	78	10.017	ug/L	0.655	6	6771	11574	0
	Y	89		ug/L			300256	303974	1
	Kr	83		ug/L			408	405	7
>	In	115		ug/L			797557	803358	0
	Ag	107	10.000	ug/L	0.047	0	19	75956	0
	Cd	111	10.000	ug/L	0.235	2	72	41675	2
	Cd	114	10.000	ug/L	0.190	1	23	103045	1
	Sb	121	10.000	ug/L	0.025	0	18	112458	0
	Sb	123	10.000	ug/L	0.110	1	14	85464	1
>	Tb	159		ug/L			1082195	1101133	0
	Tl	205	10.000	ug/L	0.046	0	49	316190	0
	Pb	208	10.000	ug/L	0.106	1	115	416534	0
	Bi	209		ug/L			2090241	2134195	0
	Th	232	10.000	ug/L	0.056	0	12	347542	0
	U	238	10.000	ug/L	0.196	1	0	367792	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 11:21:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			45844	48435	3
	Cl	37		ug/L			4367465	4555495	2
>	Ge	72		ug/L			487325	500419	3
	Ni	60	20.020	ug/L	0.546	2	31	63775	2
	Ni	62	19.990	ug/L	0.772	3	732	9744	0
	Cu	63	19.962	ug/L	0.402	2	510	134958	2
	Cu	65	19.877	ug/L	1.331	6	38	61005	3
	Zn	66	20.041	ug/L	0.628	3	159	38616	0
	Zn	67	20.145	ug/L	0.587	2	33	6333	1
	Zn	68	19.958	ug/L	0.667	3	201	26812	0
	As	75	19.990	ug/L	0.644	3	180	32435	0
	As-1	75	19.973	ug/L	0.849	4	6630	39501	0
	Se	82	19.976	ug/L	0.370	1	8	3410	1
	Se	78	19.922	ug/L	1.104	5	6771	16027	0
	Y	89		ug/L			300256	309430	1
	Kr	83		ug/L			408	409	3
>	In	115		ug/L			797557	802847	1
	Ag	107	20.022	ug/L	0.229	1	19	152637	0
	Cd	111	20.002	ug/L	0.045	0	72	83266	1
	Cd	114	19.978	ug/L	0.320	1	23	204808	1
	Sb	121	19.998	ug/L	0.261	1	18	224605	0
	Sb	123	20.011	ug/L	0.271	1	14	171265	0
>	Tb	159		ug/L			1082195	1106087	2
	Tl	205	19.976	ug/L	0.438	2	49	631171	1
	Pb	208	19.975	ug/L	0.517	2	115	831195	0
	Bi	209		ug/L			2090241	2131947	2
	Th	232	20.071	ug/L	0.802	3	12	710225	1
	U	238	20.056	ug/L	0.307	1	0	749197	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 11:25:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas Intens.	Intens. RSD
	C	13		ug/L			45844	46189	4
	Cl	37		ug/L			4367465	4677060	1
>	Ge	72		ug/L			487325	498226	1
	Ni	60	49.664	ug/L	1.166	2	31	152378	1
	Ni	62	49.707	ug/L	0 463	0	732	22395	1
	Cu	63	49.733	ug/L	1 314	2	510	325337	1
	Cu	65	49.642	ug/L	1.536	3	38	146552	1
	Zn	66	49.582	ug/L	0.995	2	159	91234	0
	Zn	67	49.781	ug/L	0.810	1	33	15215	1
	Zn	68	49.712	ug/L	1.071	2	201	64423	0
	As	75	49.853	ug/L	1.029	2	180	79141	1
	As-1	75	49.924	ug/L	1.107	2	6630	87581	1
	Se	82	49.821	ug/L	0 921	1	8	8309	1
	Se	78	50.088	ug/L	1 222	2	6771	29861	0
	Y	89		ug/L			300256	302463	1
	Kr	83		ug/L			408	439	5
>	In	115		ug/L			797557	794580	0
	Ag	107	49.735	ug/L	0.822	1	19	365536	1
	Cd	111	49.678	ug/L	1.443	2	72	198153	2
	Cd	114	49.887	ug/L	0.699	1	23	500435	0
	Sb	121	49.771	ug/L	0.620	1	18	540873	0
	Sb	123	49.845	ug/L	0 651	1	14	415741	0
>	Tb	159		ug/L			1082195	1080450	0
	Tl	205	49.997	ug/L	0.663	1	49	1542928	1
	Pb	208	49.963	ug/L	0.516	1	115	2023939	0
	Bi	209		ug/L			2090241	2074672	0
	Th	232	50.116	ug/L	0.823	1	12	1753728	1
	U	238	49.966	ug/L	0 469	0	0	1817420	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 11:30:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			45844	49124	2
	Cl	37		ug/L			4367465	4694820	1
>	Ge	72		ug/L			487325	481355	1
	Ni	60	99.989	ug/L	1.730	1	31	296277	0
	Ni	62	101.014	ug/L	3.456	3	732	44699	2
	Cu	63	99.970	ug/L	1.208	1	510	630880	1
	Cu	65	100.056	ug/L	0.885	0	38	285968	1
	Zn	66	99.758	ug/L	0.097	0	159	175819	1
	Zn	67	100.170	ug/L	0.490	0	33	29716	1
	Zn	68	100.018	ug/L	1.193	1	201	125151	2
	As	75	100.112	ug/L	1.310	1	180	153954	0
	As-1	75	100.296	ug/L	1.425	1	6630	164968	0
	Se	82	99.738	ug/L	1.003	1	8	15926	1
	Se	78	100.435	ug/L	0 678	0	6771	51790	1
	Y	89		ug/L			300256	291884	1
	Kr	83		ug/L			408	460	6
>	In	115		ug/L			797557	784137	0
	Ag	107	99.284	ug/L	2.723	2	19	703407	3
	Cd	111	99.821	ug/L	1 537	1	72	390604	1
	Cd	114	99.929	ug/L	0 676	0	23	986987	1
	Sb	121	100.254	ug/L	1 011	1	18	1084336	0
	Sb	123	100.152	ug/L	1.142	1	14	828589	0
>	Tb	159		ug/L			1082195	1082614	1
	Tl	205	98.043	ug/L	1.685	1	49	2845619	0
	Pb	208	98.725	ug/L	1 518	1	115	3843432	0
	Bi	209		ug/L			2090241	2001902	1
	Th	232	98.640	ug/L	2.836	2	12	3307845	1
	U	238	98.483	ug/L	0.960	0	0	3416192	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 11:37:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas Intens	Intens RSD
C	13		ug/L			45844	45260	3
Cl	37		ug/L			4367465	4573240	3
> Ge	72		ug/L			487325	502437	0
Ni	60	-0.000	ug/L	0.003	688	31	31	28
Ni	62	-0.064	ug/L	0.042	64	732	725	2
Cu	63	-0.001	ug/L	0.002	134	510	517	1
Cu	65	0.002	ug/L	0.002	69	38	46	9
Zn	66	0.277	ug/L	0.007	2	159	673	1
Zn	67	0.234	ug/L	0.012	5	33	107	3
Zn	68	0.255	ug/L	0.025	9	201	539	5
As	75	0.001	ug/L	0.011	1676	180	187	9
As-1	75	-0.134	ug/L	0.017	12	6630	6615	0
Se	82	-0.005	ug/L	0.013	249	8	7	28
Se	78	-0.491	ug/L	0.077	15	6771	6751	0
Y	89		ug/L			300256	300100	0
Kr	83		ug/L			408	411	1
> In	115		ug/L			797557	810665	1
Ag	107	0.003	ug/L	0.001	35	19	42	19
Cd	111	0.005	ug/L	0.000	2	72	96	0
Cd	114	0.002	ug/L	0.000	5	23	40	3
Sb	121	0.029	ug/L	0.004	15	18	345	13
Sb	123	0.030	ug/L	0.006	19	14	267	17
> Tb	159		ug/L			1082195	1084155	0
Tl	205	0.008	ug/L	0.001	12	49	291	9
Pb	208	0.002	ug/L	0.001	32	115	184	11
Bi	209		ug/L			2090241	2105966	0
Th	232	0.042	ug/L	0.006	13	12	1419	12
U	238	0.002	ug/L	0.000	9	0	63	8

Sample Information

Sample Date/Time: Friday, February 01, 2013 11:30:51
Method File: C:\NexION Data\Method\200.8GFA+.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Ge	72							
Ni	60	**1.0000**	0.006	0.50	10	20	50	100
Ni	62	**0.9998**	0.001	0.50	10	20	50	100
Cu	63	**1.0000**	0.013	0.50	10	20	50	100
Cu	65	**1.0000**	0.006	0.50	10	20	50	100
Zn	66	**1.0000**	0.004	4.00	10	20	50	100
Zn	67	**1.0000**	0.001	4.00	10	20	50	100
Zn	68	**1.0000**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9999**	0.000	0.50	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**0.9999**	0.009	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.013	0.10	10	20	50	100
Sb	121	**1.0000**	0.014	0.20	10	20	50	100
Sb	123	**1.0000**	0.011	0.20	10	20	50	100
Tb	159							
Tl	205	**0.9994**	0.027	0.20	10	20	50	100
Pb	208	**0.9997**	0.036	0.10	10	20	50	100
Bi	209							
Th	232	**0.9997**	0.031	0.20	10	20	50	100
U	238	**0.9996**	0.032	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 11:45:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	53814	1
	Cl	37		ug/L			4367465	4642667	1
>	Ge	72		ug/L			487325	490215	0
	Ni	60	52.198	ug/L	0.437	0	31	157552	0
	Ni	62	51.251	ug/L	1.220	2	732	23464	2
	Cu	63	51.180	ug/L	0.229	0	510	329182	0
	Cu	65	51.674	ug/L	0.064	0	38	150432	0
	Zn	66	50.223	ug/L	1.783	3	159	90222	3
	Zn	67	50.029	ug/L	0.697	1	33	15133	2
	Zn	68	51.169	ug/L	0.530	1	201	65295	1
	As	75	50.067	ug/L	0.590	1	180	78514	1
	As-1	75	50.915	ug/L	0.866	1	6630	88580	1
	Se	82	80.972	ug/L	0.267	0	8	12967	0
	Se	78	79.808	ug/L	1.547	1	6771	43304	1
	Y	89		ug/L			300256	295943	0
	Kr	83		ug/L			408	426	2
>	In	115		ug/L			797557	797285	0
	Ag	107	52.591	ug/L	1.898	3	19	378820	3
	Cd	111	50.051	ug/L	0.825	1	72	199152	1
	Cd	114	50.067	ug/L	0.702	1	23	502779	1
	Sb	121	50.452	ug/L	0.496	0	18	554840	0
	Sb	123	48.943	ug/L	0.282	0	14	411722	0
>	Tb	159		ug/L			1082195	1084929	0
	Tl	205	54.200	ug/L	0.566	1	49	1576723	0
	Pb	208	52.712	ug/L	0.291	0	115	2056918	1
	Bi	209		ug/L			2090241	2058744	1
	Th	232	54.640	ug/L	0.214	0	12	1836827	1
	U	238	54.597	ug/L	0.316	0	0	1898140	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 11:51:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	46925	0
	Cl	37		ug/L			4367465	4467868	1
>	Ge	72		ug/L			487325	487342	0
	Ni	60	-0.001	ug/L	0.001	60	31	27	8
	Ni	62	-0.368	ug/L	0.083	22	732	569	6
	Cu	63	-0.013	ug/L	0.006	50	510	430	9
	Cu	65	0.004	ug/L	0.004	85	38	50	20
	Zn	66	0.432	ug/L	0.030	6	159	929	5
	Zn	67	0.323	ug/L	0.037	11	33	130	8
	Zn	68	0.404	ug/L	0.038	9	201	711	6
	As	75	-0.005	ug/L	0.025	478	180	172	22
	As-1	75	-0.094	ug/L	0.037	39	6630	6480	0
	Se	82	-0.054	ug/L	0.067	124	8	0	3920
	Se	78	-0.362	ug/L	0.129	35	6771	6607	0
	Y	89		ug/L			300256	290696	2
	Kr	83		ug/L			408	406	3
>	In	115		ug/L			797557	780590	1
	Ag	107	0.002	ug/L	0.001	24	19	35	11
	Cd	111	0.004	ug/L	0.003	78	72	86	12
	Cd	114	0.001	ug/L	0.001	83	23	32	22
	Sb	121	0.009	ug/L	0.003	30	18	110	26
	Sb	123	0.009	ug/L	0.001	7	14	88	7
>	Tb	159		ug/L			1082195	1054417	1
	Tl	205	0.003	ug/L	0.000	16	49	132	11
	Pb	208	0.001	ug/L	0.000	9	115	167	3
	Bi	209		ug/L			2090241	2070577	0
	Th	232	0.029	ug/L	0.004	12	12	956	13
	U	238	0.001	ug/L	0.000	38	0	33	39

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 11:55:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	45606	2
	Cl	37		ug/L			4367465	4644329	1
>	Ge	72		ug/L			487325	495661	2
	Ni	60	49.962	ug/L	0.814	1	31	152442	1
	Ni	62	48.293	ug/L	1.117	2	732	22392	0
	Cu	63	48.582	ug/L	1.731	3	510	315844	2
	Cu	65	49.770	ug/L	1.702	3	38	146419	1
	Zn	66	49.349	ug/L	1.752	3	159	89603	2
	Zn	67	50.199	ug/L	1.501	2	33	15344	0
	Zn	68	50.689	ug/L	1.137	2	201	65379	0
	As	75	49.577	ug/L	0.769	1	180	78595	1
	As-1	75	49.579	ug/L	1.194	2	6630	87364	1
	Se	82	50.709	ug/L	0.860	1	8	8212	1
	Se	78	49.916	ug/L	2.487	4	6771	29947	1
	Y	89		ug/L			300256	296587	0
	Kr	83		ug/L			408	443	5
>	In	115		ug/L			797557	789925	0
	Ag	107	49.495	ug/L	0.692	1	19	353237	1
	Cd	111	50.045	ug/L	0.172	0	72	197301	1
	Cd	114	50.147	ug/L	0.387	0	23	498942	0
	Sb	121	49.868	ug/L	0.745	1	18	543332	0
	Sb	123	49.576	ug/L	1.137	2	14	413155	1
>	Tb	159		ug/L			1082195	1071520	1
	Tl	205	52.898	ug/L	1.000	1	49	1519677	0
	Pb	208	51.819	ug/L	0.947	1	115	1996781	0
	Bi	209		ug/L			2090241	2050104	0
	Th	232	52.987	ug/L	1.608	3	12	1759025	2
	U	238	53.201	ug/L	1.044	1	0	1826503	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 12:01:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			45844	45021	2
	Cl	37		ug/L			4367465	4428898	1
>	Ge	72		ug/L			487325	486374	1
	Ni	60	-0.002	ug/L	0.002	115	31	25	31
	Ni	62	-0.393	ug/L	0.030	7	732	557	1
	Cu	63	-0.014	ug/L	0.003	22	510	419	3
	Cu	65	0.003	ug/L	0.002	59	38	46	11
	Zn	66	0.400	ug/L	0.021	5	159	872	5
	Zn	67	0.354	ug/L	0.061	17	33	139	11
	Zn	68	0.375	ug/L	0.037	9	201	673	5
	As	75	-0.009	ug/L	0.019	219	180	166	16
	As-1	75	-0.129	ug/L	0.029	22	6630	6411	0
	Se	82	-0.037	ug/L	0.013	35	8	2	88
	Se	78	-0.447	ug/L	0.085	18	6771	6555	1
	Y	89		ug/L			300256	292734	1
	Kr	83		ug/L			408	412	1
>	In	115		ug/L			797557	788102	1
	Ag	107	0.002	ug/L	0.000	13	19	33	6
	Cd	111	0.007	ug/L	0.002	30	72	100	8
	Cd	114	0.002	ug/L	0.001	91	23	38	34
	Sb	121	0.020	ug/L	0.005	25	18	232	23
	Sb	123	0.020	ug/L	0.005	23	14	179	22
>	Tb	159		ug/L			1082195	1041894	0
	Tl	205	0.004	ug/L	0.001	11	49	173	7
	Pb	208	0.002	ug/L	0.001	32	115	183	12
	Bi	209		ug/L			2090241	2072861	2
	Th	232	0.036	ug/L	0.006	15	12	1166	15
	U	238	0.002	ug/L	0.001	55	0	59	54

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 12:05:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	48633	1
	Cl	37		ug/L			4367465	4438868	0
>	Ge	72		ug/L			487325	501028	2
	Ni	60	0.505	ug/L	0.016	3	31	1588	0
	Ni	62	0.068	ug/L	0.028	41	732	783	3
	Cu	63	0.489	ug/L	0.007	1	510	3736	2
	Cu	65	0.503	ug/L	0.030	5	38	1537	6
	Zn	66	4.050	ug/L	0.121	2	159	7583	0
	Zn	67	3.465	ug/L	0.143	4	33	1103	4
	Zn	68	4.011	ug/L	0.084	2	201	5420	0
	As	75	0.188	ug/L	0.017	8	180	485	4
	As-1	75	0.049	ug/L	0.092	189	6630	6894	0
	Se	82	0.511	ug/L	0.078	15	8	92	15
	Se	78	-0.029	ug/L	0.292	1004	6771	6946	0
	Y	89		ug/L			300256	302710	0
	Kr	83		ug/L			408	411	4
>	In	115		ug/L			797557	785885	1
	Ag	107	0.208	ug/L	0.011	5	19	1496	5
	Cd	111	0.109	ug/L	0.008	7	72	497	4
	Cd	114	0.104	ug/L	0.003	3	23	1048	3
	Sb	121	0.199	ug/L	0.006	2	18	2176	2
	Sb	123	0.207	ug/L	0.004	1	14	1726	0
>	Tb	159		ug/L			1082195	1064348	0
	Tl	205	0.221	ug/L	0.001	0	49	6351	0
	Pb	208	0.109	ug/L	0.003	2	115	4272	2
	Bi	209		ug/L			2090241	2084676	1
	Th	232	0.213	ug/L	0.005	2	12	7036	2
	U	238	0.214	ug/L	0.005	2	0	7310	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 12:08:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			45844	128037	0
	Cl	37		ug/L			4367465	10887045	3
>	Ge	72		ug/L			487325	520473	3
	Ni	60	0.450	ug/L	0.007	1	31	1475	2
	Ni	62	10.265	ug/L	0.985	9	732	5623	11
	Cu	63	1.475	ug/L	0.105	7	510	10617	9
	Cu	65	0.488	ug/L	0.011	2	38	1550	2
	Zn	66	1.094	ug/L	0.042	3	159	2251	0
	Zn	67	5.174	ug/L	0.175	3	33	1695	6
	Zn	68	0.417	ug/L	0.039	9	201	776	3
	As	75	0.054	ug/L	0.042	78	180	280	21
	As-1	75	0.291	ug/L	0.142	48	6630	7573	0
	Se	82	-0.314	ug/L	0.057	18	8	-44	21
	Se	78	0.944	ug/L	0.410	43	6771	7686	1
	Y	89		ug/L			300256	320890	2
	Kr	83		ug/L			408	672	3
>	In	115		ug/L			797557	826653	0
	Ag	107	0.019	ug/L	0.000	1	19	162	1
	Cd	111	0.251	ug/L	0.022	8	72	1110	8
	Cd	114	0.390	ug/L	0.008	2	23	4087	1
	Sb	121	0.067	ug/L	0.001	1	18	781	2
	Sb	123	0.065	ug/L	0 004	5	14	577	5
>	Tb	159		ug/L			1082195	1141075	1
	Tl	205	0.038	ug/L	0.003	7	49	1229	5
	Pb	208	0.032	ug/L	0.002	5	115	1440	2
	Bi	209		ug/L			2090241	2044481	1
	Th	232	0.048	ug/L	0.014	30	12	1700	28
	U	238	0.001	ug/L	0.000	12	0	21	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 12:14:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	133772	4
	Cl	37		ug/L			4367465	11517537	4
>	Ge	72		ug/L			487325	524217	1
	Ni	60	20.286	ug/L	0.557	2	31	65482	1
	Ni	62	26.855	ug/L	0.740	2	732	13526	4
	Cu	63	20.858	ug/L	0.342	1	510	143798	2
	Cu	65	19.969	ug/L	0.150	0	38	62190	1
	Zn	66	20.017	ug/L	0.328	1	159	38551	1
	Zn	67	21.788	ug/L	0.529	2	33	7065	0
	Zn	68	18.640	ug/L	0.454	2	201	25566	1
	As	75	20.404	ug/L	0.329	1	180	34325	1
	As-1	75	19.984	ug/L	0.369	1	6630	41507	1
	Se	82	-0.291	ug/L	0.042	14	8	-40	18
	Se	78	0.610	ug/L	0.187	30	6771	7581	0
	Y	89		ug/L			300256	325777	3
	Kr	83		ug/L			408	668	4
>	In	115		ug/L			797557	861286	1
	Ag	107	20.166	ug/L	0.456	2	19	156895	0
	Cd	111	19.839	ug/L	0.136	0	72	85324	1
	Cd	114	19.753	ug/L	0.227	1	23	214283	0
	Sb	121	0.063	ug/L	0.002	3	18	765	3
	Sb	123	0.062	ug/L	0.003	5	14	578	5
>	Tb	159		ug/L			1082195	1184267	0
	Tl	205	0.035	ug/L	0.001	1	49	1156	0
	Pb	208	0.034	ug/L	0.000	1	115	1563	1
	Bi	209		ug/L			2090241	2077891	0
	Th	232	0.023	ug/L	0.005	19	12	849	18
	U	238	0.000	ug/L	0.000	18	0	17	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 12:20:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			45844	55336	3
	Cl	37		ug/L			4367465	5036299	1
>	Ge	72		ug/L			487325	477583	2
	Ni	60	203.084	ug/L	7.253	3	31	596840	2
	Ni	62	203.288	ug/L	4.489	2	732	88523	1
	Cu	63	197.549	ug/L	9.987	5	510	1235478	2
	Cu	65	199.721	ug/L	4.736	2	38	566269	2
	Zn	66	193.772	ug/L	5.914	3	159	338543	1
	Zn	67	193.487	ug/L	2.073	1	33	56916	2
	Zn	68	192.344	ug/L	6.894	3	201	238465	2
	As	75	201.698	ug/L	5.462	2	180	307473	0
	As-1	75	201.092	ug/L	5.157	2	6630	321556	1
	Se	82	202.630	ug/L	6.864	3	8	31585	0
	Se	78	197.853	ug/L	4.823	2	6771	94744	0
	Y	89		ug/L			300256	291307	1
	Kr	83		ug/L			408	620	8
>	In	115		ug/L			797557	803865	0
	Ag	107	208.265	ug/L	2.410	1	19	1512620	2
	Cd	111	199.573	ug/L	2.161	1	72	800453	1
	Cd	114	194.153	ug/L	0.603	0	23	1965784	0
	Sb	121	196.448	ug/L	0.816	0	18	2178216	0
	Sb	123	199.653	ug/L	1.887	0	14	1693271	0
>	Tb	159		ug/L			1082195	1092543	0
	Tl	205	196.643	ug/L	2.156	1	49	5760501	0
	Pb	208	195.581	ug/L	2.110	1	115	7684600	0
	Bi	209		ug/L			2090241	1969119	1
	Th	232	201.291	ug/L	3.395	1	12	6813836	1
	U	238	199.538	ug/L	1.653	0	0	6985857	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 12:27:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			45844	52457	0
	Cl	37		ug/L			4367465	4758213	0
>	Ge	72		ug/L			487325	479521	2
	Ni	60	0.086	ug/L	0.033	38	31	286	37
	Ni	62	0.265	ug/L	0.056	21	732	835	5
	Cu	63	0.076	ug/L	0.025	33	510	980	18
	Cu	65	0.060	ug/L	0.018	29	38	208	27
	Zn	66	0.893	ug/L	0.040	4	159	1722	3
	Zn	67	0.729	ug/L	0.077	10	33	248	6
	Zn	68	0.824	ug/L	0.084	10	201	1222	7
	As	75	0.009	ug/L	0.021	247	180	191	19
	As-1	75	-0.028	ug/L	0.058	203	6630	6478	1
	Se	82	0.001	ug/L	0.023	2611	8	8	46
	Se	78	-0.097	ug/L	0.300	308	6771	6617	0
	Y	89		ug/L			300256	290010	1
	Kr	83		ug/L			408	418	3
>	In	115		ug/L			797557	813254	1
	Ag	107	0.009	ug/L	0.004	41	19	82	30
	Cd	111	0.013	ug/L	0.008	61	72	128	24
	Cd	114	0.006	ug/L	0.002	29	23	83	19
	Sb	121	0.048	ug/L	0.035	72	18	559	69
	Sb	123	0.058	ug/L	0.050	86	14	508	83
>	Tb	159		ug/L			1082195	1070138	1
	Tl	205	0.046	ug/L	0.060	129	49	1395	125
	Pb	208	0.051	ug/L	0.050	98	115	2095	94
	Bi	209		ug/L			2090241	2119292	0
	Th	232	0.066	ug/L	0.044	66	12	2203	67
	U	238	0.023	ug/L	0.036	152	0	812	152

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 12:31:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	51797	0
	Cl	37		ug/L			4367465	4558160	1
>	Ge	72		ug/L			487325	486916	0
	Ni	60	0.084	ug/L	0.004	5	31	283	4
	Ni	62	0.086	ug/L	0.036	42	732	769	1
	Cu	63	0.062	ug/L	0.009	14	510	904	5
	Cu	65	0.064	ug/L	0.007	10	38	224	8
	Zn	66	1.389	ug/L	0.040	2	159	2633	2
	Zn	67	1.161	ug/L	0.075	6	33	381	6
	Zn	68	1.385	ug/L	0.049	3	201	1951	3
	As	75	-0.006	ug/L	0.019	323	180	170	17
	As-1	75	-0.136	ug/L	0.028	20	6630	6408	0
	Se	82	-0.089	ug/L	0.009	10	8	-5	23
	Se	78	-0.506	ug/L	0.048	9	6771	6536	0
	Y	89		ug/L			300256	284665	2
	Kr	83		ug/L			408	423	2
>	In	115		ug/L			797557	810490	0
	Ag	107	0.003	ug/L	0.001	39	19	39	19
	Cd	111	0.009	ug/L	0.001	14	72	110	5
	Cd	114	0.005	ug/L	0.001	17	23	74	12
	Sb	121	0.013	ug/L	0.003	23	18	166	21
	Sb	123	0.014	ug/L	0.002	17	14	133	14
>	Tb	159		ug/L			1082195	1066818	1
	Tl	205	0.010	ug/L	0.000	3	49	326	2
	Pb	208	0.053	ug/L	0.002	3	115	2128	1
	Bi	209		ug/L			2090241	2121664	0
	Th	232	0.017	ug/L	0.002	9	12	581	9
	U	238	0.004	ug/L	0.000	8	0	125	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 12:36:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	50180	1
	Cl	37		ug/L			4367465	4797998	1
>	Ge	72		ug/L			487325	490555	0
	Ni	60	49.767	ug/L	1.022	2	31	150322	2
	Ni	62	48.626	ug/L	0.324	0	732	22317	1
	Cu	63	49.052	ug/L	2.014	4	510	315677	3
	Cu	65	49.618	ug/L	0.565	1	38	144542	0
	Zn	66	50.257	ug/L	1.430	2	159	90340	2
	Zn	67	49.981	ug/L	1.604	3	33	15129	3
	Zn	68	50.861	ug/L	0.962	1	201	64945	1
	As	75	49.993	ug/L	1.109	2	180	78446	1
	As-1	75	49.684	ug/L	1.141	2	6630	86657	1
	Se	82	51.349	ug/L	0.809	1	8	8231	1
	Se	78	49.432	ug/L	1.157	2	6771	29434	1
	Y	89		ug/L			300256	293493	0
	Kr	83		ug/L			408	436	6
>	In	115		ug/L			797557	796960	1
	Ag	107	52.927	ug/L	1.484	2	19	380989	1
	Cd	111	51.071	ug/L	0.626	1	72	203112	0
	Cd	114	51.237	ug/L	0.453	0	23	514301	0
	Sb	121	50.828	ug/L	0.975	1	18	558693	1
	Sb	123	50.558	ug/L	0.974	1	14	425061	0
>	Tb	159		ug/L			1082195	1089050	1
	Tl	205	52.841	ug/L	0.720	1	49	1542932	0
	Pb	208	51.884	ug/L	0.744	1	115	2032028	0
	Bi	209		ug/L			2090241	2081717	0
	Th	232	53.153	ug/L	0.730	1	12	1793484	1
	U	238	53.830	ug/L	1.135	2	0	1878255	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 12:42:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			45844	48619	2
	Cl	37		ug/L			4367465	4734213	0
>	Ge	72		ug/L			487325	481544	2
	Ni	60	**0.013**	ug/L	0.023	166	31	72	96
	Ni	62	**-0.342**	ug/L	0.038	10	732	574	2
	Cu	63	**-0.003**	ug/L	0.016	540	510	487	22
	Cu	65	**0.014**	ug/L	0.017	116	38	80	62
	Zn	66	**0.389**	ug/L	0.008	1	159	842	2
	Zn	67	**0.300**	ug/L	0.024	8	33	122	8
	Zn	68	**0.379**	ug/L	0.013	3	201	672	4
	As	75	**0.013**	ug/L	0.028	216	180	197	19
	As-1	75	**-0.092**	ug/L	0.118	128	6630	6403	1
	Se	82	**-0.062**	ug/L	0.018	28	8	-1	168
	Se	78	**-0.386**	ug/L	0.395	102	6771	6515	1
	Y	89		ug/L			300256	283057	3
	Kr	83		ug/L			408	423	5
>	In	115		ug/L			797557	806565	1
	Ag	107	**0.004**	ug/L	0.003	91	19	46	52
	Cd	111	**0.008**	ug/L	0.004	50	72	106	14
	Cd	114	**0.001**	ug/L	0.001	106	23	37	36
	Sb	121	**0.023**	ug/L	0.006	24	18	273	22
	Sb	123	**0.031**	ug/L	0.018	60	14	274	56
>	Tb	159		ug/L			1082195	1069655	1
	Tl	205	**0.034**	ug/L	0.050	147	49	1032	140
	Pb	208	**0.025**	ug/L	0.040	159	115	1096	143
	Bi	209		ug/L			2090241	2087516	0
	Th	232	**0.052**	ug/L	0.031	59	12	1735	60
	U	238	**0.017**	ug/L	0.027	160	0	584	160

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WB85 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 01, 2013 12:46:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	55318	3
	Cl	37		ug/L			4367465	4697987	1
>	Ge	72		ug/L			487325	503809	1
	Ni	60	0.007	ug/L	0.001	8	31	55	4
	Ni	62	-0.460	ug/L	0.133	28	732	546	9
	Cu	63	-0.001	ug/L	0.009	808	510	519	9
	Cu	65	0.019	ug/L	0.001	4	38	98	2
	Zn	66	0.331	ug/L	0.016	4	159	775	2
	Zn	67	0.298	ug/L	0.037	12	33	127	8
	Zn	68	0.327	ug/L	0.010	3	201	635	1
	As	75	U 0.003	ug/L	0.006	201	180	191	6
	As-1	75	-0.200	ug/L	0.070	35	6630	6523	0
	Se	82	-0.011	ug/L	0.062	575	8	6	148
	Se	78	-0.721	ug/L	0 261	36	6771	6660	0
	Y	89		ug/L			300256	299688	0
	Kr	83		ug/L			408	421	4
>	In	115		ug/L			797557	832443	0
	Ag	107	0.001	ug/L	0.000	29	19	30	10
	Cd	111	0.007	ug/L	0.001	15	72	105	4
	Cd	114	0.001	ug/L	0 000	34	23	36	11
	Sb	121	0.011	ug/L	0 001	8	18	142	8
	Sb	123	0.011	ug/L	0.002	17	14	108	14
>	Tb	159		ug/L			1082195	1094719	0
	Tl	205	0.006	ug/L	0.001	15	49	216	12
	Pb	208	0.015	ug/L	0.001	5	115	710	4
	Bi	209		ug/L			2090241	2161956	0
	Th	232	0.026	ug/L	0.004	14	12	880	14
	U	238	0.001	ug/L	0 000	21	0	30	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 K REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, February 01, 2013 12:49:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

RR 1/13

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	57138	1
	Cl	37		ug/L			4367465	4847548	1
>	Ge	72		ug/L			487325	512132	3
	Ni	60	3.124	ug/L	0.108	3	31	9875	1
	Ni	62	2.442	ug/L	0.270	11	732	1898	3
	Cu	63	0.753	ug/L	0.030	3	510	5584	1
	Cu	65	0.484	ug/L	0.032	6	38	1509	3
	Zn	66	1.435	ug/L	0.036	2	159	2854	0
	Zn	67	1.766	ug/L	0.036	2	33	592	1
	Zn	68	2.049	ug/L	0.022	1	201	2934	2
	As	75	319.747	ug/L	8.585	2	180	522552	1
	As-1	75	310.782	ug/L	8.387	2	6630	529050	1
	Se	82	1.539	ug/L	0.181	11	8	265	8
	Se	78	0.755	ug/L	0.314	41	6771	7474	1
	Y	89		ug/L			300256	308828	1
	Kr	83		ug/L			408	409	2
>	In	115		ug/L			797557	839405	2
	Ag	107	0.002	ug/L	0.001	72	19	33	31
	Cd	111	0.068	ug/L	0.008	11	72	361	11
	Cd	114	0.065	ug/L	0 003	3	23	714	3
	Sb	121	0.239	ug/L	0 007	2	18	2789	1
	Sb	123	0.241	ug/L	0.007	2	14	2148	0
>	Tb	159		ug/L			1082195	1115315	0
	Tl	205	0.030	ug/L	0.031	103	49	935	97
	Pb	208	0.028	ug/L	0.001	4	115	1226	4
	Bi	209		ug/L			2090241	2154244	2
	Th	232	0.024	ug/L	0 005	18	12	852	18
	U	238	0.266	ug/L	0.005	1	0	9508	1

WB 052773

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WA85~~ A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, February 01, 2013 12:53:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas Intens.	Intens. RSD
	C	13		ug/L			45844	54662	1
	Cl	37		ug/L			4367465	4700448	1
>	Ge	72		ug/L			487325	512612	1
	Ni	60	2.360	ug/L	0.094	3	31	7477	3
	Ni	62	2.208	ug/L	0.035	1	732	1794	2
	Cu	63	4.725	ug/L	0.048	1	510	32267	2
	Cu	65	4.806	ug/L	0.020	0	38	14666	1
	Zn	66	11.061	ug/L	0 179	1	159	20906	0
	Zn	67	10.905	ug/L	0.444	4	33	3475	2
	Zn	68	11.235	ug/L	0.244	2	201	15154	0
	As	75	1.041	ug/L	0.016	1	180	1892	2
	As-1	75	0.761	ug/L	0.058	7	6630	8253	0
	Se	82	-0.030	ug/L	0.020	67	8	3	89
	Se	78	-0.867	ug/L	0.201	23	6771	6707	0
	Y	89		ug/L			300256	332091	2
	Kr	83		ug/L			408	454	1
>	In	115		ug/L			797557	821851	1
	Ag	107	0.022	ug/L	0.001	3	19	182	1
	Cd	111	0.055	ug/L	0.002	3	72	302	1
	Cd	114	0.034	ug/L	0.002	7	23	374	5
	Sb	121	0.006	ug/L	0.001	18	18	89	16
	Sb	123	0.006	ug/L	0 000	3	14	69	3
>	Tb	159		ug/L			1082195	1123527	2
	Tl	205	0.015	ug/L	0.000	3	49	498	0
	Pb	208	2.010	ug/L	0.037	1	115	81298	0
	Bi	209		ug/L			2090241	2212110	4
	Th	232	0.206	ug/L	0.011	5	12	7174	2
	U	238	0.090	ug/L	0.002	2	0	3240	1

WB KK 2-1-13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA85 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 01, 2013 12:56:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	64659	1
	Cl	37		ug/L			4367465	4849853	0
>	Ge	72		ug/L			487325	510414	2
	Ni	60	**10.810**	ug/L	0.026	0	31	34002	3
	Ni	62	**12.082**	ug/L	0.060	0	732	6345	2
	Cu	63	**22.111**	ug/L	0.306	1	510	148342	1
	Cu	65	**21.982**	ug/L	0.140	0	38	66658	3
	Zn	66	**45.450**	ug/L	0.370	0	159	85019	2
	Zn	67	**46.351**	ug/L	1.292	2	33	14598	3
	Zn	68	**45.484**	ug/L	0.286	0	201	60454	2
	As	75	**4.860**	ug/L	0.036	0	180	8105	2
	As-1	75	**4.475**	ug/L	0.103	2	6630	14439	2
	Se	82	**-0.035**	ug/L	0.027	76	8	2	157
	Se	78	**-0.663**	ug/L	0.254	38	6771	6775	1
	Y	89		ug/L			300256	409038	3
	Kr	83		ug/L			408	576	1
>	In	115		ug/L			797557	820153	4
	Ag	107	**0.108**	ug/L	0.006	5	19	821	0
	Cd	111	**0.237**	ug/L	0.023	9	72	1042	7
	Cd	114	**0.145**	ug/L	0.004	2	23	1526	4
	Sb	121	**0.009**	ug/L	0.000	4	18	117	8
	Sb	123	**0.008**	ug/L	0.001	15	14	88	10
>	Tb	159		ug/L			1082195	1116094	2
	Tl	205	**0.058**	ug/L	0 001	2	49	1799	1
	Pb	208	**9.422**	ug/L	0.099	1	115	378257	1
	Bi	209		ug/L			2090241	2135515	2
	Th	232	**1.028**	ug/L	0.030	2	12	35543	1
	U	238	**0.434**	ug/L	0.006	1	0	15535	2

WB 2-1-13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA85 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 01, 2013 13:00:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

NOISY
RR

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			45844	58642	34
	Cl	37		ug/L			4367465	4366258	25
>	Ge	72		ug/L			487325	590790	16
	Ni	60	7.708	ug/L	6.136	79	31	25598	77
	Ni	62	8.777	ug/L	7.277	82	732	5150	64
	Cu	63	15.592	ug/L	12.312	78	510	110726	76
	Cu	65	15.581	ug/L	12.315	79	38	49911	76
	Zn	66	32.760	ug/L	25.888	79	159	64792	76
	Zn	67	33.048	ug/L	25.956	78	33	11015	75
	Zn	68	32.682	ug/L	25.864	79	201	45963	76
	As	75	3.424	ug/L	2.724	79	180	6105	74
	As-1	75	2.503	ug/L	3.560	142	6630	12126	44
	Se	82	-0.036	ug/L	0.037	103	8	3	214
	Se	78	-2.856	ug/L	3.526	123	6771	6420	15
	Y	89		ug/L			300256	434996	0
	Kr	83		ug/L			408	518	35
>	In	115		ug/L			797557	986471	23
	Ag	107	0.075	ug/L	0.060	79	19	608	72
	Cd	111	0.150	ug/L	0.113	75	72	741	59
	Cd	114	0.088	ug/L	0.068	77	23	997	70
	Sb	121	0.009	ug/L	0.000	2	18	139	25
	Sb	123	0.007	ug/L	0.005	68	14	81	42
>	Tb	159		ug/L			1082195	1383020	26
	Tl	205	0.043	ug/L	0.033	78	49	1423	68
	Pb	208	6.599	ug/L	5.113	77	115	283183	72
	Bi	209		ug/L			2090241	2676177	29
	Th	232	0.720	ug/L	0.532	73	12	26807	67
	U	238	0.315	ug/L	0.242	76	0	12041	71

WB 2-1-13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA85 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 01, 2013 13:03:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	64439	0
	Cl	37		ug/L			4367465	4828597	1
>	Ge	72		ug/L			487325	515614	0
	Ni	60	36.925	ug/L	0.534	1	31	117240	1
	Ni	62	37.670	ug/L	0.340	0	732	18347	0
	Cu	63	47.590	ug/L	0.380	0	510	321988	0
	Cu	65	47.448	ug/L	0.688	1	38	145288	1
	Zn	66	126.817	ug/L	3.800	2	159	239375	3
	Zn	67	117.714	ug/L	1.736	1	33	37402	1
	Zn	68	123.466	ug/L	3.108	2	201	165421	2
	As	75	27.478	ug/L	1.107	4	180	45409	4
	As-1	75	28.330	ug/L	1.193	4	6630	54955	3
	Se	82	78.058	ug/L	1.796	2	8	13149	2
	Se	78	75.295	ug/L	1.967	2	6771	43380	2
	Y	89		ug/L			300256	423715	2
	Kr	83		ug/L			408	596	4
>	In	115		ug/L			797557	823180	0
	Ag	107	24.162	ug/L	0.396	1	19	179698	1
	Cd	111	24.692	ug/L	0.496	2	72	101476	1
	Cd	114	24.986	ug/L	0.446	1	23	259095	2
	Sb	121	0.009	ug/L	0.001	9	18	126	8
	Sb	123	0.011	ug/L	0.000	2	14	109	1
>	Tb	159		ug/L			1082195	1116591	1
	Tl	205	26.465	ug/L	0.290	1	49	792318	1
	Pb	208	36.379	ug/L	0.386	1	115	1460801	0
	Bi	209		ug/L			2090241	2114676	2
	Th	232	28.359	ug/L	0.457	1	12	980985	1
	U	238	27.729	ug/L	0 241	0	0	992104	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~**WA85 APOST SWN**~~ 222222
Sample Dil Factor: 20
Comments: AI 2174
Sample Date/Time: Friday, February 01, 2013 13:07:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
	C	13		ug/L			45844	62789	2
	Cl	37		ug/L			4367465	4771051	1
>	Ge	72		ug/L			487325	499880	3
	Ni	60	36.078	ug/L	1.779	4	31	110926	2
	Ni	62	36.307	ug/L	2.092	5	732	17146	1
	Cu	63	47.420	ug/L	1.429	3	510	310809	0
	Cu	65	47.396	ug/L	2.008	4	38	140575	2
	Zn	66	127.173	ug/L	6.660	5	159	232404	1
	Zn	67	117.059	ug/L	6.384	5	33	36008	1
	Zn	68	124.488	ug/L	6.323	5	201	161491	1
	As	75	28.358	ug/L	0.900	3	180	45396	2
	As-1	75	29.065	ug/L	1.286	4	6630	54438	2
	Se	82	82.580	ug/L	3.587	4	8	13470	0
	Se	78	78.830	ug/L	4.537	5	6771	43651	1
	Y	89		ug/L			300256	411624	2
	Kr	83		ug/L			408	542	5
>	In	115		ug/L			797557	813351	2
	Ag	107	25.133	ug/L	1.869	7	19	184457	4
	Cd	111	24.584	ug/L	1.167	4	72	99751	2
	Cd	114	24.332	ug/L	0.804	3	23	249163	1
	Sb	121	0.009	ug/L	0.001	9	18	119	6
	Sb	123	0.009	ug/L	0.001	5	14	95	3
>	Tb	159		ug/L			1082195	1101369	3
	Tl	205	26.723	ug/L	0.917	3	49	788710	0
	Pb	208	35.646	ug/L	1.409	3	115	1410962	1
	Bi	209		ug/L			2090241	2115264	3
	Th	232	28.170	ug/L	1.294	4	12	960480	2
	U	238	26.983	ug/L	1.085	4	0	951552	1

LB #2-73

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA85 REF1 SWN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, February 01, 2013 13:10:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

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	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	55714	4
	Cl	37		ug/L			4367465	4686371	0
>	Ge	72		ug/L			487325	512329	4
	Ni	60	20.549	ug/L	2.292	11	31	64624	7
	Ni	62	20.057	ug/L	2.426	12	732	10030	6
	Cu	63	24.636	ug/L	3.623	14	510	165124	10
	Cu	65	25.363	ug/L	3.613	14	38	76851	10
	Zn	66	67.588	ug/L	8.369	12	159	126373	8
	Zn	67	67.849	ug/L	9.756	14	33	21340	10
	Zn	68	68.792	ug/L	8.468	12	201	91324	8
	As	75	45.339	ug/L	5.830	12	180	74036	8
	As-1	75	45.333	ug/L	6.014	13	6630	82889	8
	Se	82	61.856	ug/L	7.134	11	8	10317	7
	Se	78	59.433	ug/L	7.552	12	6771	35411	6
	Y	89		ug/L			300256	394658	4
	Kr	83		ug/L			408	485	5
>	In	115		ug/L			797557	838152	3
	Ag	107	38.068	ug/L	4.406	11	19	287458	8
	Cd	111	25.290	ug/L	2.814	11	72	105544	7
	Cd	114	24.952	ug/L	2.819	11	23	262697	7
	Sb	121	0.977	ug/L	0.114	11	18	11285	8
	Sb	123	0.983	ug/L	0.118	11	14	8683	8
>	Tb	159		ug/L			1082195	1127820	5
	Tl	205	53.306	ug/L	6.385	11	49	1604782	6
	Pb	208	51.307	ug/L	6.030	11	115	2072034	6
	Bi	209		ug/L			2090241	2239129	7
	Th	232	5.924	ug/L	0.806	13	12	205989	8
	U	238	0.695	ug/L	0.086	12	0	25010	7

WB 2-1-13

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WA~~85 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 01, 2013 13:14:24
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8GFA+.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\020113.cal

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Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
C	13		ug/L			45844	54596	1
Cl	37		ug/L			4367465	4754937	2
> Ge	72		ug/L			487325	505082	4
Ni	60	25.868	ug/L	2.419	9	31	80265	5
Ni	62	24.548	ug/L	2.631	10	732	11943	6
Cu	63	26.320	ug/L	2.665	10	510	174218	6
Cu	65	26.448	ug/L	2.964	11	38	79110	7
Zn	66	87.916	ug/L	8.380	9	159	162189	5
Zn	67	81.173	ug/L	9.318	11	33	25197	7
Zn	68	87.852	ug/L	6.630	7	201	115128	3
As	75	24.134	ug/L	2.615	10	180	38977	7
As-1	75	25.066	ug/L	2.327	9	6630	48316	4
Se	82	84.072	ug/L	8.078	9	8	13836	5
Se	78	80.339	ug/L	6.458	8	6771	44787	2
Y	89		ug/L			300256	302286	3
Kr	83		ug/L			408	429	7
> In	115		ug/L			797557	826474	1
Ag	107	25.991	ug/L	1.353	5	19	193971	3
Cd	111	25.017	ug/L	1.611	6	72	103156	4
Cd	114	24.857	ug/L	1.453	5	23	258624	4
Sb	121	0.005	ug/L	0.001	10	18	77	8
Sb	123	0.005	ug/L	0.001	12	14	61	11
> Tb	159		ug/L			1082195	1096451	2
Tl	205	28.209	ug/L	1.430	5	49	828806	3
Pb	208	27.699	ug/L	1.504	5	115	1091492	3
Bi	209		ug/L			2090241	2186987	4
Th	232	27.591	ug/L	2.404	8	12	936137	6
U	238	27.748	ug/L	1.457	5	0	974164	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 13:17:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	47662	1
	Cl	37		ug/L			4367465	4836168	1
>	Ge	72		ug/L			487325	481416	2
	Ni	60	51.202	ug/L	0.769	1	31	151746	0
	Ni	62	48.404	ug/L	2.567	5	732	21793	3
	Cu	63	49.669	ug/L	0.656	1	510	313749	2
	Cu	65	49.099	ug/L	1.391	2	38	140316	0
	Zn	66	50.778	ug/L	0.622	1	159	89577	2
	Zn	67	50.445	ug/L	1.280	2	33	14979	1
	Zn	68	50.636	ug/L	1.130	2	201	63439	0
	As	75	50.675	ug/L	0.773	1	180	78020	0
	As-1	75	50.316	ug/L	1.007	2	6630	86022	0
	Se	82	52.440	ug/L	0.943	1	8	8248	0
	Se	78	50.321	ug/L	1.680	3	6771	29276	0
	Y	89		ug/L			300256	286973	1
	Kr	83		ug/L			408	445	4
>	In	115		ug/L			797557	791595	1
	Ag	107	51.695	ug/L	1 218	2	19	369606	0
	Cd	111	50.669	ug/L	0.556	1	72	200158	1
	Cd	114	50.612	ug/L	0.995	1	23	504525	0
	Sb	121	51.841	ug/L	1.388	2	18	565888	1
	Sb	123	50.671	ug/L	0.348	0	14	423188	1
>	Tb	159		ug/L			1082195	1057545	1
	Tl	205	54.203	ug/L	0.382	0	49	1537011	0
	Pb	208	53.506	ug/L	0.400	0	115	2035039	0
	Bi	209		ug/L			2090241	2068223	1
	Th	232	55.883	ug/L	1.239	2	12	1830918	1
	U	238	55.111	ug/L	0.222	0	0	1867601	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 13:24:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	48452	3
	Cl	37		ug/L			4367465	4609717	1
>	Ge	72		ug/L			487325	474544	0
	Ni	60	-0.000	ug/L	0.002	637	31	29	19
	Ni	62	-0.578	ug/L	0.100	17	732	464	9
	Cu	63	-0.022	ug/L	0.006	26	510	361	9
	Cu	65	0.001	ug/L	0.004	462	38	40	27
	Zn	66	0.394	ug/L	0.010	2	159	840	1
	Zn	67	0.311	ug/L	0.011	3	33	123	2
	Zn	68	0.359	ug/L	0.008	2	201	638	1
	As	75	-0.009	ug/L	0.018	209	180	162	16
	As-1	75	-0.109	ug/L	0.083	75	6630	6286	1
	Se	82	-0.093	ug/L	0.051	55	8	-6	126
	Se	78	-0.405	ug/L	0.309	76	6771	6414	1
	Y	89		ug/L			300256	280334	0
	Kr	83		ug/L			408	414	5
>	In	115		ug/L			797557	802617	0
	Ag	107	0.003	ug/L	0.001	22	19	42	11
	Cd	111	0.008	ug/L	0.002	29	72	103	8
	Cd	114	0.002	ug/L	0.001	55	23	42	24
	Sb	121	0.020	ug/L	0.006	29	18	236	27
	Sb	123	0.019	ug/L	0.003	18	14	173	16
>	Tb	159		ug/L			1082195	1057013	0
	Tl	205	0.010	ug/L	0.001	14	49	319	12
	Pb	208	0.002	ug/L	0 001	42	115	194	17
	Bi	209		ug/L			2090241	2083974	0
	Th	232	0.035	ug/L	0.004	12	12	1171	11
	U	238	0.002	ug/L	0.001	50	0	54	49

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WA66 K REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, February 01, 2013 13:29:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	53729	1
	Cl	37		ug/L			4367465	4621693	1
>	Ge	72		ug/L			487325	484024	2
	Ni	60	**1.586**	ug/L	0.097	6	31	4756	5
	Ni	62	**0.781**	ug/L	0.125	15	732	1068	2
	Cu	63	**0.365**	ug/L	0.015	4	510	2821	4
	Cu	65	**0.248**	ug/L	0.008	3	38	752	4
	Zn	66	**0.788**	ug/L	0.009	1	159	1553	1
	Zn	67	**1.028**	ug/L	0.068	6	33	339	6
	Zn	68	**1.117**	ug/L	0.039	3	201	1602	2
	As	75	**162.813**	ug/L	2.364	1	180	251630	1
	As-1	75	**158.177**	ug/L	2.318	1	6630	257791	1
	Se	82	**0.719**	ug/L	0.099	13	8	121	10
	Se	78	**0.139**	ug/L	0.166	119	6771	6787	1
	Y	89		ug/L			300256	288083	1
	Kr	83		ug/L			408	430	6
>	In	115		ug/L			797557	816526	1
	Ag	107	**0.001**	ug/L	0.000	10	19	28	2
	Cd	111	**0.037**	ug/L	0.001	3	72	224	3
	Cd	114	**0.032**	ug/L	0.004	11	23	354	9
	Sb	121	**0.125**	ug/L	0.004	2	18	1421	2
	Sb	123	**0.132**	ug/L	0 006	4	14	1154	3
>	Tb	159		ug/L			1082195	1062922	1
	Tl	205	**0.031**	ug/L	0.018	59	49	921	55
	Pb	208	**0.015**	ug/L	0.000	1	115	689	1
	Bi	209		ug/L			2090241	2096346	1
	Th	232	**0.023**	ug/L	0.001	3	12	765	2
	U	238	**0.134**	ug/L	0.003	2	0	4550	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WB85 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 01, 2013 13:33:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			45844	67188	0
	Cl	37		ug/L			4367465	4849947	0
>	Ge	72		ug/L			487325	502898	1
	Ni	60	11.641	ug/L	0.287	2	31	36079	3
	Ni	62	12.645	ug/L	0.263	2	732	6509	3
	Cu	63	23.181	ug/L	0.604	2	510	153215	1
	Cu	65	23.677	ug/L	0.588	2	38	70727	2
	Zn	66	49.038	ug/L	0.738	1	159	90366	0
	Zn	67	48.918	ug/L	0.905	1	33	15182	3
	Zn	68	48.910	ug/L	0.289	0	201	64034	1
	As	75	5.207	ug/L	0.103	1	180	8542	1
	As-1	75	4.748	ug/L	0.158	3	6630	14677	1
	Se	82	-0.036	ug/L	0.051	140	8	2	324
	Se	78	-0.844	ug/L	0.240	28	6771	6591	1
	Y	89		ug/L			300256	398393	1
	Kr	83		ug/L			408	595	3
>	In	115		ug/L			797557	821888	1
	Ag	107	0.108	ug/L	0.007	6	19	821	4
	Cd	111	0.222	ug/L	0.009	4	72	986	2
	Cd	114	0.128	ug/L	0.004	2	23	1353	4
	Sb	121	0.013	ug/L	0.002	15	18	167	14
	Sb	123	0.014	ug/L	0.002	14	14	133	12
>	Tb	159		ug/L			1082195	1096091	1
	Tl	205	0.066	ug/L	0.004	6	49	1984	5
	Pb	208	9.862	ug/L	0.131	1	115	388842	1
	Bi	209		ug/L			2090241	2060316	1
	Th	232	1.108	ug/L	0.025	2	12	37634	0
	U	238	0.462	ug/L	0.012	2	0	16221	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WB85 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 01, 2013 13:36:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

Did use previous

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
C	13		ug/L			45844	59714	9
Cl	37		ug/L			4367465	4675445	4
> Ge	72		ug/L			487325	515519	4
Ni	60	**33.109**	ug/L	8.208	24	31	104305	20
Ni	62	**33.299**	ug/L	8.066	24	732	16192	19
Cu	63	**43.620**	ug/L	10.689	24	510	292900	20
Cu	65	**43.729**	ug/L	9.860	22	38	132951	18
Zn	66	**114.523**	ug/L	30.384	26	159	214456	23
Zn	67	**109.724**	ug/L	24.635	22	33	34623	18
Zn	68	**114.991**	ug/L	28.030	24	201	152900	20
As	75	**25.007**	ug/L	5.886	23	180	41042	19
As-1	75	**25.427**	ug/L	6.629	26	6630	49699	18
Se	82	**72.176**	ug/L	15 687	21	8	12075	17
Se	78	**68.258**	ug/L	17.141	25	6771	39739	16
Y	89		ug/L			300256	408147	2
Kr	83		ug/L			408	559	7
> In	115		ug/L			797557	845542	8
Ag	107	**21.296**	ug/L	5.618	26	19	160433	20
Cd	111	**22.350**	ug/L	5.583	24	72	93107	18
Cd	114	**22.333**	ug/L	5.658	25	23	234674	18
Sb	121	**0.016**	ug/L	0.003	18	18	199	9
Sb	123	**0.017**	ug/L	0.004	25	14	163	16
> Tb	159		ug/L			1082195	1149055	8
Tl	205	**23.657**	ug/L	6.510	27	49	717620	20
Pb	208	**32.824**	ug/L	8.156	24	115	1337545	17
Bi	209		ug/L			2090241	2218550	11
Th	232	**25.342**	ug/L	6.775	26	12	888604	19
U	238	**24.907**	ug/L	6.132	24	0	904393	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WB85 REF1 SWN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, February 01, 2013 13:40:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	52703	9
	Cl	37		ug/L			4367465	4599120	7
>	Ge	72		ug/L			487325	518897	5
	Ni	60	18.827	ug/L	5.581	29	31	59619	26
	Ni	62	17.938	ug/L	5.340	29	732	9119	23
	Cu	63	22.283	ug/L	6.492	29	510	150655	25
	Cu	65	22.908	ug/L	6.183	26	38	70011	23
	Zn	66	61.821	ug/L	16.612	26	159	116534	23
	Zn	67	63.089	ug/L	18.555	29	33	20008	25
	Zn	68	64.821	ug/L	17.560	27	201	86747	23
	As	75	42.051	ug/L	11.667	27	180	69229	24
	As-1	75	41.583	ug/L	12.010	28	6630	77227	22
	Se	82	57.496	ug/L	15.187	26	8	9670	22
	Se	78	53.559	ug/L	15.928	29	6771	32889	19
	Y	89		ug/L			300256	388395	2
	Kr	83		ug/L			408	453	9
>	In	115		ug/L			797557	849108	7
	Ag	107	35.710	ug/L	10.713	29	19	270062	24
	Cd	111	23.017	ug/L	6.529	28	72	96268	22
	Cd	114	23.004	ug/L	6.538	28	23	242719	22
	Sb	121	0.905	ug/L	0.234	25	18	10490	19
	Sb	123	0.888	ug/L	0.247	27	14	7862	22
>	Tb	159		ug/L			1082195	1143930	7
	Tl	205	48.758	ug/L	14.047	28	49	1474833	23
	Pb	208	46.790	ug/L	13.281	28	115	1898615	22
	Bi	209		ug/L			2090241	2280066	10
	Th	232	5.441	ug/L	1.612	29	12	190101	23
	U	238	0.636	ug/L	0.171	26	0	23007	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WB85 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 01, 2013 13:43:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	51713	7
	Cl	37		ug/L			4367465	4625957	3
>	Ge	72		ug/L			487325	501006	4
	Ni	60	24.400	ug/L	6.013	24	31	74735	20
	Ni	62	22.452	ug/L	6.180	27	732	10846	22
	Cu	63	24.049	ug/L	5.513	22	510	157296	19
	Cu	65	24.278	ug/L	5.667	23	38	71761	19
	Zn	66	76.558	ug/L	18.344	23	159	139469	20
	Zn	67	68.747	ug/L	16.891	24	33	21083	20
	Zn	68	75.035	ug/L	16.824	22	201	97110	18
	As	75	22.416	ug/L	5.158	23	180	35783	19
	As-1	75	23.134	ug/L	5.802	25	6630	44572	17
	Se	82	78.433	ug/L	17.449	22	8	12753	18
	Se	78	74.387	ug/L	18.357	24	6771	41471	16
	Y	89		ug/L			300256	302839	4
	Kr	83		ug/L			408	409	9
>	In	115		ug/L			797557	827618	7
	Ag	107	23.988	ug/L	6.189	25	19	177048	19
	Cd	111	23.280	ug/L	6.031	25	72	94950	19
	Cd	114	23.249	ug/L	5.709	24	23	239387	18
	Sb	121	0.006	ug/L	0 001	17	18	89	14
	Sb	123	0.005	ug/L	0.000	9	14	56	7
>	Tb	159		ug/L			1082195	1113709	6
	Tl	205	25.232	ug/L	5.973	23	49	745603	18
	Pb	208	25.241	ug/L	6.134	24	115	1000127	18
	Bi	209		ug/L			2090241	2257473	11
	Th	232	24.849	ug/L	6.544	26	12	847428	20
	U	238	24.988	ug/L	6 162	24	0	881947	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WB85 REF1 SWN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, February 01, 2013 13:52:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	54121	1
	Cl	37		ug/L			4367465	4659769	2
>	Ge	72		ug/L			487325	472935	1
	Ni	60	22.378	ug/L	0.484	2	31	65193	3
	Ni	62	20.820	ug/L	0.777	3	732	9618	3
	Cu	63	26.585	ug/L	0.177	0	510	165186	1
	Cu	65	27.197	ug/L	0.527	1	38	76401	2
	Zn	66	74.595	ug/L	1.151	1	159	129202	1
	Zn	67	73.308	ug/L	1.701	2	33	21372	1
	Zn	68	78.467	ug/L	3.598	4	201	96445	2
	As	75	49.605	ug/L	1.141	2	180	75029	1
	As-1	75	49.696	ug/L	1.265	2	6630	83548	1
	Se	82	67.627	ug/L	1.396	2	8	10447	0
	Se	78	65.307	ug/L	1.516	2	6771	35375	0
	Y	89		ug/L			300256	371898	0
	Kr	83		ug/L			408	444	2
>	In	115		ug/L			797557	799831	1
	Ag	107	41.337	ug/L	0.858	2	19	298652	0
	Cd	111	26.484	ug/L	0 478	1	72	105741	1
	Cd	114	26.896	ug/L	0.958	3	23	270869	1
	Sb	121	1.054	ug/L	0 031	2	18	11645	1
	Sb	123	1.035	ug/L	0.006	0	14	8749	1
>	Tb	159		ug/L			1082195	1073093	1
	Tl	205	56.893	ug/L	1.120	1	49	1636800	0
	Pb	208	54.017	ug/L	0.674	1	115	2084567	0
	Bi	209		ug/L			2090241	2085820	0
	Th	232	6.338	ug/L	0.214	3	12	210692	2
	U	238	0.727	ug/L	0.008	1	0	24993	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WB85 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 01, 2013 13:56:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			45844	55776	1
	Cl	37		ug/L			4367465	4780817	1
>	Ge	72		ug/L			487325	490532	2
	Ni	60	25.386	ug/L	1.393	5	31	76633	3
	Ni	62	24.542	ug/L	1.174	4	732	11620	2
	Cu	63	26.425	ug/L	1.515	5	510	170164	3
	Cu	65	26.647	ug/L	1.418	5	38	77581	3
	Zn	66	84.336	ug/L	5.387	6	159	151342	4
	Zn	67	75.207	ug/L	3.647	4	33	22728	2
	Zn	68	82.915	ug/L	5.837	7	201	105630	4
	As	75	24.131	ug/L	1.661	6	180	37917	4
	As-1	75	25.475	ug/L	1.393	5	6630	47649	2
	Se	82	85.233	ug/L	4.964	5	8	13645	3
	Se	78	82.843	ug/L	3.605	4	6771	44698	1
	Y	89		ug/L			300256	294488	4
	Kr	83		ug/L			408	432	4
>	In	115		ug/L			797557	813131	2
	Ag	107	25.804	ug/L	2.065	8	19	189293	5
	Cd	111	25.117	ug/L	1.496	5	72	101850	3
	Cd	114	25.610	ug/L	1.429	5	23	262038	2
	Sb	121	0.007	ug/L	0.001	14	18	99	14
	Sb	123	0.008	ug/L	0.002	19	14	81	19
>	Tb	159		ug/L			1082195	1071153	2
	Tl	205	28.041	ug/L	1.421	5	49	804763	2
	Pb	208	27.521	ug/L	1.265	4	115	1059492	2
	Bi	209		ug/L			2090241	2183303	5
	Th	232	27.496	ug/L	1.630	5	12	911690	3
	U	238	27.814	ug/L	1.217	4	0	954010	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 14:00:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			45844	48928	2
	Cl	37		ug/L			4367465	4791210	1
>	Ge	72		ug/L			487325	460125	0
	Ni	60	50.344	ug/L	0.609	1	31	142633	1
	Ni	62	48.638	ug/L	1.141	2	732	20937	2
	Cu	63	50.775	ug/L	1.058	2	510	306511	1
	Cu	65	50.754	ug/L	0.553	1	38	138689	1
	Zn	66	51.705	ug/L	0.902	1	159	87180	1
	Zn	67	50.485	ug/L	0.840	1	33	14332	1
	Zn	68	52.339	ug/L	0.530	1	201	62683	0
	As	75	51.314	ug/L	0.562	1	180	75523	1
	As-1	75	51.169	ug/L	0.393	0	6630	83528	1
	Se	82	53.513	ug/L	0.566	1	8	8046	0
	Se	78	52.068	ug/L	0.291	0	6771	28742	1
	Y	89		ug/L			300256	279566	2
	Kr	83		ug/L			408	415	4
>	In	115		ug/L			797557	781907	1
	Ag	107	51.730	ug/L	0.509	0	19	365457	1
	Cd	111	50.565	ug/L	0.799	1	72	197302	0
	Cd	114	50.469	ug/L	0.715	1	23	497021	0
	Sb	121	51.193	ug/L	0.405	0	18	552116	0
	Sb	123	50.975	ug/L	0.737	1	14	420533	1
>	Tb	159		ug/L			1082195	1048755	1
	Tl	205	53.331	ug/L	0.325	0	49	1499836	1
	Pb	208	52.875	ug/L	0.285	0	115	1994456	1
	Bi	209		ug/L			2090241	2045806	0
	Th	232	54.560	ug/L	0.079	0	12	1772954	1
	U	238	55.012	ug/L	0.241	0	0	1848805	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 01, 2013 14:06:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
C	13		ug/L			45844	47647	2
Cl	37		ug/L			4367465	4541841	1
> Ge	72		ug/L			487325	459260	1
Ni	60	0.002	ug/L	0.001	72	31	34	8
Ni	62	-0.779	ug/L	0.026	3	732	366	2
Cu	63	-0.030	ug/L	0.009	30	510	301	17
Cu	65	0.007	ug/L	0.013	198	38	54	65
Zn	66	0.219	ug/L	0.015	6	159	519	6
Zn	67	0.208	ug/L	0.036	17	33	90	9
Zn	68	0.223	ug/L	0.045	19	201	454	10
As	75	0.014	ug/L	0.020	138	180	190	13
As-1	75	-0.066	ug/L	0.091	138	6630	6147	0
Se	82	-0.046	ug/L	0.092	199	8	0	2168
Se	78	-0.264	ug/L	0.329	124	6771	6267	0
Y	89		ug/L			300256	273566	2
Kr	83		ug/L			408	415	4
> In	115		ug/L			797557	770807	1
Ag	107	0.006	ug/L	0.004	73	19	58	51
Cd	111	0.008	ug/L	0.004	46	72	101	14
Cd	114	0.002	ug/L	0 002	102	23	46	52
Sb	121	0.017	ug/L	0.003	20	18	195	19
Sb	123	0.017	ug/L	0.004	21	14	151	20
> Tb	159		ug/L			1082195	1025485	0
Tl	205	0.023	ug/L	0.003	14	49	681	13
Pb	208	0.003	ug/L	0.002	72	115	207	34
Bi	209		ug/L			2090241	2058563	1
Th	232	0.035	ug/L	0.004	12	12	1127	12
U	238	0.001	ug/L	0.001	99	0	45	97

Mercury Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WA66, WA67

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: CB

Date: 01-23-13

Final Volume _____

Final Volume (Hg): 20.0

Sample ID WA62 BSPK, MBISPK, VSPK, MB2SPK
WA67 BSPK, MBISPK, JSPK, MB2SPK

	Prepcode:			
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:			
	Vol Added (mL):			
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	TLM	CVA	1.0	0.02	2908-8
Hg MBSPK	TLM	CVA	1.0	0.04	↓
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

WA66 : 00297

5033F

Revision 14, 11/21/05

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Analyst: CB
Bath Temp: 90°C
Start Time: 0935
End Time: 1135
Matrix: WATER
Date: 01-23-13

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WA67 A	1	✓	20.0	20.0	2/02 1	Y	
" B	1	✓			1		
" Bdup	1	✓			1		
" Bspk	1	✓			1		
" C	1	✓			1		
" D	1	✓			1		
" E	1	✓			1		
" F	1	✓			1		
" G	1	✓			1		
" H	1	✓			1		
" mB1	—	—			1		
" mB1spk	—	—			1		
" I	1	✓			1		
" J	1	✓			1		
" Jdup	1	✓			1		
" Jspk	1	✓			1		
" K	1	✓			1		
" L	1	✓			1		
" M	1	✓			1		
" N	1	✓			1		
" O	1	✓			1		
" P	1	✓			1		
" mB2	—	—			1		
" mB2spk	—	—	20.0	20.0	1	Y	
			1/23/13				

Chemical/Reagent ID:

HNO_3: I7970
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: mp2415
5% $KMnO_4$: mp2401
Digest Tube Lot: 1208057

WAGE : 00298

Mercury Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WA66, WA67

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 01-25-13

Page: 1 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb) ppt	Comments
STD 0.0	TLM	1X		
" 20.0				
" 50.0				
" 100.0				
" 200.0				
" 400.0				
" 1000.0				
ICV			469.63	Begin CLP %R=94 ✓
ICB			0.58	✓
CCV1			473.63	%R=95 ✓
CCB1			1.03	✓
CRA			22.39	✓
TEST 1 STD1			22.54	%R=112 ✓
TEST 2 STD1			22.63	%R=113 ✓
TEST 1 STD6			980.21	%R=98 ✓
TEST 2 STD6			991.43	%R=99 ✓
TEST 1 CV			461.43	%R=92 ✓
" 2 CV			464.28	%R=93 ✓
" 3 CV			466.40	%R=93 ✓
WA10 MB1			1.15	✓
" MBKSPK			202.07	%R=101 ✓
CCV2			473.86	%R=95 ✓
CCB2			3.92	✓
WA10 A			4.05	
" ADUP			6.15	NO RPD: Undetected ✓
" ASPK			101.04	%R=101 ✓
" B				
" C				
" D				
" E	↓	↓		

Chemical/Reagent ID:
10% $SnCl_2$: MP2429

14% $NH_2OH/NaCl$: MP2308

Standard ID:
Standard: 3007-4

ICV/CCV: 3007-5

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 01·23·12

Page: 2 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)ppt	Comments
WA10 F	TLM	1X		
" MB2			4.26	✓
" MB2SPK			187.56	%R=94 ✓
CCV3			473.00	%R=95 ✓
CCB3			1.84	✓
WA10 G			4.49	
" GDUP			3.60	NO RPD: Undetected ✓
" GSPK			106.03	%R=106 ✓
" H				
" I				
" J				
" K				
" L				
CCV4			477.23	%R=95 ✓
CCB4			2.65	✓
WAK MB1			2.39	✓
" MB1SPK			197.82	%R=99 ✓
" A			16.32	
" ADUP			17.66	NO RPD: Undetected HI RED ✓
" ASPK			114.47	%R=114 ✓
" B				
" C				
" D				
" E				
" F				
CCV5			477.48	%R=95 ✓
CCB5			3.98	✓
WAK G				
" H				
" I				

Chemical/Reagent ID:
10% $SnCl_2$: MP2429

14% $NH_2OH/NaCl$: MP2398

Standard ID:
Standard: 3007-4

ICV/CCV: 3007-5

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 01-23-13

Page: 3 of 5

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments	
WAK	J	TLM	1x			
"	K					
"	L					
"	M					
"	N					
"	O					
"	P					
CCVG				471.25	%R=94	✓
CCBG				-0.75		✓
WAK	Q					
"	MB2			-0.19		✓
"	MB2PK			188.15	%R=94	✓
"	R			3.57		
"	RDUP			2.50	NO RPD: Undetected	✓
"	RSPK			93.54	%R=94	✓
"	S					
"	T					
"	U					
"	V					
CCV7				472.80	%R=95	✓
CCB7				0.03		✓
WAK	W					
"	X					
"	Y					
"	Z					
"	AA					
"	AB					
"	AC					
"	AD					
"	AE					

Chemical/Reagent ID:
10% $SnCl_2$: MP2429

14% $NH_2OH/NaCl$: MP2398

Standard ID:
Standard: 3007-4

ICV/CCV: 3007-5

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 01-28-13

Page: 4 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (~~ppb~~) ppt	Comments
WAIG AF	TLM	1X		
CCV8			470.84	%R=94 ✓
CCB8			1.38	✓
WAIK AG				
" AH				
CCV9			470.78	%R=94 ✓
CCB9			0.63	✓
WAL7 MB1			3.55	✓
" MB1SPK			204.34	%R=102 ✓
" A			4.25	
" B			5.90	
" BDUP			2.15	No RPD: Undetected ✓
" BSPK			106.09	%R=106 ✓
" C				
" D				
" E				
" F				
CCV10			469.74	%R=94 ✓
CCB10			-0.79	✓
WAL7 G				
" H				
" MB2			1.15	✓
" MB2SPK			188.69	%R=94 ✓
" I				
" J			4.36	
" JDUP			4.23	No RPD: Undetected ✓
" JSPK			107.59	%R=108 ✓
" K				
" L				
CCV11	↓	↓	466.73	%R=93 ✓

Chemical/Reagent ID:
10% $SnCl_2$: MP2429

14% $NH_2OH/NaCl$: MP2398

Standard ID:
Standard: 3007-4

ICV/CCV: 3007-5

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 01·23·13

Page: 5 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (~~ppb~~) ppt	Comments	
CCB11	TLM	1X	2.27		✓
WA67 M					
" N					
" O					
" P					
CCV12			46.49	%R=93	✓
CCB12			2.83	END CLP	✓
WA15 MB			1.62		✓
" MBSPK			185.94	%R=94	✓
" A			47.41		
" AQUD			59.63		✓
" ASPK			135.64	%R=88	✓
" B					
TEST 1 SPIKE 100ppt			91.83	%R=92	✓
" 2 " "			96.57	%R=97	✓
" 1 " 200ppt			197.87	%R=99	✓
" 2 " "			200.33	%R=100	✓
CCV	↓	↓	46.48	%R=93	✓
CCB	TLM	1X	2.87		✓
		1·23·13 DM			

Chemical/Reagent ID:
10% $SnCl_2$: MP2429

14% $NH_2OH/NaCl$: MP2398

Standard ID:
Standard: 3007-4

ICV/CCV: 3007-5

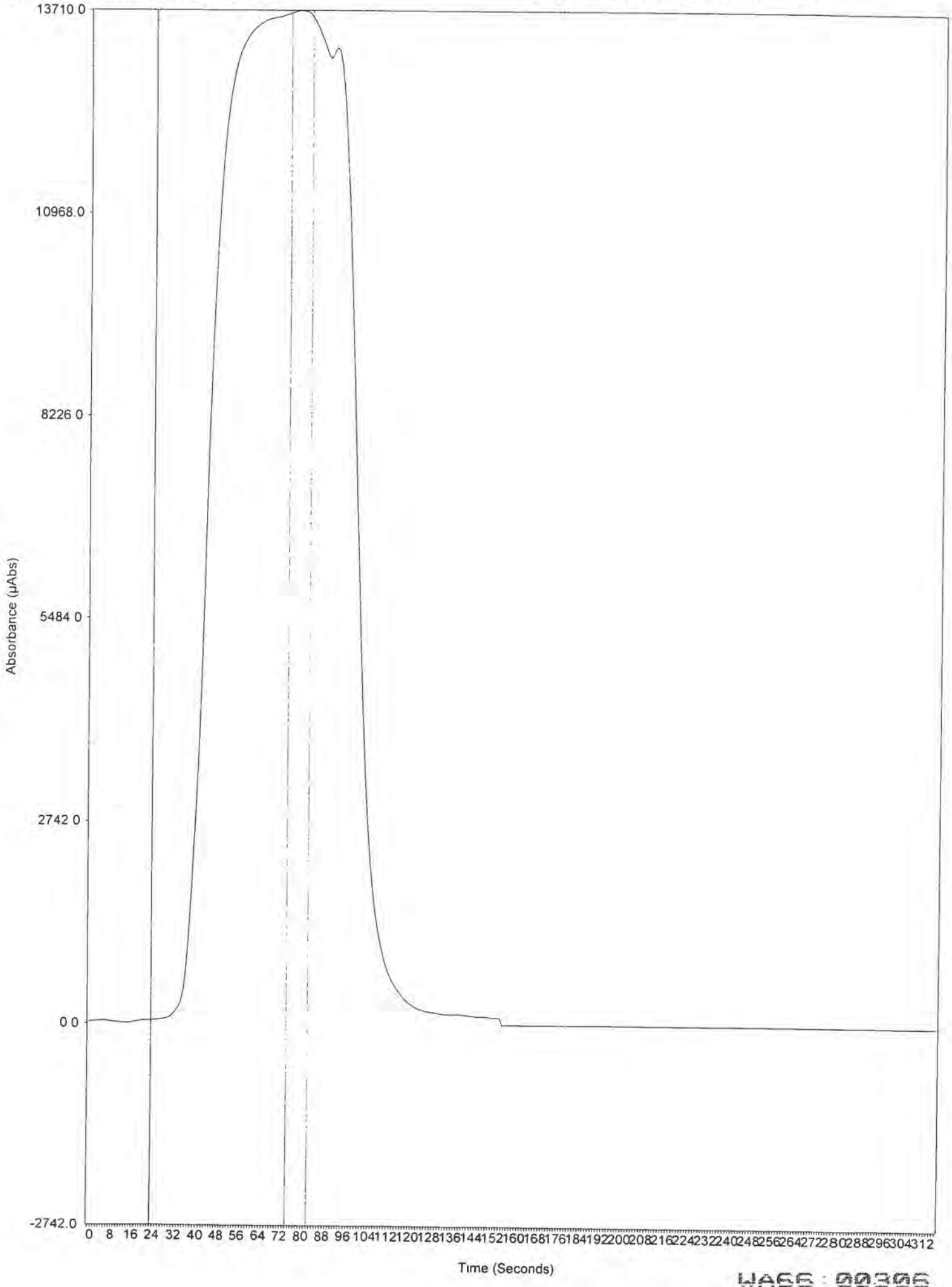
ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 01·23·13

Low level	Analyst 1·23 DM	Peer BA 1/24/13	Comment
Analyst, Date, Method info	√	✓	
Sample ID's	√	✓	
Standard/QC solution ID's recorded	√	✓	
Prep codes	√	✓	
Dilution factors	√	✓	
Crossouts/Corrections/Deletions	√	✓	
Blank & Standard intensities	√	✓	
Standard deviations	√	✓	
Curve fit	√	✓	
ICV/CCV	√	✓	
ICB/CCB	√	✓	
RSD's & SD's	√	✓	WAIV ADVP HI RSD
Internal Standards	—	—	
Carry-over	—	—	
CRI/CRA	√	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
SRM/LCS	√	✓	
Matrix Spikes	√	✓	
Matrix Duplicates	√	✓	
Method Blanks	√	✓	
Requested elements/isotope identified	√	✓	
Correct samples identified for distribution	√	✓	
Raw data match distributed data	√	✓	
Data filename correct	√	✓	
	—		

Std Tube 6 01/23/2013, 8:00 AM



CETAC Hg Analysis Report - 13012300.DB - Wednesday, January 23, 2013, 2:23:02 PM

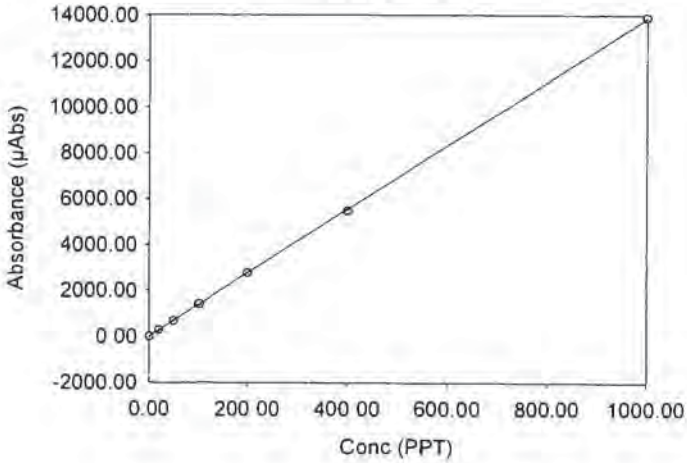
Analyst
Date Started Wednesday, January 23, 2013, 08:00:21
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Std Tube 6	23-Jan-2013, 08:00	1000.00	0.12	13700.00	13650	13670	13669	13636	

Information about this calibration could not be retrieved from the Master File.

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Calibration Zero	23-Jan-2013, 08.02	0.00	93.80	-9.85	4	-13	-14	-16	
Standard #1	23-Jan-2013, 08:05	20.00	0.08	291 00	291	291	291	291	
Standard #2	23-Jan-2013, 08:08	50.00	0.48	687.00	683	686	690	690	
Standard #3	23-Jan-2013, 08:10	100.00	0.25	1410 00	1410	1417	1416	1411	
Standard #4	23-Jan-2013, 08:13	200 00	0 22	2770 00	2761	2768	2776	2769	
Standard #5	23-Jan-2013, 08:16	400 00	0 24	5480 00	5457	5479	5487	5481	
Standard #6	23-Jan-2013, 08.18	1000 00	0.16	13900.00	13902	13935	13937	13894	

Calibration Data



Int	0.000
Slope	13 886
Correlation	0 99997

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
ICV	23-Jan-2013, 08:26	470.00	0 06	6520.00	6527	6522	6519	6518	Exp in CLP
ICB	23-Jan-2013, 08:28	0 58	132 00	8.08	21	11	4	-4	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 08:31	474.00	0.21	6580.00	6558	6577	6590	6583	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 08:34	1.03	78.20	14.40	8	6	13	31	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
CRA	23-Jan-2013, 08:36	22.40	2.12	311.00	315	315	312	301	
TEST1 STD1 TLM	23-Jan-2013, 08:39	22.30	2.18	310.00	318	313	308	302	
TEST2 STD1 TLM	23-Jan-2013, 08:42	22 60	0.88	314.00	318	314	311	315	
TEST 2 STD6 TLM	23-Jan-2013, 08:44	982.00	0.15	13600.00	13611	13636	13659	13651	
TEST 2 STD6 TLM	23-Jan-2013, 08:47	991.00	0.09	13800.00	13754	13775	13780	13760	
TEST 1 CV TLM	23-Jan-2013, 08:50	461.00	0.18	6410.00	6417	6416	6404	6393	
TEST 2 CV TLM	23-Jan-2013, 08:52	464.00	0.21	6450.00	6454	6456	6452	6427	
TEST 3 CV TLM	23-Jan-2013, 08.55	466.00	0.26	6480.00	6490	6489	6474	6454	
WA10 MB1 TLM	23-Jan-2013, 08:58	1.15	75.60	16.00	6	10	15	33	
WA10 MB1SPK TLM	23-Jan-2013, 09:01	202.00	0.31	2810.00	2796	2802	2812	2814	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 09:03	474.00	0.28	6580.00	6557	6575	6590	6598	

CETAC Hg Analysis Report - 13012300.DB - Wednesday, January 23, 2013, 2:23:03 PM

Analyst
Date Started Wednesday, January 23, 2013, 09:06:37
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 09:06	3.92	4.12	54.40	57	53	52	56	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA10 A TLM	23-Jan-2013, 09:09	4.05	13.00	56.20	66	57	52	50	
WA10 ADUP TLM	23-Jan-2013, 09:12	6.15	6.58	85.40	87	79	84	92	
WA10 ASPK TLM	23-Jan-2013, 09:14	101.00	0.56	1400.00	1392	1403	1406	1411	
WA10 B TLM	23-Jan-2013, 09:17	10.80	2.48	150.00	146	148	150	155	
WA10 C TLM	23-Jan-2013, 09:20	4.64	11.10	64.40	70	69	64	54	
WA10 D TLM	23-Jan-2013, 09:22	2.28	13.80	31.70	26	30	34	36	
WA10 E TLM	23-Jan-2013, 09:25	5.97	7.94	82.90	74	83	88	87	
WA10 F TLM	23-Jan-2013, 09:28	2.30	38.90	32.00	21	23	37	47	
WA10 MB2 TLM	23-Jan-2013, 09:30	4.26	22.40	59.10	67	68	62	40	
WA10 MB2SPK TLM	23-Jan-2013, 09:33	188.00	0.24	2610.00	2600	2608	2615	2612	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 09:36	473.00	0.18	6570.00	6555	6562	6578	6579	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 09:39	1.84	12.70	25.60	28	22	24	28	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA10 G TLM	23-Jan-2013, 09:41	4.49	3.20	62.30	65	61	60	63	
WA10 GDUP TLM	23-Jan-2013, 09:44	3.60	29.80	50.00	36	42	52	70	
WA10 GSPK TLM	23-Jan-2013, 09:47	106.00	0.32	1470.00	1476	1475	1473	1466	
WA10 H TLM	23-Jan-2013, 09:49	5.31	2.70	73.80	74	71	76	74	
WA10 I TLM	23-Jan-2013, 09:52	3.34	37.70	46.30	26	38	56	65	
WA10 J TLM	23-Jan-2013, 09:55	2.06	20.30	28.60	22	26	31	35	
WA10 K TLM	23-Jan-2013, 09:57	2.52	37.20	35.00	45	46	30	19	
WA10 L TLM	23-Jan-2013, 10:00	2.75	17.00	38.20	48	35	34	36	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 10:03	477.00	0.27	6630.00	6605	6621	6635	6647	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 10:06	2.65	37.30	36.80	54	42	26	25	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA16 MB1 TLM	23-Jan-2013, 10:09	2.39	20.60	33.20	24	33	39	37	
WA16 MB1SPK TLM	23-Jan-2013, 10:11	197.00	0.14	2740.00	2735	2743	2743	2740	
WA16 A TLM	23-Jan-2013, 10:14	16.30	2.29	227.00	220	227	232	228	
WA16 ADUP TLM	23-Jan-2013, 10:17	17.70	5.04	245.00	231	239	251	259	Q
WA16 ASPK TLM	23-Jan-2013, 10:19	114.00	0.99	1590.00	1571	1584	1596	1607	
WA16 B TLM	23-Jan-2013, 10:22	3.14	25.30	43.60	35	34	48	57	
WA16 C TLM	23-Jan-2013, 10:25	9.42	4.63	131.00	130	127	127	140	
WA16 D TLM	23-Jan-2013, 10:27	-0.69	103.00	-9.55	5	-11	-15	-17	
WA16 E TLM	23-Jan-2013, 10:30	2.83	32.60	39.30	53	47	31	26	
WA16 F TLM	23-Jan-2013, 10:33	6.39	2.06	88.80	89	87	88	91	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 10:36	477.00	0.19	6630.00	6613	6630	6642	6637	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 10:38	3.98	9.47	55.30	49	53	60	59	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA16 G TLM	23-Jan-2013, 10:41	2.56	12.00	35.60	38	29	37	39	
WA16 H TLM	23-Jan-2013, 10:44	2.31	58.80	32.00	56	37	20	14	
WA16 I TLM	23-Jan-2013, 10:46	6.48	5.66	90.00	84	89	92	96	
WA16 J TLM	23-Jan-2013, 10:49	5.47	6.61	76.00	69	77	81	76	

CETAC Hg Analysis Report - 13012300.DB - Wednesday, January 23, 2013, 2:23:04 PM

Analyst
Date Started Wednesday, January 23, 2013, 10.52:18
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA16 K TLM	23-Jan-2013, 10:52	7.69	12.80	107.00	89	103	116	119	
WA16 L TLM	23-Jan-2013, 10:54	16.30	0.65	226.00	227	227	225	224	
WA16 M TLM	23-Jan-2013, 10:57	39.40	0.72	547.00	550	550	545	542	
WA16 N TLM	23-Jan-2013, 11:00	7.09	10.20	98.40	112	100	92	90	
WA16 O TLM	23-Jan-2013, 11:03	5.61	4.02	77.80	79	73	78	81	
WA16 P TLM	23-Jan-2013, 11:05	23.90	2.61	332.00	320	334	341	332	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 11:08	471.00	0.12	6540.00	6548	6550	6545	6532	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 11:11	-0 75	118.00	-10.40	-8	-23	-17	5	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA16 Q TLM	23-Jan-2013, 11:13	12.50	1.86	173.00	175	176	172	169	
WA16 MB2 TLM	23-Jan-2013, 11:16	-0 19	759.00	-2.63	-20	-14	-1	25	
WA16 MB2SPK TLM	23-Jan-2013, 11:19	188.00	0.27	2610.00	2602	2615	2618	2615	
WA16 R TLM	23-Jan-2013, 11:22	3.57	10.80	49.60	42	53	55	49	
WA16 RDUP TLM	23-Jan-2013, 11:24	2.50	19.30	34.70	45	32	30	32	
WA16 RSPK TLM	23-Jan-2013, 11:27	93.50	0.46	1300.00	1293	1296	1300	1307	
WA16 S TLM	23-Jan-2013, 11:30	3.42	6.31	47.50	52	47	46	46	
WA16 T TLM	23-Jan-2013, 11:32	3 07	38.40	42.60	21	40	50	59	
WA16 U TLM	23-Jan-2013, 11:35	0 58	71.30	8 08	8	2	6	16	
WA16 V TLM	23-Jan-2013, 11:38	3 93	3.82	54.50	52	55	54	57	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 11:41	473.00	0.15	6570.00	6552	6565	6576	6569	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 11:43	0.03	3930.00	0.36	-6	-15	4	18	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA16 W TLM	23-Jan-2013, 11:46	5.47	8.62	75.90	78	82	77	67	
WA16 X TLM	23-Jan-2013, 11:49	0.55	116.00	7.58	-1	4	9	19	
WA16 Y TLM	23-Jan-2013, 11:51	2.29	13 90	31.80	38	32	29	28	
WA16 Z TLM	23-Jan-2013, 11:54	2.51	8.99	34.80	39	33	31	36	
WA16 AA TLM	23-Jan-2013, 11:57	2.91	40 50	40.30	61	45	29	26	
WA16 AB TLM	23-Jan-2013, 12:00	4.19	16.00	58.20	47	56	61	69	
WA16 AC TLM	23-Jan-2013, 12:02	9.80	3.74	136 00	142	139	134	130	
WA16 AD TLM	23-Jan-2013, 12:05	2.13	36.80	29 60	17	25	36	41	
WA16 AE TLM	23-Jan-2013, 12:08	3 21	7.06	44.60	42	42	48	47	
WA16 AF TLM	23-Jan-2013, 12:10	4.17	12.50	58.00	67	60	53	52	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 12:13	471.00	0.19	6540.00	6521	6537	6547	6548	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 12:16	1.38	33.60	19 10	14	15	20	28	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA16 AG TLM	23-Jan-2013, 12:19	14.70	3.58	204 00	194	202	207	211	
WA16 AH TLM	23-Jan-2013, 12:21	-0.02	2140.00	-0.34	9	-1	-9	-1	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 12:24	471.00	0.07	6540.00	6532	6540	6542	6535	

CETAC Hg Analysis Report - 13012300.DB - Wednesday, January 23, 2013, 2:23:04 PM

Analyst
Date Started Wednesday, January 23, 2013, 12:27.15
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 12:27	0.63	26.70	8.68	8	11	6	10	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA67 MB1 TLM	23-Jan-2013, 12:30	3.35	6 54	46.60	51	47	45	44	
WA67 MB1SPK TLM	23-Jan-2013, 12:32	204.00	0.12	2840.00	2838	2840	2839	2833	
WA67 A TLM	23-Jan-2013, 12.35	4.25	5.93	59.00	64	59	55	57	
WA67 B TLM	23-Jan-2013, 12:38	5.90	11.80	81.90	95	83	75	74	
WA67 BDUP TLM	23-Jan-2013, 12:40	2.15	42.50	29.90	16	24	34	46	
WA67 BSPK TLM	23-Jan-2013, 12:43	106.00	1 05	1470.00	1456	1466	1481	1491	
WA67 C TLM	23-Jan-2013, 12:46	9.32	10.80	129.00	145	136	125	112	
WA67 D TLM	23-Jan-2013, 12:49	4 98	10.70	69.20	64	66	68	80	
WA67 E TLM	23-Jan-2013, 12:51	11.40	2.51	159.00	153	160	160	162	
WA67 F TLM	23-Jan-2013, 12:54	6.33	12.80	87.90	104	87	80	81	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 12:57	470.00	0.16	6520.00	6509	6520	6531	6531	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 12:59	-0.79	51.70	-11 00	-4	-8	-16	-15	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA67 G TLM	23-Jan-2013, 13:02	8.75	2.36	122 00	121	125	121	118	
WA67 H TLM	23-Jan-2013, 13:05	59.90	0 82	831.00	835	836	832	821	
WA67 MB2 TLM	23-Jan-2013, 13:08	1.13	29.40	15 70	18	20	15	10	
WA67 MB2SPK TLM	23-Jan-2013, 13:10	189 00	0 35	2620.00	2610	2622	2630	2629	
WA67 I TLM	23-Jan-2013, 13:13	0 56	144.00	7.76	1	-2	9	23	
WA67 J TLM	23-Jan-2013, 13:16	4.36	5.32	60.50	64	62	59	57	
WA67 JDUP TLM	23-Jan-2013, 13.18	4.23	18.00	58 70	70	64	55	46	
WA67 JSPK TLM	23-Jan-2013, 13:21	108 00	0.54	1490.00	1502	1499	1491	1484	
WA67 K TLM	23-Jan-2013, 13:24	5.58	2 80	77.50	78	77	75	80	
WA67 L TLM	23-Jan-2013, 13:26	3.21	13.70	44.50	36	44	49	49	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 13.29	467.00	0.11	6480.00	6477	6488	6487	6473	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 13:32	2.27	13.10	31.60	38	31	30	28	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA67 M TLM	23-Jan-2013, 13:35	2.00	44.40	27.80	14	23	30	44	
WA67 N TLM	23-Jan-2013, 13:37	5 22	10.90	72.40	83	74	69	64	
WA67 O TLM	23-Jan-2013, 13:40	2.30	11.30	32.00	27	32	35	33	
WA67 P TLM	23-Jan-2013, 13 43	44.00	0.74	610.00	612	615	609	605	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	23-Jan-2013, 13:45	466.00	0.24	6480 00	6455	6481	6490	6484	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	23-Jan-2013, 13:48	2 83	44.50	39 30	57	48	35	17	END CLP

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WA15 MB TLM	23-Jan-2013, 13:51	1.62	98.80	22.50	-4	13	35	46	
WA15 MBSPK TLM	23-Jan-2013, 13:54	189.00	0.50	2620.00	2638	2630	2617	2609	
WA15 A TLM	23-Jan-2013, 13:57	47.40	0.28	658.00	660	659	656	658	
WA15 ADUP TLM	23-Jan-2013, 13:59	59.60	1.54	828 00	840	835	826	811	
WA15 ASPK TLM	23-Jan-2013, 14:02	136.00	0.07	1880.00	1882	1885	1885	1883	
WA15 B TLM	23-Jan-2013, 14:05	10.40	5.19	144.00	136	141	146	153	
TEST 1 SPIKE 100PPT	23-Jan-2013, 14:07	91.80	0.25	1280 00	1271	1277	1278	1274	
TEST 2 SPIKE 100PPT	23-Jan-2013, 14:10	96 60	0.18	1340.00	1337	1342	1343	1342	

Analyst	
Date Created:	Wednesday, November 27, 2002
Worksheet	LOW LEVEL CALIB 20 TO 1000 PPT
Comment	
Sip Duration (Sec.):	55
Rinse Duration (Sec.):	100
Read Delay:	75
Integration Time/Replicate:	2.00
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	20
Baseline Point 1 End Time:	24
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	148
Baseline Point 2 End Time:	152
Gas Flow (ml/min):	30
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	2
Calibration Standard #1 Conc.:	20.00 PPT
Calibration Standard #2 Conc.:	50.00 PPT
Calibration Standard #3 Conc.:	100.00 PPT
Calibration Standard #4 Conc.:	200.00 PPT
Calibration Standard #5 Conc.:	400.00 PPT
Calibration Standard #6 Conc.:	1000.00 PPT
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs. > 200, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 90% .. 110%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -20 .. 20,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Digested 20.0mL

Prep Code: TLM Instrument: CETAC

Analyst: DM Date: 01-18-13

Bath Temp: 95°C Start Time: 1355 End Time: 1555

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	3007-4	0.02	↓	0.02	1
STD2	↓	0.05	↓	0.05	1
STD3	↓	0.10	↓	0.1	1
STD4	↓	0.20	↓	0.2	1
STD5	↓	~~0.50~~ 0.4	↓	0.4	1
STD6	↓	1.00	↓	1.00	1
CRA	↓	0.02	↓	0.02	1
ICB/CCB	—	0.00	↓	0.0	1
ICV/LCS	3007-5	1.0	↓	0.5	1
CCV	↓	1.0	100.0	0.5	1

Chemical/Reagent ID:

HNO_3: I7970 H_2SO_4: I7L17 HCl: —

5% $K_2S_2O_8$: MP2418 5% $KMnO_4$: MP2401

Prep Code: _____ Instrument: _____

Analyst: _____ Date: _____

Bath Temp: _____ Start Time: _____ End Time: _____

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0		0.00			
STD1					
STD2		0.05			
STD3		0.10			
STD4		0.20			
STD5		0.50			
STD6		1.00			
CRA					
ICB/CCB		0.00			
ICV/LCS					
CCV					

Chemical/Reagent ID:

HNO_3: _____ H_2SO_4: _____ HCl: _____

5% $K_2S_2O_8$: _____ 5% $KMnO_4$: _____

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM Matrix: WATER
Analyst: CB Date: 01-23-13
Bath Temp: 90°C Start Time: 0935 End Time: 1135

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WA67 A	1	✓	20.0	20.0	2/02 1	Y	
" B	1	✓			1		
" Bdup	1	✓			1		
" Bspk	1	✓			1		
" C	1	✓			1		
" D	1	✓			1		
" E	1	✓			1		
" F	1	✓			1		
" G	1	✓			1		
" H	1	✓			1		
" mB1	—	—			1		
" mB1spk	—	—			1		
" I	1	✓			1		
" J	1	✓			1		
" Jdup	1	✓			1		
" Jspk	1	✓			1		
" K	1	✓			1		
" L	1	✓			1		
" M	1	✓			1		
" N	1	✓			1		
" O	1	✓			1		
" P	1	✓			1		
" mB2	—	—			1		
" mB2spk	—	—	20.0	20.0	1	Y	
			1/23/13				

Chemical/Reagent ID:

HNO_3: I7920 H_2SO_4: I7677 HCl: —
5% $K_2S_2O_8$: MP2418 5% $KMnO_4$: MP2401 Digest Tube Lot: 1205057

Table of Contents: ARI Job WC09, WC10

Client: GeoEngineers

Project: 0504068 ECY-Everett Lowland

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BC
Signature

February-06-2013
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

February 6, 2013

Garrett Leque
GeoEngineers, Inc.
1101 Fawcett, Suite 200
Tacoma, WA 98402

RE: ECY-Everett Lowland, 0504-068-00
ARI Job Nos.: WC09 & WC10

Dear Garrett:

Please find enclosed the Chain-of-Custody record (COC), sample receipt documentation, and the data package for samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile WC09_WC10

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: WC09, WC10

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: WC09	Turn-around Requested: Standard	Page: 1 of 1	
ARI Client Company: GeoEngineers	Phone: 2533834940	Date: 1/29/13	Ice Present? Y
Client Contact: Garrett Legue		No. of Coolers: 1	Cooler Temps: 3.8
Client Project Name: ECY - Everett Lowland			
Client Project #: 0504068	Samplers: PDR		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No Containers	metals total *	metals dissolved *							Notes/Comments
mw1301R-130129-W	1/29	1220	W	2	X	X							
mw1203R-130129-0	1/29	1325	W	2	X	X							
mw1202R-130129-W	1/29	1420	W	2	X	X							
mw1501R-130129-W	1/29	1525	W	2	X	X							
mw1701-130129-W	1/29	1630	W	2	X	X							

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by (Signature)	Received by: (Signature)
* metals: As, Pb, Cd, Hg Tl, Sb	Printed Name: Paul Roisinette	Printed Name: Rich Hudson	Printed Name:	Printed Name:
	Company: GeoEngineers	Company: ARI	Company:	Company:
	Date & Time: 1/31/13 1345	Date & Time: 1/31/13 1345	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: GeoEngineers
Project Name: ECY- Everett Lowland
COC No(s): NA
Delivered by: Fed-Ex UPS Courier Hand Delivered Other:
Assigned ARI Job No: WC09
Tracking No: NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)		3.8

If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID# 90877952

Cooler Accepted by _____ Date 1/31/13 Time 1435 1345 JM

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used?	Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Was Sample Split by ARI NA YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by JM Date: 1/31/13 Time: 1546

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:
Sample ID's on containers are missing (- "Date" - w) per client email
JM
By JM Date 1/31/13

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm	
			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

WC09 00004

PRESERVATION VERIFICATION 01/31/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WC09**

Inquiry Number: NONE
Analysis Requested: 01/31/13
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: JM
Sample Set Used: Yes-481
Validatable Package: LV4
Deliverables:

PC: Cheronne
VTSR: 01/31/13

Project #: 0504068
Project: ECY-Everett Lowland
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-2319 **WC09A**	MW1301R-130129-W						TOT P															
13-2320 **WC09B**	MW1203R-130129-W						TOT P															
13-2321 **WC09C**	MW1202R-130129-W						TOT P															
13-2322 **WC09D**	MW1501R-130129-W						TOT P															
13-2323 **WC09E**	MW1701-130129-W						TOT P															
13-2324 **WC09F**	MW1301R-130129-W						DIS P									Y						
13-2325 **WC09G**	MW1203R-130129-W						DIS P									Y						
13-2326 **WC09H**	MW1202R-130129-W						DIS P									Y						
13-2327 **WC09I**	MW1501R-130129-W						DIS P									Y						
13-2328 **WC09J**	MW1701-130129-W						DIS P									Y						

P = Pass

Checked By JM Date 1/31/13

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: GeoEngineers
Project Name: ECY- Everett Lowland
COC No(s): (NA)
Delivered by: Fed-Ex UPS Courier Hand Delivered Other
Assigned ARI Job No: WCID
Tracking No: NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)		3.8

If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID# 90877952

Cooler Accepted by: _____ Date: 1/31/13 Time: ~~1435~~ 1345

Complete custody forms and attach all shipping documents JM 1/31/13

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Was Sample Split by ARI: (NA) YES Date/Time _____ Equipment: _____ Split by: _____

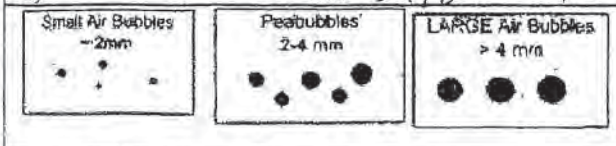
Samples Logged by: JM Date: 1/31/13 Time: 1551

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:
All sample IDs on containers are missing (- "Date" - w) per client email.

By: JM Date: JM 1/31/13



Small → "sm"	
Peabubbles → "pb"	
Large → "lg"	
Headspace → "hs"	

WC09 : 00005

PRESERVATION VERIFICATION 01/31/13
Page 1 of 1

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WC10**

PC: Cheronne
VTSR: 01/31/13

Inquiry Number: NONE
Analysis Requested: 01/31/13
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: JM
Sample Set Used: Yes-481
Validatable Package: LV4
Deliverables:

Project #: 0504068
Project: ECY-Everett Lowland
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-2329 **WC10A**	MW1301R-130129-W						TOT P															
13-2330 **WC10B**	MW1203R-130129-W						TOT P															
13-2331 **WC10C**	MW1202R-130129-W						TOT P															
13-2332 **WC10D**	MW1501R-130129-W						TOT P															
13-2333 **WC10E**	MW1701-130129-W						TOT P															
13-2334 **WC10F**	MW1301R-130129-W						DIS P									Y						
13-2335 **WC10G**	MW1203R-130129-W						DIS P									Y						
13-2336 **WC10H**	MW1202R-130129-W						DIS P									Y						
13-2337 **WC10I**	MW1501R-130129-W						DIS P									Y						
13-2338 **WC10J**	MW1701-130129-W						DIS P									Y						

P = Pass

Checked By JM Date 1/31/13

Subject: Re: Bottle Order / labeling
From: Sue Dunnihoo <sue@arilabs.com>
Date: 1/4/2013 4:19 PM
To: "Garrett R. Leque" <gleque@geoengineers.com>
CC: Brian Anderson <banderson@geoengineers.com>, "Paul D. Robinette" <probinette@geoengineers.com>, Cheronne Oreiro <cheronneo@arilabs.com>

Login has you set up for delivery Monday and everyone says we should be fine on the naming.

Cheers - Sue

On 1/4/2013 4:11 PM, Garrett R. Leque wrote:

> Hi Sue,
>
> As we discussed please have delivered about 20 nitric-preserved bottles and labels to the Everett Lowlands project if possible Monday.
>
> Also, just want to confirm that it is okay to do the following labeling scheme:
>
> For a sample called LLMW06S-130107-W, that name will be recorded on the COC, however the sample label name will just be LLMW06S (see attached).
>
> We'd like everything to be recorded and reported and carried forward with the full name, of course...
>
> Have a good weekend, thanks!
>
> **Garrett Leque, LG**
> **Geologist | GeoEngineers**
> **t:** 253.383.4940
> **f:** 253.383.4923
> **c:** 253.312.7958
>
> Confidentiality This message is confidential and intended solely for use of the individual or entity to whom it is addressed. If you are not the person for whom this message is intended, please delete it and notify me immediately, and please do not copy or send this message to anyone else

--

Susan D. Dunnihoo
Director, Client Services
ANALYTICAL RESOURCES, INC.
206-695-6207
sue@arilabs.com
www.arilabs.com

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If you have received this correspondence in error, please

notify sender immediately. Thank you.

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: WC09, WC10

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative

Client: GeoEngineers
Project: ECY-Everett Lowland, 0504-068-00
ARI Job Nos.: WC09 & WC10

Sample Receipt

Five water samples were received on January 31, 2013 under ARI jobs WC09 & WC10. The cooler temperature measured by IR thermometer following ARI SOP was 3.8°C. For details regarding sample receipt, refer to the Cooler Receipt Forms.

Total and Dissolved Metals by 200.8

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial and continuing calibrations were within limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

Total and Dissolved Mercury by SW7470A

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial and continuing calibrations were within limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WC09
Client: GeoEngineers
Project Event: 0504068
Project Name: ECY-Everett Lowland

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	MW1301R-130129-W	WC09A	13-2319	Water	01/29/13 12:20	01/31/13 13:45
2.	MW1203R-130129-W	WC09B	13-2320	Water	01/29/13 13:25	01/31/13 13:45
3.	MW1202R-130129-W	WC09C	13-2321	Water	01/29/13 14:20	01/31/13 13:45
4.	MW1501R-130129-W	WC09D	13-2322	Water	01/29/13 15:25	01/31/13 13:45
5.	MW1701-130129-W	WC09E	13-2323	Water	01/29/13 16:30	01/31/13 13:45
6.	MW1301R-130129-W	WC09F	13-2324	Water	01/29/13 12:20	01/31/13 13:45
7.	MW1203R-130129-W	WC09G	13-2325	Water	01/29/13 13:25	01/31/13 13:45
8.	MW1202R-130129-W	WC09H	13-2326	Water	01/29/13 14:20	01/31/13 13:45
9.	MW1501R-130129-W	WC09I	13-2327	Water	01/29/13 15:25	01/31/13 13:45
10.	MW1701-130129-W	WC09J	13-2328	Water	01/29/13 16:30	01/31/13 13:45

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WC10
Client: GeoEngineers
Project Event: 0504068
Project Name: ECY-Everett Lowland

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	MW1301R-130129-W	WC10A	13-2329	Water	01/29/13 12:20	01/31/13 13:45
2.	MW1203R-130129-W	WC10B	13-2330	Water	01/29/13 13:25	01/31/13 13:45
3.	MW1202R-130129-W	WC10C	13-2331	Water	01/29/13 14:20	01/31/13 13:45
4.	MW1501R-130129-W	WC10D	13-2332	Water	01/29/13 15:25	01/31/13 13:45
5.	MW1701-130129-W	WC10E	13-2333	Water	01/29/13 16:30	01/31/13 13:45
6.	MW1301R-130129-W	WC10F	13-2334	Water	01/29/13 12:20	01/31/13 13:45
7.	MW1203R-130129-W	WC10G	13-2335	Water	01/29/13 13:25	01/31/13 13:45
8.	MW1202R-130129-W	WC10H	13-2336	Water	01/29/13 14:20	01/31/13 13:45
9.	MW1501R-130129-W	WC10I	13-2337	Water	01/29/13 15:25	01/31/13 13:45
10.	MW1701-130129-W	WC10J	13-2338	Water	01/29/13 16:30	01/31/13 13:45

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Quality Control Parameters for Metals Analysis ICP-MS EPA Methods 200.8 or 6020A

Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[3]	Solids[2]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium[4]	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium[4]	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume Solids LOQ based on 100% solids using 1.0 g sample 100 mL final volume.
(3) Relative Percent Difference in replicate analyzes. $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$ where C_O=Original, C_D=Duplicate
(4) ARI has no accreditation for these elements.

Quality Control Parameters for Mercury Analysis using CVAA
EPA Methods 7470A or 245.1 for Aqueous Samples
EPA Methods 7471B or 245.5 for Solid Samples

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[2]	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.025[3]	75 – 125	80 – 120	≤ 20
	Tissue Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.005[4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

Metals Analysis
Report and Summary QC Forms

ARI Job ID: WC09, WC10

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC09

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
MW1301R-130129-W	WC09A	13-2319	
MW1301R-130129-WD	WC09ADUP	13-2319	
MW1301R-130129-WS	WC09ASPK	13-2319	
MW1203R-130129-W	WC09B	13-2320	
MW1202R-130129-W	WC09C	13-2321	
MW1501R-130129-W	WC09D	13-2322	
MW1701-130129-W	WC09E	13-2323	
PBW	WC09MB1	13-2323	
LCSW	WC09MB1SPK	13-2323	
MW1301R-130129-W	WC09F	13-2324	
MW1301R-130129-WD	WC09FDUP	13-2324	
MW1301R-130129-WS	WC09FSPK	13-2324	
MW1203R-130129-W	WC09G	13-2325	
MW1202R-130129-W	WC09H	13-2326	
MW1501R-130129-W	WC09I	13-2327	
MW1701-130129-W	WC09J	13-2328	
PBW	WC09MB2	13-2328	
LCSW	WC09MB2SPK	13-2328	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: Jay Kuhn Name: Jay Kuhn

Date: 2/6/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW1301R-130129-W
SAMPLE

Lab Sample ID: WC09A
LIMS ID: 13-2319
Matrix: Water
Data Release Authorized:
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/04/13	200.8	02/05/13	**7440-36-0**	**Antimony**	0.2	**1.0**	
200.8	02/04/13	200.8	02/05/13	**7440-38-2**	**Arsenic**	0.2	**1.5**	
200.8	02/04/13	200.8	02/05/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/04/13	200.8	02/05/13	7439-92-1	Lead	0.1	0.1	U
200.8	02/04/13	200.8	02/05/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW1203R-130129-W
SAMPLE

Lab Sample ID: WC09B
LIMS ID: 13-2320
Matrix: Water
Data Release Authorized:
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/04/13	200.8	02/05/13	7440-36-0	Antimony	0.2	0.2	U
200.8	02/04/13	200.8	02/05/13	**7440-38-2**	**Arsenic**	0.2	**1.2**	
200.8	02/04/13	200.8	02/05/13	**7440-43-9**	**Cadmium**	0.1	**0.1**	
200.8	02/04/13	200.8	02/05/13	7439-92-1	Lead	0.1	0.1	U
200.8	02/04/13	200.8	02/05/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW1202R-130129-W
SAMPLE

Lab Sample ID: WC09C
LIMS ID: 13-2321
Matrix: Water
Data Release Authorized:
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/04/13	200.8	02/05/13	**7440-36-0**	**Antimony**	0.2	**1.2**	
200.8	02/04/13	200.8	02/05/13	**7440-38-2**	**Arsenic**	0.2	**3.0**	
200.8	02/04/13	200.8	02/05/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/04/13	200.8	02/05/13	**7439-92-1**	**Lead**	0.1	**0.2**	
200.8	02/04/13	200.8	02/05/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW1501R-130129-W
SAMPLE

Lab Sample ID: WC09D
LIMS ID: 13-2322
Matrix: Water
Data Release Authorized:
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/04/13	200.8	02/05/13	**7440-36-0**	**Antimony**	0.2	**2.9**	
200.8	02/04/13	200.8	02/05/13	**7440-38-2**	**Arsenic**	0.5	**1.8**	
200.8	02/04/13	200.8	02/05/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/04/13	200.8	02/05/13	**7439-92-1**	**Lead**	0.1	**1.0**	
200.8	02/04/13	200.8	02/05/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW1701-130129-W
SAMPLE

Lab Sample ID: WC09E
LIMS ID: 13-2323
Matrix: Water
Data Release Authorized:
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/04/13	200.8	02/05/13	7440-36-0	Antimony	0.2	0.2	U
200.8	02/04/13	200.8	02/05/13	**7440-38-2**	**Arsenic**	0.2	**2.8**	
200.8	02/04/13	200.8	02/05/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	02/04/13	200.8	02/05/13	**7439-92-1**	**Lead**	0.1	**0.2**	
200.8	02/04/13	200.8	02/05/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 11

Sample ID: MW1301R-130129-W

Lab Sample ID: WC09A
LIMS ID: 13-2319
Matrix: Water
Data Release Authorized:
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	1.0	24.0	25.0	92.0%	
Arsenic	200.8	1.5	26.8	25.0	101%	
Cadmium	200.8	0.1 U	23.5	25.0	94.0%	
Lead	200.8	0.1 U	24.7	25.0	98.8%	
Thallium	200.8	0.2 U	26.2	25.0	105%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked
NR-Not Recovered

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 11

Sample ID: MW1301R-130129-W

Lab Sample ID: WC09A
LIMS ID: 13-2319
Matrix: Water
Data Release Authorized:
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	1.0	1.0	0.0%	+/- 20%	
Arsenic	200.8	1.5	1.5	0.0%	+/- 20%	
Cadmium	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Lead	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: WC09LCS
LIMS ID: 13-2323
Matrix: Water
Data Release Authorized:
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	24.3	25.0	97.2%	
Arsenic	200.8	26.0	25.0	104%	
Cadmium	200.8	25.2	25.0	101%	
Lead	200.8	28.4	25.0	114%	
Thallium	200.8	29.3	25.0	117%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: METHOD BLANK

Lab Sample ID: WC09MB
LIMS ID: 13-2323
Matrix: Water
Data Release Authorized:
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/04/13	200.8	02/05/13	7440-36-0	Antimony	0.2	0.2	U
200.8	02/04/13	200.8	02/05/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	02/04/13	200.8	02/05/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/04/13	200.8	02/05/13	7439-92-1	Lead	0.1	0.1	U
200.8	02/04/13	200.8	02/05/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW1301R-130129-W
SAMPLE

Lab Sample ID: WC09F
LIMS ID: 13-2324
Matrix: Water
Data Release Authorized:
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/04/13	200.8	02/05/13	**7440-36-0**	**Antimony**	0.2	**1.0**	
200.8	02/04/13	200.8	02/05/13	**7440-38-2**	**Arsenic**	0.2	**1.5**	
200.8	02/04/13	200.8	02/05/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/04/13	200.8	02/05/13	7439-92-1	Lead	0.1	0.1	U
200.8	02/04/13	200.8	02/05/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW1203R-130129-W
SAMPLE

Lab Sample ID: WC09G
LIMS ID: 13-2325
Matrix: Water
Data Release Authorized:
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/04/13	200.8	02/05/13	7440-36-0	Antimony	0.2	0.2	U
200.8	02/04/13	200.8	02/05/13	**7440-38-2**	**Arsenic**	0.2	**1.2**	
200.8	02/04/13	200.8	02/05/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/04/13	200.8	02/05/13	7439-92-1	Lead	0.1	0.1	U
200.8	02/04/13	200.8	02/05/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW1202R-130129-W
SAMPLE

Lab Sample ID: WC09H
LIMS ID: 13-2326
Matrix: Water
Data Release Authorized:
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/04/13	200.8	02/05/13	**7440-36-0**	**Antimony**	0.2	**1.2**	
200.8	02/04/13	200.8	02/05/13	**7440-38-2**	**Arsenic**	0.2	**2.9**	
200.8	02/04/13	200.8	02/05/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/04/13	200.8	02/05/13	**7439-92-1**	**Lead**	0.1	**0.1**	
200.8	02/04/13	200.8	02/05/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW1501R-130129-W
SAMPLE

Lab Sample ID: WC09I
LIMS ID: 13-2327
Matrix: Water
Data Release Authorized:
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/04/13	200.8	02/05/13	**7440-36-0**	**Antimony**	0.2	**2.9**	
200.8	02/04/13	200.8	02/05/13	**7440-38-2**	**Arsenic**	0.5	**1.7**	
200.8	02/04/13	200.8	02/05/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/04/13	200.8	02/05/13	**7439-92-1**	**Lead**	0.1	**0.7**	
200.8	02/04/13	200.8	02/05/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW1701-130129-W
SAMPLE

Lab Sample ID: WC09J
LIMS ID: 13-2328
Matrix: Water
Data Release Authorized:
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/04/13	200.8	02/05/13	7440-36-0	Antimony	0.2	0.2	U
200.8	02/04/13	200.8	02/05/13	**7440-38-2**	**Arsenic**	0.2	**2.2**	
200.8	02/04/13	200.8	02/05/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/04/13	200.8	02/05/13	7439-92-1	Lead	0.1	0.1	U
200.8	02/04/13	200.8	02/05/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 11

Sample ID: MW1301R-130129-W

Lab Sample ID: WC09F
LIMS ID: 13-2324
Matrix: Water
Data Release Authorized
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	1.0	23.7	25.0	90.8%	
Arsenic	200.8	1.5	27.7	25.0	105%	
Cadmium	200.8	0.1 U	23.0	25.0	92.0%	
Lead	200.8	0.1 U	25.1	25.0	100%	
Thallium	200.8	0.2 U	26.3	25.0	105%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 11

Sample ID: MW1301R-130129-W

Lab Sample ID: WC09F
LIMS ID: 13-2324
Matrix: Water
Data Release Authorized:
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	1.0	1.0	0.0%	+/- 20%	
Arsenic	200.8	1.5	1.4	6.9%	+/- 20%	
Cadmium	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Lead	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: WC09LCS
LIMS ID: 13-2328
Matrix: Water
Data Release Authorized:
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	22.6	25.0	90.4%	
Arsenic	200.8	25.4	25.0	102%	
Cadmium	200.8	24.5	25.0	98.0%	
Lead	200.8	27.2	25.0	109%	
Thallium	200.8	27.7	25.0	111%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: METHOD BLANK

Lab Sample ID: WC09MB
LIMS ID: 13-2328
Matrix: Water
Data Release Authorized:
Reported: 02/06/13

QC Report No: WC09-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/04/13	200.8	02/05/13	7440-36-0	Antimony	0.2	0.2	U
200.8	02/04/13	200.8	02/05/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	02/04/13	200.8	02/05/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/04/13	200.8	02/05/13	7439-92-1	Lead	0.1	0.1	U
200.8	02/04/13	200.8	02/05/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC09

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS020511	50.0	48.01	**96.0**	50.0	50.59	**101.2**	49.22	**98.4**	51.16	**102.3**	48.38	**96.8**	47.55	**95.1**
Arsenic	AS	PMS	MS020511	50.0	49.76	**99.5**	50.0	49.79	**99.6**	47.99	**96.0**	49.58	**99.2**	48.28	**96.6**	47.98	**96.0**
Cadmium	CD	PMS	MS020511	50.0	49.27	**98.5**	50.0	51.64	**103.3**	50.13	**100.3**	50.76	**101.5**	48.77	**97.5**	47.27	**94.5**
Lead	PB	PMS	MS020511	50.0	51.79	**103.6**	50.0	52.00	**104.0**	50.63	**101.3**	52.58	**105.2**	50.20	**100.4**	48.79	**97.6**
Thallium	TL	PMS	MS020511	50.0	53.11	**106.2**	50.0	52.93	**105.9**	51.62	**103.2**	53.90	**107.8**	51.93	**103.9**	50.10	**100.2**

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

000035

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC09

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	PMS	MS020511	50.0	50.29	**100.6**	48.81	**97.6**								
Arsenic	AS	PMS	MS020511	50.0	50.77	**101.5**	49.07	**98.1**								
Cadmium	CD	PMS	MS020511	50.0	48.62	**97.2**	47.08	**94.2**								
Lead	PB	PMS	MS020511	50.0	51.80	**103.6**	50.86	**101.7**								
Thallium	TL	PMS	MS020511	50.0	52.23	**104.5**	52.28	**104.6**								

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

WC09 00037

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

UNITS: ug/L

SDG: WC09

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Antimony	SB	PMS	MS020511	0.2	0.21	**105.0**										
Arsenic	AS	PMS	MS020511	0.2	0.20	**100.0**										
Cadmium	CD	PMS	MS020511	0.1	0.11	**110.0**										
Lead	PB	PMS	MS020511	0.1	0.10	**100.0**										
Thallium	TL	PMS	MS020511	0.2	0.22	**110.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

WC09 : 000038

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC09

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS020511	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS020511	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS020511	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Lead	PB	PMS	MS020511	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Thallium	TL	PMS	MS020511	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

WC09 : 00039

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC09

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	PMS	MS020511	60.0	0.2	0.2	U	0.2	U								
Arsenic	AS	PMS	MS020511	10.0	0.2	0.2	U	0.2	U								
Cadmium	CD	PMS	MS020511	5.0	0.1	0.1	U	0.1	U								
Lead	PB	PMS	MS020511	3.0	0.1	0.1	U	0.1	U								
Thallium	TL	PMS	MS020511	10.0	0.2	0.2	U	0.2	U								

WC09 : 000010

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC09

ICS SOURCE: I.V.

RUNID: MS020511

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.4	**97.0**						
Cadmium		20	0.2	19.3	**96.5**						
Copper		20	1.1	20.7	**103.5**						
Nickel		20	0.4	19.7	**98.5**						
Selenium			-0.2	-0.2							
Silver		20	0.0	19.3	**96.5**						
Thorium			0.1	0.1							
Zinc		20	0.8	18.8	**94.0**						

WC09 : 00041

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC09

UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Antimony	SB	PMS	NEXION 300D MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Cadmium	CD	PMS	NEXION 300D MS	0.00		5	0.1	4/1/2012		
Lead	PB	PMS	NEXION 300D MS	0.00		3	0.1	4/1/2012		
Thallium	TL	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC09

ANALYSIS METHOD: PMS

ARI PREP CODE: REN

PREPDATE: 2/4/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
MW1301R-130129-W	WC09A	0.000	50.0	25.0
MW1301R-130129-WD	WC09ADUP	0.000	50.0	25.0
MW1301R-130129-WS	WC09ASPK	0.000	50.0	25.0
MW1203R-130129-W	WC09B	0.000	50.0	25.0
MW1202R-130129-W	WC09C	0.000	50.0	25.0
MW1501R-130129-W	WC09D	0.000	50.0	25.0
MW1701-130129-W	WC09E	0.000	50.0	25.0
MW1301R-130129-W	WC09F	0.000	50.0	25.0
MW1301R-130129-WD	WC09FDUP	0.000	50.0	25.0
MW1301R-130129-WS	WC09FSPK	0.000	50.0	25.0
MW1203R-130129-W	WC09G	0.000	50.0	25.0
MW1202R-130129-W	WC09H	0.000	50.0	25.0
MW1501R-130129-W	WC09I	0.000	50.0	25.0
MW1701-130129-W	WC09J	0.000	50.0	25.0
PBW	WC09MB1	0.000	50.0	25.0
LCSW	WC09MB1SPK	0.000	50.0	25.0
PBW	WC09MB2	0.000	50.0	25.0
LCSW	WC09MB2SPK	0.000	50.0	25.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland INSTRUMENT ID: NEXION 300D MS START DATE: 2/5/2013

SDG: WC09 RUNID: MS020511 METHOD: PMS END DATE: 2/5/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	08530				X					X												X	X					X			
S1	S1	1.00	08570				X					X												X	X					X			
S2	S2	1.00	09000				X					X												X	X					X			
S3	S3	1.00	09040				X					X												X	X					X			
S4	S4	1.00	09080				X					X												X	X					X			
S5	S5	1.00	09130																														
ZZZZZZ	Rinse sampl	1.00	09200																														
ICV	MICV	1.00	09260				X					X												X	X					X			
ICB	ICB	1.00	09320				X					X												X	X					X			
CCV	MCCV1	1.00	09360				X					X												X	X					X			
CCB	CCB1	1.00	09420				X					X												X	X					X			
CRI	MCRI	1.00	09450				X					X												X	X					X			
ICSA	ICSAI	1.00	09490				X					X												X	X					X			
ICSAB	ICSABI	1.00	09550				X					X												X	X					X			
ZZZZZZ	LR200	1.00	10010																														
ZZZZZZ	B1	1.00	10070																														
CCV	MCCV2	1.00	10130				X					X												X	X					X			
CCB	CCB2	1.00	10190				X					X												X	X					X			
ZZZZZZ	WC03MB1	20.00	10260																														
ZZZZZZ	WC03B	20.00	10300																														
ZZZZZZ	WC03C	20.00	10330																														
ZZZZZZ	WC03A-L	100.00	10370																														
ZZZZZZ	WC03A	20.00	10410																														
ZZZZZZ	WC03ADUP	20.00	10440																														
ZZZZZZ	WC03ASPK	20.00	10480																														
ZZZZZZ	ZZZZZZ	20.00	10510																														
ZZZZZZ	WC03REF1	20.00	10550																														
ZZZZZZ	WC03MB1SPK	20.00	10580																														
CCV	MCCV3	1.00	11030				X					X												X	X					X			
CCB	CCB3	1.00	11090				X					X												X	X					X			
ZZZZZZ	WC03D	20.00	11170																														
ZZZZZZ	WC03E	20.00	11200																														
ZZZZZZ	WC03F	20.00	11240																														
ZZZZZZ	WC03G	20.00	11270																														
ZZZZZZ	WC03H	20.00	11310																														

FORM XIV

WC09 : 000411

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland | INSTRUMENT ID: NEXION 300D MS | START DATE: 2/5/2013

SDG: WC09 | RUNID: MS020511 METHOD: PMS | END DATE: 2/5/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	WC03I	20.00	11340																														
ZZZZZZ	WC03J	20.00	11380																														
ZZZZZZ	WC03K	20.00	11410																														
ZZZZZZ	WC03L	20.00	11450																														
ZZZZZZ	WC03M	20.00	11480																														
CCV	MCCV4	1.00	11530				X					X												X	X					X			
CCB	CCB4	1.00	11590				X					X												X	X					X			
PBW	WC09MB1	2.00	12110				X					X												X	X					X			
ZZZZZZ	WC03N	20.00	12150																														
MW1203R-130129-W	WC09B	2.00	12190				X					X												X	X					X			
MW1202R-130129-W	WC09C	2.00	12220				X					X												X	X					X			
MW1501R-130129-W	WC09D	2.00	12260									X												X	X					X			
MW1301R-130129-WD	WC09ADUP	2.00	12290				X					X												X	X					X			
MW1301R-130129-W	WC09A	2.00	12330				X					X												X	X					X			
MW1301R-130129-WS	WC09ASPK	2.00	12360				X					X												X	X					X			
ZZZZZZ	ZZZZZZ	2.00	12400																														
LCSW	WC09MB1SPK	2.00	12430				X					X												X	X					X			
CCV	MCCV5	1.00	12480				X					X												X	X					X			
CCB	CCB5	1.00	12540				X					X												X	X					X			
PBW	WC09MB2	2.00	13020				X					X												X	X					X			
MW1701-130129-W	WC09E	2.00	13050				X					X												X	X					X			
MW1203R-130129-W	WC09G	2.00	13090				X					X												X	X					X			
MW1202R-130129-W	WC09H	2.00	13120				X					X												X	X					X			
MW1501R-130129-W	WC09I	2.00	13160									X												X	X					X			
MW1301R-130129-WD	WC09FDUP	2.00	13190				X					X												X	X					X			
MW1301R-130129-W	WC09F	2.00	13230				X					X												X	X					X			
MW1301R-130129-WS	WC09FSPK	2.00	13260				X					X												X	X					X			
ZZZZZZ	ZZZZZZ	2.00	13300																														
LCSW	WC09MB2SPK	2.00	13330				X					X												X	X					X			
CCV	MCCV6	1.00	13380				X					X												X	X					X			
CCB	CCB6	1.00	13440				X					X												X	X					X			
MW1701-130129-W	WC09J	2.00	13490				X					X												X	X					X			
MW1501R-130129-W	WC09D	10.00	13530																														
MW1501R-130129-W	WC09I	10.00	13560																														
MW1501R-130129-W	WC09D	5.00	14000				X																										

FORM XIV

WC09 : 00045

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland | INSTRUMENT ID: NEXION 300D MS | START DATE: 2/5/2013

SDG: WC09 | RUNID: MS020511 METHOD: PMS | END DATE: 2/5/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
MW1501R-130129-W	WC09I	5.00	14030				X																										
CCV	MCCV7	1.00	14070				X					X												X	X					X			
CCB	CCB7	1.00	14130				X					X												X	X					X			

UC09 00045

Mercury Analysis
Report and Summary QC Forms

ARI Job ID: WC09, WC10

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC10

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
MW1301R-130129-W	WC10A	13-2329	
MW1203R-130129-W	WC10B	13-2330	
MW1203R-130129-WD	WC10BDUP	13-2330	
MW1203R-130129-WS	WC10BSPK	13-2330	
MW1202R-130129-W	WC10C	13-2331	
MW1501R-130129-W	WC10D	13-2332	
MW1701-130129-W	WC10E	13-2333	
PBW	WC10MB1	13-2333	
LCSW	WC10MB1SPK	13-2333	
MW1301R-130129-W	WC10F	13-2334	
MW1203R-130129-W	WC10G	13-2335	
MW1203R-130129-WD	WC10GDUP	13-2335	
MW1203R-130129-WS	WC10GSPK	13-2335	
MW1202R-130129-W	WC10H	13-2336	
MW1501R-130129-W	WC10I	13-2337	
MW1701-130129-W	WC10J	13-2338	
PBW	WC10MB2	13-2338	
LCSW	WC10MB2SPK	13-2338	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 2/5/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Total Mercury by Method SW7470A

Data Release Authorized:
Reported: 02/04/13
Date Received: 01/31/13

QC Report No: WC10-GeoEngineers
Project: ECY-Everett Lowland
0504068

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
MW1301R-130129-W WC10A 13-2329	01/29/13	Water	02/01/13 02/04/13	20.0	20.0 U
MW1203R-130129-W WC10B 13-2330	01/29/13	Water	02/01/13 02/04/13	20.0	20.0 U
MW1202R-130129-W WC10C 13-2331	01/29/13	Water	02/01/13 02/04/13	**20.0**	**23.8**
MW1501R-130129-W WC10D 13-2332	01/29/13	Water	02/01/13 02/04/13	20.0	20.0 U
MW1701-130129-W WC10E 13-2333	01/29/13	Water	02/01/13 02/04/13	20.0	20.0 U
MB-020113 Method Blank	NA	Water	02/01/13 02/04/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW1203R-130129-W
MATRIX SPIKE

Lab Sample ID: WC10B
LIMS ID: 13-2330
Matrix: Water
Data Release Authorized:
Reported: 02/04/13

QC Report No: WC10-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	97.9	100	97.9%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: MW1203R-130129-W
DUPLICATE

Lab Sample ID: WC10B
LIMS ID: 13-2330
Matrix: Water
Data Release Authorized:
Reported: 02/04/13

QC Report No: WC10-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: WC10LCS
LIMS ID: 13-2333
Matrix: Water
Data Release Authorized:
Reported: 02/04/13

QC Report No: WC10-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	201	200	100%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Dissolved Mercury by Method SW7470A

Data Release Authorized:
Reported: 02/04/13
Date Received: 01/31/13

QC Report No238: WC10-GeoEngineers
Project: ECY-Everett Lowland
0504068

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
MW1301R-130129-W WC10F 13-2334	01/29/13	Water	02/01/13 02/04/13	20.0	20.0 U
MW1203R-130129-W WC10G 13-2335	01/29/13	Water	02/01/13 02/04/13	20.0	20.0 U
MW1202R-130129-W WC10H 13-2336	01/29/13	Water	02/01/13 02/04/13	20.0	20.0 U
MW1501R-130129-W WC10I 13-2337	01/29/13	Water	02/01/13 02/04/13	20.0	20.0 U
MW1701-130129-W WC10J 13-2338	01/29/13	Water	02/01/13 02/04/13	20.0	20.0 U
MB-020113 Method Blank	NA	Water	02/01/13 02/04/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW1203R-130129-W
MATRIX SPIKE

Lab Sample ID: WC10G
LIMS ID: 13-2335
Matrix: Water
Data Release Authorized:
Reported: 02/04/13

QC Report No: WC10-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	100	100	100%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: MW1203R-130129-W
DUPLICATE

Lab Sample ID: WC10G
LIMS ID: 13-2335
Matrix: Water
Data Release Authorized:
Reported: 02/04/13

QC Report No: WC10-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: 01/29/13
Date Received: 01/31/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: WC10LCS
LIMS ID: 13-2338
Matrix: Water
Data Release Authorized:
Reported: 02/04/13

QC Report No: WC10-GeoEngineers
Project: ECY-Everett Lowland
0504068
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	205	200	102%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

UNITS: ng/L

SDG: WC10

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Mercury	HG	CVL	HG020402	500.0	486.00	**97.2**	500.0	528.00	**105.6**	529.00	**105.8**	531.00	**106.2**	531.00	**106.2**		

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

WC09 00057

CRDL Standard

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC10

ANALYTICAL RESOURCES INCORPORATED

UNITS:ng/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Mercury	HG	CVL	HG020402	20.0		18.10	**90.5**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

WC09 : 00058

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

UNITS: ng/L

SDG: WC10

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Mercury	HG	CVL	HG020402	25.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U		

WC09:00059

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC10

UNITS: ng/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ng/L)	ICP LR DATE
Mercury	HG	CVL	CETAC MERCURY	253.70		25	20.0	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC10

ANALYSIS METHOD: CVL

ARI PREP CODE: TLM

PREPDATE: 2/1/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
MW1301R-130129-W	WC10A	0.000	20.0	20.0
MW1203R-130129-W	WC10B	0.000	20.0	20.0
MW1203R-130129-WD	WC10BDUP	0.000	20.0	20.0
MW1203R-130129-WS	WC10BSPK	0.000	20.0	20.0
MW1202R-130129-W	WC10C	0.000	20.0	20.0
MW1501R-130129-W	WC10D	0.000	20.0	20.0
MW1701-130129-W	WC10E	0.000	20.0	20.0
MW1301R-130129-W	WC10F	0.000	20.0	20.0
MW1203R-130129-W	WC10G	0.000	20.0	20.0
MW1203R-130129-WD	WC10GDUP	0.000	20.0	20.0
MW1203R-130129-WS	WC10GSPK	0.000	20.0	20.0
MW1202R-130129-W	WC10H	0.000	20.0	20.0
MW1501R-130129-W	WC10I	0.000	20.0	20.0
MW1701-130129-W	WC10J	0.000	20.0	20.0
PBW	WC10MB1	0.000	20.0	20.0
LCSW	WC10MB1SPK	0.000	20.0	20.0
PBW	WC10MB2	0.000	20.0	20.0
LCSW	WC10MB2SPK	0.000	20.0	20.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland INSTRUMENT ID: CETAC MERCURY START DATE: 2/4/2013

SDG: WC10 RUNID: HG020402 METHOD: CVL END DATE: 2/4/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	12561														X																
S20	S20	1.00	12585														X																
S50	S50	1.00	13013														X																
S100	S100	1.00	13041														X																
S200	S200	1.00	13065														X																
S400	S400	1.00	13094														X																
S1000	S1000	1.00	13122														X																
ICV	AICV	1.00	13303														X																
ICB	ICB	1.00	13331														X																
CCV	ACCV1	1.00	13355														X																
CCB	CCB1	1.00	13384														X																
CRA	CRA	1.00	13412														X																
ZZZZZZ	WC16MB1	1.00	13440																														
ZZZZZZ	WC16MB1SPK	1.00	13464																														
ZZZZZZ	WC16A	1.00	13492																														
ZZZZZZ	WC16ADUP	1.00	13520																														
ZZZZZZ	WC16ASPK	1.00	13544																														
PBW	WC10MB1	1.00	13572														X																
LCSW	WC10MB1SPK	1.00	14001														X																
MW1301R-130129-W	WC10A	1.00	14025														X																
MW1203R-130129-W	WC10B	1.00	14053														X																
CCV	ACCV2	1.00	14082														X																
CCB	CCB2	1.00	14110														X																
MW1203R-130129-WD	WC10BDUP	1.00	14135														X																
MW1203R-130129-WS	WC10BSPK	1.00	14163														X																
MW1202R-130129-W	WC10C	1.00	14191														X																
MW1501R-130129-W	WC10D	1.00	14215														X																
MW1701-130129-W	WC10E	1.00	14243														X																
PBW	WC10MB2	1.00	14271														X																
LCSW	WC10MB2SPK	1.00	14295														X																
MW1301R-130129-W	WC10F	1.00	14323														X																
MW1203R-130129-W	WC10G	1.00	14351														X																
MW1203R-130129-WD	WC10GDUP	1.00	14380														X																
CCV	ACCV3	1.00	14404														X																
CCB	CCB3	1.00	14433														X																

FORM XIV

25000 : 60JM

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland | INSTRUMENT ID: CETAC MERCURY | START DATE: 2/4/2013

SDG: WC10 | RUNID: HG020402 | METHOD: CVL | END DATE: 2/4/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
MW1203R-130129-WS	WC10GSPK	1.00	14461														X																
MW1202R-130129-W	WC10H	1.00	14490														X																
MW1501R-130129-W	WC10I	1.00	14514														X																
MW1701-130129-W	WC10J	1.00	14542														X																
CCV	ACCV4	1.00	14570														X																
CCB	CCB4	1.00	14595														X																

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WC09, WC10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: CB

Date: 2-04-13

Final Volume 25.0

Final Volume (Hg):

Sample ID WCG 7, ASSPK, FSSPK, mBLS mBLSPK mB2SPK CB 2/04/13

Prepcode:				
Spike Solution:		ICP Routine	ICP No GFA	GFA
Standard No..				
Vol Added (mL):				
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	REN ICP-MS #1	REN ICP-MS #2	ICP-MS Minerals
	2987-2	5001-1 ~~5001-1~~	CB 02/04/13
	0.05	0.05	
Ag	25		
Al			500
As	25 J		
Ba	25		
Be	25		
Ca			500
Cd	25 J		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25 J		
Sb		25 J	
Se	80		
Tl	25 J		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc	Stock Added	Std N
Hg		CVA	1.0		
Hg MBSPK		CVA	1.0		
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc	Stock Added	Std. No.

5033F

UC09 00055

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: LB Date: 02-04-13 Time: 0800

Matrix: WATER Block ID: #12 Block Temp: 95°C Thermometer: mp46

ARI Sample ID	Btl #	pH<2	Prep Code: REN Initial ~~Wt (g)~~ Vol (mL)	Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Final Vol (mL)	Comments
WC09 A	1	✓	50.C	25.C			
" Adup	1	✓					
" ASpk	1	✓					
" B	1	✓					
" C	1	✓					
" D	1	✓					
" E	1	✓					
" MB1	–	–					
" MB1Spk	–	–					
" F	1	✓					
" Fdup	1	✓					
" FSpk	1	✓					
" G	1	✓					
" H	1	✓					
" I	1	✓					
" J	1	✓					
" MB2	–	–					
" MB2Spk	–	–	50.C	25 C			
				02-04-13 LB			

Chemical/Reagent ID:

HNO_3: mp442b HCl: – H_2O_2: I7845 Tube Lot #: 120805-7

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WC09, WC10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 2-5-13 **Analyst:** AA **Page:** 1 **of** 4

All corrections made by analyst unless otherwise noted. AA 2-5-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			3009-9
		1			3008-3
		2			3008-5
		3			3009-1 (Zn high)
		4			3010-2 (Zn low)
		5			3009-2 (Zn low) sl noisy
		Rinse Sample			Zn Poor Curve (NR)
		ICV			~~3010~~ 3011-10
		ICB			
		CCV1			Ag ~~Sb~~ sl noisy ok
		CCB1			
		Low check			
		ICSA			Cd ↑
		ICSAB			^{62}Ni ↑
		LRZ00			
		B1			
		CCV2			
		CCB2			^{62}Ni ↑
		WC03 MB1	SWN	20	
		B			
		C			
		A-L		100	✓
		A		20	
		ADup			✓

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 1-5-13 **Analyst:** AT **Page:** 2 of 4

AT 2-5-13

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WC03 Aspk	SWN	20	✓
ZZZ		ZZZZZZ ~~APOST~~			
		Refl			✓
		MBispk			✓
		CCV3			
		CCB3			62Ni ↑
		WC09 3 D	SWN	20	
		E			
		F			
		G			
		H			
		I			
		J			
		K			
		L			
		M			
		CCV4			
		CCB4			62Ni ↑
		WC09 MB1	REN	2	
		WC03 N	SWN	20	
		WC09 B	REN	2	
		C			
		D			RR As
		ADup			✓

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 2-5-13 **Analyst:** AK **Page:** 3 **of** 4

All corrections made by analyst unless otherwise noted. 2-5-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WC09 A	REN	2	
		Aspk			✓
zzz		~~zzzzzz~~ ~~APost~~			
		MBlspk			✓
		CCV5			^{62}Ni ↑ ^{66}Zn ^{67}Zn ↓
		CCB5			^{62}Ni Th ↑
		WC09 MB2	REN	2	
		E			
		G			
		H			
		I			RUN AS
		FDup			✓
		F			
		Fspk			✓
zzz		~~zzzzzz~~ ~~FPost~~			
		MB2spk			✓ In sl noisy
		CCV6			^{62}Ni ↑
		CCB6			^{62}Ni ↑
		WC09 J	REN	2	
		D		10	use 5%
		I		6	
		D		5	AS
		I		6	
		CCV7 / CCB7			^{62}Ni ↑ / ^{62}Ni ^{63}Cu ↑ also Th and pkg

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA

Analysis Date: 2-5-13

M2	Analyst AZ 2-6	Peer EA 2-6-13	Comment
Logbook			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	See log
Curve fit	✓	✓	See log
Calibration Verification			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	See log
Samples			
RSD's & SD's	✓	✓	See log
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	See log
Analytic Spikes	—	—	WC03
Matrix QC			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Distribution			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysis Notes and CAFs	—	—	

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Tuesday, February 05, 2013 08:11:59
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1787
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time (ns): 60
Current Dead Time (ns): 60

Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
Be	9.0	3806.3	3806.336	60.705	1.6	Standard
Mg	24.0	32882.5	32882.486	309.025	0.9	Standard
In	114.9	69618.7	69618.668	334.269	0.5	Standard
Pb	208.0	33366.5	33366.536	266.567	0.8	Standard
U	238.1	55026.2	55026.214	347.023	0.6	Standard
CeO	155.9	937.5	0.012	0.000	3.5	Standard
> Ce	139.9	77930.1	77930.106	585.700	0.8	Standard
Ce++	70.0	685.9	0.009	0.000	2.8	Standard
Bkgd	220.0	0.1	0.133	0.075	55.9	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

WC09 : 00072

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 2/5/2013 8:14:46 AM
nd Time: 2/5/2013 8:15:31 AM

orch Alignment - [Passed]

Vertical	Horizontal	Intensity
-0.87 mm	2.02 mm	77707.63

UC09 00073

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 2/5/2013 8:15:45 AM
nd Time: 2/5/2013 8:17:57 AM

lass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.075), Target/Obtained resolution (0.7/0.689)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.718)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.702)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.699)

WC09 00074

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 2/5/2013 8:18:22 AM
nd Time: 2/5/2013 8:22:33 AM

utoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.996; Intercept = -12.04

WC09 00075

SmartTune Wizard - Details

```
ptimization Details

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

ptimization Status

tart Time: 2/5/2013 8:22:55 AM

aily Performance Check
       Optimization Settings:
              Method: C:\NexIONData\Method\Daily Performancenew.mth.
              Intensity Criterion: Be 9.0122 > 3000
              Intensity Criterion: Mg 23.985 > 20000
              Intensity Criterion: In 114.904 > 50000
              Intensity Criterion: Pb 207.977 > 20000
              Intensity Criterion: U 238.05 > 40000
              Intensity Criterion: Bkgd 220 <= 5
              Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
              Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

       Optimization Results:
       Initial Try
              Obtained Intensity (Be 9.0122): 4093.01
              Obtained Intensity (Mg 23.985): 34767.05
              Obtained Intensity (In 114.904): 75212.98
              Obtained Intensity (Pb 207.977): 34917.47
              Obtained Intensity (U 238.05): 58532.99
              Obtained Intensity (Bkgd 220): 0.07
              Obtained Formula (CeO 155.9 / Ce 139.905): 0.014 (=1168.55 / 84785.68)
              Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.010 (=853.51 / 84785.68)
Passed]  Optimum value(s): N/A

nd Time: 2/5/2013 8:25:30 AM
```


UC09 00076

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 08:53:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
	C	13		ug/L				54952	1
	Cl	37		ug/L				3779893	3
>	Ge	72		ug/L				546744	5
	Ni	60		ug/L				54	13
	Ni	62		ug/L				253	2
	Cu	63		ug/L				232	16
	Cu	65		ug/L				53	7
	Zn	66		ug/L				421	3
	Zn	67		ug/L				71	5
	Zn	68		ug/L				399	4
	As	75		ug/L				239	9
	As-1	75		ug/L				9070	0
	Se	82		ug/L				4	273
	Se	78		ug/L				9189	0
	Y	89		ug/L				353990	3
	Kr	83		ug/L				476	3
>	In	115		ug/L				878044	1
	Ag	107		ug/L				15	33
	Cd	111		ug/L				60	17
	Cd	114		ug/L				24	22
	Sb	121		ug/L				29	22
	Sb	123		ug/L				27	48
>	Tb	159		ug/L				1213965	2
	Tl	205		ug/L				61	4
	Pb	208		ug/L				707	107
	Bi	209		ug/L				2249748	3
	Th	232		ug/L				47	35
	U	238		ug/L				3	57

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 08:57:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			54952	56579	2
	Cl	37		ug/L			3779893	3768858	3
>	Ge	72		ug/L			546744	557525	1
	Ni	60	0.500	ug/L	0.025	4	54	1896	3
	Ni	62	0.500	ug/L	0.042	8	253	510	3
	Cu	63	0.500	ug/L	0.005	1	232	4229	1
	Cu	65	0.500	ug/L	0.016	3	53	1828	3
	Zn	66	4.000	ug/L	0.149	3	421	8726	2
	Zn	67	4.000	ug/L	0.228	5	71	1305	4
	Zn	68	4.000	ug/L	0.215	5	399	6108	3
	As	75	0.200	ug/L	0.037	18	239	641	12
	As-1	75	0.200	ug/L	0.136	68	9070	9470	0
	Se	82	0.500	ug/L	0.120	23	4	111	24
	Se	78	0.500	ug/L	0.812	162	9189	9466	0
	Y	89		ug/L			353990	364647	2
	Kr	83		ug/L			476	486	4
>	In	115		ug/L			878044	907751	2
	Ag	107	0.200	ug/L	0.016	8	15	1589	6
	Cd	111	0.100	ug/L	0 004	4	60	498	5
	Cd	114	0.100	ug/L	0 002	1	24	1190	0
	Sb	121	0.200	ug/L	0.008	4	29	2448	2
	Sb	123	0.200	ug/L	0.009	4	27	1863	2
>	Tb	159		ug/L			1213965	1216743	0
	Tl	205	0.200	ug/L	0.004	1	61	7401	0
	Pb	208	0.100	ug/L	0 002	2	707	5215	0
	Bi	209		ug/L			2249748	2289377	1
	Th	232	0.200	ug/L	0.003	1	47	7108	0
	U	238	0.200	ug/L	0.000	0	3	8636	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 09:00:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			54952	56214	2
	Cl	37		ug/L			3779893	3738541	1
>	Ge	72		ug/L			546744	566277	3
	Ni	60	10.000	ug/L	0.501	5	54	37299	1
	Ni	62	10.000	ug/L	0.154	1	253	5387	2
	Cu	63	9.999	ug/L	0.057	0	232	78287	2
	Cu	65	10.000	ug/L	0.300	3	53	35786	1
	Zn	66	10.005	ug/L	0.659	6	421	21567	5
	Zn	67	10.184	ug/L	0.232	2	71	3676	1
	Zn	68	10.039	ug/L	0.346	3	399	15312	0
	As	75	10.000	ug/L	0.337	3	239	19510	2
	As-1	75	10.002	ug/L	0.431	4	9070	28549	1
	Se	82	9.998	ug/L	0.436	4	4	2031	1
	Se	78	10.015	ug/L	0.912	9	9189	14564	0
	Y	89		ug/L			353990	371122	2
	Kr	83		ug/L			476	501	2
>	In	115		ug/L			878044	911074	2
	Ag	107	10.000	ug/L	0.082	0	15	80073	1
	Cd	111	10.000	ug/L	0.382	3	60	45068	2
	Cd	114	10.000	ug/L	0.189	1	24	115296	1
	Sb	121	10.000	ug/L	0.115	1	29	127330	2
	Sb	123	10.000	ug/L	0.317	3	27	95272	2
>	Tb	159		ug/L			1213965	1231633	0
	Tl	205	10.000	ug/L	0 079	0	61	366344	0
	Pb	208	10.000	ug/L	0 089	0	707	482414	0
	Bi	209		ug/L			2249748	2310075	1
	Th	232	10.001	ug/L	0.125	1	47	410304	1
	U	238	10.000	ug/L	0.058	0	3	443459	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 09:04:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			54952	57461	4
	Cl	37		ug/L			3779893	3823425	3
>	Ge	72		ug/L			546744	560320	2
	Ni	60	19.956	ug/L	0.168	0	54	73024	1
	Ni	62	19.970	ug/L	0.173	0	253	10327	1
	Cu	63	20.045	ug/L	0.723	3	232	156360	1
	Cu	65	19.907	ug/L	0.964	4	53	69141	2
	Zn	66	23.069	ug/L	1.366	5	421	102829	3
	Zn	67	22.856	ug/L	0.605	2	71	15832	1
	Zn	68	23.031	ug/L	0.310	1	399	71281	1
	As	75	19.948	ug/L	0.896	4	239	37867	1
	As-1	75	19.972	ug/L	0.970	4	9070	46937	1
	Se	82	19.972	ug/L	0.472	2	4	3990	0
	Se	78	20.061	ug/L	0.781	3	9189	19557	0
	Y	89		ug/L			353990	363162	2
	Kr	83		ug/L			476	484	2
>	In	115		ug/L			878044	910398	1
	Ag	107	19.939	ug/L	0.359	1	15	157631	3
	Cd	111	19.923	ug/L	0.562	2	60	88319	1
	Cd	114	19.983	ug/L	0.676	3	24	229425	2
	Sb	121	19.949	ug/L	0.221	1	29	251220	1
	Sb	123	19.969	ug/L	0 462	2	27	188910	0
>	Tb	159		ug/L			1213965	1231822	0
	Tl	205	19.913	ug/L	0 489	2	61	717105	2
	Pb	208	20.094	ug/L	0.087	0	707	987446	0
	Bi	209		ug/L			2249748	2245715	0
	Th	232	20.053	ug/L	0.160	0	47	831681	0
	U	238	19.924	ug/L	0.083	0	3	870425	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 09:08:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			54952	55641	1
	Cl	37		ug/L			3779893	4008507	3
>	Ge	72		ug/L			546744	550157	2
	Ni	60	49.961	ug/L	2.112	4	54	178657	2
	Ni	62	50.079	ug/L	1.204	2	253	25238	0
	Cu	63	49.956	ug/L	0.075	0	232	380851	2
	Cu	65	50.213	ug/L	0.911	1	53	175057	3
	Zn	66	41.922	ug/L	2.089	4	421	102930	3
	Zn	67	42.983	ug/L	1.881	4	71	17392	3
	Zn	68	42.379	ug/L	0.542	1	399	74063	1
	As	75	50.105	ug/L	1.605	3	239	94037	1
	As-1	75	50.115	ug/L	2.013	4	9070	102974	1
	Se	82	50.185	ug/L	0.619	1	4	10028	1
	Se	78	50.231	ug/L	1.947	3	9189	34770	1
	Y	89		ug/L			353990	360292	0
	Kr	83		ug/L			476	498	4
>	In	115		ug/L			878044	882522	0
	Ag	107	49.983	ug/L	1.532	3	15	382302	3
	Cd	111	50.185	ug/L	0.869	1	60	219663	1
	Cd	114	49.978	ug/L	1.093	2	24	555069	1
	Sb	121	50.231	ug/L	0.820	1	29	627722	1
	Sb	123	50.210	ug/L	0 953	1	27	470372	1
>	Tb	159		ug/L			1213965	1216304	0
	Tl	205	50.023	ug/L	1.013	2	61	1782729	1
	Pb	208	49.624	ug/L	0.458	0	707	2319494	0
	Bi	209		ug/L			2249748	2210534	1
	Th	232	49.627	ug/L	0 158	0	47	1959063	0
	U	238	49.553	ug/L	0.692	1	3	2045944	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 09:13:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			54952	57221	5
	Cl	37		ug/L			3779893	4083218	2
>	Ge	72		ug/L			546744	539226	5
	Ni	60	99.840	ug/L	8.095	8	54	347265	3
	Ni	62	100.491	ug/L	3.968	3	253	50153	1
	Cu	63	100.011	ug/L	5.247	5	232	746063	1
	Cu	65	99.842	ug/L	3.246	3	53	338868	1
	Zn	66	94.986	ug/L	7.301	7	421	195225	2
	Zn	67	96.581	ug/L	7.487	7	71	34256	2
	Zn	68	95.090	ug/L	4.457	4	399	139513	1
	As	75	100.067	ug/L	5.137	5	239	184015	0
	As-1	75	100.180	ug/L	5 304	5	9070	193694	0
	Se	82	99.407	ug/L	6 206	6	4	19050	1
	Se	78	99.843	ug/L	6.816	6	9189	58440	1
	Y	89		ug/L			353990	357085	0
	Kr	83		ug/L			476	521	5
>	In	115		ug/L			878044	869436	0
	Ag	107	99.998	ug/L	2.821	2	15	753351	2
	Cd	111	99.679	ug/L	0.496	0	60	425266	1
	Cd	114	99.955	ug/L	1.226	1	24	1092059	0
	Sb	121	99.745	ug/L	1 610	1	29	1217646	1
	Sb	123	100.136	ug/L	0.265	0	27	928432	0
>	Tb	159		ug/L			1213965	1194598	0
	Tl	205	98.241	ug/L	1.427	1	61	3248271	1
	Pb	208	98.937	ug/L	0.720	0	707	4385874	0
	Bi	209		ug/L			2249748	2115975	1
	Th	232	100.238	ug/L	3 528	3	47	3917224	3
	U	238	99.549	ug/L	2.514	2	3	3976978	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 09:20:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020113.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			54952	53113	0
	Cl	37		ug/L			3779893	3898182	1
>	Ge	72		ug/L			546744	552494	0
	Ni	60	0.002	ug/L	0.004	235	54	61	24
	Ni	62	0.146	ug/L	0.040	27	253	330	5
	Cu	63	0.018	ug/L	0.013	68	232	376	25
	Cu	65	0.015	ug/L	0.019	128	53	105	63
	Zn	66	0.023	ug/L	0.025	110	421	473	11
	Zn	67	0.006	ug/L	0.034	561	71	74	17
	Zn	68	0.038	ug/L	0.035	94	399	460	11
	As	75	0.015	ug/L	0.014	92	239	269	9
	As-1	75	-0.047	ug/L	0.078	163	9070	9076	1
	Se	82	-0.018	ug/L	0.062	345	4	0	1456
	Se	78	-0.227	ug/L	0.289	127	9189	9170	1
	Y	89		ug/L			353990	364642	4
	Kr	83		ug/L			476	495	3
>	In	115		ug/L			878044	882708	1
	Ag	107	0.012	ug/L	0.004	30	15	105	26
	Cd	111	0.006	ug/L	0.002	34	60	88	11
	Cd	114	0.003	ug/L	0.003	102	24	60	60
	Sb	121	0.060	ug/L	0.009	15	29	778	14
	Sb	123	0.058	ug/L	0.009	14	27	568	13
>	Tb	159		ug/L			1213965	1208612	0
	Tl	205	0.012	ug/L	0.004	31	61	450	26
	Pb	208	-0.007	ug/L	0.002	21	707	389	18
	Bi	209		ug/L			2249748	2278423	2
	Th	232	0.235	ug/L	0.052	22	47	9343	22
	U	238	0.003	ug/L	0.001	37	3	144	36

Sample Information

Sample Date/Time: Tuesday, February 05, 2013 09:13:52
Method File: C:\NexION Data\Method\200.8GFA+.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Ge	72							
Ni	60	**1.0000**	0.006	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**1.0000**	0.014	0.50	10	20	50	100
Cu	65	**1.0000**	0.006	0.50	10	20	50	100
Zn	66	**0.9703**	0.004	4.00	10	20	50	100
Zn	67	**0.9801**	0.001	4.00	10	20	50	100
Zn	68	**0.9731**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9998**	0.000	0.50	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.009	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.013	0.10	10	20	50	100
Sb	121	**1.0000**	0.014	0.20	10	20	50	100
Sb	123	**1.0000**	0.011	0.20	10	20	50	100
Tb	159							
Tl	205	**0.9995**	0.028	0.20	10	20	50	100
Pb	208	**0.9998**	0.037	0.10	10	20	50	100
Bi	209							
Th	232	**1.0000**	0.033	0.20	10	20	50	100
U	238	**0.9999**	0.033	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 09:26:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			54952	51079	0
	Cl	37		ug/L			3779893	3975071	4
>	Ge	72		ug/L			546744	530890	2
	Ni	60	**51.617**	ug/L	2.781	5	54	177098	2
	Ni	62	**51.285**	ug/L	1.072	2	253	25355	3
	Cu	63	**51.943**	ug/L	0.862	1	232	382172	2
	Cu	65	**49.937**	ug/L	1.027	2	53	167009	0
	Zn	66	**48.337**	ug/L	3.114	6	421	98142	3
	Zn	67	**46.803**	ug/L	2.030	4	71	16411	2
	Zn	68	**48.139**	ug/L	1 793	3	399	69783	0
	As	75	**49.762**	ug/L	1.427	2	239	90315	0
	As-1	75	**49.863**	ug/L	1.915	3	9070	99438	0
	Se	82	**80.347**	ug/L	1.476	1	4	14966	1
	Se	78	**79.134**	ug/L	3.284	4	9189	47505	1
	Y	89		ug/L			353990	352335	2
	Kr	83		ug/L			476	509	4
>	In	115		ug/L			878044	869309	1
	Ag	107	**49.969**	ug/L	0.950	1	15	376399	1
	Cd	111	**49.266**	ug/L	0.819	1	60	210152	0
	Cd	114	**48.724**	ug/L	1.718	3	24	532106	2
	Sb	121	**48.010**	ug/L	1.204	2	29	585885	1
	Sb	123	**48.702**	ug/L	1 100	2	27	451420	1
>	Tb	159		ug/L			1213965	1188742	1
	Tl	205	**53.112**	ug/L	0 978	1	61	1747443	1
	Pb	208	**51.790**	ug/L	0.793	1	707	2284722	0
	Bi	209		ug/L			2249748	2144040	0
	Th	232	**51.393**	ug/L	0.815	1	47	1998487	0
	U	238	**50.889**	ug/L	0.595	1	3	2023274	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 09:32:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	53243	3
	Cl	37		ug/L			3779893	3751959	3
>	Ge	72		ug/L			546744	537455	3
	Ni	60	-0.000	ug/L	0.003	1018	54	52	22
	Ni	62	0.087	ug/L	0 027	30	253	292	7
	Cu	63	0.004	ug/L	0.003	71	232	261	7
	Cu	65	0.005	ug/L	0.003	67	53	69	20
	Zn	66	0.006	ug/L	0 020	328	421	425	6
	Zn	67	-0.018	ug/L	0.025	137	71	63	13
	Zn	68	0.024	ug/L	0.009	36	399	427	0
	As	75	0.006	ug/L	0 008	123	239	246	4
	As-1	75	0.078	ug/L	0.195	248	9070	9052	0
	Se	82	0.001	ug/L	0.067	5308	4	4	301
	Se	78	0.290	ug/L	0.761	262	9189	9168	0
	Y	89		ug/L			353990	349410	4
	Kr	83		ug/L			476	482	6
>	In	115		ug/L			878044	869140	2
	Ag	107	0.010	ug/L	0.011	107	15	92	89
	Cd	111	0.010	ug/L	0.013	130	60	100	53
	Cd	114	0.006	ug/L	0.009	141	24	91	103
	Sb	121	0.021	ug/L	0.009	44	29	285	39
	Sb	123	0.022	ug/L	0.011	51	27	230	45
>	Tb	159		ug/L			1213965	1165804	2
	Tl	205	0.007	ug/L	0.005	66	61	298	54
	Pb	208	-0.006	ug/L	0.004	61	707	433	36
	Bi	209		ug/L			2249748	2204787	1
	Th	232	0.114	ug/L	0.024	20	47	4391	20
	U	238	0.004	ug/L	0.003	71	3	159	71

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 09:36:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			54952	52065	2
	Cl	37		ug/L			3779893	3889889	5
>	Ge	72		ug/L			546744	532513	1
	Ni	60	50.003	ug/L	1.189	2	54	172264	3
	Ni	62	49.680	ug/L	0.507	1	253	24642	1
	Cu	63	50.264	ug/L	1.187	2	232	371024	2
	Cu	65	49.484	ug/L	2 770	5	53	166000	4
	Zn	66	47.918	ug/L	2.476	5	421	97682	4
	Zn	67	46.999	ug/L	1.363	2	71	16537	1
	Zn	68	48.634	ug/L	0.557	1	399	70758	0
	As	75	49.788	ug/L	1.787	3	239	90661	2
	As-1	75	49.824	ug/L	2.028	4	9070	99706	2
	Se	82	51.685	ug/L	1.100	2	4	9661	1
	Se	78	51.079	ug/L	1.428	2	9189	33945	1
	Y	89		ug/L			353990	356565	1
	Kr	83		ug/L			476	499	3
>	In	115		ug/L			878044	851878	0
	Ag	107	49.993	ug/L	3.180	6	15	369007	5
	Cd	111	51.643	ug/L	0.336	0	60	215897	0
	Cd	114	51.308	ug/L	0.753	1	24	549286	1
	Sb	121	50.591	ug/L	0 383	0	29	605107	0
	Sb	123	50.092	ug/L	0.231	0	27	455069	0
>	Tb	159		ug/L			1213965	1171248	2
	Tl	205	52.926	ug/L	1 053	1	61	1715411	0
	Pb	208	51.996	ug/L	1 388	2	707	2259466	0
	Bi	209		ug/L			2249748	2143833	1
	Th	232	50.791	ug/L	1.202	2	47	1945606	0
	U	238	50.736	ug/L	1 202	2	3	1986855	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 09:42:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			54952	53754	4
	Cl	37		ug/L			3779893	3791148	1
>	Ge	72		ug/L			546744	528085	0
	Ni	60	0.002	ug/L	0.002	109	54	58	10
	Ni	62	0.083	ug/L	0.040	47	253	285	6
	Cu	63	0.008	ug/L	0.002	29	232	281	5
	Cu	65	0.003	ug/L	0.002	66	53	61	10
	Zn	66	0.002	ug/L	0.005	354	421	409	2
	Zn	67	-0.003	ug/L	0.024	684	71	67	11
	Zn	68	0.039	ug/L	0.007	17	399	441	2
	As	75	0.030	ug/L	0.012	40	239	285	7
	As-1	75	0.196	ug/L	0.019	9	9070	9116	0
	Se	82	-0.021	ug/L	0.010	48	4	0	682
	Se	78	0.678	ug/L	0 045	6	9189	9204	0
	Y	89		ug/L			353990	356282	1
	Kr	83		ug/L			476	510	6
>	In	115		ug/L			878044	873002	0
	Ag	107	0.006	ug/L	0.002	25	15	62	19
	Cd	111	0.005	ug/L	0.001	28	60	80	6
	Cd	114	0.001	ug/L	0 001	61	24	39	23
	Sb	121	0.038	ug/L	0 005	11	29	498	10
	Sb	123	0.040	ug/L	0.003	7	27	395	7
>	Tb	159		ug/L			1213965	1196159	1
	Tl	205	0.011	ug/L	0.002	18	61	408	15
	Pb	208	-0.006	ug/L	0.004	71	707	435	41
	Bi	209		ug/L			2249748	2224098	1
	Th	232	0.191	ug/L	0.026	13	47	7526	14
	U	238	0.004	ug/L	0 003	79	3	146	76

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 09:45:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	53682	5
	Cl	37		ug/L			3779893	3749984	2
>	Ge	72		ug/L			546744	549063	2
	Ni	60	0.498	ug/L	0.007	1	54	1823	2
	Ni	62	0.568	ug/L	0.011	2	253	542	2
	Cu	63	0.514	ug/L	0.007	1	232	4146	3
	Cu	65	0.490	ug/L	0.052	10	53	1747	7
	Zn	66	3.754	ug/L	0.155	4	421	8277	1
	Zn	67	3.366	ug/L	0.162	4	71	1287	2
	Zn	68	3.645	ug/L	0.076	2	399	5837	0
	As	75	0.199	ug/L	0 014	6	239	612	5
	As-1	75	0.180	ug/L	0.132	73	9070	9443	0
	Se	82	0.487	ug/L	0.028	5	4	98	5
	Se	78	0.448	ug/L	0.470	104	9189	9450	0
	Y	89		ug/L			353990	354608	2
	Kr	83		ug/L			476	505	7
>	In	115		ug/L			878044	872577	1
	Ag	107	0.208	ug/L	0.003	1	15	1588	0
	Cd	111	0.109	ug/L	0.009	8	60	526	8
	Cd	114	0.105	ug/L	0.006	5	24	1177	3
	Sb	121	0.209	ug/L	0.006	2	29	2585	2
	Sb	123	0.211	ug/L	0.007	3	27	1993	2
>	Tb	159		ug/L			1213965	1174694	0
	Tl	205	0.223	ug/L	0.002	0	61	7309	0
	Pb	208	0.097	ug/L	0 003	3	707	4915	2
	Bi	209		ug/L			2249748	2225596	0
	Th	232	0.251	ug/L	0.011	4	47	9672	3
	U	238	0.218	ug/L	0.002	1	3	8574	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 09:49:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	135999	2
	Cl	37		ug/L			3779893	10607516	2
>	Ge	72		ug/L			546744	549914	1
	Ni	60	0.357	ug/L	0.007	1	54	1322	0
	Ni	62	6.129	ug/L	0.943	15	253	3362	14
	Cu	63	1.105	ug/L	0.067	6	232	8654	6
	Cu	65	0.389	ug/L	0.003	0	53	1400	0
	Zn	66	0.792	ug/L	0.006	0	421	2083	0
	Zn	67	4.837	ug/L	0.050	1	71	1822	1
	Zn	68	0.259	ug/L	0.005	1	399	789	1
	As	75	0.089	ug/L	0.104	116	239	409	48
	As-1	75	0.303	ug/L	0.061	20	9070	9695	2
	Se	82	-0.227	ug/L	0.015	6	4	-39	8
	Se	78	0.927	ug/L	0.240	25	9189	9709	0
	Y	89		ug/L			353990	359365	2
	Kr	83		ug/L			476	702	2
>	In	115		ug/L			878044	885013	2
	Ag	107	0.018	ug/L	0.003	14	15	154	10
	Cd	111	0.224	ug/L	0.009	4	60	1034	5
	Cd	114	0.312	ug/L	0.006	1	24	3496	1
	Sb	121	0.072	ug/L	0.007	10	29	925	10
	Sb	123	0.071	ug/L	0.005	6	27	693	7
>	Tb	159		ug/L			1213965	1249369	0
	Tl	205	0.044	ug/L	0 006	14	61	1597	14
	Pb	208	0.021	ug/L	0.004	21	707	1692	13
	Bi	209		ug/L			2249748	2113492	0
	Th	232	0.137	ug/L	0.045	32	47	5628	31
	U	238	0.003	ug/L	0.003	121	3	117	118

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 09:55:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			54952	140499	0
	Cl	37		ug/L			3779893	10957649	1
>	Ge	72		ug/L			546744	536739	1
	Ni	60	19.666	ug/L	0.561	2	54	68320	3
	Ni	62	25.498	ug/L	0.694	2	253	12871	4
	Cu	63	20.715	ug/L	0.380	1	232	154228	1
	Cu	65	19.424	ug/L	0.721	3	53	65713	2
	Zn	66	18.796	ug/L	0.271	1	421	38877	0
	Zn	67	20.749	ug/L	0.306	1	71	7399	2
	Zn	68	17.501	ug/L	0.630	3	399	25915	3
	As	75	19.436	ug/L	0.795	4	239	35809	2
	As-1	75	19.653	ug/L	0.814	4	9070	45027	1
	Se	82	-0.160	ug/L	0.058	36	4	-25	43
	Se	78	1.332	ug/L	0.167	12	9189	9677	1
	Y	89		ug/L			353990	363336	1
	Kr	83		ug/L			476	705	2
>	In	115		ug/L			878044	904539	0
	Ag	107	19.337	ug/L	0.480	2	15	151598	2
	Cd	111	19.279	ug/L	0.225	1	60	85621	1
	Cd	114	19.358	ug/L	0.275	1	24	220072	1
	Sb	121	0.065	ug/L	0.002	3	29	851	3
	Sb	123	0.065	ug/L	0.003	5	27	655	5
>	Tb	159		ug/L			1213965	1273499	1
	Tl	205	0.035	ug/L	0.000	1	61	1286	2
	Pb	208	0.021	ug/L	0.002	8	707	1748	3
	Bi	209		ug/L			2249748	2110745	0
	Th	232	0.055	ug/L	0.004	6	47	2335	6
	U	238	0.001	ug/L	0.000	43	3	31	39

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 10:01:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
C	13		ug/L			54952	63228	0
Cl	37		ug/L			3779893	4151673	0
> Ge	72		ug/L			546744	510883	1
Ni	60	201.094	ug/L	4.644	2	54	664277	0
Ni	62	205.760	ug/L	9.930	4	253	97124	3
Cu	63	198.930	ug/L	2.817	1	232	1408392	3
Cu	65	193.400	ug/L	4.292	2	53	622370	0
Zn	66	185.214	ug/L	4.521	2	421	361142	1
Zn	67	184.260	ug/L	10.859	5	71	61978	4
Zn	68	185.425	ug/L	5.483	2	399	257708	1
As	75	197.521	ug/L	4.659	2	239	344418	0
As-1	75	198.744	ug/L	5 502	2	9070	356236	0
Se	82	195.709	ug/L	1.973	1	4	35086	1
Se	78	197.744	ug/L	4 851	2	9189	101412	0
Y	89		ug/L			353990	335196	3
Kr	83		ug/L			476	663	2
> In	115		ug/L			878044	849181	3
Ag	107	202.733	ug/L	11.078	5	15	1489973	2
Cd	111	200.278	ug/L	10.090	5	60	833370	1
Cd	114	189.664	ug/L	8.238	4	24	2021647	0
Sb	121	191.848	ug/L	10.571	5	29	2284120	1
Sb	123	202.294	ug/L	10.956	5	27	1829275	1
> Tb	159		ug/L			1213965	1184374	4
Tl	205	191.536	ug/L	6.183	3	61	6273483	1
Pb	208	191.312	ug/L	8.798	4	707	8397072	0
Bi	209		ug/L			2249748	2035038	1
Th	232	195.697	ug/L	6.525	3	47	7575828	0
U	238	197.657	ug/L	8.796	4	3	7820146	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 10:07:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
	C	13		ug/L			54952	57781	4
	Cl	37		ug/L			3779893	3954583	1
>	Ge	72		ug/L			546744	554593	2
	Ni	60	0.026	ug/L	0.007	27	54	147	18
	Ni	62	0.704	ug/L	0 094	13	253	616	6
	Cu	63	0.069	ug/L	0.004	5	232	766	6
	Cu	65	0.033	ug/L	0.002	5	53	169	4
	Zn	66	0.572	ug/L	0.038	6	421	1635	2
	Zn	67	0.540	ug/L	0.028	5	71	269	5
	Zn	68	0.563	ug/L	0.014	2	399	1253	1
	As	75	0.021	ug/L	0.013	61	239	282	9
	As-1	75	-0.146	ug/L	0.164	112	9070	8918	1
	Se	82	0.004	ug/L	0.019	455	4	5	70
	Se	78	-0.618	ug/L	0 646	104	9189	9000	1
	Y	89		ug/L			353990	352796	1
	Kr	83		ug/L			476	481	3
>	In	115		ug/L			878044	911707	2
	Ag	107	0.017	ug/L	0.005	32	15	146	28
	Cd	111	0.008	ug/L	0.003	40	60	97	14
	Cd	114	0.005	ug/L	0.003	60	24	86	42
	Sb	121	0.058	ug/L	0.008	13	29	766	11
	Sb	123	0.059	ug/L	0.006	10	27	600	8
>	Tb	159		ug/L			1213965	1206640	1
	Tl	205	0.015	ug/L	0 003	18	61	558	15
	Pb	208	0.012	ug/L	0.002	13	707	1243	6
	Bi	209		ug/L			2249748	2286192	0
	Th	232	0.245	ug/L	0.060	24	47	9691	23
	U	238	0.007	ug/L	0.003	38	3	288	37

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 10:13:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			54952	56303	3
	Cl	37		ug/L			3779893	3943250	1
>	Ge	72		ug/L			546744	547013	0
	Ni	60	**47.880**	ug/L	0.471	0	54	169443	1
	Ni	62	**48.133**	ug/L	1.933	4	253	24529	3
	Cu	63	**48.397**	ug/L	1.159	2	232	367040	3
	Cu	65	**47.239**	ug/L	0.892	1	53	162848	1
	Zn	66	**46.925**	ug/L	1.116	2	421	98299	2
	Zn	67	**45.767**	ug/L	1.535	3	71	16546	2
	Zn	68	**46.847**	ug/L	1.394	2	399	70026	2
	As	75	**47.986**	ug/L	1.285	2	239	89797	2
	As-1	75	**47.987**	ug/L	1.288	2	9070	99011	2
	Se	82	**49.412**	ug/L	1.060	2	4	9488	1
	Se	78	**48.713**	ug/L	0.972	1	9189	33684	1
	Y	89		ug/L			353990	350850	1
	Kr	83		ug/L			476	510	0
>	In	115		ug/L			878044	885546	1
	Ag	107	**50.346**	ug/L	1.877	3	15	386236	2
	Cd	111	**50.129**	ug/L	1.132	2	60	217812	1
	Cd	114	**50.011**	ug/L	1 105	2	24	556437	0
	Sb	121	**49.219**	ug/L	1.100	2	29	611889	1
	Sb	123	**49.637**	ug/L	1.492	3	27	468664	2
>	Tb	159		ug/L			1213965	1217954	3
	Tl	205	**51.620**	ug/L	0.913	1	61	1739695	1
	Pb	208	**50.633**	ug/L	1.540	3	707	2287501	1
	Bi	209		ug/L			2249748	2186165	1
	Th	232	**49.115**	ug/L	1.152	2	47	1956133	0
	U	238	**49.351**	ug/L	1 895	3	3	2009056	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 10:19:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	57044	0
	Cl	37		ug/L			3779893	3864777	2
>	Ge	72		ug/L			546744	533481	1
	Ni	60	**0.004**	ug/L	0.004	95	54	68	21
	Ni	62	**0.517**	ug/L	0.069	13	253	501	5
	Cu	63	**0.024**	ug/L	0.008	33	232	406	14
	Cu	65	**0.014**	ug/L	0.016	113	53	98	54
	Zn	66	**0.023**	ug/L	0.028	124	421	457	13
	Zn	67	**0.033**	ug/L	0.039	118	71	81	16
	Zn	68	**0.039**	ug/L	0.022	57	399	445	7
	As	75	**0.033**	ug/L	0.024	72	239	294	15
	As-1	75	**0.035**	ug/L	0.062	177	9070	8914	1
	Se	82	**0.022**	ug/L	0.017	76	4	8	38
	Se	78	**0.078**	ug/L	0.145	185	9189	9004	1
	Y	89		ug/L			353990	354012	2
	Kr	83		ug/L			476	497	2
>	In	115		ug/L			878044	896316	0
	Ag	107	**0.008**	ug/L	0.004	56	15	77	43
	Cd	111	**0.007**	ug/L	0.004	56	60	93	18
	Cd	114	**0.003**	ug/L	0.003	121	24	57	67
	Sb	121	**0.040**	ug/L	0.005	13	29	528	12
	Sb	123	**0.036**	ug/L	0.001	2	27	367	1
>	Tb	159		ug/L			1213965	1198254	0
	Tl	205	**0.009**	ug/L	0.003	36	61	371	30
	Pb	208	**-0.007**	ug/L	0.002	25	707	367	22
	Bi	209		ug/L			2249748	2228126	0
	Th	232	**0.172**	ug/L	0.029	16	47	6771	16
	U	238	**0.003**	ug/L	0.002	66	3	109	64

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 10:26:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			54952	66185	1
	Cl	37		ug/L			3779893	3914579	1
>	Ge	72		ug/L			546744	546373	2
	Ni	60	-0.001	ug/L	0.001	86	54	51	2
	Ni	62	0.365	ug/L	0.024	6	253	437	5
	Cu	63	0.025	ug/L	0.001	2	232	423	3
	Cu	65	0.010	ug/L	0.004	37	53	86	12
	Zn	66	0.139	ug/L	0.009	6	421	711	3
	Zn	67	0.107	ug/L	0.052	48	71	109	14
	Zn	68	0.130	ug/L	0.014	10	399	591	1
	As	75	0.004	ug/L	0.012	301	239	246	7
	As-1	75	-0.050	ug/L	0.192	383	9070	8965	1
	Se	82	-0.019	ug/L	0.043	222	4	0	1327
	Se	78	-0.181	ug/L	0.701	387	9189	9086	1
	Y	89		ug/L			353990	356518	2
	Kr	83		ug/L			476	500	0
>	In	115		ug/L			878044	906527	2
	Ag	107	0.001	ug/L	0.000	19	15	26	9
	Cd	111	0.003	ug/L	0.002	66	60	76	14
	Cd	114	0.001	ug/L	0.001	145	24	31	30
	Sb	121	0.014	ug/L	0 002	16	29	206	13
	Sb	123	0.013	ug/L	0 004	27	27	156	21
>	Tb	159		ug/L			1213965	1229031	1
	Tl	205	0.005	ug/L	0.001	11	61	226	7
	Pb	208	-0.003	ug/L	0.001	17	707	570	4
	Bi	209		ug/L			2249748	2290322	1
	Th	232	0.080	ug/L	0.005	6	47	3276	5
	U	238	0.000	ug/L	0.000	39	3	21	33

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 10:30:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			54952	82819	2
	Cl	37		ug/L			3779893	3957514	4
>	Ge	72		ug/L			546744	537240	2
	Ni	60	19.512	ug/L	0.599	3	54	67836	3
	Ni	62	21.622	ug/L	0.303	1	253	10961	3
	Cu	63	53.343	ug/L	1.200	2	232	397205	2
	Cu	65	52.511	ug/L	1.641	3	53	177701	1
	Zn	66	108.049	ug/L	3.369	3	421	221662	0
	Zn	67	95.070	ug/L	4.019	4	71	33667	2
	Zn	68	103.090	ug/L	4.219	4	399	150841	3
	As	75	3.723	ug/L	0.139	3	239	7054	1
	As-1	75	3.686	ug/L	0.297	8	9070	15688	1
	Se	82	0.236	ug/L	0.103	43	4	48	42
	Se	78	0.364	ug/L	0.608	167	9189	9204	1
	Y	89		ug/L			353990	405632	1
	Kr	83		ug/L			476	601	8
>	In	115		ug/L			878044	877304	1
	Ag	107	0.207	ug/L	0.002	0	15	1592	2
	Cd	111	0.956	ug/L	0.025	2	60	4173	1
	Cd	114	0.957	ug/L	0.022	2	24	10569	0
	Sb	121	0.023	ug/L	0.005	20	29	309	16
	Sb	123	0.025	ug/L	0.006	23	27	260	18
>	Tb	159		ug/L			1213965	1208511	2
	Tl	205	0.268	ug/L	0.003	1	61	9039	1
	Pb	208	23.449	ug/L	0.715	3	707	1051657	0
	Bi	209		ug/L			2249748	2192490	1
	Th	232	0.846	ug/L	0.012	1	47	33476	2
	U	238	1.109	ug/L	0.031	2	3	44824	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 10:33:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	79335	1
	Cl	37		ug/L			3779893	4099019	2
>	Ge	72		ug/L			546744	549443	2
	Ni	60	19.776	ug/L	0.547	2	54	70296	0
	Ni	62	22.135	ug/L	0.607	2	253	11465	0
	Cu	63	85.626	ug/L	1 948	2	232	652208	4
	Cu	65	84.786	ug/L	0.522	0	53	293538	2
	Zn	66	331.983	ug/L	12.543	3	421	695607	1
	Zn	67	287.139	ug/L	18.184	6	71	103806	3
	Zn	68	322.780	ug/L	8.209	2	399	482207	2
	As	75	9.832	ug/L	0.348	3	239	18662	1
	As-1	75	9.643	ug/L	0.495	5	9070	27253	1
	Se	82	0.266	ug/L	0.024	8	4	55	7
	Se	78	-0.197	ug/L	0.585	296	9189	9130	0
	Y	89		ug/L			353990	401974	1
	Kr	83		ug/L			476	540	2
>	In	115		ug/L			878044	922227	1
	Ag	107	0.164	ug/L	0.009	5	15	1323	4
	Cd	111	0.805	ug/L	0.049	6	60	3703	5
	Cd	114	0.784	ug/L	0.008	1	24	9111	1
	Sb	121	0.314	ug/L	0 017	5	29	4100	4
	Sb	123	0.310	ug/L	0.016	5	27	3075	3
>	Tb	159		ug/L			1213965	1231876	1
	Tl	205	0.138	ug/L	0 001	0	61	4780	0
	Pb	208	273.613	ug/L	3.971	1	707	12505262	0
	Bi	209		ug/L			2249748	2217331	0
	Th	232	0.681	ug/L	0.006	0	47	27485	0
	U	238	0.918	ug/L	0.033	3	3	37833	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, February 05, 2013 10:37:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	64381	2
	Cl	37		ug/L			3779893	3951558	2
>	Ge	72		ug/L			546744	557634	2
	Ni	60	3.459	ug/L	0 089	2	54	12528	2
	Ni	62	3.953	ug/L	0.328	8	253	2288	5
	Cu	63	5.237	ug/L	0.052	0	232	40686	1
	Cu	65	5.136	ug/L	0.218	4	53	18086	2
	Zn	66	12.948	ug/L	0 203	1	421	27956	0
	Zn	67	11.744	ug/L	0.602	5	71	4379	3
	Zn	68	12.292	ug/L	0.262	2	399	19028	0
	As	75	0.606	ug/L	0.044	7	239	1396	3
	As-1	75	0.395	ug/L	0.162	41	9070	10001	0
	Se	82	0.019	ug/L	0.055	290	4	8	133
	Se	78	-0.710	ug/L	0.474	66	9189	9004	0
	Y	89		ug/L			353990	370794	1
	Kr	83		ug/L			476	515	3
>	In	115		ug/L			878044	910416	0
	Ag	107	U 0.037	ug/L	0.000	1	15	306	1
	Cd	111	0.233	ug/L	0.003	1	60	1101	1
	Cd	114	0.225	ug/L	0.004	1	24	2605	2
	Sb	121	0.006	ug/L	0 001	24	29	102	17
	Sb	123	0.005	ug/L	0.001	15	27	72	8
>	Tb	159		ug/L			1213965	1236049	2
	Tl	205	0.054	ug/L	0.001	1	61	1925	1
	Pb	208	2.829	ug/L	0.119	4	707	130386	2
	Bi	209		ug/L			2249748	2256391	1
	Th	232	0.148	ug/L	0 003	2	47	6029	0
	U	238	0.180	ug/L	0.005	2	3	7452	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 10:41:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
	C	13		ug/L			54952	78760	1
	Cl	37		ug/L			3779893	3950131	4
>	Ge	72		ug/L			546744	556808	3
	Ni	60	17.216	ug/L	0.478	2	54	62033	3
	Ni	62	18.599	ug/L	0.417	2	253	9803	1
	Cu	63	26.962	ug/L	1.559	5	232	208069	4
	Cu	65	26.430	ug/L	1.019	3	53	92694	0
	Zn	66	62.234	ug/L	3 616	5	421	132405	2
	Zn	67	55.768	ug/L	2.843	5	71	20489	2
	Zn	68	60.349	ug/L	1.070	1	399	91689	2
	As	75	3.060	ug/L	0 117	3	239	6051	0
	As-1	75	2.806	ug/L	0.288	10	9070	14579	0
	Se	82	0.225	ug/L	0.047	20	4	48	19
	Se	78	-0.509	ug/L	0.651	128	9189	9091	0
	Y	89		ug/L			353990	418870	2
	Kr	83		ug/L			476	594	3
>	In	115		ug/L			878044	914539	1
	Ag	107	0.173	ug/L	0.009	5	15	1384	4
	Cd	111	1.177	ug/L	0.007	0	60	5345	0
	Cd	114	1.153	ug/L	0.036	3	24	13272	2
	Sb	121	0.011	ug/L	0 001	13	29	172	12
	Sb	123	0.010	ug/L	0.001	13	27	121	9
>	Tb	159		ug/L			1213965	1238095	1
	Tl	205	0.268	ug/L	0 003	1	61	9241	0
	Pb	208	14.039	ug/L	0.190	1	707	645544	0
	Bi	209		ug/L			2249748	2200140	0
	Th	232	0.734	ug/L	0.016	2	47	29780	1
	U	238	0.921	ug/L	0.036	3	3	38136	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 10:44:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			54952	80483	1
	Cl	37		ug/L			3779893	3955539	2
>	Ge	72		ug/L			546744	541564	1
	Ni	60	18.002	ug/L	0.261	1	54	63097	1
	Ni	62	19.591	ug/L	0.265	1	253	10035	2
	Cu	63	27.700	ug/L	0.971	3	232	208023	3
	Cu	65	26.285	ug/L	1.005	3	53	89712	3
	Zn	66	65.382	ug/L	3 425	5	421	135376	3
	Zn	67	59.020	ug/L	1.828	3	71	21099	1
	Zn	68	63.087	ug/L	2.921	4	399	93197	3
	As	75	3.241	ug/L	0.081	2	239	6225	2
	As-1	75	3.148	ug/L	0.154	4	9070	14823	0
	Se	82	0.185	ug/L	0.035	19	4	39	15
	Se	78	0.106	ug/L	0.486	460	9189	9151	1
	Y	89		ug/L			353990	409117	2
	Kr	83		ug/L			476	611	6
>	In	115		ug/L			878044	886482	1
	Ag	107	U 0.166	ug/L	0.006	3	15	1292	2
	Cd	111	1.236	ug/L	0.029	2	60	5436	1
	Cd	114	1.210	ug/L	0.012	0	24	13500	0
	Sb	121	0.011	ug/L	0.001	8	29	166	5
	Sb	123	0.011	ug/L	0.000	3	27	129	3
>	Tb	159		ug/L			1213965	1206037	1
	Tl	205	0.277	ug/L	0.006	2	61	9303	0
	Pb	208	17.010	ug/L	0.378	2	707	761701	1
	Bi	209		ug/L			2249748	2165472	1
	Th	232	0.759	ug/L	0.014	1	47	29999	0
	U	238	0.955	ug/L	0.032	3	3	38495	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 10:48:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	74639	1
	Cl	37		ug/L			3779893	4026472	3
>	Ge	72		ug/L			546744	543718	2
	Ni	60	**44.643**	ug/L	0.495	1	54	157008	1
	Ni	62	**46.122**	ug/L	1.124	2	253	23374	2
	Cu	63	**56.546**	ug/L	1.056	1	232	426044	0
	Cu	65	**56.493**	ug/L	2.518	4	53	193448	2
	Zn	66	**156.330**	ug/L	8.399	5	421	324295	3
	Zn	67	**140.385**	ug/L	3.219	2	71	50291	1
	Zn	68	**150.496**	ug/L	2.108	1	399	222771	3
	As	75	**28.671**	ug/L	1.051	3	239	53401	2
	As-1	75	**28.977**	ug/L	1.218	4	9070	62971	2
	Se	82	**83.012**	ug/L	2.383	2	4	15834	0
	Se	78	**82.266**	ug/L	3 079	3	9189	50224	0
	Y	89		ug/L			353990	404932	2
	Kr	83		ug/L			476	596	0
>	In	115		ug/L			878044	890126	1
	Ag	107	**20.576**	ug/L	0.286	1	15	158714	0
	Cd	111	**27.961**	ug/L	0 358	1	60	122161	0
	Cd	114	**27.496**	ug/L	0 527	1	24	307588	2
	Sb	121	**0.013**	ug/L	0.002	13	29	188	10
	Sb	123	**0.011**	ug/L	0.001	10	27	128	7
>	Tb	159		ug/L			1213965	1213914	2
	Tl	205	**28.334**	ug/L	0.790	2	61	951634	0
	Pb	208	**40.831**	ug/L	0.776	1	707	1839227	0
	Bi	209		ug/L			2249748	2173135	1
	Th	232	**29.543**	ug/L	1.445	4	47	1172407	2
	U	238	**29.630**	ug/L	0.897	3	3	1202438	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WC03 APOST SWN~~ ZZZZZZ
Sample Dil Factor: 20
Comments: #2513
Sample Date/Time: Tuesday, February 05, 2013 10:51:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			54952	79483	1
	Cl	37		ug/L			3779893	4115510	3
>	Ge	72		ug/L			546744	523844	1
	Ni	60	44.202	ug/L	1.361	3	54	149741	1
	Ni	62	47.543	ug/L	1.131	2	253	23205	2
	Cu	63	53.367	ug/L	1.227	2	232	387437	1
	Cu	65	53.291	ug/L	1.693	3	53	175865	1
	Zn	66	147.401	ug/L	4.525	3	421	294757	1
	Zn	67	129.715	ug/L	4.355	3	71	44784	3
	Zn	68	144.490	ug/L	1.928	1	399	206051	2
	As	75	28.367	ug/L	1.101	3	239	50906	2
	As-1	75	29.118	ug/L	1.175	4	9070	60924	1
	Se	82	81.523	ug/L	2.246	2	4	14985	1
	Se	78	82.490	ug/L	2.290	2	9189	48506	0
	Y	89		ug/L			353990	396375	3
	Kr	83		ug/L			476	586	6
>	In	115		ug/L			878044	874734	0
	Ag	107	26.519	ug/L	0.803	3	15	201026	2
	Cd	111	26.368	ug/L	0.036	0	60	113224	0
	Cd	114	26.562	ug/L	0.443	1	24	292000	1
	Sb	121	0.012	ug/L	0.001	6	29	173	5
	Sb	123	0.010	ug/L	0.000	2	27	121	2
>	Tb	159		ug/L			1213965	1173325	1
	Tl	205	28.231	ug/L	0.508	1	61	916770	0
	Pb	208	41.715	ug/L	0.722	1	707	1816485	0
	Bi	209		ug/L			2249748	2151956	0
	Th	232	29.154	ug/L	0.177	0	47	1119215	1
	U	238	28.651	ug/L	0.523	1	3	1124149	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 REF1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 10:55:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			54952	73018	0
	Cl	37		ug/L			3779893	4068420	2
>	Ge	72		ug/L			546744	535509	2
	Ni	60	**58.455**	ug/L	2.210	3	54	202407	2
	Ni	62	**60.171**	ug/L	0.901	1	253	29959	2
	Cu	63	**70.365**	ug/L	1.669	2	232	522054	0
	Cu	65	**69.795**	ug/L	1.323	1	53	235460	1
	Zn	66	**182.597**	ug/L	8.410	4	421	373019	2
	Zn	67	**185.538**	ug/L	9.754	5	71	65440	4
	Zn	68	**189.573**	ug/L	3.858	2	399	276165	0
	As	75	**131.068**	ug/L	5.371	4	239	239547	1
	As-1	75	**130.922**	ug/L	6.028	4	9070	248916	2
	Se	82	**169.371**	ug/L	4.814	2	4	31816	0
	Se	78	**166.130**	ug/L	7.463	4	9189	90712	2
	Y	89		ug/L			353990	634215	2
	Kr	83		ug/L			476	721	2
>	In	115		ug/L			878044	885369	0
	Ag	107	**109.732**	ug/L	4.200	3	15	841847	3
	Cd	111	**70.460**	ug/L	0.539	0	60	306129	0
	Cd	114	**71.240**	ug/L	0.865	1	24	792655	1
	Sb	121	**3.596**	ug/L	0.179	4	29	44731	4
	Sb	123	**3.492**	ug/L	0.068	1	27	32992	1
>	Tb	159		ug/L			1213965	1217803	0
	Tl	205	**139.377**	ug/L	1.747	1	61	4697954	0
	Pb	208	**135.026**	ug/L	1.205	0	707	6101685	0
	Bi	209		ug/L			2249748	2136425	0
	Th	232	**15.851**	ug/L	0.057	0	47	631558	0
	U	238	**1.783**	ug/L	0.011	0	3	72624	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 10:58:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	64258	1
	Cl	37		ug/L			3779893	4003961	2
>	Ge	72		ug/L			546744	522414	1
	Ni	60	29.039	ug/L	0.476	1	54	98158	2
	Ni	62	33.892	ug/L	1.003	2	253	16573	4
	Cu	63	29.220	ug/L	0.437	1	232	211676	1
	Cu	65	28.849	ug/L	1.001	3	53	94981	2
	Zn	66	88.055	ug/L	3.030	3	421	175759	1
	Zn	67	79.786	ug/L	1.049	1	71	27498	1
	Zn	68	85.585	ug/L	0.782	0	399	121868	1
	As	75	27.340	ug/L	0.955	3	239	48943	2
	As-1	75	27.656	ug/L	0 942	3	9070	58150	1
	Se	82	88.515	ug/L	1.400	1	4	16228	0
	Se	78	87.491	ug/L	1.919	2	9189	50780	0
	Y	89		ug/L			353990	346648	1
	Kr	83		ug/L			476	494	2
>	In	115		ug/L			878044	891740	1
	Ag	107	28.289	ug/L	0.590	2	15	218610	2
	Cd	111	27.441	ug/L	0.594	2	60	120092	0
	Cd	114	27.101	ug/L	0.717	2	24	303655	1
	Sb	121	0.008	ug/L	0.001	10	29	124	8
	Sb	123	0.006	ug/L	0.001	18	27	87	13
>	Tb	159		ug/L			1213965	1163562	0
	Tl	205	30.237	ug/L	0.658	2	61	973774	1
	Pb	208	29.663	ug/L	0.319	1	707	1281289	1
	Bi	209		ug/L			2249748	2199102	0
	Th	232	29.920	ug/L	0.071	0	47	1139003	0
	U	238	29.682	ug/L	0.693	2	3	1155001	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 11:03:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			54952	56583	2
	Cl	37		ug/L			3779893	4073530	1
>	Ge	72		ug/L			546744	523215	4
	Ni	60	50.839	ug/L	2.665	5	54	171842	1
	Ni	62	51.636	ug/L	0.186	0	253	25158	4
	Cu	63	49.553	ug/L	1.466	2	232	359158	2
	Cu	65	50.932	ug/L	1.967	3	53	167765	0
	Zn	66	49.286	ug/L	3 108	6	421	98573	2
	Zn	67	48.278	ug/L	2.676	5	71	16668	1
	Zn	68	47.963	ug/L	2.381	4	399	68494	2
	As	75	49.584	ug/L	3.361	6	239	88583	2
	As-1	75	49.696	ug/L	3.307	6	9070	97606	2
	Se	82	51.510	ug/L	2.614	5	4	9448	1
	Se	78	51.185	ug/L	2.670	5	9189	33375	1
	Y	89		ug/L			353990	345945	3
	Kr	83		ug/L			476	489	6
>	In	115		ug/L			878044	864839	2
	Ag	107	51.455	ug/L	0.799	1	15	385708	3
	Cd	111	50.757	ug/L	1 398	2	60	215368	1
	Cd	114	50.807	ug/L	0.919	1	24	552055	0
	Sb	121	51.163	ug/L	0.586	1	29	621184	1
	Sb	123	50.946	ug/L	1.266	2	27	469727	1
>	Tb	159		ug/L			1213965	1169286	0
	Tl	205	53.904	ug/L	0.394	0	61	1744666	1
	Pb	208	52.583	ug/L	0.518	0	707	2281891	0
	Bi	209		ug/L			2249748	2151085	1
	Th	232	51.689	ug/L	0.117	0	47	1977366	0
	U	238	52.250	ug/L	0.345	0	3	2043362	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 11:09:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	56002	3
	Cl	37		ug/L			3779893	3804002	3
>	Ge	72		ug/L			546744	523837	1
	Ni	60	-0.001	ug/L	0 004	243	54	47	24
	Ni	62	0.614	ug/L	0.051	8	253	539	5
	Cu	63	0.036	ug/L	0.005	12	232	482	6
	Cu	65	0.007	ug/L	0.002	30	53	73	9
	Zn	66	0.036	ug/L	0.012	32	421	475	6
	Zn	67	0.014	ug/L	0.021	152	71	73	9
	Zn	68	0.056	ug/L	0.005	9	399	461	2
	As	75	0.016	ug/L	0.018	110	239	258	12
	As-1	75	0.042	ug/L	0.118	282	9070	8763	1
	Se	82	-0.018	ug/L	0.099	538	4	0	2466
	Se	78	0.142	ug/L	0.452	317	9189	8870	1
	Y	89		ug/L			353990	343812	1
	Kr	83		ug/L			476	496	4
>	In	115		ug/L			878044	871594	1
	Ag	107	0.006	ug/L	0.001	16	15	60	12
	Cd	111	0.005	ug/L	0.001	26	60	79	5
	Cd	114	0.001	ug/L	0.001	55	24	34	15
	Sb	121	0.030	ug/L	0.001	4	29	392	3
	Sb	123	0.029	ug/L	0.004	12	27	292	10
>	Tb	159		ug/L			1213965	1168280	0
	Tl	205	0.012	ug/L	0.002	15	61	434	12
	Pb	208	-0.007	ug/L	0.002	21	707	371	17
	Bi	209		ug/L			2249748	2199973	0
	Th	232	0.178	ug/L	0.032	18	47	6832	17
	U	238	0.003	ug/L	0.003	94	3	132	92

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 11:17:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	76757	3
	Cl	37		ug/L			3779893	4070520	3
>	Ge	72		ug/L			546744	538164	1
	Ni	60	31.168	ug/L	1.567	5	54	108458	2
	Ni	62	32.899	ug/L	1.720	5	253	16569	4
	Cu	63	32.372	ug/L	0.328	1	232	241560	1
	Cu	65	32.794	ug/L	0.588	1	53	111247	2
	Zn	66	279.178	ug/L	1.812	0	421	573308	1
	Zn	67	249.443	ug/L	8.801	3	71	88383	1
	Zn	68	269.878	ug/L	14.048	5	399	394820	3
	As	75	4.533	ug/L	0.070	1	239	8556	0
	As-1	75	4.405	ug/L	0.165	3	9070	17045	0
	Se	82	0.116	ug/L	0.051	44	4	26	38
	Se	78	-0.033	ug/L	0.402	1206	9189	9026	0
	Y	89		ug/L			353990	425990	2
	Kr	83		ug/L			476	631	5
>	In	115		ug/L			878044	870739	1
	Ag	107	U 0.186	ug/L	0 006	3	15	1419	3
	Cd	111	0.858	ug/L	0 028	3	60	3725	1
	Cd	114	0.803	ug/L	0 031	3	24	8812	2
	Sb	121	0.034	ug/L	0.001	2	29	443	1
	Sb	123	0.034	ug/L	0.008	23	27	341	19
>	Tb	159		ug/L			1213965	1198425	1
	Tl	205	0.206	ug/L	0.006	2	61	6881	1
	Pb	208	36.739	ug/L	0 638	1	707	1634133	0
	Bi	209		ug/L			2249748	2146231	1
	Th	232	1.120	ug/L	0.018	1	47	43959	1
	U	238	0.931	ug/L	0.004	0	3	37302	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 11:20:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas Intens.	Intens RSD
	C	13		ug/L			54952	87830	2
	Cl	37		ug/L			3779893	3922683	2
>	Ge	72		ug/L			546744	536456	2
	Ni	60	23.789	ug/L	0.898	3	54	82543	2
	Ni	62	25.504	ug/L	0 585	2	253	12865	3
	Cu	63	41.420	ug/L	0.873	2	232	308167	4
	Cu	65	40.644	ug/L	0.634	1	53	137411	2
	Zn	66	977.840	ug/L	19.178	1	421	2000153	0
	Zn	67	909.077	ug/L	29.334	3	71	321020	3
	Zn	68	989.822	ug/L	29.664	2	399	1443088	3
	As	75	3.615	ug/L	0.058	1	239	6850	1
	As-1	75	3.522	ug/L	0.135	3	9070	15369	0
	Se	82	0.192	ug/L	0.037	19	4	40	16
	Se	78	0.137	ug/L	0.340	247	9189	9081	0
	Y	89		ug/L			353990	421403	3
	Kr	83		ug/L			476	618	3
>	In	115		ug/L			878044	870079	0
	Ag	107	u 0.146	ug/L	0.009	6	15	1113	5
	Cd	111	0.868	ug/L	0.045	5	60	3767	5
	Cd	114	0.845	ug/L	0.010	1	24	9264	0
	Sb	121	0.056	ug/L	0.043	76	29	709	72
	Sb	123	0.031	ug/L	0 002	7	27	315	6
>	Tb	159		ug/L			1213965	1195045	1
	Tl	205	0.174	ug/L	0.004	2	61	5821	1
	Pb	208	45.422	ug/L	1.161	2	707	2014213	1
	Bi	209		ug/L			2249748	2129915	1
	Th	232	1.080	ug/L	0 014	1	47	42265	0
	U	238	1.335	ug/L	0.035	2	3	53332	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 11:24:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	91525	5
	Cl	37		ug/L			3779893	4031018	4
>	Ge	72		ug/L			546744	532795	3
	Ni	60	**20.034**	ug/L	0.665	3	54	69037	2
	Ni	62	**22.081**	ug/L	1.141	5	253	11084	2
	Cu	63	**34.027**	ug/L	1.743	5	232	251092	1
	Cu	65	**33.200**	ug/L	2.035	6	53	111364	3
	Zn	66	**77.307**	ug/L	3.038	3	421	157336	0
	Zn	67	**70.274**	ug/L	2.311	3	71	24693	0
	Zn	68	**74.326**	ug/L	2.779	3	399	107926	2
	As	75	**4.501**	ug/L	0.211	4	239	8406	1
	As-1	75	**4.419**	ug/L	0.327	7	9070	16892	0
	Se	82	**0.234**	ug/L	0.129	55	4	47	51
	Se	78	**0.258**	ug/L	0.544	210	9189	9074	0
	Y	89		ug/L			353990	418654	2
	Kr	83		ug/L			476	628	4
>	In	115		ug/L			878044	893494	2
	Ag	107	**0.172**	ug/L	0.009	5	15	1344	2
	Cd	111	**0.970**	ug/L	0.014	1	60	4312	0
	Cd	114	**0.927**	ug/L	0.032	3	24	10432	1
	Sb	121	**0.027**	ug/L	0.002	6	29	368	6
	Sb	123	**0.026**	ug/L	0.006	22	27	278	17
>	Tb	159		ug/L			1213965	1214184	1
	Tl	205	**0.227**	ug/L	0.001	0	61	7698	2
	Pb	208	**17.859**	ug/L	0.475	2	707	804998	1
	Bi	209		ug/L			2249748	2185304	1
	Th	232	**0.883**	ug/L	0.015	1	47	35112	0
	U	238	**1.464**	ug/L	0.050	3	3	59420	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 11:27:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			54952	77562	3
	Cl	37		ug/L			3779893	4131671	1
>	Ge	72		ug/L			546744	536266	2
	Ni	60	**32.434**	ug/L	0.963	2	54	112482	1
	Ni	62	**35.714**	ug/L	0.596	1	253	17915	4
	Cu	63	**30.062**	ug/L	0.538	1	232	223511	1
	Cu	65	**28.981**	ug/L	0.898	3	53	97911	0
	Zn	66	**44.638**	ug/L	2 217	4	421	91619	2
	Zn	67	**43.792**	ug/L	0.806	1	71	15525	2
	Zn	68	**44.144**	ug/L	1 257	2	399	64689	1
	As	75	**5.817**	ug/L	0.144	2	239	10872	0
	As-1	75	**5.708**	ug/L	0.223	3	9070	19377	0
	Se	82	**0.003**	ug/L	0.031	896	4	4	115
	Se	78	**0.117**	ug/L	0.361	309	9189	9067	0
	Y	89		ug/L			353990	465782	1
	Kr	83		ug/L			476	732	2
>	In	115		ug/L			878044	874293	1
	Ag	107	**0.092**	ug/L	0.008	8	15	714	7
	Cd	111	**0.272**	ug/L	0.010	3	60	1224	2
	Cd	114	**0.233**	ug/L	0.004	1	24	2580	1
	Sb	121	**0.009**	ug/L	0.001	12	29	134	8
	Sb	123	**0.008**	ug/L	0.000	1	27	104	1
>	Tb	159		ug/L			1213965	1215060	1
	Tl	205	**0.144**	ug/L	0.003	2	61	4894	1
	Pb	208	**6.868**	ug/L	0.201	2	707	310215	1
	Bi	209		ug/L			2249748	2185829	2
	Th	232	**1.744**	ug/L	0.043	2	47	69348	0
	U	238	**0.695**	ug/L	0 035	4	3	28232	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 11:31:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	90190	1
	Cl	37		ug/L			3779893	3978347	1
>	Ge	72		ug/L			546744	527519	2
	Ni	60	15.717	ug/L	0.574	3	54	53637	1
	Ni	62	17.268	ug/L	0.493	2	253	8640	1
	Cu	63	25.644	ug/L	0.877	3	232	187561	2
	Cu	65	25.060	ug/L	0.765	3	53	83300	1
	Zn	66	30.790	ug/L	1.388	4	421	62309	3
	Zn	67	29.757	ug/L	1.649	5	71	10393	4
	Zn	68	30.007	ug/L	2.101	7	399	43355	4
	As	75	2.155	ug/L	0.045	2	239	4108	1
	As-1	75	2.208	ug/L	0.143	6	9070	12737	0
	Se	82	0.157	ug/L	0.044	27	4	33	26
	Se	78	0.589	ug/L	0.343	58	9189	9148	0
	Y	89		ug/L			353990	385737	1
	Kr	83		ug/L			476	587	1
>	In	115		ug/L			878044	871740	1
	Ag	107	0.166	ug/L	0 005	3	15	1272	1
	Cd	111	0.654	ug/L	0.019	2	60	2856	1
	Cd	114	0.628	ug/L	0.012	1	24	6908	2
	Sb	121	0.029	ug/L	0.002	8	29	385	6
	Sb	123	0.028	ug/L	0 003	10	27	285	9
>	Tb	159		ug/L			1213965	1183447	2
	Tl	205	0.142	ug/L	0.001	0	61	4711	2
	Pb	208	21.889	ug/L	0.358	1	707	961626	0
	Bi	209		ug/L			2249748	2151262	2
	Th	232	0.633	ug/L	0.017	2	47	24538	1
	U	238	1.679	ug/L	0.031	1	3	66439	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 11:34:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			54952	80621	0
	Cl	37		ug/L			3779893	4012787	3
>	Ge	72		ug/L			546744	517225	0
	Ni	60	36.891	ug/L	0.418	1	54	123449	1
	Ni	62	39.253	ug/L	0.195	0	253	18962	0
	Cu	63	32.079	ug/L	0.950	2	232	230084	3
	Cu	65	32.519	ug/L	0.628	1	53	106015	1
	Zn	66	50.996	ug/L	1 737	3	421	100977	3
	Zn	67	53.204	ug/L	0.923	1	71	18178	1
	Zn	68	50.318	ug/L	1 556	3	399	71096	2
	As	75	6.040	ug/L	0 013	0	239	10885	0
	As-1	75	6.097	ug/L	0.055	0	9070	19385	0
	Se	82	-0.054	ug/L	0.048	88	4	-5	152
	Se	78	0.830	ug/L	0.160	19	9189	9087	0
	Y	89		ug/L			353990	477736	1
	Kr	83		ug/L			476	798	4
>	In	115		ug/L			878044	870927	1
	Ag	107	0.099	ug/L	0 004	4	15	762	2
	Cd	111	U 0.346	ug/L	0.017	4	60	1535	4
	Cd	114	0.308	ug/L	0.006	1	24	3399	0
	Sb	121	0.007	ug/L	0.001	10	29	111	7
	Sb	123	0.005	ug/L	0 001	18	27	76	13
>	Tb	159		ug/L			1213965	1209674	0
	Tl	205	0.178	ug/L	0 000	0	61	6030	0
	Pb	208	5.461	ug/L	0.022	0	707	245831	0
	Bi	209		ug/L			2249748	2138069	0
	Th	232	1.860	ug/L	0.040	2	47	73659	1
	U	238	1.062	ug/L	0.010	0	3	42979	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 11:38:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			54952	74760	3
	Cl	37		ug/L			3779893	3953204	2
>	Ge	72		ug/L			546744	527695	2
	Ni	60	**32.575**	ug/L	1.090	3	54	111175	2
	Ni	62	**35.371**	ug/L	0.445	1	253	17453	1
	Cu	63	**31.883**	ug/L	1.045	3	232	233190	1
	Cu	65	**30.890**	ug/L	0.872	2	53	102732	2
	Zn	66	**45.148**	ug/L	0.304	0	421	91251	1
	Zn	67	**44.341**	ug/L	0.784	1	71	15464	0
	Zn	68	**43.767**	ug/L	2.332	5	399	63109	4
	As	75	**5.984**	ug/L	0.145	2	239	11001	1
	As-1	75	**5.953**	ug/L	0.190	3	9070	19512	0
	Se	82	**-0.014**	ug/L	0.051	372	4	1	580
	Se	78	**0.387**	ug/L	0.393	101	9189	9054	1
	Y	89		ug/L			353990	463696	3
	Kr	83		ug/L			476	719	1
>	In	115		ug/L			878044	872309	2
	Ag	107	**0.111**	ug/L	0.000	0	15	855	2
	Cd	111	**0.258**	ug/L	0.009	3	60	1163	3
	Cd	114	**0.216**	ug/L	0.008	3	24	2388	4
	Sb	121	**0.006**	ug/L	0.001	22	29	103	14
	Sb	123	**0.005**	ug/L	0.002	31	27	77	19
>	Tb	159		ug/L			1213965	1186594	1
	Tl	205	**0.145**	ug/L	0.004	2	61	4818	4
	Pb	208	**6.473**	ug/L	0.169	2	707	285625	1
	Bi	209		ug/L			2249748	2134292	0
	Th	232	**1.668**	ug/L	0.033	1	47	64789	0
	U	238	**0.749**	ug/L	0.007	0	3	29734	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 11:41:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
	C	13		ug/L			54952	78538	1
	Cl	37		ug/L			3779893	4079220	3
>	Ge	72		ug/L			546744	537134	1
	Ni	60	**32.196**	ug/L	0.908	2	54	111882	2
	Ni	62	**34.992**	ug/L	1.287	3	253	17575	2
	Cu	63	**44.117**	ug/L	2.550	5	232	328577	6
	Cu	65	**42.331**	ug/L	1.476	3	53	143260	2
	Zn	66	**52.495**	ug/L	1.092	2	421	107916	0
	Zn	67	**50.838**	ug/L	2.617	5	71	18035	4
	Zn	68	**52.605**	ug/L	0.584	1	399	77164	0
	As	75	**5.439**	ug/L	0.139	2	239	10200	0
	As-1	75	**5.293**	ug/L	0.207	3	9070	18647	0
	Se	82	**0.032**	ug/L	0.041	127	4	10	74
	Se	78	**0.020**	ug/L	0.305	1511	9189	9036	0
	Y	89		ug/L			353990	464147	2
	Kr	83		ug/L			476	748	3
>	In	115		ug/L			878044	887536	2
	Ag	107	U **0.150**	ug/L	0.004	2	15	1172	2
	Cd	111	**0.714**	ug/L	0.020	2	60	3169	2
	Cd	114	**0.698**	ug/L	0.019	2	24	7811	0
	Sb	121	**0.007**	ug/L	0.001	12	29	122	9
	Sb	123	**0.007**	ug/L	0.001	16	27	95	10
>	Tb	159		ug/L			1213965	1206762	1
	Tl	205	**0.254**	ug/L	0.003	1	61	8535	2
	Pb	208	**14.313**	ug/L	0.278	1	707	641492	1
	Bi	209		ug/L			2249748	2144729	1
	Th	232	**1.631**	ug/L	0.017	1	47	64454	1
	U	238	**1.406**	ug/L	0.024	1	3	56751	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 11:45:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	87715	0
	Cl	37		ug/L			3779893	4108581	1
>	Ge	72		ug/L			546744	545640	0
	Ni	60	20.030	ug/L	0.388	1	54	70737	2
	Ni	62	21.727	ug/L	0.608	2	253	11185	3
	Cu	63	69.929	ug/L	0.398	0	232	528822	0
	Cu	65	68.535	ug/L	2.272	3	53	235622	2
	Zn	66	42.889	ug/L	0.550	1	421	89657	0
	Zn	67	40.809	ug/L	0.664	1	71	14727	2
	Zn	68	42.601	ug/L	0.703	1	399	63563	1
	As	75	5.770	ug/L	0.005	0	239	10980	0
	As-1	75	5.609	ug/L	0.006	0	9070	19538	0
	Se	82	0.301	ug/L	0.061	20	4	62	19
	Se	78	-0.035	ug/L	0.030	83	9189	9152	0
	Y	89		ug/L			353990	443230	2
	Kr	83		ug/L			476	589	5
>	In	115		ug/L			878044	911174	0
	Ag	107	0.129	ug/L	0.005	3	15	1031	3
	Cd	111	0.631	ug/L	0.023	3	60	2884	3
	Cd	114	0.604	ug/L	0.013	2	24	6944	2
	Sb	121	0.039	ug/L	0.002	5	29	534	4
	Sb	123	0.037	ug/L	0.001	2	27	391	2
>	Tb	159		ug/L			1213965	1233234	1
	Tl	205	0.127	ug/L	0.003	2	61	4406	1
	Pb	208	90.988	ug/L	1.315	1	707	4163607	0
	Bi	209		ug/L			2249748	2216081	0
	Th	232	0.842	ug/L	0.011	1	47	34006	1
	U	238	1.142	ug/L	0.021	1	3	47103	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 M SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 11:48:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			54952	109888	1
	Cl	37		ug/L			3779893	4104364	1
>	Ge	72		ug/L			546744	543584	0
	Ni	60	7.846	ug/L	0.380	4	54	27640	5
	Ni	62	9.627	ug/L	0.750	7	253	5078	7
	Cu	63	24.884	ug/L	0.349	1	232	187613	0
	Cu	65	24.711	ug/L	0.982	3	53	84667	3
	Zn	66	25.097	ug/L	0.316	1	421	52439	0
	Zn	67	23.428	ug/L	0.665	2	71	8452	3
	Zn	68	24.378	ug/L	0.412	1	399	36408	2
	As	75	1.790	ug/L	0.054	3	239	3556	2
	As-1	75	1.705	ug/L	0.087	5	9070	12192	0
	Se	82	0.094	ug/L	0.106	113	4	22	90
	Se	78	-0.122	ug/L	0.187	153	9189	9074	0
	Y	89		ug/L			353990	385433	1
	Kr	83		ug/L			476	520	5
>	In	115		ug/L			878044	902140	2
	Ag	107	U 0.089	ug/L	0.005	6	15	708	4
	Cd	111	0.319	ug/L	0 015	4	60	1473	2
	Cd	114	0.304	ug/L	0.009	3	24	3471	0
	Sb	121	0.113	ug/L	0.008	6	29	1461	3
	Sb	123	0.122	ug/L	0.023	18	27	1199	15
>	Tb	159		ug/L			1213965	1247563	0
	Tl	205	0.120	ug/L	0 073	60	61	4230	60
	Pb	208	30.533	ug/L	0 213	0	707	1414114	1
	Bi	209		ug/L			2249748	2234977	2
	Th	232	0.289	ug/L	0.038	13	47	11855	13
	U	238	0.657	ug/L	0.034	5	3	27426	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 11:53:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	59861	4
	Cl	37		ug/L			3779893	3997331	2
>	Ge	72		ug/L			546744	534158	2
	Ni	60	47.966	ug/L	2.460	5	54	165627	3
	Ni	62	48.964	ug/L	1.176	2	253	24372	4
	Cu	63	47.966	ug/L	1.063	2	232	355134	2
	Cu	65	48.091	ug/L	0.627	1	53	161859	1
	Zn	66	46.256	ug/L	2.620	5	421	94547	3
	Zn	67	46.545	ug/L	2.593	5	71	16420	3
	Zn	68	46.662	ug/L	1.335	2	399	68091	1
	As	75	48.283	ug/L	1.515	3	239	88184	1
	As-1	75	48.274	ug/L	1.959	4	9070	97154	1
	Se	82	49.280	ug/L	1.099	2	4	9237	0
	Se	78	48.610	ug/L	2.650	5	9189	32822	1
	Y	89		ug/L			353990	345906	2
	Kr	83		ug/L			476	533	6
>	In	115		ug/L			878044	901135	0
	Ag	107	49.814	ug/L	1.132	2	15	389014	2
	Cd	111	48.770	ug/L	0.531	1	60	215677	1
	Cd	114	48.679	ug/L	0.800	1	24	551223	0
	Sb	121	48.379	ug/L	0.095	0	29	612127	0
	Sb	123	48.270	ug/L	0.415	0	27	463880	1
>	Tb	159		ug/L			1213965	1198185	0
	Tl	205	51.930	ug/L	0.182	0	61	1722298	0
	Pb	208	50.199	ug/L	0.760	1	707	2232298	1
	Bi	209		ug/L			2249748	2178449	1
	Th	232	49.262	ug/L	0.959	1	47	1931049	1
	U	238	49.611	ug/L	0.336	0	3	1988120	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 11:59:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	56490	2
	Cl	37		ug/L			3779893	3774172	2
>	Ge	72		ug/L			546744	530391	1
	Ni	60	-0.001	ug/L	0.003	374	54	50	22
	Ni	62	0.898	ug/L	0.162	18	253	685	11
	Cu	63	0.055	ug/L	0.019	34	232	632	22
	Cu	65	0.005	ug/L	0 002	32	53	69	7
	Zn	66	0.031	ug/L	0.019	61	421	470	7
	Zn	67	0.000	ug/L	0.031	6745	71	69	15
	Zn	68	0.028	ug/L	0.010	35	399	428	1
	As	75	0.002	ug/L	0.009	372	239	236	5
	As-1	75	0.009	ug/L	0.083	901	9070	8814	0
	Se	82	-0.030	ug/L	0 028	93	4	-1	382
	Se	78	0.048	ug/L	0.288	599	9189	8936	0
	Y	89		ug/L			353990	341054	1
	Kr	83		ug/L			476	494	0
>	In	115		ug/L			878044	899557	0
	Ag	107	0.004	ug/L	0.001	23	15	43	14
	Cd	111	0.001	ug/L	0.001	121	60	66	7
	Cd	114	0.001	ug/L	0.001	141	24	32	32
	Sb	121	0.026	ug/L	0.002	6	29	358	5
	Sb	123	0.025	ug/L	0.002	9	27	271	7
>	Tb	159		ug/L			1213965	1187183	0
	Tl	205	0.007	ug/L	0.002	26	61	284	21
	Pb	208	-0.008	ug/L	0 001	9	707	355	7
	Bi	209		ug/L			2249748	2250949	1
	Th	232	0.163	ug/L	0.027	16	47	6370	16
	U	238	0.001	ug/L	0 000	29	3	48	26

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 12:11:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			54952	63447	1
	Cl	37		ug/L			3779893	3825572	2
>	Ge	72		ug/L			546744	543612	1
	Ni	60	-0.001	ug/L	0.000	17	54	49	0
	Ni	62	0.344	ug/L	0 039	11	253	424	4
	Cu	63	0.120	ug/L	0.006	4	232	1134	4
	Cu	65	0.110	ug/L	0.012	10	53	430	7
	Zn	66	0.769	ug/L	0.066	8	421	2011	5
	Zn	67	0.568	ug/L	0.043	7	71	274	4
	Zn	68	0.685	ug/L	0.012	1	399	1408	2
	As	75	0.005	ug/L	0.006	134	239	246	3
	As-1	75	-0.113	ug/L	0.070	61	9070	8807	0
	Se	82	-0.043	ug/L	0.046	107	4	-3	224
	Se	78	-0.418	ug/L	0.245	58	9189	8926	0
	Y	89		ug/L			353990	355912	0
	Kr	83		ug/L			476	511	4
>	In	115		ug/L			878044	906104	1
	Ag	107	0.001	ug/L	0.001	60	15	25	22
	Cd	111	0.002	ug/L	0.001	95	60	69	10
	Cd	114	0.001	ug/L	0.000	36	24	34	8
	Sb	121	0.008	ug/L	0.001	8	29	127	8
	Sb	123	0.009	ug/L	0.002	23	27	114	17
>	Tb	159		ug/L			1213965	1194770	0
	Tl	205	0.003	ug/L	0.000	9	61	172	6
	Pb	208	-0.005	ug/L	0.000	9	707	464	4
	Bi	209		ug/L			2249748	2240088	1
	Th	232	0.057	ug/L	0.002	4	47	2258	4
	U	238	0.000	ug/L	0.000	9	3	15	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC03 N SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, February 05, 2013 12:15:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
	C	13		ug/L			54952	111040	3
	Cl	37		ug/L			3779893	3840950	5
>	Ge	72		ug/L			546744	533181	1
	Ni	60	4.189	ug/L	0.211	5	54	14488	3
	Ni	62	5.232	ug/L	0.393	7	253	2818	6
	Cu	63	15.074	ug/L	0.157	1	232	111567	1
	Cu	65	14.642	ug/L	0.251	1	53	49226	0
	Zn	66	13.436	ug/L	0.374	2	421	27720	1
	Zn	67	12.408	ug/L	0.571	4	71	4421	2
	Zn	68	13.246	ug/L	0.314	2	399	19578	2
	As	75	1.071	ug/L	0.030	2	239	2181	1
	As-1	75	0.996	ug/L	0.124	12	9070	10661	0
	Se	82	0.115	ug/L	0 063	54	4	25	44
	Se	78	-0.092	ug/L	0.382	417	9189	8913	0
	Y	89		ug/L			353990	369704	3
	Kr	83		ug/L			476	502	7
>	In	115		ug/L			878044	881858	0
	Ag	107	0.048	ug/L	0.001	2	15	383	2
	Cd	111	0.185	ug/L	0.007	3	60	861	3
	Cd	114	0.175	ug/L	0.004	2	24	1961	2
	Sb	121	0.236	ug/L	0.003	1	29	2950	0
	Sb	123	0.239	ug/L	0 006	2	27	2274	2
>	Tb	159		ug/L			1213965	1216158	1
	Tl	205	0.032	ug/L	0.000	1	61	1124	2
	Pb	208	36.701	ug/L	1 020	2	707	1656212	1
	Bi	209		ug/L			2249748	2184796	0
	Th	232	0.171	ug/L	0.019	11	47	6856	11
	U	238	0.570	ug/L	0.020	3	3	23164	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 12:19:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			54952	76165	3
	Cl	37		ug/L			3779893	5271670	3
>	Ge	72		ug/L			546744	491148	2
	Ni	60	5.119	ug/L	0.388	7	54	16314	8
	Ni	62	6.394	ug/L	0.616	9	253	3123	9
	Cu	63	2.693	ug/L	0.138	5	232	18522	3
	Cu	65	0.984	ug/L	0.038	3	53	3092	3
	Zn	66	3.024	ug/L	0.164	5	421	6040	5
	Zn	67	3.474	ug/L	0.135	3	71	1186	2
	Zn	68	3.936	ug/L	0.291	7	399	5613	8
	As	75	1.212	ug/L	0 097	8	239	2245	7
	As-1	75	1.245	ug/L	0.239	19	9070	10238	3
	Se	82	0.484	ug/L	0 133	27	4	87	25
	Se	78	0.831	ug/L	0.727	87	9189	8624	2
	Y	89		ug/L			353990	331426	2
	Kr	83		ug/L			476	553	6
>	In	115		ug/L			878044	858994	1
	Ag	107	0.006	ug/L	0.000	5	15	59	3
	Cd	111	0.144	ug/L	0.008	5	60	668	6
	Cd	114	0.137	ug/L	0.002	1	24	1502	0
	Sb	121	0.145	ug/L	0.004	3	29	1776	3
	Sb	123	0.142	ug/L	0.006	4	27	1328	4
>	Tb	159		ug/L			1213965	1205743	1
	Tl	205	0.008	ug/L	0.002	27	61	326	21
	Pb	208	0.058	ug/L	0.003	5	707	3318	4
	Bi	209		ug/L			2249748	1921958	2
	Th	232	0.020	ug/L	0.001	6	47	849	6
	U	238	0.664	ug/L	0.024	3	3	26772	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 12:22:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	90178	1
	Cl	37		ug/L			3779893	13707101	3
>	Ge	72		ug/L			546744	484867	4
	Ni	60	4.289	ug/L	0.209	4	54	13483	2
	Ni	62	148.991	ug/L	44.428	29	253	66698	29
	Cu	63	30.634	ug/L	4.083	13	232	205694	12
	Cu	65	3.834	ug/L	0.178	4	53	11747	2
	Zn	66	6.883	ug/L	0.494	7	421	13074	2
	Zn	67	7.490	ug/L	0.145	1	71	2452	2
	Zn	68	7.998	ug/L	0.168	2	399	10886	3
	As	75	3.006	ug/L	0.306	10	239	5171	5
	As-1	75	3.737	ug/L	0.701	18	9070	14224	5
	Se	82	0.644	ug/L	0.256	39	4	112	37
	Se	78	4.258	ug/L	1.790	42	9189	10032	6
	Y	89		ug/L			353990	359766	1
	Kr	83		ug/L			476	914	9
>	In	115		ug/L			878044	789155	3
	Ag	107	0.012	ug/L	0.002	13	15	97	8
	Cd	111	U -0.003	ug/L	0.047	1582	60	44	401
	Cd	114	0.081	ug/L	0.004	4	24	827	5
	Sb	121	1.250	ug/L	0 030	2	29	13868	2
	Sb	123	1.260	ug/L	0.017	1	27	10621	1
>	Tb	159		ug/L			1213965	1150238	2
	Tl	205	U 0.007	ug/L	0.001	19	61	294	17
	Pb	208	0.187	ug/L	0.005	2	707	8644	4
	Bi	209		ug/L			2249748	1839421	0
	Th	232	0.044	ug/L	0.001	2	47	1706	0
	U	238	1.493	ug/L	0 050	3	3	57417	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 12:26:07
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8GFA+.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\020513.cal

RA AS

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
	C	13		ug/L			54952	86697	3
	Cl	37		ug/L			3779893	27826379	4
>	Ge	72		ug/L			546744	496459	0
	Ni	60	6.430	ug/L	0.230	3	54	20696	3
	Ni	62	558.495	ug/L	89.176	15	253	255893	15
	Cu	63	91.355	ug/L	11.346	12	232	628452	12
	Cu	65	10.556	ug/L	0.269	2	53	33062	2
	Zn	66	11.626	ug/L	0.333	2	421	22393	3
	Zn	67	11.295	ug/L	0 302	2	71	3755	3
	Zn	68	11.368	ug/L	0.320	2	399	15698	2
	As	75	1.671	ug/L	0 071	4	239	3048	4
	As-1	75	3.701	ug/L	0.551	14	9070	14531	6
	Se	82	-1.615	ug/L	0.453	28	4	-277	28
	Se	78	10.744	ug/L	2.052	19	9189	13245	6
	Y	89		ug/L			353990	387243	0
	Kr	83		ug/L			476	3169	10
>	In	115		ug/L			878044	748263	1
	Ag	107	0.008	ug/L	0.002	28	15	62	21
	Cd	111	0.045	ug/L	0 027	60	60	217	46
	Cd	114	0.135	ug/L	0.005	3	24	1289	4
	Sb	121	2.862	ug/L	0.040	1	29	30092	0
	Sb	123	2.877	ug/L	0 042	1	27	22973	1
>	Tb	159		ug/L			1213965	1147871	1
	Tl	205	0.009	ug/L	0 001	8	61	343	7
	Pb	208	1.011	ug/L	0.014	1	707	43732	0
	Bi	209		ug/L			2249748	1800551	0
	Th	232	0.050	ug/L	0.016	31	47	1900	29
	U	238	0.105	ug/L	0.001	1	3	4022	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 12:29:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	69629	3
	Cl	37		ug/L			3779893	4099740	4
>	Ge	72		ug/L			546744	543647	1
	Ni	60	4.356	ug/L	0.117	2	54	15370	3
	Ni	62	61.782	ug/L	19 391	31	253	31154	30
	Cu	63	7.202	ug/L	1.287	17	232	54402	16
	Cu	65	3.572	ug/L	0.100	2	53	12286	1
	Zn	66	4.677	ug/L	0.228	4	421	10111	3
	Zn	67	7.497	ug/L	0.372	4	71	2752	3
	Zn	68	7.236	ug/L	0.109	1	399	11086	0
	As	75	1.478	ug/L	0.060	4	239	2978	2
	As-1	75	1.694	ug/L	0.256	15	9070	12171	2
	Se	82	0.314	ug/L	0 109	34	4	64	31
	Se	78	1.347	ug/L	0.817	60	9189	9806	2
	Y	89		ug/L			353990	383536	3
	Kr	83		ug/L			476	610	3
>	In	115		ug/L			878044	868525	3
	Ag	107	0.006	ug/L	0.002	30	15	61	20
	Cd	111	0.070	ug/L	0.006	8	60	357	5
	Cd	114	0.065	ug/L	0.003	4	24	738	4
	Sb	121	1.020	ug/L	0.069	6	29	12449	3
	Sb	123	1.031	ug/L	0.041	3	27	9567	1
>	Tb	159		ug/L			1213965	1272742	2
	Tl	205	0.014	ug/L	0.001	10	61	542	10
	Pb	208	0.037	ug/L	0.002	5	707	2490	1
	Bi	209		ug/L			2249748	2054530	1
	Th	232	0.008	ug/L	0.001	10	47	375	7
	U	238	6.825	ug/L	0.202	2	3	290371	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 12:33:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	72594	1
	Cl	37		ug/L			3779893	4065238	4
>	Ge	72		ug/L			546744	538349	3
	Ni	60	4.624	ug/L	0.242	5	54	16142	4
	Ni	62	30.076	ug/L	3.206	10	253	15213	13
	Cu	63	5.180	ug/L	0.175	3	232	38884	6
	Cu	65	3.384	ug/L	0.044	1	53	11529	3
	Zn	66	5.537	ug/L	0 001	0	421	11782	3
	Zn	67	8.197	ug/L	0.376	4	71	2973	4
	Zn	68	8.306	ug/L	0.403	4	399	12534	2
	As	75	1.500	ug/L	0.047	3	239	2988	1
	As-1	75	1.506	ug/L	0.165	10	9070	11702	1
	Se	82	0.406	ug/L	0.036	8	4	81	9
	Se	78	0.548	ug/L	0.487	88	9189	9314	1
	Y	89		ug/L			353990	389347	3
	Kr	83		ug/L			476	537	3
>	In	115		ug/L			878044	887842	3
	Ag	107	0.005	ug/L	0.001	17	15	51	11
	Cd	111	0.077	ug/L	0.005	6	60	395	9
	Cd	114	0.069	ug/L	0 001	1	24	799	5
	Sb	121	1.044	ug/L	0.052	4	29	13031	2
	Sb	123	1.049	ug/L	0.034	3	27	9950	2
>	Tb	159		ug/L			1213965	1289691	2
	Tl	205	0.011	ug/L	0.001	8	61	473	5
	Pb	208	0.032	ug/L	0.001	1	707	2305	1
	Bi	209		ug/L			2249748	2093333	1
	Th	232	0.007	ug/L	0.001	13	47	337	10
	U	238	6.945	ug/L	0 127	1	3	299465	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 12:36:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	73075	2
	Cl	37		ug/L			3779893	4207259	6
>	Ge	72		ug/L			546744	538644	1
	Ni	60	30.736	ug/L	1.109	3	54	107083	2
	Ni	62	47.203	ug/L	1.058	2	253	23690	0
	Cu	63	29.707	ug/L	0.638	2	232	221875	2
	Cu	65	28.597	ug/L	0.763	2	53	97086	2
	Zn	66	76.023	ug/L	2.568	3	421	156550	3
	Zn	67	70.932	ug/L	1.725	2	71	25213	2
	Zn	68	76.998	ug/L	0.712	0	399	113104	2
	As	75	26.767	ug/L	0.461	1	239	49422	1
	As-1	75	27.075	ug/L	0.438	1	9070	58894	0
	Se	82	76.895	ug/L	1.514	1	4	14537	2
	Se	78	76.244	ug/L	1.171	1	9189	46793	1
	Y	89		ug/L			353990	382500	1
	Kr	83		ug/L			476	546	5
>	In	115		ug/L			878044	899779	4
	Ag	107	23.159	ug/L	0.454	1	15	180495	2
	Cd	111	23.484	ug/L	1.156	4	60	103584	0
	Cd	114	23.281	ug/L	0.601	2	24	263077	1
	Sb	121	24.036	ug/L	0.794	3	29	303401	1
	Sb	123	23.882	ug/L	0 872	3	27	228934	0
>	Tb	159		ug/L			1213965	1303378	2
	Tl	205	26.170	ug/L	0 348	1	61	944008	1
	Pb	208	24.734	ug/L	0.572	2	707	1196455	0
	Bi	209		ug/L			2249748	2098550	3
	Th	232	25.902	ug/L	0.350	1	47	1104494	2
	U	238	33.709	ug/L	0 763	2	3	1469006	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WC09 APOST REN~~ ZZZZZZ AM 2-5-13
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 12:40:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			54952	75865	2
	Cl	37		ug/L			3779893	4218248	3
>	Ge	72		ug/L			546744	556761	0
	Ni	60	29.254	ug/L	0.553	1	54	105388	1
	Ni	62	40.041	ug/L	1 157	2	253	20816	2
	Cu	63	27.725	ug/L	0.512	1	232	214088	1
	Cu	65	26.551	ug/L	0.535	2	53	93187	2
	Zn	66	70.870	ug/L	2.145	3	421	150895	3
	Zn	67	67.536	ug/L	2.604	3	71	24819	3
	Zn	68	72.981	ug/L	1.366	1	399	110819	1
	As	75	26.123	ug/L	0.528	2	239	49867	2
	As-1	75	26.067	ug/L	0.894	3	9070	58962	2
	Se	82	73.982	ug/L	0.645	0	4	14458	0
	Se	78	72.043	ug/L	1 742	2	9189	46223	1
	Y	89		ug/L			353990	393132	0
	Kr	83		ug/L			476	556	3
>	In	115		ug/L			878044	921950	2
	Ag	107	22.026	ug/L	0.210	0	15	175993	2
	Cd	111	21.871	ug/L	0.545	2	60	98954	0
	Cd	114	21.920	ug/L	0.352	1	24	253937	1
	Sb	121	23.499	ug/L	0.286	1	29	304179	2
	Sb	123	23.509	ug/L	0.680	2	27	231049	0
>	Tb	159		ug/L			1213965	1328882	0
	Tl	205	24.603	ug/L	0.324	1	61	904987	0
	Pb	208	23.169	ug/L	0 372	1	707	1143071	1
	Bi	209		ug/L			2249748	2152662	0
	Th	232	25.345	ug/L	0.075	0	47	1101901	0
	U	238	32.196	ug/L	0.281	0	3	1430871	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 12:43:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	65578	2
	Cl	37		ug/L			3779893	4243361	1
>	Ge	72		ug/L			546744	563307	2
	Ni	60	**27.939**	ug/L	0.789	2	54	101854	4
	Ni	62	**37.716**	ug/L	1.518	4	253	19845	2
	Cu	63	**28.618**	ug/L	0.500	1	232	223562	2
	Cu	65	**27.357**	ug/L	0.361	1	53	97128	0
	Zn	66	**82.382**	ug/L	1.846	2	421	177437	3
	Zn	67	**74.863**	ug/L	2.303	3	71	27817	1
	Zn	68	**79.926**	ug/L	3.120	3	399	122692	2
	As	75	**26.050**	ug/L	1.011	3	239	50299	3
	As-1	75	**26.068**	ug/L	0.804	3	9070	59654	3
	Se	82	**84.148**	ug/L	1.803	2	4	16632	0
	Se	78	**82.137**	ug/L	0.724	0	9189	51989	1
	Y	89		ug/L			353990	378016	0
	Kr	83		ug/L			476	536	3
>	In	115		ug/L			878044	894263	2
	Ag	107	**25.963**	ug/L	0.391	1	15	201176	0
	Cd	111	**25.244**	ug/L	1.099	4	60	110761	2
	Cd	114	**25.531**	ug/L	0.929	3	24	286841	2
	Sb	121	**24.264**	ug/L	0.424	1	29	304610	0
	Sb	123	**24.366**	ug/L	0.457	1	27	232334	1
>	Tb	159		ug/L			1213965	1229763	0
	Tl	205	**29.273**	ug/L	0.465	1	61	996476	1
	Pb	208	**28.410**	ug/L	0.187	0	707	1297036	0
	Bi	209		ug/L			2249748	2314540	0
	Th	232	**28.425**	ug/L	0.355	1	47	1143644	1
	U	238	**28.679**	ug/L	0.434	1	3	1179565	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 12:48:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	52023	1
	Cl	37		ug/L			3779893	3972657	1
>	Ge	72		ug/L			546744	582182	2
	Ni	60	46.860	ug/L	1.806	3	54	176381	1
	Ni	62	55.563	ug/L	2.299	4	253	30079	1
	Cu	63	48.130	ug/L	2.537	5	232	388184	3
	Cu	65	46.406	ug/L	0.756	1	53	170227	1
	Zn	66	44.646	ug/L	2.381	5	421	99473	2
	Zn	67	44.384	ug/L	1.628	3	71	17074	2
	Zn	68	46.479	ug/L	2.194	4	399	73893	2
	As	75	47.975	ug/L	1.670	3	239	95491	0
	As-1	75	47.488	ug/L	1.930	4	9070	104315	1
	Se	82	49.953	ug/L	1.926	3	4	10202	1
	Se	78	47.423	ug/L	2.685	5	9189	35135	1
	Y	89		ug/L			353990	391507	0
	Kr	83		ug/L			476	542	1
>	In	115		ug/L			878044	894842	2
	Ag	107	46.165	ug/L	1.598	3	15	357847	1
	Cd	111	47.270	ug/L	1.745	3	60	207495	1
	Cd	114	47.447	ug/L	1.432	3	24	533344	0
	Sb	121	47.552	ug/L	0.865	1	29	597355	1
	Sb	123	47.967	ug/L	1.188	2	27	457591	0
>	Tb	159		ug/L			1213965	1279631	1
	Tl	205	50.102	ug/L	0.875	1	61	1774324	0
	Pb	208	48.792	ug/L	0.717	1	707	2317003	0
	Bi	209		ug/L			2249748	2298392	0
	Th	232	47.701	ug/L	1.545	3	47	1996362	1
	U	238	47.947	ug/L	0.520	1	3	2051775	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 12:54:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			54952	48675	4
	Cl	37		ug/L			3779893	3753401	1
>	Ge	72		ug/L			546744	554788	3
	Ni	60	-0.004	ug/L	0.001	14	54	41	7
	Ni	62	8.587	ug/L	0 489	5	253	4645	2
	Cu	63	0.354	ug/L	0 009	2	232	2953	2
	Cu	65	0.007	ug/L	0.003	46	53	78	11
	Zn	66	-0.065	ug/L	0.007	10	421	289	5
	Zn	67	-0.032	ug/L	0.016	51	71	60	8
	Zn	68	-0.066	ug/L	0.004	5	399	305	4
	As	75	0.017	ug/L	0.017	99	239	274	9
	As-1	75	-0.072	ug/L	0.138	190	9070	9060	0
	Se	82	0.023	ug/L	0.047	205	4	8	102
	Se	78	-0.262	ug/L	0.519	198	9189	9185	0
	Y	89		ug/L			353990	361389	2
	Kr	83		ug/L			476	514	3
>	In	115		ug/L			878044	848169	0
	Ag	107	0.007	ug/L	0.001	12	15	68	9
	Cd	111	0.006	ug/L	0.002	26	60	83	8
	Cd	114	0.002	ug/L	0.001	39	24	39	16
	Sb	121	0.034	ug/L	0.003	9	29	438	9
	Sb	123	0.033	ug/L	0.002	6	27	327	6
>	Tb	159		ug/L			1213965	1134526	0
	Tl	205	0.007	ug/L	0.000	7	61	263	5
	Pb	208	-0.009	ug/L	0 001	7	707	279	9
	Bi	209		ug/L			2249748	2208087	1
	Th	232	0.227	ug/L	0.040	17	47	8481	17
	U	238	0.002	ug/L	0.001	32	3	93	30

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 13:02:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			54952	55695	1
	Cl	37		ug/L			3779893	3702142	2
>	Ge	72		ug/L			546744	582633	1
	Ni	60	-0.004	ug/L	0.001	37	54	43	11
	Ni	62	6.548	ug/L	0 121	1	253	3788	3
	Cu	63	0.384	ug/L	0.005	1	232	3346	2
	Cu	65	0.128	ug/L	0.004	3	53	524	2
	Zn	66	0.312	ug/L	0.015	4	421	1141	1
	Zn	67	0.291	ug/L	0.017	5	71	187	2
	Zn	68	0.301	ug/L	0.024	8	399	902	3
	As	75	0.001	ug/L	0.008	522	239	257	7
	As-1	75	-0.264	ug/L	0.109	41	9070	9137	0
	Se	82	-0.016	ug/L	0.053	334	4	1	760
	Se	78	-0.996	ug/L	0.401	40	9189	9256	0
	Y	89		ug/L			353990	392321	2
	Kr	83		ug/L			476	510	4
>	In	115		ug/L			878044	893807	1
	Ag	107	0.002	ug/L	0.000	2	15	32	0
	Cd	111	0.007	ug/L	0.000	6	60	94	2
	Cd	114	0.001	ug/L	0 001	87	24	32	18
	Sb	121	0.011	ug/L	0.001	7	29	170	6
	Sb	123	0.011	ug/L	0.002	15	27	127	13
>	Tb	159		ug/L			1213965	1222177	0
	Tl	205	0.003	ug/L	0.000	10	61	166	6
	Pb	208	-0.006	ug/L	0.001	16	707	449	10
	Bi	209		ug/L			2249748	2311236	1
	Th	232	0.099	ug/L	0.003	3	47	4009	3
	U	238	0.001	ug/L	0.000	15	3	31	14

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 13:05:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	62384	2
	Cl	37		ug/L			3779893	3878713	4
>	Ge	72		ug/L			546744	541195	0
	Ni	60	**0.937**	ug/L	0.020	2	54	3331	2
	Ni	62	**100.413**	ug/L	32.053	31	253	50345	31
	Cu	63	**11.256**	ug/L	2.611	23	232	84593	22
	Cu	65	**0.567**	ug/L	0.019	3	53	1985	3
	Zn	66	**1.722**	ug/L	0.058	3	421	3970	2
	Zn	67	**3.206**	ug/L	0.031	0	71	1212	1
	Zn	68	**3.321**	ug/L	0.108	3	399	5279	2
	As	75	**2.781**	ug/L	0.069	2	239	5371	2
	As-1	75	**3.053**	ug/L	0.271	8	9070	14639	3
	Se	82	**0.213**	ug/L	0.032	15	4	44	13
	Se	78	**1.314**	ug/L	0.784	59	9189	9749	3
	Y	89		ug/L			353990	383207	1
	Kr	83		ug/L			476	504	6
>	In	115		ug/L			878044	812068	1
	Ag	107	**0.004**	ug/L	0.000	8	15	39	4
	Cd	111	**0.192**	ug/L	0.014	7	60	819	6
	Cd	114	**0.206**	ug/L	0.008	3	24	2124	3
	Sb	121	**0.092**	ug/L	0.001	1	29	1078	2
	Sb	123	**0.088**	ug/L	0.002	1	27	784	2
>	Tb	159		ug/L			1213965	1201148	1
	Tl	205	**0.003**	ug/L	0.001	21	61	162	12
	Pb	208	**0.228**	ug/L	0.007	2	707	10846	1
	Bi	209		ug/L			2249748	1967794	1
	Th	232	**0.099**	ug/L	0.024	23	47	3942	23
	U	238	**0.031**	ug/L	0.002	5	3	1247	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 13:09:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	75166	6
	Cl	37		ug/L			3779893	5278865	2
>	Ge	72		ug/L			546744	551923	3
	Ni	60	5.119	ug/L	0.076	1	54	18319	1
	Ni	62	35.280	ug/L	7.990	22	253	18122	18
	Cu	63	4.228	ug/L	0.560	13	232	32470	9
	Cu	65	0.680	ug/L	0.032	4	53	2415	2
	Zn	66	2.288	ug/L	0.009	0	421	5241	3
	Zn	67	2.856	ug/L	0.161	5	71	1109	6
	Zn	68	3.152	ug/L	0.102	3	399	5131	5
	As	75	1.181	ug/L	0.039	3	239	2463	3
	As-1	75	1.038	ug/L	0.195	18	9070	11111	0
	Se	82	0.616	ug/L	0.042	6	4	123	6
	Se	78	0.229	ug/L	0.639	278	9189	9385	0
	Y	89		ug/L			353990	387877	3
	Kr	83		ug/L			476	573	7
>	In	115		ug/L			878044	905025	4
	Ag	107	0.003	ug/L	0.002	70	15	41	40
	Cd	111	0.052	ug/L	0.003	6	60	293	1
	Cd	114	0.050	ug/L	0.002	4	24	598	6
	Sb	121	0.149	ug/L	0.008	5	29	1926	6
	Sb	123	0.149	ug/L	0.008	5	27	1469	7
>	Tb	159		ug/L			1213965	1341794	4
	Tl	205	0.004	ug/L	0.000	11	61	222	9
	Pb	208	0.000	ug/L	0.001	206	707	797	7
	Bi	209		ug/L			2249748	2032021	4
	Th	232	0.041	ug/L	0.007	16	47	1838	11
	U	238	0.616	ug/L	0.017	2	3	27622	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 13:12:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			54952	87714	4
	Cl	37		ug/L			3779893	13786545	2
>	Ge	72		ug/L			546744	490658	4
	Ni	60	4.089	ug/L	0.109	2	54	13016	3
	Ni	62	217.188	ug/L	45.527	20	253	97956	17
	Cu	63	34.829	ug/L	3.406	9	232	236370	6
	Cu	65	3.106	ug/L	0.092	2	53	9652	6
	Zn	66	4.808	ug/L	0.010	0	421	9373	4
	Zn	67	5.731	ug/L	0.331	5	71	1911	1
	Zn	68	5.771	ug/L	0.244	4	399	8053	6
	As	75	2.874	ug/L	0.130	4	239	5019	0
	As-1	75	3.941	ug/L	0.564	14	9070	14739	2
	Se	82	0.774	ug/L	0.092	11	4	137	14
	Se	78	5.668	ug/L	1 626	28	9189	10782	2
	Y	89		ug/L			353990	363674	4
	Kr	83		ug/L			476	944	4
>	In	115		ug/L			878044	775787	5
	Ag	107	0.007	ug/L	0.001	11	15	57	12
	Cd	111	0.008	ug/L	0.022	267	60	86	99
	Cd	114	0.048	ug/L	0.002	5	24	489	2
	Sb	121	1.203	ug/L	0.048	4	29	13109	3
	Sb	123	1.195	ug/L	0.032	2	27	9908	5
>	Tb	159		ug/L			1213965	1161528	3
	Tl	205	0.005	ug/L	0.001	13	61	218	6
	Pb	208	0.116	ug/L	0.003	2	707	5667	1
	Bi	209		ug/L			2249748	1858703	3
	Th	232	0.047	ug/L	0.001	2	47	1835	5
	U	238	1.455	ug/L	0.013	0	3	56494	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 I REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 13:16:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

Pb AS

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
C	13		ug/L			54952	80657	3
Cl	37		ug/L			3779893	24765733	6
> Ge	72		ug/L			546744	436891	2
Ni	60	6.067	ug/L	0.147	2	54	17180	2
Ni	62	568.385	ug/L	76.690	13	253	228648	11
Cu	63	82.263	ug/L	8.241	10	232	497249	7
Cu	65	9.103	ug/L	0.597	6	53	25078	5
Zn	66	8.384	ug/L	0.130	1	421	14300	1
Zn	67	8.733	ug/L	0.298	3	71	2567	3
Zn	68	8.181	ug/L	0 221	2	399	10026	0
As	75	1.655	ug/L	0 239	14	239	2653	11
As-1	75	4.460	ug/L	0.777	17	9070	13902	5
Se	82	-0.674	ug/L	0.148	21	4	-99	20
Se	78	13.794	ug/L	2.513	18	9189	12863	5
Y	89		ug/L			353990	346470	2
Kr	83		ug/L			476	2408	1
> In	115		ug/L			878044	662713	2
Ag	107	0.005	ug/L	0.001	21	15	39	16
Cd	111	-0.033	ug/L	0.041	123	60	-64	205
Cd	114	0.063	ug/L	0.002	3	24	540	5
Sb	121	2.871	ug/L	0.029	1	29	26729	1
Sb	123	2.829	ug/L	0.069	2	27	20006	0
> Tb	159		ug/L			1213965	1061865	2
Tl	205	0.008	ug/L	0.001	10	61	288	6
Pb	208	0.741	ug/L	0.020	2	707	29816	1
Bi	209		ug/L			2249748	1703536	1
Th	232	0.040	ug/L	0.001	1	47	1443	1
U	238	0.099	ug/L	0.005	4	3	3533	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 FDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 13:19:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			54952	67979	4
	Cl	37		ug/L			3779893	3764265	1
>	Ge	72		ug/L			546744	491583	1
	Ni	60	4.263	ug/L	0.115	2	54	13597	1
	Ni	62	62.303	ug/L	6 681	10	253	28494	11
	Cu	63	5.387	ug/L	0.361	6	232	36919	8
	Cu	65	2.388	ug/L	0.084	3	53	7440	1
	Zn	66	4.161	ug/L	0.124	2	421	8179	3
	Zn	67	6.988	ug/L	0.458	6	71	2324	6
	Zn	68	6.881	ug/L	0.059	0	399	9549	1
	As	75	1.452	ug/L	0.010	0	239	2650	1
	As-1	75	2.041	ug/L	0.091	4	9070	11593	2
	Se	82	0.331	ug/L	0.055	16	4	61	16
	Se	78	2.740	ug/L	0.300	10	9189	9500	2
	Y	89		ug/L			353990	356496	1
	Kr	83		ug/L			476	547	0
>	In	115		ug/L			878044	790723	0
	Ag	107	0.002	ug/L	0.001	35	15	29	18
	Cd	111	0.040	ug/L	0.005	11	60	210	9
	Cd	114	0.039	ug/L	0.001	2	24	412	2
	Sb	121	1.040	ug/L	0.011	1	29	11570	1
	Sb	123	1.064	ug/L	0.015	1	27	8991	1
>	Tb	159		ug/L			1213965	1187589	1
	Tl	205	0.014	ug/L	0 001	8	61	530	8
	Pb	208	0.019	ug/L	0.000	0	707	1518	1
	Bi	209		ug/L			2249748	1999424	0
	Th	232	0.010	ug/L	0.000	1	47	436	1
	U	238	6.953	ug/L	0.112	1	3	276110	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 13:23:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens RSD
	C	13		ug/L			54952	70416	2
	Cl	37		ug/L			3779893	3820540	1
>	Ge	72		ug/L			546744	492337	1
	Ni	60	4.275	ug/L	0.141	3	54	13658	2
	Ni	62	39.731	ug/L	3.277	8	253	18266	8
	Cu	63	4.295	ug/L	0.074	1	232	29504	2
	Cu	65	2.217	ug/L	0.089	4	53	6923	3
	Zn	66	4.319	ug/L	0 094	2	421	8486	1
	Zn	67	7.211	ug/L	0.181	2	71	2400	2
	Zn	68	6.781	ug/L	0.094	1	399	9431	0
	As	75	1.458	ug/L	0.055	3	239	2663	2
	As-1	75	1.785	ug/L	0.140	7	9070	11178	1
	Se	82	0.379	ug/L	0.035	9	4	69	7
	Se	78	1.770	ug/L	0 346	19	9189	9074	0
	Y	89		ug/L			353990	352171	3
	Kr	83		ug/L			476	522	2
>	In	115		ug/L			878044	807337	1
	Ag	107	0.001	ug/L	0.001	63	15	24	26
	Cd	111	0.045	ug/L	0 006	12	60	234	10
	Cd	114	0.039	ug/L	0.001	2	24	416	3
	Sb	121	1.048	ug/L	0.014	1	29	11905	2
	Sb	123	1.054	ug/L	0.004	0	27	9095	1
>	Tb	159		ug/L			1213965	1205270	1
	Tl	205	0.012	ug/L	0 001	4	61	457	4
	Pb	208	0.011	ug/L	0 000	1	707	1173	1
	Bi	209		ug/L			2249748	1975563	1
	Th	232	0.008	ug/L	0.001	14	47	362	14
	U	238	6.767	ug/L	0.046	0	3	272780	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 FSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 13:26:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			54952	69167	4
	Cl	37		ug/L			3779893	3872207	4
>	Ge	72		ug/L			546744	484115	4
	Ni	60	31.349	ug/L	2.672	8	54	97957	4
	Ni	62	55.862	ug/L	0.297	0	253	25159	3
	Cu	63	29.301	ug/L	1.923	6	232	196376	2
	Cu	65	27.633	ug/L	1.423	5	53	84202	0
	Zn	66	75.085	ug/L	4.961	6	421	138727	2
	Zn	67	72.457	ug/L	4.620	6	71	23107	1
	Zn	68	76.099	ug/L	5.814	7	399	100248	3
	As	75	27.684	ug/L	1.919	6	239	45848	2
	As-1	75	28.107	ug/L	2.283	8	9070	54542	2
	Se	82	79.310	ug/L	4.682	5	4	13454	1
	Se	78	79.167	ug/L	6.055	7	9189	43284	1
	Y	89		ug/L			353990	349298	3
	Kr	83		ug/L			476	569	5
>	In	115		ug/L			878044	817851	1
	Ag	107	22.207	ug/L	1.025	4	15	157325	2
	Cd	111	22.982	ug/L	0.529	2	60	92251	0
	Cd	114	23.563	ug/L	0.865	3	24	242104	2
	Sb	121	23.663	ug/L	0.959	4	29	271619	2
	Sb	123	23.900	ug/L	0.616	2	27	208410	1
>	Tb	159		ug/L			1213965	1204682	2
	Tl	205	26.259	ug/L	1.149	4	61	874941	1
	Pb	208	25.134	ug/L	1 011	4	707	1123380	1
	Bi	209		ug/L			2249748	1980015	2
	Th	232	26.997	ug/L	1.512	5	47	1063125	3
	U	238	33.845	ug/L	1.490	4	3	1362601	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~**WC09 FPOST REN**~~ 222222 4 2-513
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 13:30:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	70821	1
	Cl	37		ug/L			3779893	4157505	4
>	Ge	72		ug/L			546744	511376	3
	Ni	60	30.540	ug/L	1.280	4	54	101061	6
	Ni	62	46.643	ug/L	2.388	5	253	22203	1
	Cu	63	27.749	ug/L	0.225	0	232	196841	4
	Cu	65	26.429	ug/L	0.530	2	53	85241	5
	Zn	66	72.287	ug/L	2.293	3	421	141445	6
	Zn	67	67.711	ug/L	0.319	0	71	22853	3
	Zn	68	73.765	ug/L	3.870	5	399	102848	6
	As	75	26.697	ug/L	0.372	1	239	46816	5
	As-1	75	26.719	ug/L	0.817	3	9070	55296	4
	Se	82	77.401	ug/L	1.098	1	4	13897	5
	Se	78	75.694	ug/L	2 601	3	9189	44169	4
	Y	89		ug/L			353990	363055	6
	Kr	83		ug/L			476	533	6
>	In	115		ug/L			878044	837204	3
	Ag	107	22.424	ug/L	0.601	2	15	162770	5
	Cd	111	22.983	ug/L	0.305	1	60	94454	3
	Cd	114	22.974	ug/L	0.396	1	24	241727	3
	Sb	121	24.722	ug/L	0.330	1	29	290687	4
	Sb	123	24.844	ug/L	0.289	1	27	221858	4
>	Tb	159		ug/L			1213965	1211875	3
	Tl	205	25.821	ug/L	0.141	0	61	866244	3
	Pb	208	24.767	ug/L	0.424	1	707	1113984	2
	Bi	209		ug/L			2249748	2015104	2
	Th	232	27.040	ug/L	0.447	1	47	1071701	2
	U	238	33.657	ug/L	0 670	1	3	1363938	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 13:33:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens RSD
	C	13		ug/L			54952	60812	2
	Cl	37		ug/L			3779893	3967327	0
>	Ge	72		ug/L			546744	539665	3
	Ni	60	26.577	ug/L	0.698	2	54	92834	5
	Ni	62	39.526	ug/L	0.962	2	253	19927	5
	Cu	63	27.045	ug/L	0.993	3	232	202553	6
	Cu	65	26.617	ug/L	1.548	5	53	90545	6
	Zn	66	76.149	ug/L	2.990	3	421	157048	3
	Zn	67	70.300	ug/L	1.646	2	71	25038	3
	Zn	68	76.380	ug/L	1.377	1	399	112439	5
	As	75	25.360	ug/L	1.117	4	239	46925	5
	As-1	75	24.991	ug/L	1.023	4	9070	55153	4
	Se	82	81.291	ug/L	2.604	3	4	15398	4
	Se	78	77.923	ug/L	2.173	2	9189	47717	3
	Y	89		ug/L			353990	371291	5
	Kr	83		ug/L			476	519	1
>	In	115		ug/L			878044	858436	7
	Ag	107	24.743	ug/L	1.142	4	15	183632	3
	Cd	111	24.486	ug/L	0.998	4	60	102966	4
	Cd	114	24.727	ug/L	0.832	3	24	266378	5
	Sb	121	22.571	ug/L	1.192	5	29	271322	3
	Sb	123	22.764	ug/L	1.291	5	27	207823	3
>	Tb	159		ug/L			1213965	1211098	3
	Tl	205	27.656	ug/L	0.111	0	61	927070	3
	Pb	208	27.208	ug/L	0.282	1	707	1223199	3
	Bi	209		ug/L			2249748	2311493	4
	Th	232	27.170	ug/L	0.333	1	47	1076454	3
	U	238	27.651	ug/L	0.341	1	3	1120004	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 13:38:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		ug/L			54952	50824	3
Cl	37		ug/L			3779893	3656494	2
> Ge	72		ug/L			546744	489319	2
Ni	60	50.335	ug/L	0.290	0	54	159317	2
Ni	62	65.064	ug/L	2.310	3	253	29566	0
Cu	63	50.759	ug/L	1 155	2	232	344217	2
Cu	65	48.345	ug/L	0.559	1	53	149054	1
Zn	66	48.578	ug/L	0.681	1	421	90998	1
Zn	67	48.190	ug/L	0.170	0	71	15584	3
Zn	68	49.025	ug/L	1.450	2	399	65511	1
As	75	50.773	ug/L	0.511	1	239	84962	1
As-1	75	50.706	ug/L	0.596	1	9070	93107	1
Se	82	53.835	ug/L	0.739	1	4	9246	2
Se	78	52.908	ug/L	0.881	1	9189	32012	1
Y	89		ug/L			353990	334227	0
Kr	83		ug/L			476	521	3
> In	115		ug/L			878044	766784	1
Ag	107	47.134	ug/L	0.690	1	15	313165	1
Cd	111	48.617	ug/L	1.209	2	60	182923	2
Cd	114	50.386	ug/L	1.178	2	24	485401	1
Sb	121	50.293	ug/L	1.281	2	29	541319	1
Sb	123	49.775	ug/L	1.184	2	27	406940	1
> Tb	159		ug/L			1213965	1123774	1
Tl	205	52.228	ug/L	0.831	1	61	1624540	1
Pb	208	51.803	ug/L	0.896	1	707	2160362	0
Bi	209		ug/L			2249748	2061469	1
Th	232	53.073	ug/L	0.917	1	47	1951474	2
U	238	52.138	ug/L	1.457	2	3	1959147	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 13:44:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	48993	2
	Cl	37		ug/L			3779893	3474766	1
>	Ge	72		ug/L			546744	493064	3
	Ni	60	-0.006	ug/L	0.001	17	54	30	13
	Ni	62	11.866	ug/L	0.865	7	253	5615	3
	Cu	63	0.466	ug/L	0.029	6	232	3387	3
	Cu	65	0.004	ug/L	0.005	112	53	60	21
	Zn	66	-0.058	ug/L	0.011	19	421	269	5
	Zn	67	-0.041	ug/L	0.058	139	71	51	37
	Zn	68	-0.062	ug/L	0.009	14	399	277	2
	As	75	0.032	ug/L	0.008	23	239	269	1
	As-1	75	0.288	ug/L	0.177	61	9070	8661	0
	Se	82	0.004	ug/L	0.035	803	4	4	131
	Se	78	1.105	ug/L	0.686	62	9189	8781	0
	Y	89		ug/L			353990	330915	2
	Kr	83		ug/L			476	514	3
>	In	115		ug/L			878044	774509	1
	Ag	107	0.006	ug/L	0.002	29	15	54	21
	Cd	111	0.004	ug/L	0.000	11	60	69	4
	Cd	114	0.001	ug/L	0.001	45	24	33	16
	Sb	121	0.032	ug/L	0.002	7	29	370	5
	Sb	123	0.029	ug/L	0.002	5	27	266	6
>	Tb	159		ug/L			1213965	1093117	0
	Tl	205	0.010	ug/L	0 003	34	61	362	28
	Pb	208	-0.010	ug/L	0.000	2	707	249	4
	Bi	209		ug/L			2249748	2091218	2
	Th	232	0.207	ug/L	0 037	17	47	7460	17
	U	238	0.002	ug/L	0.000	9	3	67	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 J REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, February 05, 2013 13:49:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
	C	13		ug/L			54952	64065	2
	Cl	37		ug/L			3779893	3736221	5
>	Ge	72		ug/L			546744	487664	2
	Ni	60	0.623	ug/L	0.029	4	54	2010	2
	Ni	62	113.176	ug/L	35.193	31	253	51424	33
	Cu	63	11.176	ug/L	2.350	21	232	76014	23
	Cu	65	0.285	ug/L	0.016	5	53	922	8
	Zn	66	0.858	ug/L	0.020	2	421	1969	1
	Zn	67	2.252	ug/L	0.212	9	71	785	5
	Zn	68	2.323	ug/L	0.051	2	399	3434	1
	As	75	2.207	ug/L	0.088	3	239	3884	2
	As-1	75	2.806	ug/L	0.144	5	9070	12775	2
	Se	82	0.263	ug/L	0.022	8	4	49	10
	Se	78	2.682	ug/L	0.249	9	9189	9397	2
	Y	89		ug/L			353990	343650	3
	Kr	83		ug/L			476	520	3
>	In	115		ug/L			878044	732147	1
	Ag	107	0.003	ug/L	0.000	8	15	33	4
	Cd	111	0.003	ug/L	0.003	134	60	59	19
	Cd	114	0.011	ug/L	0.001	12	24	123	10
	Sb	121	0.106	ug/L	0.005	4	29	1111	4
	Sb	123	0.099	ug/L	0.003	3	27	795	3
>	Tb	159		ug/L			1213965	1109598	0
	Tl	205	0.007	ug/L	0.000	1	61	261	1
	Pb	208	0.008	ug/L	0.001	8	707	967	2
	Bi	209		ug/L			2249748	1930942	0
	Th	232	0.181	ug/L	0.046	25	47	6598	25
	U	238	0.023	ug/L	0.001	6	3	846	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 D REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Tuesday, February 05, 2013 13:53:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			54952	57480	0
	Cl	37		ug/L			3779893	7699614	2
>	Ge	72		ug/L			546744	491257	1
	Ni	60	1.356	ug/L	0.010	0	54	4358	2
	Ni	62	142.680	ug/L	15.219	10	253	64779	8
	Cu	63	14.791	ug/L	1.363	9	232	100759	7
	Cu	65	2.101	ug/L	0.058	2	53	6552	4
	Zn	66	2.856	ug/L	0.075	2	421	5728	3
	Zn	67	2.875	ug/L	0.126	4	71	993	4
	Zn	68	2.759	ug/L	0.059	2	399	4041	1
	As	75	0.399	ug/L	0.016	4	239	884	3
	As-1	75	1.070	ug/L	0.103	9	9070	9949	0
	Se	82	0.388	ug/L	0.064	16	4	70	17
	Se	78	3.214	ug/L	0.336	10	9189	9705	0
	Y	89		ug/L			353990	363194	2
	Kr	83		ug/L			476	622	4
>	In	115		ug/L			878044	744491	3
	Ag	107	0.003	ug/L	0.001	47	15	30	29
	Cd	111	0.019	ug/L	0.011	54	60	120	28
	Cd	114	0.031	ug/L	0.001	3	24	312	5
	Sb	121	0.609	ug/L	0.018	3	29	6386	2
	Sb	123	0.626	ug/L	0.015	2	27	4990	1
>	Tb	159		ug/L			1213965	1145285	2
	Tl	205	0.005	ug/L	0.000	1	61	215	2
	Pb	208	0.219	ug/L	0.004	1	707	9974	1
	Bi	209		ug/L			2249748	1941000	2
	Th	232	0.031	ug/L	0.001	4	47	1196	5
	U	238	0.025	ug/L	0.001	2	3	945	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 I REN
Sample Dil Factor: 10
Comments:
Sample Date/Time: Tuesday, February 05, 2013 13:56:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
	C	13		ug/L			54952	58434	3
	Cl	37		ug/L			3779893	7917584	3
>	Ge	72		ug/L			546744	504622	1
	Ni	60	1.230	ug/L	0.059	4	54	4064	6
	Ni	62	78.687	ug/L	1.360	1	253	36845	1
	Cu	63	9.258	ug/L	0.086	0	232	64936	1
	Cu	65	1.839	ug/L	0.022	1	53	5893	1
	Zn	66	2.127	ug/L	0.070	3	421	4482	3
	Zn	67	2.275	ug/L	0.095	4	71	821	3
	Zn	68	2.180	ug/L	0.059	2	399	3358	3
	As	75	0.385	ug/L	0.016	4	239	883	4
	As-1	75	0.764	ug/L	0.104	13	9070	9691	1
	Se	82	0.481	ug/L	0.025	5	4	89	6
	Se	78	2.078	ug/L	0.433	20	9189	9443	1
	Y	89		ug/L			353990	358295	0
	Kr	83		ug/L			476	556	3
>	In	115		ug/L			878044	761842	2
	Ag	107	0.002	ug/L	0.000	17	15	27	9
	Cd	111	-0.001	ug/L	0.004	252	60	47	30
	Cd	114	0.017	ug/L	0.001	4	24	182	4
	Sb	121	0.602	ug/L	0.029	4	29	6456	2
	Sb	123	0.593	ug/L	0.024	4	27	4833	1
>	Tb	159		ug/L			1213965	1154530	1
	Tl	205	0.004	ug/L	0.000	6	61	184	4
	Pb	208	0.153	ug/L	0.003	2	707	7228	2
	Bi	209		ug/L			2249748	1951932	1
	Th	232	0.022	ug/L	0.000	1	47	872	0
	U	238	0.021	ug/L	0.001	3	3	826	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 D REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, February 05, 2013 14:00:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	68137	1
	Cl	37		ug/L			3779893	13702931	4
>	Ge	72		ug/L			546744	502214	2
	Ni	60	**2.661**	ug/L	0 058	2	54	8693	3
	Ni	62	**197.617**	ug/L	22.082	11	253	91906	13
	Cu	63	**24.585**	ug/L	1.887	7	232	171462	9
	Cu	65	**4.166**	ug/L	0.076	1	53	13226	1
	Zn	66	**5.338**	ug/L	0.213	3	421	10605	2
	Zn	67	**5.396**	ug/L	0.182	3	71	1849	4
	Zn	68	**5.277**	ug/L	0.101	1	399	7566	0
	As	75	**0.710**	ug/L	0.042	5	239	1436	6
	As-1	75	**1.485**	ug/L	0.161	10	9070	10888	4
	Se	82	**0.853**	ug/L	0.116	13	4	154	12
	Se	78	**4.211**	ug/L	0.591	14	9189	10386	4
	Y	89		ug/L			353990	381835	3
	Kr	83		ug/L			476	726	8
>	In	115		ug/L			878044	767944	2
	Ag	107	**0.004**	ug/L	0.001	15	15	41	13
	Cd	111	**0.028**	ug/L	0.010	36	60	156	22
	Cd	114	**0.057**	ug/L	0.003	4	24	570	6
	Sb	121	**1.207**	ug/L	0.018	1	29	13031	1
	Sb	123	**1.206**	ug/L	0.010	0	27	9902	3
>	Tb	159		ug/L			1213965	1174352	2
	Tl	205	**0.005**	ug/L	0.000	8	61	211	8
	Pb	208	**0.435**	ug/L	0.007	1	707	19654	1
	Bi	209		ug/L			2249748	1924079	1
	Th	232	**0.036**	ug/L	0.001	3	47	1446	0
	U	238	**0.045**	ug/L	0.002	4	3	1768	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC09 I REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, February 05, 2013 14:03:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

As

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			54952	71777	2
	Cl	37		ug/L			3779893	13493959	6
>	Ge	72		ug/L			546744	509675	3
	Ni	60	2.574	ug/L	0.081	3	54	8528	2
	Ni	62	178.989	ug/L	18.981	10	253	84156	7
	Cu	63	22.529	ug/L	1.239	5	232	159079	1
	Cu	65	3.657	ug/L	0.258	7	53	11774	3
	Zn	66	3.825	ug/L	0.318	8	421	7811	4
	Zn	67	4.230	ug/L	0.196	4	71	1483	1
	Zn	68	3.841	ug/L	0.212	5	399	5684	2
	As	75	0.688	ug/L	0.013	1	239	1418	2
	As-1	75	1.435	ug/L	0.352	24	9070	10945	1
	Se	82	0.876	ug/L	0.081	9	4	160	9
	Se	78	4.137	ug/L	1.371	33	9189	10488	2
	Y	89		ug/L			353990	383805	1
	Kr	83		ug/L			476	740	4
>	In	115		ug/L			878044	769408	3
	Ag	107	0.003	ug/L	0.001	17	15	35	13
	Cd	111	0.002	ug/L	0.010	586	60	58	66
	Cd	114	0.029	ug/L	0.002	6	24	305	5
	Sb	121	1.215	ug/L	0.015	1	29	13154	3
	Sb	123	1.217	ug/L	0.041	3	27	10004	0
>	Tb	159		ug/L			1213965	1213627	1
	Tl	205	0.004	ug/L	0.001	13	61	204	7
	Pb	208	0.305	ug/L	0.002	0	707	14439	1
	Bi	209		ug/L			2249748	1920196	1
	Th	232	0.027	ug/L	0.001	3	47	1103	4
	U	238	0.042	ug/L	0.002	4	3	1702	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 14:07:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			54952	52357	2
	Cl	37		ug/L			3779893	3730436	5
>	Ge	72		ug/L			546744	517752	2
	Ni	60	48.605	ug/L	1 456	2	54	162721	0
	Ni	62	92.506	ug/L	3.594	3	253	44417	5
	Cu	63	50.199	ug/L	0.869	1	232	360198	1
	Cu	65	46.933	ug/L	1.531	3	53	153066	1
	Zn	66	46.448	ug/L	1.059	2	421	92076	1
	Zn	67	45.469	ug/L	1 147	2	71	15562	3
	Zn	68	47.071	ug/L	0 710	1	399	66597	2
	As	75	49.072	ug/L	1.737	3	239	86863	1
	As-1	75	49.148	ug/L	1.390	2	9070	95734	0
	Se	82	51.834	ug/L	1.771	3	4	9416	1
	Se	78	51.444	ug/L	0.481	0	9189	33178	1
	Y	89		ug/L			353990	352068	1
	Kr	83		ug/L			476	536	2
>	In	115		ug/L			878044	793016	2
	Ag	107	46.124	ug/L	1.444	3	15	316876	2
	Cd	111	47.076	ug/L	1 395	2	60	183140	1
	Cd	114	48.770	ug/L	0.765	1	24	485943	1
	Sb	121	48.810	ug/L	1.932	3	29	543156	2
	Sb	123	48.562	ug/L	1.455	2	27	410517	1
>	Tb	159		ug/L			1213965	1156046	0
	Tl	205	52.277	ug/L	0.282	0	61	1672757	0
	Pb	208	50.863	ug/L	0.658	1	707	2182258	0
	Bi	209		ug/L			2249748	2161545	1
	Th	232	51.491	ug/L	0.844	1	47	1947323	1
	U	238	50.728	ug/L	1.118	2	3	1961076	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, February 05, 2013 14:13:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			54952	50611	0
	Cl	37		ug/L			3779893	3479767	2
>	Ge	72		ug/L			546744	507669	2
	Ni	60	-0.003	ug/L	0.001	38	54	40	10
	Ni	62	25.922	ug/L	1.609	6	253	12359	3
	Cu	63	1.053	ug/L	0.079	7	232	7616	4
	Cu	65	0.012	ug/L	0.002	17	53	88	7
	Zn	66	-0.055	ug/L	0.011	20	421	285	9
	Zn	67	-0.058	ug/L	0.026	44	71	46	17
	Zn	68	-0.047	ug/L	0.004	7	399	306	0
	As	75	0.039	ug/L	0.007	18	239	288	2
	As-1	75	0.259	ug/L	0.116	44	9070	8869	1
	Se	82	0.024	ug/L	0.079	323	4	8	171
	Se	78	0.954	ug/L	0.442	46	9189	8974	1
	Y	89		ug/L			353990	351336	0
	Kr	83		ug/L			476	509	6
>	In	115		ug/L			878044	766886	0
	Ag	107	0.006	ug/L	0.001	12	15	52	10
	Cd	111	0.004	ug/L	0.002	44	60	69	10
	Cd	114	0.001	ug/L	0.001	42	24	35	15
	Sb	121	0.028	ug/L	0.003	10	29	330	8
	Sb	123	0.030	ug/L	0.005	16	27	266	15
>	Tb	159		ug/L			1213965	1097884	2
	Tl	205	0.011	ug/L	0.003	24	61	392	22
	Pb	208	-0.009	ug/L	0.000	3	707	269	3
	Bi	209		ug/L			2249748	2119826	1
	Th	232	0.204	ug/L	0.035	17	47	7396	18
	U	238	0.002	ug/L	0.000	13	3	85	11

Mercury Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WC09, WC10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: DM

Date: 02-01-13

Final Volume _____

Final Volume (Hg): 20

Sample ID WC10 BSPK, MB1SPK
GSPK, MB2SPK
WC1C ASPK, MB1SPK

	Prepcode:			
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:			
	Vol Added (mL):			
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	THM	CVA	1.0	0.02	5007-14
Hg MBSPK	↓	CVA	1.0	0.04	↓
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Analyst: DM
Bath Temp: 95°C
Start Time: 1340
Matrix: Water
Date: 02-01-13
End Time: 1540

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WC16 A	1	✓	20.0	20.0	2/4 1	(4)	
" ADUP	1	✓			1		
" ASPK	1	✓			1		
" MB1	–	✓			1		
" MB1SPK	–	✓			1		
WC10 A	1	✓			2/11 1		
" B	1	✓			1		
" BDUP	1	✓			1		
" BSPK	1	✓			1		
" C	1	✓			1		
" D	1	✓			1		
" E	1	✓			1		
" MB1	–	✓			1		
" MB1SPK	–	✓			1		
" F	1	✓			1		
" G	1	✓			1		
" GDUP	1	✓			1		
" GSPK	1	✓			1		
" H	1	✓			1		
" I	1	✓			1		
" J	1	✓			1		
" MB2	–	✓			1		
" MB2SPK	–	✓	20.0	20.0	1	(4)	
			02-01-13 DM				

Chemical/Reagent ID:

HNO_3: I7990
H_2SO_4: I7677
HCl: –
5% $K_2S_2O_8$: MP2418
5% $KMnO_4$: MP2425
Digest Tube Lot: 1208057

WC09 00153

Mercury Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WC09, WC10

Mercury Analysis Log

Analyst: CB **Date:** 02-04-13

Instrument: CETAC **Page:** 1 of 2

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	TLM	1X		
" 20.0				
" 50.0				
" 100.0				
" 200.0				
" 400.0				
" 1000.0				
STD 0.0				
" 20.0				
" 50.0				
" 100.0				
" 200.0				
" 400.0				
" 1000.0				
ICV			485.57	Begin LLP %R=97 ✓
ICB			-0.47	✓
CCV1			528.47	%R=106 ✓
CCB1			0.21	✓
CRA			18.10	✓
WC16 MBI			1.68	✓
" MBISPK			195.21	%R=98 ✓
" A			25.94	High %RSD
" ADUP			25.94	✓
" ASPK			114.50	%R=89 ✓
WC10 MBI			-0.79	✓
" MBISPK			201.45	%R=101 ✓
" A				
" B			2.49	
CCV2			529.25	%R=106 ✓
CCB2	✓	✓	-0.62	✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2434

14% $NH_2OH/NaCl$: MP2398 ~~MP2397~~ CB 2/4/13

Standard ID:

Standard: 3011-7

ICV/CCV: 3011-8

WC09 00155

Mercury Analysis Log

Analyst: CB

Instrument: LETAC

Date: 2-04-13

Page: 2 of 2

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
WC10 Bdup	TLM	1x	2.87	NO RPD: undetected ✓
" BSpk			97.93	%R = 98 ✓
" C				
" D				
" E				
" MB2			0.35	✓
" MB2Spk			205.01	%R = 103 ✓
" F				
" G			1.82	
" Gdup			2.61	NO RPD undetected ✓
CCV3			530.51	%R = 106 ✓
CCB3			0.52	✓
WC10 GSpk			100.24	%R = 100 ✓
" H				
" I				
" J				
CCV4			530.80	%R = 106 ✓
CCB4	✓	✓	-0.37	End CLP ✓
		2-04-13 CB		

Chemical/Reagent ID:

10% $SnCl_2$: MP24134

14% $NH_2OH/NaCl$: MO2398

Standard ID:

Standard: 3011-7

ICV/CCV: 3011-4

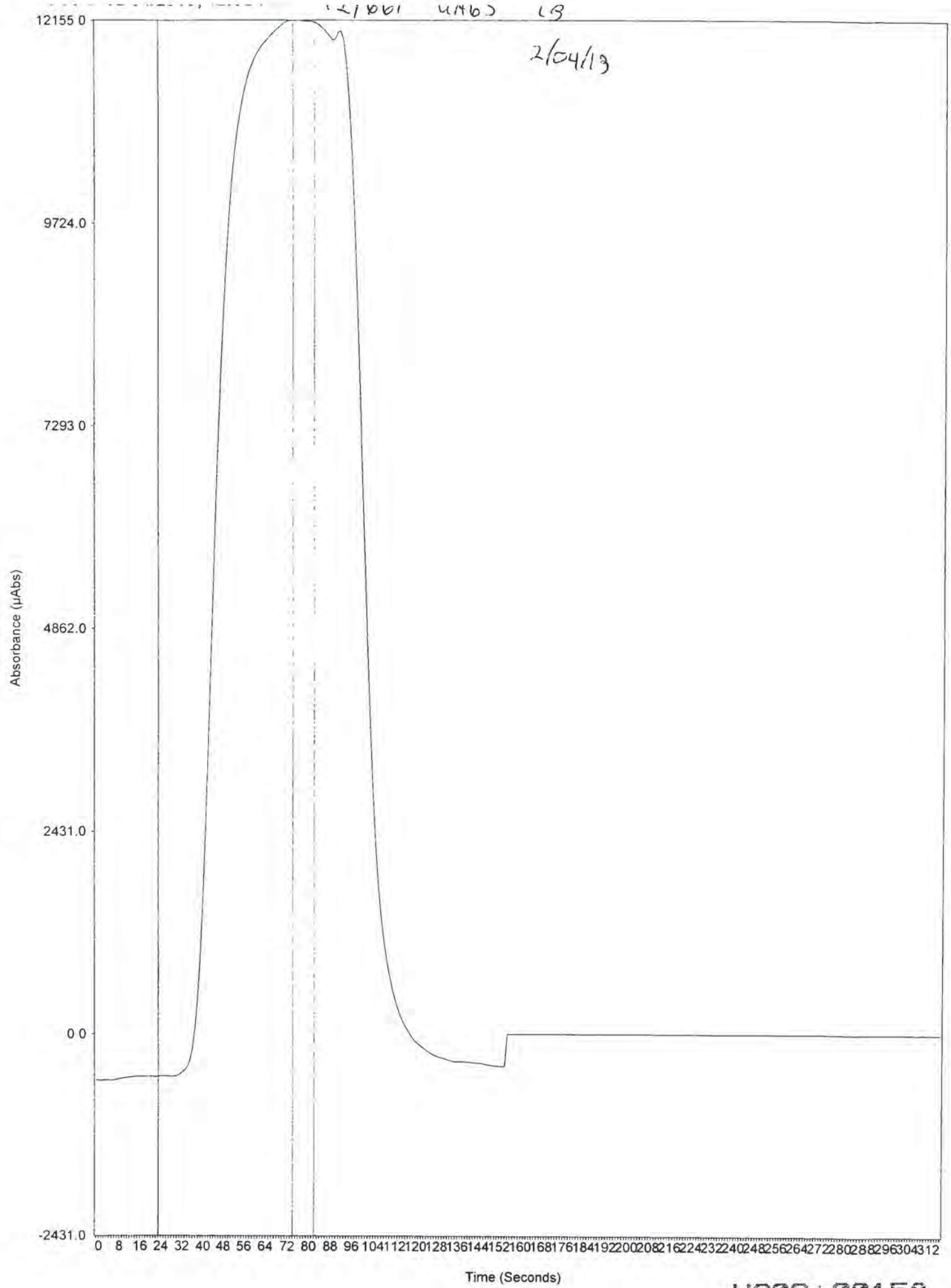
ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA (CVA)

Analysis Date: 2-04-13

Low level	Analyst CB 2-04-13	Peer BA 2/4/13	Comment
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
RSD's & SD's	✓	✓	WC16 A High RSD
Internal Standards	—	—	
Carry-over	—	—	
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	—	—	

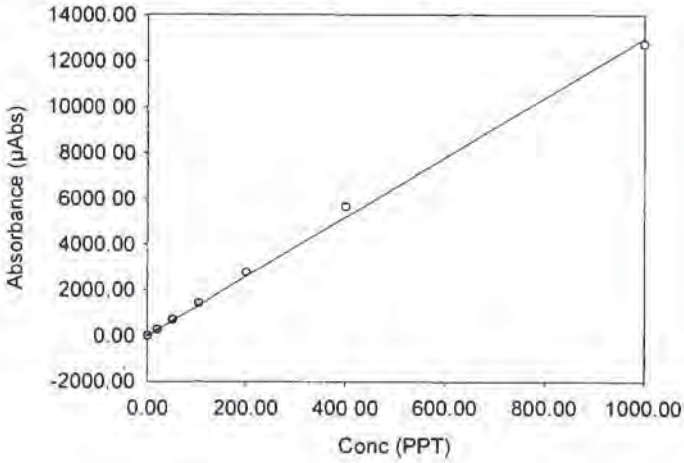

12155 0
9724.0
7293 0
4862.0
2431.0
0 0
-2431.0
Absorbance (µAbs)
0 8 16 24 32 40 48 56 64 72 80 88 96 104 112 120 128 136 144 152 160 168 176 184 192 200 208 216 224 232 240 248 256 264 272 280 288 296 304 312
Time (Seconds)
2/04/13

CETAC Hg Analysis Report - 13020400.DB - Monday, February 04, 2013, 3:01:41 PM

Analyst
Date Started Monday, February 04, 2013, 12:56.11
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Calibration Zero	04-Feb-2013, 12:56	0.00	192.00	-2.38	2	1	-4	-8	
Standard #1	04-Feb-2013, 12.58	20.00	1.02	268.00	266	272	269	268	
Standard #2	04-Feb-2013, 13.01	50.00	0.24	714 00	713	711	715	714	
Standard #3	04-Feb-2013, 13.04	100 00	0 20	1420.00	1417	1422	1424	1422	
Standard #4	04-Feb-2013, 13:06	200 00	0 06	2780.00	2779	2779	2783	2780	
Standard #5	04-Feb-2013, 13.09	400 00	0.23	5660.00	5648	5655	5665	5678	
Standard #6	04-Feb-2013, 13.12	1000.00	0.18	12800.00	12739	12757	12773	12793	

Calibration Data



Int.	0 000
Slope	13 001
Correlation	0.99873

TLM

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
ICV	04-Feb-2013, 13:30	486.00	0.24	6310 00	6298	6305	6318	6333	
ICB	04-Feb-2013, 13:33	-0 47	76.80	-6.09	0	-6	-10	-9	Resin LLP

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	04-Feb-2013, 13.35	528.00	0 07	6870.00	6864	6870	6872	6877	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	04-Feb-2013, 13:38	0.21	75.10	2 72	3	3	0	5	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
CRA	04-Feb-2013, 13.41	18.10	1.84	235.00	231	233	240	238	
WC16 MB1 TLM	04-Feb-2013, 13.44	1 68	6 38	21 80	21	24	21	21	
WC16 MB1SPK TLM	04-Feb-2013, 13:46	195.00	0 03	2540 00	2537	2538	2538	2539	
WC16 A TLM	04-Feb-2013, 13:49	25.90	5.44	337.00	358	346	329	316	Q
WC16 ADUP TLM	04-Feb-2013, 13.52	25.90	2.09	337.00	347	336	337	330	
WC16 ASPK TLM	04-Feb-2013, 13:54	115.00	0.68	1490 00	1501	1492	1483	1478	
WC10 MB1 TLM	04-Feb-2013, 13:57	-0.79	21.00	-10.30	-8	-12	-9	-12	
WC10 MB1SPK TLM	04-Feb-2013, 14:00	201.00	0.14	2620.00	2615	2620	2624	2618	
WC10 A TLM	04-Feb-2013, 14:02	5.17	4.42	67.30	69	70	67	63	
WC10 B TLM	04-Feb-2013, 14:05	2.49	10.40	32.30	36	34	30	29	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	04-Feb-2013, 14:08	529.00	0.12	6880.00	6870	6879	6886	6889	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	04-Feb-2013, 14 11	-0.62	30.20	-8 06	-9	-7	-5	-11	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WC10 BDUP TLM	04-Feb-2013, 14:13	2.87	2.41	37 30	38	37	38	36	
WC10 BSPK TLM	04-Feb-2013, 14:16	97.90	0.13	1270.00	1273	1271	1274	1275	
WC10 C TLM	04-Feb-2013, 14:19	23.80	0.50	309 00	311	309	307	308	
WC10 D TLM	04-Feb-2013, 14 21	2.57	5.26	33 40	31	33	38	36	

CETAC Hg Analysis Report - 13020400.DB - Monday, February 04, 2013, 3:01:42 PM

Analyst
Date Started Monday, February 04, 2013, 14:24:32
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WC10 E TLM	04-Feb-2013, 14:24	2.24	7.27	29.10	32	27	30	28	
WC10 MB2 TLM	04-Feb-2013, 14:27	0 35	57 90	4.50	3	6	8	2	
WC10 MB2SPK TLM	04-Feb-2013, 14:29	205.00	0.09	2670.00	2663	2666	2664	2668	
WC10 F TLM	04-Feb-2013, 14:32	1.87	8.07	24.30	23	27	23	25	
WC10 G TLM	04-Feb-2013, 14:35	1.82	9.16	23 70	21	23	23	27	
WC10 GDUP TLM	04-Feb-2013, 14:38	2.61	4.36	33.90	36	35	33	32	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	04-Feb-2013, 14:40	531.00	0 16	6900 00	6881	6899	6904	6905	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	04-Feb-2013, 14:43	0.52	36.40	6.78	4	7	7	10	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WC10 GSPK TLM	04-Feb-2013, 14:46	100.00	0.16	1300 00	1301	1303	1303	1306	
WC10 H TLM	04-Feb-2013, 14:49	17 60	0.42	228 00	229	229	227	228	
WC10 I TLM	04-Feb-2013, 14:51	2.03	18.60	26.40	31	28	26	20	
WC10 J TLM	04-Feb-2013, 14:54	1.40	11.70	18.20	18	17	16	21	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	04-Feb-2013, 14:57	531.00	0.07	6900 00	6894	6904	6904	6903	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	04-Feb-2013, 14:59	-0.37	93.90	-4 77	1	-3	-8	-9	End LCD

Analyst	
Date Created:	Wednesday, November 27, 2002
Worksheet	LOW LEVEL CALIB 20 TO 1000 PPT
Comment	
Sip Duration (Sec.):	55
Rinse Duration (Sec.):	100
Read Delay:	75
Integration Time/Replicate:	2.00
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	20
Baseline Point 1 End Time:	24
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	148
Baseline Point 2 End Time:	152
Gas Flow (ml/min):	30
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	2
Calibration Standard #1 Conc.:	20 00 PPT
Calibration Standard #2 Conc.:	50.00 PPT
Calibration Standard #3 Conc.:	100.00 PPT
Calibration Standard #4 Conc.:	200.00 PPT
Calibration Standard #5 Conc.:	400.00 PPT
Calibration Standard #6 Conc.:	1000 00 PPT
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs > 200, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 90% . 110%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -20 . 20,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Prep Code: TLM Digested 20.0 mL Instrument: CETAC

Analyst: CB Date: 2-4-13

Bath Temp: 95°C Start Time: 1000 End Time: 1200

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	–	0.00	100.0	0.0	1
STD1	3011-7	0.02		0.02	1
STD2		0.05		0.05	1
STD3		0.10		0.1	1
STD4		0.20		0.2	1
STD5		~~0.50~~ 0.4		0.4	1
STD6		1.00		1.00	1
CRA		0.02		0.02	1
ICB/CCB	–	0.00		0.0	1
ICV/LCS	3011-8	1.0		0.5	1
CCV		1.0	100.0	0.5	1

Chemical/Reagent ID:

HNO_3: I7976 H_2SO_4: I7677 HCl: _____

5% $K_2S_2O_8$: mp2418 5% $KMnO_4$: mp2425

Prep Code: _____ Instrument: _____

Analyst: _____ Date: _____

Bath Temp: _____ Start Time: _____ End Time: _____

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0		0.00			
STD1					
STD2		0.05			
STD3		0.10			
STD4		0.20			
STD5		0.50			
STD6		1.00			
CRA					
ICB/CCB		0.00			
ICV/LCS					
CCV					

Chemical/Reagent ID:

HNO_3: _____ H_2SO_4: _____ HCl: _____

5% $K_2S_2O_8$: _____ 5% $KMnO_4$: _____

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Analyst: DM
Bath Temp: 95°C
Start Time: 1340
Matrix: Water
Date: 02-01-13
End Time: 1540

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
W<16 A	1	✓	20.0	20.0	2/4 1	Y	
" ADUP	1	✓			1		
" ASPK	1	✓			1		
" MB1	—	✓			1		
" MB1SPK	—	✓			1		
W<10 A	1	✓			2/11 1		
" B	1	✓			1		
" BDUP	1	✓			1		
" BSPK	1	✓			1		
" C	1	✓			1		
" D	1	✓			1		
" E	1	✓			1		
" MB1	—	✓			1		
" MB1SPK	—	✓			1		
" F	1	✓			1		
" G	1	✓			1		
" GDUP	1	✓			1		
" GSPK	1	✓			1		
" H	1	✓			1		
" I	1	✓			1		
" J	1	✓			1		
" MB2	—	✓			1		
" MB2SPK	—	✓	20.0	20.0	1	Y	
			02-01-13 DM				

Chemical/Reagent ID:

HNO_3: I7970
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2418
5% $KMnO_4$: MP2425
Digest Tube Lot: 1208057

WC09 00163

Table of Contents: ARI Job WC37, WC38

Client: GeoEngineers

Project: 0504-068-00 Benson/Everett SMelter/ROE

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AV
Signature

February-11-2013
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

February 11, 2013

Garrett Leque
GeoEngineers, Inc.
1101 Fawcett, Suite 200
Tacoma, WA 98402

RE: Benson/Everett Smelter/ROE, 0504-068-00
ARI Job Nos.: WC37 & WC38

Dear Garrett:

Please find enclosed the Chain-of-Custody record (COC), sample receipt documentation, and the data package for samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile WC37_WC38

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: WC37, WC38

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: WC37	Turn-around Requested:
ARI Client Company: GEOENGWEERS	Phone: 253-312-7958
Client Contact: GARRETT LeQUE	
Client Project Name: BENSON/EVERETT SMELTER/ROE.	
Client Project #: 0504-068-00	Samplers: BRIAN ANDERSON

Page: 1 of 1	
Date: 2-1-13	Ice Present?
No. of Coolers:	Cooler Temps:

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	TOTAL METALS	DISSOLVED METALS (FIELD FILTER)	SEE COMMENTS						Notes/Comments
LLMW-06D-130201-W	2-1-13	0922	W	2	X	X							FIELD FILTERED
LLMW-31D-130201-W	2-1-13	1023	W	2	X	X							FIELD FILTERED

Comments/Special Instructions	Relinquished by:	Received by:	Relinquished by:	Received by:
METAL ANALYSIS TO INCLUDE: ARSENIC, LEAD, CADMIUM, MERCURY THALLIUM, ANTIMONY	(Signature) Brian Anderson	(Signature)	(Signature)	(Signature)
	Printed Name: BRIAN ANDERSON	Printed Name: T. Volgardsen	Printed Name:	Printed Name:
	Company: GEOENGWEERS	Company: ARI	Company:	Company:
	Date & Time: 2-1-13 1052	Date & Time: 2/1/13 1052	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client Geoengineers
COC No(s) _____ (NA)
Assigned ARI Job No WC 37

Project Name Benson / Everett smelter / Roe
Delivered by Fed-Ex UPS Courier Hand Delivered Other _____
Tracking No _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6 0 °C for chemistry) 1.1

If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID# 9089952

Cooler Accepted by AV Date 2/1/13 Time 1052

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	(NO) TS
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	(YES)	NO
Were all VOC vials free of air bubbles?	(NA)	(YES)	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Was Sample Split by ARI (NA) YES Date/Time _____ Equipment _____ Split by _____

Samples Logged by TS Date: 2-4-13 Time 1036

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC
LLMW-06D	LLMW-06D-130201-W		
LLMW-31D	LLMW-31D-130201-W		

Additional Notes, Discrepancies, & Resolutions:
Sample IDs on containers are missing ("Date"-W) per client email.

By TS/CO Date 2-4-13

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm	
			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Geoengineers
Project Name: Bennett / Everett smelter / RI
COC No(s): _____ NA
Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
Assigned ARI Job No: WC38
Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)	1.1	

If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID# 90089952

Cooler Accepted by: AV Date: 2/1/13 Time: 1052

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO TS
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Was Sample Split by ARI: NA YES Date/Time _____ Equipment _____ Split by: _____

Samples Logged by: TS Date: 2-4-13 Time: 1036

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC
LLMW-06D	LLMW-06D-130201-W		
LLMW-31D	LLMW-31D-130201-W		

Additional Notes, Discrepancies, & Resolutions:
Sample IDs on containers are missing (-"Date"-W) per client email.

By: B/W Date: 2-4-13

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm	
			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

PRESERVATION VERIFICATION 02/04/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WC37**

Inquiry Number: NONE
Analysis Requested: 02/01/13
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: TS
Sample Set Used: Yes-481
Validatable Package: No
Deliverables:

PC: Cheronne
VTSR: 02/01/13

Project #: 0504-068-00
Project: Benson/Everett SMelter/ROE
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-2464 **WC37A**	LLMW-06D-130201-W						DIS P									Y						
13-2465 **WC37B**	LLMW-31D-130201-W						DIS P									Y						
13-2466 **WC37C**	LLMW-06D-130201-W						TOT P															
13-2467 **WC37D**	LLMW-31D-130201-W						TOT P															

P: Pass

WC37 : 000000

Checked By TS Date 2-4-13

PRESERVATION VERIFICATION 02/04/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WC38**

Inquiry Number: NONE
Analysis Requested: 02/01/13
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: TS
Sample Set Used: Yes-481
Validatable Package: No
Deliverables:

PC: Cheronne
VTSR: 02/01/13

Project #: 0504-068-00
Project: Benson/Everett SMelter/ROE
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-2468 **WC38A**	LLMW-06D-130201-W						DIS P									Y						
13-2469 **WC38B**	LLMW-31D-130201-W						DIS P									Y						
13-2470 **WC38C**	LLMW-06D-130201-W						TOT P															
13-2471 **WC38D**	LLMW-31D-130201-W						TOT P															

P = Pass

WC37 00007

Checked By B Date 2-4-13

Subject: Re: Bottle Order / labeling
From: Sue Dunnihoo <sue@arilabs.com>
Date: 1/4/2013 4:19 PM
To: "Garrett R. Leque" <gleque@geoengineers.com>
CC: Brian Anderson <banderson@geoengineers.com>, "Paul D. Robinette" <probinette@geoengineers.com>, Cheronne Oreiro <cheronneo@arilabs.com>

Login has you set up for delivery Monday and everyone says we should be fine on the naming.

Cheers - Sue

On 1/4/2013 4:11 PM, Garrett R. Leque wrote:

> Hi Sue,
>
> As we discussed please have delivered about 20 nitric-preserved bottles and labels to the Everett Lowlands project if possible Monday.
>
> Also, just want to confirm that it is okay to do the following labeling scheme:
>
> For a sample called LLMW06S-130107-W, that name will be recorded on the COC, however the sample label name will just be LLMW06S (see attached).
>
> We'd like everything to be recorded and reported and carried forward with the full name, of course...
>
> Have a good weekend, thanks!
>
> **Garrett Leque, LG**
> **Geologist | GeoEngineers**
> **t:** 253.383.4940
> **f:** 253.383.4923
> **c:** 253.312.7958
>
> Confidentiality. This message is confidential and intended solely for use of the individual or entity to whom it is addressed. If you are not the person for whom this message is intended, please delete it and notify me immediately, and please do not copy or send this message to anyone else.

--

Susan D. Dunnihoo
Director, Client Services
ANALYTICAL RESOURCES, INC.
206-695-6207
sue@arilabs.com
www.arilabs.com

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If you have received this correspondence in error, please

notify sender immediately. Thank you.

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: WC37, WC38

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative

Client: GeoEngineers
Project: Benson/Everett Smelter/ROE, 0504-068-00
ARI Job Nos.: WC37 & WC38

Sample Receipt

Two water samples were received on February 1, 2013 under ARI jobs WC37 & WC38. The cooler temperature measured by IR thermometer following ARI SOP was 1.1°C. For details regarding sample receipt, refer to the Cooler Receipt Forms.

Total and Dissolved Metals by 200.8

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial and continuing calibrations were within limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

Total and Dissolved Mercury by SW7470A

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial and continuing calibrations were within limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WC37
Client: GeoEngineers
Project Event: 0504-068-00
Project Name: Benson/Everett SMelter/ROE

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	LLMW-06D-130201-W	WC37A	13-2464	Water	02/01/13 09:22	02/01/13 10:52
2.	LLMW-31D-130201-W	WC37B	13-2465	Water	02/01/13 10:23	02/01/13 10:52
3.	LLMW-06D-130201-W	WC37C	13-2466	Water	02/01/13 09:22	02/01/13 10:52
4.	LLMW-31D-130201-W	WC37D	13-2467	Water	02/01/13 10:23	02/01/13 10:52

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WC38
Client: GeoEngineers
Project Event: 0504-068-00
Project Name: Benson/Everett SMelter/ROE

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	LLMW-06D-130201-W	WC38A	13-2468	Water	02/01/13 09:22	02/01/13 10:52
2.	LLMW-31D-130201-W	WC38B	13-2469	Water	02/01/13 10:23	02/01/13 10:52
3.	LLMW-06D-130201-W	WC38C	13-2470	Water	02/01/13 09:22	02/01/13 10:52
4.	LLMW-31D-130201-W	WC38D	13-2471	Water	02/01/13 10:23	02/01/13 10:52

WC37:00013

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Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Duplicate RPD is not within established control limits

B — Reported value is less than the CRDL but ≥ the Reporting Limit

N — Matrix Spike recovery not within established control limits

NA — Not Applicable, analyte not spiked

H — The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible

L — Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Flagged value is not within established control limits

B — Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

J — Estimated concentration when the value is less than ARI's established reporting limits

D — The spiked compound was not detected due to sample extract dilution

E — Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q — Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

WC37 : 00014

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

Geotechnical Data

A	The total of all fines fractions This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
F	Samples were frozen prior to particle size determination
SM	Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
SS	Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
W	Weight of sample in some pipette aliquots was below the level required for accurate weighting

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Quality Control Parameters for Mercury Analysis using CVAA
EPA Methods 7470A or 245.1 for Aqueous Samples
EPA Methods 7471B or 245.5 for Solid Samples

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[2]	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.025[3]	75 – 125	80 – 120	≤ 20
	Tissue Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.005[4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

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Analytical Chemists and Consultants

Quality Control Parameters for Metals Analysis ICP-MS EPA Methods 200.8 or 6020A

Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[3]	Solids[2]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium[4]	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium[4]	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume Solids LOQ based on 100% solids using 1.0 g sample 100 mL final volume.
(3) Relative Percent Difference in replicate analyzes. $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$ where C_O=Original, C_D=Duplicate
(4) ARI has no accreditation for these elements.

WC37 : 00018

Metals Analysis
Report and Summary QC Forms

ARI Job ID: WC37, WC38

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Benson/Everett SMelt

SDG: WC37

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLMW-06D-130201-W	WC37A	13-2464	
LLMW-06D-130201-WD	WC37ADUP	13-2464	
LLMW-06D-130201-WS	WC37ASPK	13-2464	
LLMW-31D-130201-W	WC37B	13-2465	
PBW	WC37MB1	13-2465	
LCSW	WC37MB1SPK	13-2465	
LLMW-06D-130201-W	WC37C	13-2466	
LLMW-06D-130201-WD	WC37CDUP	13-2466	
LLMW-06D-130201-WS	WC37CSPK	13-2466	
LLMW-31D-130201-W	WC37D	13-2467	
PBW	WC37MB2	13-2467	
LCSW	WC37MB2SPK	13-2467	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: Jay Kuhn Name: Jay Kuhn

Date: 2/8/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW-06D-130201-W
SAMPLE

Lab Sample ID: WC37C
LIMS ID: 13-2466
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC37-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: 02/01/13
Date Received: 02/01/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/05/13	200.8	02/07/13	7440-36-0	Antimony	0.2	0.2	U
200.8	02/05/13	200.8	02/07/13	**7440-38-2**	**Arsenic**	0.2	**7.0**	
200.8	02/05/13	200.8	02/07/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/05/13	200.8	02/07/13	**7439-92-1**	**Lead**	0.1	**1.0**	
200.8	02/05/13	200.8	02/07/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW-31D-130201-W
SAMPLE

Lab Sample ID: WC37D
LIMS ID: 13-2467
Matrix: Water
Data Release Authorized
Reported: 02/08/13

QC Report No: WC37-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: 02/01/13
Date Received: 02/01/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/05/13	200.8	02/07/13	**7440-36-0**	**Antimony**	0.2	**0.3**	
200.8	02/05/13	200.8	02/07/13	**7440-38-2**	**Arsenic**	0.2	**0.8**	
200.8	02/05/13	200.8	02/07/13	**7440-43-9**	**Cadmium**	0.1	**2.4**	
200.8	02/05/13	200.8	02/07/13	**7439-92-1**	**Lead**	0.1	**0.8**	
200.8	02/05/13	200.8	02/07/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW-06D-130201-W
MATRIX SPIKE

Lab Sample ID: WC37C
LIMS ID: 13-2466
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC37-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: 02/01/13
Date Received: 02/01/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.2 U	22.3	25.0	89.2%	
Arsenic	200.8	7.0	33.6	25.0	106%	
Cadmium	200.8	0.1 U	25.0	25.0	100%	
Lead	200.8	1.0	26.4	25.0	102%	
Thallium	200.8	0.2 U	25.3	25.0	101%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked
NR-Not Recovered

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW-06D-130201-W
DUPLICATE

Lab Sample ID: WC37C
LIMS ID: 13-2466
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC37-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: 02/01/13
Date Received: 02/01/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Arsenic	200.8	7.0	7.0	0.0%	+/- 20%	
Cadmium	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Lead	200.8	1.0	1.0	0.0%	+/- 20%	
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW-06D-130201-W
SAMPLE

Lab Sample ID: WC37A
LIMS ID: 13-2464
Matrix: Water
Data Release Authorized
Reported: 02/08/13

QC Report No: WC37-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: 02/01/13
Date Received: 02/01/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/05/13	200.8	02/07/13	7440-36-0	Antimony	0.2	0.2	U
200.8	02/05/13	200.8	02/07/13	**7440-38-2**	**Arsenic**	0.2	**5.5**	
200.8	02/05/13	200.8	02/07/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/05/13	200.8	02/07/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	02/05/13	200.8	02/07/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW-31D-130201-W
SAMPLE

Lab Sample ID: WC37B
LIMS ID: 13-2465
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC37-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: 02/01/13
Date Received: 02/01/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/05/13	200.8	02/07/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	02/05/13	200.8	02/07/13	**7440-38-2**	**Arsenic**	0.2	**0.7**	
200.8	02/05/13	200.8	02/07/13	**7440-43-9**	**Cadmium**	0.1	**2.2**	
200.8	02/05/13	200.8	02/07/13	**7439-92-1**	**Lead**	0.1	**0.7**	
200.8	02/05/13	200.8	02/07/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW-06D-130201-W
MATRIX SPIKE

Lab Sample ID: WC37A
LIMS ID: 13-2464
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC37-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: 02/01/13
Date Received: 02/01/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.2 U	23.4	25.0	93.6%	
Arsenic	200.8	5.5	31.9	25.0	106%	
Cadmium	200.8	0.1 U	24.2	25.0	96.8%	
Lead	200.8	0.3	25.6	25.0	101%	
Thallium	200.8	0.2 U	25.1	25.0	100%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW-06D-130201-W
DUPLICATE

Lab Sample ID: WC37A
LIMS ID: 13-2464
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC37-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: 02/01/13
Date Received: 02/01/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L
Arsenic	200.8	5.5	5.6	1.8%	+/- 20%	
Cadmium	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Lead	200.8	0.3	0.3	0.0%	+/- 0.1	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: WC37LCS
LIMS ID: 13-2467
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC37-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	24.0	25.0	96.0%	
Arsenic	200.8	26.4	25.0	106%	
Cadmium	200.8	25.9	25.0	104%	
Lead	200.8	27.5	25.0	110%	
Thallium	200.8	26.9	25.0	108%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: METHOD BLANK

Lab Sample ID: WC37MB
LIMS ID: 13-2467
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC37-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/05/13	200.8	02/07/13	7440-36-0	Antimony	0.2	0.2	U
200.8	02/05/13	200.8	02/07/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	02/05/13	200.8	02/07/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/05/13	200.8	02/07/13	7439-92-1	Lead	0.1	0.1	U
200.8	02/05/13	200.8	02/07/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: WC37LCS
LIMS ID: 13-2465
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC37-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	24.4	25.0	97.6%	
Arsenic	200.8	26.6	25.0	106%	
Cadmium	200.8	26.4	25.0	106%	
Lead	200.8	27.6	25.0	110%	
Thallium	200.8	27.2	25.0	109%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: METHOD BLANK

Lab Sample ID: WC37MB
LIMS ID: 13-2465
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC37-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/05/13	200.8	02/07/13	7440-36-0	Antimony	0.2	0.2	U
200.8	02/05/13	200.8	02/07/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	02/05/13	200.8	02/07/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/05/13	200.8	02/07/13	7439-92-1	Lead	0.1	0.1	U
200.8	02/05/13	200.8	02/07/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Benson/Everett SMelt

SDG: WC37

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS020712	50.0	50.40	**100.8**	50.0	49.96	**99.9**	49.60	**99.2**	50.72	**101.4**	50.21	**100.4**	48.82	**97.6**
Arsenic	AS	PMS	MS020712	50.0	50.19	**100.4**	50.0	50.42	**100.8**	51.44	**102.9**	51.04	**102.1**	50.76	**101.5**	49.04	**98.1**
Cadmium	CD	PMS	MS020712	50.0	49.89	**99.8**	50.0	50.14	**100.3**	50.45	**100.9**	51.82	**103.6**	50.54	**101.1**	49.85	**99.7**
Lead	PB	PMS	MS020712	50.0	50.82	**101.6**	50.0	49.85	**99.7**	49.71	**99.4**	50.86	**101.7**	51.21	**102.4**	49.66	**99.3**
Thallium	TL	PMS	MS020712	50.0	49.89	**99.8**	50.0	48.81	**97.6**	49.60	**99.2**	50.14	**100.3**	50.69	**101.4**	49.06	**98.1**

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

WC37 : 000033

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Benson/Everett SMelt

UNITS:ug/L

SDG: WC37

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Antimony	SB	PMS	MS020712	0.2	0.20	**100.0**										
Arsenic	AS	PMS	MS020712	0.2	0.22	**110.0**										
Cadmium	CD	PMS	MS020712	0.1	0.11	**110.0**										
Lead	PB	PMS	MS020712	0.1	0.10	**100.0**										
Thallium	TL	PMS	MS020712	0.2	0.20	**100.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

WC37 . 00034

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Benson/Everett SMelt

SDG: WC37

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS020712	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS020712	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS020712	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Lead	PB	PMS	MS020712	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Thallium	TL	PMS	MS020712	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

WC37 : 000035

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Benson/Everett SMelt

SDG: WC37

ICS SOURCE: I.V.

RUNID: MS020712

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.4	**97.0**						
Cadmium		20	0.2	19.6	**98.0**						
Copper		20	1.1	21.1	**105.5**						
Nickel		20	0.4	20.5	**102.5**						
Selenium			-0.2	-0.2							
Silver		20	0.0	19.7	**98.5**						
Zinc		20	0.8	19.5	**97.5**						

WC37 : 000035

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Benson/Everett SMelt

SDG: WC37 UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Antimony	SB	PMS	NEXION 300D MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Cadmium	CD	PMS	NEXION 300D MS	0.00		5	0.1	4/1/2012		
Lead	PB	PMS	NEXION 300D MS	0.00		3	0.1	4/1/2012		
Thallium	TL	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

ANALYSIS METHOD: PMS

PROJECT: Benson/Everett SMelt

ARI PREP CODE: REN

SDG: WC37

PREPDATE: 2/5/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
LLMW-06D-130201-W	WC37A	0.000	50.0	25.0
LLMW-06D-130201-WD	WC37ADUP	0.000	50.0	25.0
LLMW-06D-130201-WS	WC37ASPK	0.000	50.0	25.0
LLMW-31D-130201-W	WC37B	0.000	50.0	25.0
LLMW-06D-130201-W	WC37C	0.000	50.0	25.0
LLMW-06D-130201-WD	WC37CDUP	0.000	50.0	25.0
LLMW-06D-130201-WS	WC37CSPK	0.000	50.0	25.0
LLMW-31D-130201-W	WC37D	0.000	50.0	25.0
PBW	WC37MB1	0.000	50.0	25.0
LCSW	WC37MB1SPK	0.000	50.0	25.0
PBW	WC37MB2	0.000	50.0	25.0
LCSW	WC37MB2SPK	0.000	50.0	25.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Benson/Everett SMelt | INSTRUMENT ID: NEXION 300D MS | START DATE: 2/7/2013

SDG: WC37 | RUNID: MS020712 | METHOD: PMS | END DATE: 2/7/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10430				X					X												X	X					X			
S1	S1	1.00	10470				X					X												X	X					X			
S2	S2	1.00	10500				X					X												X	X					X			
S3	S3	1.00	10540				X					X												X	X					X			
S4	S4	1.00	10580				X					X												X	X					X			
S5	S5	1.00	11040																														
ZZZZZZ	Rinse sampl	1.00	11100																														
ICV	MICV	1.00	11160				X					X												X	X					X			
ICB	ICB	1.00	11220				X					X												X	X					X			
CCV	MCCV1	1.00	11260				X					X												X	X					X			
CCB	CCB1	1.00	11320				X					X												X	X					X			
CRI	MCRI	1.00	11360				X					X												X	X					X			
ICSA	ICSAI	1.00	11390				X					X												X	X					X			
ICSAB	ICSABI	1.00	11450				X					X												X	X					X			
ZZZZZZ	ZZZZZZ	1.00	11510																														
ZZZZZZ	LR200	1.00	11580																														
ZZZZZZ	B1	1.00	12040																														
ZZZZZZ	B2	1.00	12080																														
CCV	MCCV2	1.00	12130				X					X												X	X					X			
CCB	CCB2	1.00	12190				X					X												X	X					X			
ZZZZZZ	WC40MB1	20.00	12230																														
ZZZZZZ	WC40B	20.00	12260																														
ZZZZZZ	WC40A-L	100.00	12300																														
ZZZZZZ	WC40A	20.00	12340																														
ZZZZZZ	WC40ADUP	20.00	12370																														
ZZZZZZ	WC40ASPK	20.00	12410																														
ZZZZZZ	ZZZZZZ	20.00	12440																														
ZZZZZZ	WC40REF1	50.00	12480																														
ZZZZZZ	WC40MB1SPK	20.00	12510																														
CCV	MCCV3	1.00	12560				X					X												X	X					X			
CCB	CCB3	1.00	13010				X					X												X	X					X			
PBW	WC37MB1	2.00	13040				X					X												X	X					X			
PBW	WC37MB2	2.00	13080				X					X												X	X					X			
LLMW-06D-130201-WD	WC37ADUP	2.00	13110				X					X												X	X					X			
LLMW-06D-130201-W	WC37A	2.00	13150				X					X												X	X					X			

FORM XIV

WC37 : 000039

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Benson/Everett SMelt | INSTRUMENT ID: NEXION 300D MS | START DATE: 2/7/2013

SDG: WC37 | RUNID: MS020712 | METHOD: PMS | END DATE: 2/7/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
LLMW-06D-130201-WS	WC37ASPK	2.00	13180				X					X												X	X					X			
LLMW-06D-130201-WD	WC37CDUP	2.00	13220				X					X												X	X					X			
LLMW-06D-130201-W	WC37C	2.00	13260				X					X												X	X					X			
LLMW-06D-130201-WS	WC37CSPK	2.00	13290				X					X												X	X					X			
LCSW	WC37MB1SPK	2.00	13330				X					X												X	X					X			
LCSW	WC37MB2SPK	2.00	13360				X					X												X	X					X			
CCV	MCCV4	1.00	13400				X					X												X	X					X			
CCB	CCB4	1.00	13440				X					X												X	X					X			
LLMW-31D-130201-W	WC37D	2.00	13500				X					X												X	X					X			
LLMW-31D-130201-W	WC37B	2.00	13580				X					X												X	X					X			
CCV	MCCV5	1.00	14020				X					X												X	X					X			
CCB	CCB5	1.00	14080				X					X												X	X					X			

WC37 : 00009

Mercury Analysis
Report and Summary QC Forms

ARI Job ID: WC37, WC38

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Benson/Everett SMelt

SDG: WC38

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLMW-06D-130201-W	WC38A	13-2468	
PBW	WC38MB1	13-2468	
LCSW	WC38MB1SPK	13-2468	
LLMW-31D-130201-W	WC38B	13-2469	
LLMW-31D-130201-WD	WC38BDUP	13-2469	
LLMW-31D-130201-WS	WC38BSPK	13-2469	
LLMW-06D-130201-W	WC38C	13-2470	
LLMW-31D-130201-W	WC38D	13-2471	
LLMW-31D-130201-WD	WC38DDUP	13-2471	
LLMW-31D-130201-WS	WC38DSPK	13-2471	
PBW	WC38MB2	13-2471	
LCSW	WC38MB2SPK	13-2471	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: Jay Kuhn Name: Jay Kuhn

Date: 2/11/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Total Mercury by Method SW7470A

Data Release Authorized:
Reported: 02/08/13
Date Received: 02/01/13
Page 1 of 1

QC Report No: WC38-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
LLMW-06D-130201-W WC38C 13-2470	02/01/13	Water	02/05/13 02/08/13	**20.0**	**23.2**
LLMW-31D-130201-W WC38D 13-2471	02/01/13	Water	02/05/13 02/08/13	20.0	20.0 U
MB-020513 Method Blank	NA	Water	02/05/13 02/08/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

FORM-I

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW-31D-130201-W
MATRIX SPIKE

Lab Sample ID: WC38D
LIMS ID: 13-2471
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC38-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: 02/01/13
Date Received: 02/01/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	121	100	121%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLMW-31D-130201-W
DUPLICATE

Lab Sample ID: WC38D
LIMS ID: 13-2471
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC38-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: 02/01/13
Date Received: 02/01/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: WC38LCS
LIMS ID: 13-2471
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC38-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	225	200	112%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Dissolved Mercury by Method SW7470A

Data Release Authorized:
Reported: 02/08/13
Date Received: 02/01/13

QC Report No238: WC38-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
LLMW-06D-130201-W WC38A 13-2468	02/01/13	Water	02/05/13 02/08/13	20.0	20.0 U
LLMW-31D-130201-W WC38B 13-2469	02/01/13	Water	02/05/13 02/08/13	20.0	20.0 U
MB-020513 Method Blank	NA	Water	02/05/13 02/08/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW-31D-130201-W
MATRIX SPIKE

Lab Sample ID: WC38B
LIMS ID: 13-2469
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC38-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: 02/01/13
Date Received: 02/01/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	119	100	119%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLMW-31D-130201-W
DUPLICATE

Lab Sample ID: WC38B
LIMS ID: 13-2469
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC38-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: 02/01/13
Date Received: 02/01/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: WC38LCS
LIMS ID: 13-2468
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC38-GeoEngineers
Project: Benson/Everett SMelter/ROE
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	210	200	105%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Benson/Everett SMelt

SDG: WC38

UNITS:ng/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Mercury	HG	CVL	HG020801	500.0	467.00	93.4	500.0	490.00	98.0	495.00	99.0	496.00	99.2	494.00	98.8		

Control Limits: Mercury 80-120; Other Metals 90-110

WC37 : 00051

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Benson/Everett SMelt

SDG: WC38

UNITS: ng/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Mercury	HG	CVL	HG020801	20.0	34.60	**173.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

WC37.00052

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Benson/Everett SMelt

SDG: WC38

UNITS: ng/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Mercury	HG	CVL	HG020801	25.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U		

WC37 : 000052

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Benson/Everett SMelt

SDG: WC38

UNITS: ng/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ng/L)	ICP LR DATE
Mercury	HG	CVL	CETAC MERCURY	253.70		25	20.0	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Benson/Everett SMelt

SDG: WC38

ANALYSIS METHOD: CVL

ARI PREP CODE: TLM

PREPDATE: 2/5/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
LLMW-06D-130201-W	WC38A	0.000	20.0	20.0
LLMW-31D-130201-W	WC38B	0.000	20.0	20.0
LLMW-31D-130201-WD	WC38BDUP	0.000	20.0	20.0
LLMW-31D-130201-WS	WC38BSPK	0.000	20.0	20.0
LLMW-06D-130201-W	WC38C	0.000	20.0	20.0
LLMW-31D-130201-W	WC38D	0.000	20.0	20.0
LLMW-31D-130201-WD	WC38DDUP	0.000	20.0	20.0
LLMW-31D-130201-WS	WC38DSPK	0.000	20.0	20.0
PBW	WC38MB1	0.000	20.0	20.0
LCSW	WC38MB1SPK	0.000	20.0	20.0
PBW	WC38MB2	0.000	20.0	20.0
LCSW	WC38MB2SPK	0.000	20.0	20.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Benson/Everett SMelt | INSTRUMENT ID: CETAC MERCURY | START DATE: 2/8/2013

SDG: WC38 | RUNID: HG020801 METHOD: CVL | END DATE: 2/8/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09500														X																
S20	S20	1.00	09524														X																
S50	S50	1.00	09553														X																
S100	S100	1.00	09581														X																
S200	S200	1.00	10005														X																
S400	S400	1.00	10033														X																
S1000	S1000	1.00	10062														X																
ICV	AICV	1.00	10102														X																
ICB	ICB	1.00	10130														X																
CCV	ACCV1	1.00	10154														X																
CCB	CCB1	1.00	10183														X																
CRA	CRA	1.00	10211														X																
ZZZZZZ	WC65MB1	1.00	10235																														
ZZZZZZ	WC65MB1SPK	1.00	10263																														
ZZZZZZ	WC65A	1.00	10291																														
ZZZZZZ	WC65ADUP	1.00	10315																														
ZZZZZZ	WC65ASPK	1.00	10344																														
ZZZZZZ	WC65MB2	1.00	10372																														
ZZZZZZ	WC65MB2SPK	1.00	10400																														
ZZZZZZ	WC65B	1.00	10424																														
ZZZZZZ	WC65BDUP	1.00	10453																														
CCV	ACCV2	1.00	10481														X																
CCB	CCB2	1.00	10510														X																
ZZZZZZ	WC65BSPK	1.00	10534																														
ZZZZZZ	WC81MB1	1.00	10562																														
ZZZZZZ	WC81MB1SPK	1.00	10590																														
ZZZZZZ	WC81A	1.00	11014																														
ZZZZZZ	WC81ADUP	1.00	11042																														
ZZZZZZ	WC81ASPK	1.00	11070																														
ZZZZZZ	WC81B	1.00	11094																														
ZZZZZZ	WC81C	1.00	11123																														
PBW	WC38MB1	1.00	11151														X																
LCSW	WC38MB1SPK	1.00	11175														X																
CCV	ACCV3	1.00	11204														X																
CCB	CCB3	1.00	11232														X																

FORM XIV

WC37 : 00035

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: Benson/Everett SMelt | INSTRUMENT ID: CETAC MERCURY | START DATE: 2/8/2013

SDG: WC38 | RUNID: HG020801 METHOD: CVL | END DATE: 2/8/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
LLMW-06D-130201-W	WC38A	1.00	11261														X																
LLMW-31D-130201-W	WC38B	1.00	11285														X																
LLMW-31D-130201-WD	WC38BDUP	1.00	11313														X																
LLMW-31D-130201-WS	WC38BSPK	1.00	11341														X																
PBW	WC38MB2	1.00	11365														X																
LCSW	WC38MB2SPK	1.00	11393														X																
LLMW-06D-130201-W	WC38C	1.00	11422														X																
LLMW-31D-130201-W	WC38D	1.00	11450														X																
LLMW-31D-130201-WD	WC38DDUP	1.00	11474														X																
LLMW-31D-130201-WS	WC38DSPK	1.00	11502														X																
CCV	ACCV4	1.00	11531														X																
CCB	CCB4	1.00	11555														X																

WC37 - 000057

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WC37, WC38

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: CB

Date: 2-05-13

Final Volume 25.0

Final Volume (Hg): ~

Sample ID WC37 ASPK, CSPK MB1SPK, MB2SPK

Prepcode:				
Spike Solution:		ICP Routine	ICP No GFA	GFA
Standard No.:				
Vol Added (mL):				
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	REN ICP-MS #1	REN ICP-MS #2	ICP-MS Minerals
	2987-2	3001-4	
	0.05	0.05	
Ag	25		
Al			500
As	25 ✓		
Ba	25		
Be	25		
Ca			500
Cd	25 ✓		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25 ✓		
Sb		25 ✓	
Se	80		
Tl	25 ✓		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg		CVA	1.0		
Hg MBSPK		CVA	1.0		
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

5033F

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: CB **Date:** 02-05-13 **Time:** 0755

Matrix: WATER **Block ID:** #12 **Block Temp:** 95°C **Thermometer:** mp46

ARI Sample ID	Btl #	pH<2	Prep Code: REN Initial ~~Wt (g)~~ Vol (mL)	Prep Code: REN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
WC37 A	1	✓	50.0	25.0			
" Advp	1	✓					
" ASpk	1	✓					
" B	1	✓					
" mB1	–	–					
" mB1Spk	–	–					
" C	1	✓					
" Cdup	1	✓					
" CSpk	1	✓					
" D	1	✓					
" mB2	–	–					
" mB2Spk	–	–	50.0	25.0			
			02-05-13 CB				

Chemical/Reagent ID:

HNO_3: mp2426 HCl: – H_2O_2: I7845 Tube Lot #: 120805?

WC37 : 00060

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WC37, WC38

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 2-7-13 **Analyst:** [illegible] **Page:** 1 **of** 3

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			
		1			
		2			
		3	2-7-13		Zn Cont (NR)
		4	[illegible]		
		5			
		Rinse Sample			Zn Poor R Tl Pb low but ok (70.990)
		ICV			Tl high
		ICB			
		ICSA			Cd ↑
		Dual Det	Cal		
		STD 0			No I.S.
		STD 0			3009-9
		1			3008-3
		2			3008-15
		3			3009-1 (Zn ok)
		4			3010-2
		5			3009-2
		Rinse Sample			
		ICV			3011-10
		ICB			
		CCV1			
		CCB1			
		Low check			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 2-7-13 **Analyst:** A **Page:** 2 **of** 3

All corrections made by analyst unless otherwise noted. A 2-7-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		ICSA			Cd ↑
		ICSAB ~~ICSA~~			^{62}Ni ↑ Cd↑
		LR200			
		B1			
		B2			
		CCV2			
		CCB2			
		WC40 MB1	SWN	20	
		B		↓	
		AL		100 ✓	
		A		20	
		ADup		✓	
		Aspk		✓	
		APost		↓	
		Ref1		50 ✓	
		MBspk		20 ✓	
		CCV3			
		CCB3			
		WC37 MB1	REN	2	
		MB2			
		ADup		✓	
		A			
		Aspk		✓	
		CDup			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 2-7-13 **Analyst:** AA **Page:** 3 of 3

All corrections made by analyst unless otherwise noted. AA 2-7-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WC37 C	REN	2	
		Cspk			
		MBlspk			
		MB2spk			
		CCV4			^{62}Ni 4
		CCB4			"
OILD		WC37 ~~B~~ D	REN	2	
↓ ~~DB~~		↓ ~~D~~ B	↓	↓	
		CCV 5			
		CCB5			^{62}Ni 4

AA 2-7-13

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 2-7-13

	Analyst MZ-7	Peer BA 2-7-13	Comment
Logbook			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification			
ICV/CCV	✓	✓	See Log
ICB/CCB	✓	✓	↓
Samples			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	See Log
Post Spikes/Serial Dilutions	✓	✓	WC40
Analytic Spikes	—	—	
Matrix QC			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Distribution			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysis Notes and CAFs	—	—	

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Thursday, February 07, 2013 08:22:37
Sample Description:
Method File: C \NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1792
MassCal File: C.\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
Be	9.0	3258.6	3258.570	30.620	0.9	Standard
Mg	24.0	29252.6	29252.588	172.014	0.6	Standard
In	114.9	59849.3	59849.349	144.356	0.2	Standard
Pb	208.0	29479.3	29479.318	191.308	0.6	Standard
U	238.1	49457.1	49457.068	429.543	0.9	Standard
CeO	155.9	972.5	0.013	0.000	1.0	Standard
Ce	139.9	72517.8	72517.833	249.525	0.3	Standard
Ce++	70.0	607.9	0.008	0.000	2.8	Standard
Bkgd	220.0	0.0	0.033	0.075	223.6	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

WC37 00065

SmartTune Wizard - Details

```
)ptimization Details

;martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

)ptimization Status

;tart Time: 2/7/2013 8:28:51 AM

1ass Calibration and Resolution
        Optimization Settings:
                Method: Tuning.mth.
                MassCal File: Default.tun
                Iterations: 6
                Target accuracy (+/- amu): 0.1 for Mass Cal. and 0.03 for Resolution
                Peak height (%) for Res. Opt.: 10

        Optimization Results:
        Initial Try
                Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.693)
                Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.713)
                Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.697)
                Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.694)
[Passed]  Optimum value(s): N/A

.nd Time: 2/7/2013 8:31:03 AM
```


WC37 : 00067

SmartTune Wizard - Details

ptimization Details

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

ptimization Status

tart Time: 2/7/2013 8:32:21 AM

utoLens STD/DRC

Optimization Settings:

Method: AutoLens Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Criteria:

Min.Correlation Coefficient: 0.985

Min.Intercept: -20.00

Optimization Results:

Initial Try

Passed] Optimum value(s): Correlation Coefficient = 0.999; Intercept = -10.67

Analyte	Mass	Points	DAC	MaxIntensity
Li	7.016	41	-11	3351.67
Mg	23.985	40	-11.5	40026.9
In	114.904	41	-7.5	75467.2
Ce	139.905	41	-6.5	84936.7
Pb	207.977	41	-4	35774.6
U	238.05	41	-3.5	60250

nd Time: 2/7/2013 8:36:32 AM

WC37 00068

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Thursday, February 07, 2013 08.36·56
Sample Description.
Method File· C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1796
MassCal File: C·\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time (ns): 60
Current Dead Time (ns) 60

Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	4814.7	4814.657	48.093	1.0	Standard
	Mg	24.0	38922.4	38922.437	615.727	1.6	Standard
	In	114.9	74284.8	74284.772	542.936	0.7	Standard
	Pb	208 0	36013.4	36013.388	322.441	0.9	Standard
	U	238.1	60305.4	60305.433	562.435	0.9	Standard
⌈	CeO	155.9	1248.5	0.015	0.000	2.5	Standard
| >	Ce	139.9	84302.6	84302.635	817.223	1.0	Standard
⌊	Ce++	70.0	895.4	0.011·	0.000	4.5	Standard
	Bkgd	220.0	0.0	0.033	0.075	223.6	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

WC37 : 00069

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Thursday, February 07, 2013 10:32:48
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1805
MassCal File C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

ASIa Dual

Summary

Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
Be	9.0	4332.6	4332.593	30.355	0.7	Standard
Mg	24.0	34872.2	34872.213	115.008	0.3	Standard
In	114.9	70772.4	70772.357	888.430	1.3	Standard
Pb	208.0	34927.7	34927.717	373.811	1.1	Standard
U	238.1	59177.4	59177.384	454.141	0.8	Standard
CeO	155.9	1040.1	0.013	0.000	2.5	Standard
> Ce	139.9	79530.2	79530.246	490.938	0.6	Standard
Ce++	70.0	815.3	0.010	0.000	3.5	Standard
Bkgd	220.0	0.1	0.067	0.091	136.9	Standard

Current Conditions File Data

Current Value	Description
1.04	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1712.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

WC37 00079

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 2/7/2013 10:32:47 AM
End Time: 2/7/2013 10:35:22 AM

Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 4332.59
Obtained Intensity (Mg 23.985): 34872.21
Obtained Intensity (In 114.904): 70772.36
Obtained Intensity (Pb 207.977): 34927.72
Obtained Intensity (U 238.05): 59177.38
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (CeO 155.9 / Ce 139.905): 0.013 (=1040.06 / 79530.25)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.010 (=815.31 / 79530.25)

WC37 00071

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 10:43:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L				59540	3
	Cl	37		ug/L				3815490	0
>	Ge	72		ug/L				551628	0
	Ni	60		ug/L				147	6
	Ni	62		ug/L				661	5
	Cu	63		ug/L				586	6
	Cu	65		ug/L				100	5
	Zn	66		ug/L				642	4
	Zn	67		ug/L				105	20
	Zn	68		ug/L				570	3
	As	75		ug/L				279	10
	As-1	75		ug/L				8903	1
	Se	82		ug/L				7	45
	Se	78		ug/L				8997	1
	Y	89		ug/L				362579	1
	Kr	83		ug/L				485	7
>	In	115		ug/L				882860	2
	Ag	107		ug/L				46	7
	Cd	111		ug/L				86	14
	Cd	114		ug/L				54	15
	Sb	121		ug/L				166	1
	Sb	123		ug/L				133	8
>	Tb	159		ug/L				1198298	1
	Tl	205		ug/L				237	4
	Pb	208		ug/L				711	18
	Bi	209		ug/L				2547204	0
	Th	232		ug/L				569	5
	U	238		ug/L				23	23

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 10:47:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			59540	62866	1
	Cl	37		ug/L			3815490	3885277	0
>	Ge	72		ug/L			551628	552614	3
	Ni	60	0.500	ug/L	0.024	4	147	1846	1
	Ni	62	0.500	ug/L	0.118	23	661	869	3
	Cu	63	0.500	ug/L	0.014	2	586	4194	2
	Cu	65	0.500	ug/L	0 004	0	100	1743	3
	Zn	66	4.000	ug/L	0.142	3	642	8225	0
	Zn	67	4.000	ug/L	0.092	2	105	1207	1
	Zn	68	4.000	ug/L	0.125	3	570	5743	1
	As	75	0.200	ug/L	0.025	12	279	609	3
	As-1	75	0.200	ug/L	0.183	91	8903	9232	0
	Se	82	0.500	ug/L	0.052	10	7	111	9
	Se	78	0.500	ug/L	0.571	114	8997	9241	0
	Y	89		ug/L			362579	361269	2
	Kr	83		ug/L			485	461	4
>	In	115		ug/L			882860	877072	0
	Ag	107	0.200	ug/L	0.008	4	46	1415	3
	Cd	111	0.100	ug/L	0 006	6	86	508	4
	Cd	114	0.100	ug/L	0.003	2	54	1139	2
	Sb	121	0.200	ug/L	0.006	3	166	2388	2
	Sb	123	0.200	ug/L	0 007	3	133	1840	2
>	Tb	159		ug/L			1198298	1210012	1
	Tl	205	0.200	ug/L	0.005	2	237	7500	2
	Pb	208	0.100	ug/L	0.001	1	711	5211	2
	Bi	209		ug/L			2547204	2604046	1
	Th	232	0.200	ug/L	0.010	4	569	7006	2
	U	238	0.200	ug/L	0.006	3	23	8913	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 10:50:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			59540	62355	0
	Cl	37		ug/L			3815490	3925317	1
>	Ge	72		ug/L			551628	551819	0
	Ni	60	10.001	ug/L	0.184	1	147	35089	1
	Ni	62	10.004	ug/L	0.414	4	661	5561	3
	Cu	63	10.001	ug/L	0.235	2	586	75444	1
	Cu	65	10.000	ug/L	0.362	3	100	33440	3
	Zn	66	10.169	ug/L	0.166	1	642	22168	1
	Zn	67	10.301	ug/L	0.295	2	105	3595	3
	Zn	68	10.236	ug/L	0.191	1	570	16076	1
	As	75	10.000	ug/L	0.199	1	279	18784	1
	As-1	75	10.001	ug/L	0.179	1	8903	27494	1
	Se	82	9.999	ug/L	0.160	1	7	1997	0
	Se	78	10.002	ug/L	0.248	2	8997	14151	1
	Y	89		ug/L			362579	367638	1
	Kr	83		ug/L			485	503	2
>	In	115		ug/L			882860	881676	0
	Ag	107	10.000	ug/L	0.209	2	46	72209	2
	Cd	111	10.000	ug/L	0.095	0	86	42346	0
	Cd	114	10.000	ug/L	0.088	0	54	108984	1
	Sb	121	10.000	ug/L	0.167	1	166	121499	1
	Sb	123	10.000	ug/L	0.091	0	133	91693	1
>	Tb	159		ug/L			1198298	1222126	1
	Tl	205	10.000	ug/L	0 205	2	237	367420	1
	Pb	208	10.000	ug/L	0.080	0	711	486063	0
	Bi	209		ug/L			2547204	2563508	0
	Th	232	10.001	ug/L	0.014	0	569	425666	0
	U	238	10.000	ug/L	0.141	1	23	452326	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 10:54:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			59540	61378	2
	Cl	37		ug/L			3815490	3791410	1
>	Ge	72		ug/L			551628	571020	1
	Ni	60	19.704	ug/L	0.485	2	147	67415	1
	Ni	62	19.738	ug/L	0.306	1	661	10193	0
	Cu	63	19.717	ug/L	0.400	2	586	145148	1
	Cu	65	19.863	ug/L	0.429	2	100	66800	1
	Zn	66	19.507	ug/L	0.657	3	642	40039	2
	Zn	67	19.608	ug/L	0.341	1	105	6548	2
	Zn	68	19.447	ug/L	0.152	0	570	28422	0
	As	75	19.796	ug/L	0.462	2	279	36703	0
	As-1	75	19.743	ug/L	0.586	2	8903	45321	1
	Se	82	19.827	ug/L	0.189	0	7	3954	0
	Se	78	19.617	ug/L	0.772	3	8997	19020	1
	Y	89		ug/L			362579	375548	2
	Kr	83		ug/L			485	490	5
>	In	115		ug/L			882860	885603	0
	Ag	107	19.812	ug/L	0.476	2	46	138458	2
	Cd	111	19.874	ug/L	0.103	0	86	82367	0
	Cd	114	19.955	ug/L	0.444	2	54	216427	1
	Sb	121	19.946	ug/L	0.170	0	166	240662	0
	Sb	123	19.891	ug/L	0.158	0	133	179180	0
>	Tb	159		ug/L			1198298	1230549	0
	Tl	205	19.899	ug/L	0.316	1	237	721514	1
	Pb	208	19.875	ug/L	0.284	1	711	948348	1
	Bi	209		ug/L			2547204	2585083	0
	Th	232	20.021	ug/L	0.287	1	569	860900	0
	U	238	19.887	ug/L	0 286	1	23	885648	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 10:58:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			59540	63902	2
	Cl	37		ug/L			3815490	3770896	1
>	Ge	72		ug/L			551628	544292	0
	Ni	60	50.231	ug/L	1.371	2	147	167461	1
	Ni	62	50.573	ug/L	1.162	2	661	25290	2
	Cu	63	50.272	ug/L	0.334	0	586	361731	0
	Cu	65	50.081	ug/L	0.456	0	100	161734	1
	Zn	66	50.200	ug/L	1 042	2	642	99143	1
	Zn	67	50.292	ug/L	1.894	3	105	16299	2
	Zn	68	50.164	ug/L	1.766	3	570	70095	2
	As	75	50.311	ug/L	0.816	1	279	91337	1
	As-1	75	50.352	ug/L	0.589	1	8903	99773	0
	Se	82	50.380	ug/L	0.753	1	7	9945	1
	Se	78	50.539	ug/L	0.433	0	8997	34079	0
	Y	89		ug/L			362579	365068	1
	Kr	83		ug/L			485	523	2
>	In	115		ug/L			882860	861642	1
	Ag	107	50.116	ug/L	1.236	2	46	344648	1
	Cd	111	50.150	ug/L	0.149	0	86	205167	0
	Cd	114	50.048	ug/L	0.619	1	54	530571	0
	Sb	121	50.053	ug/L	1.843	3	166	590316	2
	Sb	123	50.140	ug/L	1.300	2	133	445381	1
>	Tb	159		ug/L			1198298	1211766	1
	Tl	205	50.140	ug/L	0.781	1	237	1815111	1
	Pb	208	50.081	ug/L	0 603	1	711	2371098	0
	Bi	209		ug/L			2547204	2496620	1
	Th	232	50.553	ug/L	1.227	2	569	2264566	1
	U	238	50.463	ug/L	0 812	1	23	2320243	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 11:04:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	64099	2
	Cl	37		ug/L			3815490	3857925	2
>	Ge	72		ug/L			551628	549890	2
	Ni	60	99.771	ug/L	1 643	1	147	333335	0
	Ni	62	99.380	ug/L	3.184	3	661	48561	2
	Cu	63	98.885	ug/L	1.177	1	586	692654	3
	Cu	65	99.171	ug/L	2.216	2	100	314661	0
	Zn	66	98.443	ug/L	3.576	3	642	186149	1
	Zn	67	99.474	ug/L	4.105	4	105	31904	2
	Zn	68	98.914	ug/L	2.486	2	570	134246	0
	As	75	99.104	ug/L	1.970	1	279	176204	0
	As-1	75	99.117	ug/L	2.408	2	8903	184601	0
	Se	82	98.768	ug/L	1.848	1	7	18909	0
	Se	78	98.818	ug/L	3 613	3	8997	56842	1
	Y	89		ug/L			362579	371112	0
	Kr	83		ug/L			485	568	3
>	In	115		ug/L			882860	857873	2
	Ag	107	99.623	ug/L	4.197	4	46	673428	3
	Cd	111	99.314	ug/L	2.846	2	86	395221	0
	Cd	114	99.656	ug/L	1.922	1	54	1039594	0
	Sb	121	99.762	ug/L	3.407	3	166	1161688	0
	Sb	123	99.754	ug/L	3.099	3	133	874623	0
>	Tb	159		ug/L			1198298	1204391	1
	Tl	205	100.040	ug/L	0.759	0	237	3604134	0
	Pb	208	99.717	ug/L	1.580	1	711	4647809	0
	Bi	209		ug/L			2547204	2414181	1
	Th	232	99.633	ug/L	1.980	1	569	4381916	0
	U	238	99.308	ug/L	1.519	1	23	4435979	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 11:10:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	62250	2
	Cl	37		ug/L			3815490	3783193	3
>	Ge	72		ug/L			551628	539548	1
	Ni	60	-0.006	ug/L	0.003	46	147	124	7
	Ni	62	0.109	ug/L	0.088	80	661	698	5
	Cu	63	0.005	ug/L	0.003	64	586	607	5
	Cu	65	0.002	ug/L	0 003	159	100	104	9
	Zn	66	-0.053	ug/L	0.010	18	642	530	2
	Zn	67	-0.065	ug/L	0.016	24	105	82	7
	Zn	68	-0.035	ug/L	0.017	49	570	511	5
	As	75	0.006	ug/L	0.012	198	279	284	6
	As-1	75	0.144	ug/L	0.098	67	8903	8958	0
	Se	82	0.038	ug/L	0.061	160	7	14	77
	Se	78	0.538	ug/L	0.364	67	8997	9054	0
	Y	89		ug/L			362579	354961	3
	Kr	83		ug/L			485	473	5
>	In	115		ug/L			882860	845952	0
	Ag	107	0.001	ug/L	0.005	430	46	52	62
	Cd	111	0.000	ug/L	0 006	2610	86	84	28
	Cd	114	0.003	ug/L	0.005	162	54	82	58
	Sb	121	0.077	ug/L	0.015	20	166	1040	16
	Sb	123	0.074	ug/L	0.015	20	133	766	17
>	Tb	159		ug/L			1198298	1175495	0
	Tl	205	0.009	ug/L	0.003	37	237	542	21
	Pb	208	-0.003	ug/L	0.002	72	711	573	16
	Bi	209		ug/L			2547204	2550655	1
	Th	232	0.172	ug/L	0.017	9	569	7932	8
	U	238	0.003	ug/L	0 002	51	23	157	44

Sample Information

Sample Date/Time: Thursday, February 07, 2013 11:04:07
Method File: C:\NexION Data\Method\200.8GFA+.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

Calibration

Analyte	Mass	**r Corr Coef**	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Ge	72							
Ni	60	**1.0000**	0.006	0.50	10	20	50	100
Ni	62	**0.9998**	0.001	0.50	10	20	50	100
Cu	63	**0.9998**	0.013	0.50	10	20	50	100
Cu	65	**0.9999**	0.006	0.50	10	20	50	100
Zn	66	**0.9995**	0.003	4.00	10	20	50	100
Zn	67	**0.9999**	0.001	4.00	10	20	50	100
Zn	68	**0.9997**	0.002	4.00	10	20	50	100
As	75	**0.9998**	0.003	0.20	10	20	50	100
As-1	75	**0.9998**	0.003	0.20	10	20	50	100
Se	82	**0.9995**	0.000	0.50	10	20	50	100
Se	78	**0.9997**	0.001	0.50	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.008	0.20	10	20	50	100
Cd	111	**0.9999**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.012	0.10	10	20	50	100
Sb	121	**1.0000**	0.014	0.20	10	20	50	100
Sb	123	**1.0000**	0.010	0.20	10	20	50	100
Tb	159							
Tl	205	**1.0000**	0.030	0.20	10	20	50	100
Pb	208	**1.0000**	0.039	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	0.037	0.20	10	20	50	100
U	238	**0.9999**	0.037	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 11:16:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			59540	60683	3
	Cl	37		ug/L			3815490	3904886	0
>	Ge	72		ug/L			551628	559364	2
	Ni	60	50.405	ug/L	1.029	2	147	171378	1
	Ni	62	49.152	ug/L	1.566	3	661	24769	1
	Cu	63	50.220	ug/L	0.357	0	586	358073	2
	Cu	65	50.877	ug/L	1.940	3	100	164250	2
	Zn	66	49.301	ug/L	1.189	2	642	95192	2
	Zn	67	48.969	ug/L	0 734	1	105	16036	1
	Zn	68	49.091	ug/L	0.312	0	570	68088	2
	As	75	50.186	ug/L	1.213	2	279	90901	0
	As-1	75	49.996	ug/L	1.407	2	8903	99189	0
	Se	82	80.215	ug/L	2.077	2	7	15375	1
	Se	78	78.334	ug/L	2.570	3	8997	47721	0
	Y	89		ug/L			362579	368285	3
	Kr	83		ug/L			485	520	1
>	In	115		ug/L			882860	854177	2
	Ag	107	51.901	ug/L	1.776	3	46	349338	1
	Cd	111	49.889	ug/L	1.166	2	86	197761	1
	Cd	114	49.629	ug/L	1.091	2	54	515640	2
	Sb	121	50.400	ug/L	1 641	3	166	584497	1
	Sb	123	50.425	ug/L	0.841	1	133	440405	0
>	Tb	159		ug/L			1198298	1206035	2
	Tl	205	49.886	ug/L	1.285	2	237	1799151	0
	Pb	208	50.821	ug/L	1 431	2	711	2371496	0
	Bi	209		ug/L			2547204	2471356	0
	Th	232	52.314	ug/L	0.771	1	569	2304178	1
	U	238	51.484	ug/L	0.396	0	23	2302847	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 11:22:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	59996	2
	Cl	37		ug/L			3815490	3756077	0
>	Ge	72		ug/L			551628	548638	2
	Ni	60	-0.010	ug/L	0.003	34	147	113	7
	Ni	62	-0.104	ug/L	0.083	79	661	607	7
	Cu	63	-0.015	ug/L	0.004	25	586	479	2
	Cu	65	-0.012	ug/L	0.002	16	100	61	12
	Zn	66	-0.180	ug/L	0.006	3	642	301	6
	Zn	67	-0.168	ug/L	0.038	22	105	51	21
	Zn	68	-0.156	ug/L	0.019	12	570	357	6
	As	75	0.004	ug/L	0.012	294	279	285	7
	As-1	75	0.022	ug/L	0.245	1103	8903	8886	1
	Se	82	-0.008	ug/L	0.044	528	7	6	136
	Se	78	0.063	ug/L	0.910	1444	8997	8971	1
	Y	89		ug/L			362579	362449	2
	Kr	83		ug/L			485	485	5
>	In	115		ug/L			882860	861460	1
	Ag	107	-0.001	ug/L	0.001	37	46	35	9
	Cd	111	-0.000	ug/L	0.001	403	86	83	4
	Cd	114	-0.000	ug/L	0.001	178	54	49	12
	Sb	121	0.026	ug/L	0.006	22	166	464	14
	Sb	123	0.025	ug/L	0.005	19	133	347	11
>	Tb	159		ug/L			1198298	1188331	1
	Tl	205	0.001	ug/L	0.001	82	237	275	11
	Pb	208	-0.008	ug/L	0 000	3	711	359	2
	Bi	209		ug/L			2547204	2522186	1
	Th	232	0.106	ug/L	0.005	4	569	5149	2
	U	238	0.002	ug/L	0.001	32	23	91	22

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 11:26:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	60048	1
	Cl	37		ug/L			3815490	3787162	4
>	Ge	72		ug/L			551628	550398	2
	Ni	60	51.023	ug/L	2.244	4	147	170600	1
	Ni	62	49.372	ug/L	2 912	5	661	24463	3
	Cu	63	50.905	ug/L	2.223	4	586	356953	3
	Cu	65	51.423	ug/L	3.013	5	100	163321	5
	Zn	66	51.264	ug/L	3.181	6	642	97275	3
	Zn	67	50.786	ug/L	2.534	4	105	16349	2
	Zn	68	51.862	ug/L	2.820	5	570	70676	2
	As	75	50.416	ug/L	1.821	3	279	89830	1
	As-1	75	50.415	ug/L	1.804	3	8903	98321	1
	Se	82	52.024	ug/L	1.916	3	7	9811	1
	Se	78	51.171	ug/L	2.283	4	8997	33778	0
	Y	89		ug/L			362579	366591	1
	Kr	83		ug/L			485	502	1
>	In	115		ug/L			882860	859295	2
	Ag	107	50.395	ug/L	1.278	2	46	341296	1
	Cd	111	50.143	ug/L	1.587	3	86	199927	1
	Cd	114	49.841	ug/L	0.451	0	54	520953	1
	Sb	121	49.956	ug/L	1.572	3	166	582873	1
	Sb	123	50.645	ug/L	1.786	3	133	444874	1
>	Tb	159		ug/L			1198298	1215979	1
	Tl	205	48.808	ug/L	0.551	1	237	1775296	0
	Pb	208	49.845	ug/L	1.182	2	711	2345584	0
	Bi	209		ug/L			2547204	2502263	1
	Th	232	49.795	ug/L	1.117	2	569	2211301	1
	U	238	51.035	ug/L	1.581	3	23	2301069	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 11:32:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	61224	4
	Cl	37		ug/L			3815490	3681513	3
>	Ge	72		ug/L			551628	539895	1
	Ni	60	-0.009	ug/L	0.003	37	147	115	8
	Ni	62	-0.086	ug/L	0.032	37	661	606	3
	Cu	63	-0.016	ug/L	0.002	13	586	463	2
	Cu	65	-0.008	ug/L	0.003	43	100	73	13
	Zn	66	-0.178	ug/L	0.011	6	642	300	6
	Zn	67	-0.182	ug/L	0.017	9	105	46	11
	Zn	68	-0.154	ug/L	0.005	3	570	354	2
	As	75	0.014	ug/L	0.041	300	279	296	22
	As-1	75	0.100	ug/L	0.052	51	8903	8888	0
	Se	82	0.008	ug/L	0.122	1460	7	8	253
	Se	78	0.355	ug/L	0.144	40	8997	8974	0
	Y	89		ug/L			362579	358835	2
	Kr	83		ug/L			485	493	7
>	In	115		ug/L			882860	856956	1
	Ag	107	0.001	ug/L	0.004	361	46	53	52
	Cd	111	0.004	ug/L	0.006	144	86	100	23
	Cd	114	0.002	ug/L	0.004	286	54	69	66
	Sb	121	0.039	ug/L	0.010	25	166	609	18
	Sb	123	0.040	ug/L	0.007	18	133	483	12
>	Tb	159		ug/L			1198298	1181975	0
	Tl	205	0.006	ug/L	0.004	80	237	430	37
	Pb	208	-0.007	ug/L	0.001	21	711	400	16
	Bi	209		ug/L			2547204	2566336	1
	Th	232	0.148	ug/L	0.005	3	569	6945	3
	U	238	0.002	ug/L	0.002	80	23	116	64

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 11:36:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		ug/L			59540	62945	1
Cl	37		ug/L			3815490	3719352	1
> Ge	72		ug/L			551628	547585	0
Ni	60	**0.523**	ug/L	0.008	1	147	1885	1
Ni	62	**0.286**	ug/L	0.070	24	661	793	4
Cu	63	**0.509**	ug/L	0.023	4	586	4126	3
Cu	65	**0.510**	ug/L	0.007	1	100	1711	0
Zn	66	**4.022**	ug/L	0.134	3	642	8191	3
Zn	67	**3.553**	ug/L	0.181	5	105	1236	4
Zn	68	**3.811**	ug/L	0.076	1	570	5696	2
As	75	**0.217**	ug/L	0.017	7	279	661	3
As-1	75	**0.243**	ug/L	0.049	20	8903	9267	0
Se	82	**0.588**	ug/L	0.050	8	7	117	7
Se	78	**0.645**	ug/L	0.142	22	8997	9242	0
Y	89		ug/L			362579	372349	2
Kr	83		ug/L			485	464	1
> In	115		ug/L			882860	862183	1
Ag	107	**0.207**	ug/L	0.003	1	46	1449	0
Cd	111	**0.106**	ug/L	0.004	3	86	510	2
Cd	114	**0.103**	ug/L	0.003	3	54	1132	4
Sb	121	**0.197**	ug/L	0.008	4	166	2466	4
Sb	123	**0.198**	ug/L	0.005	2	133	1872	2
> Tb	159		ug/L			1198298	1202471	1
Tl	205	**0.204**	ug/L	0.006	2	237	7564	1
Pb	208	**0.095**	ug/L	0.004	4	711	5152	2
Bi	209		ug/L			2547204	2566539	1
Th	232	**0.202**	ug/L	0.001	0	569	9447	1
U	238	**0.197**	ug/L	0.004	2	23	8787	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 11:39:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	141547	2
	Cl	37		ug/L			3815490	9905288	4
>	Ge	72		ug/L			551628	536855	1
	Ni	60	0.419	ug/L	0.034	8	147	1508	6
	Ni	62	6.065	ug/L	0.823	13	661	3496	10
	Cu	63	1.113	ug/L	0.048	4	586	8172	3
	Cu	65	0.389	ug/L	0.026	6	100	1303	5
	Zn	66	0.817	ug/L	0.027	3	642	2128	1
	Zn	67	5.181	ug/L	0.265	5	105	1719	3
	Zn	68	0.223	ug/L	0.009	4	570	849	1
	As	75	0.113	ug/L	0.026	23	279	468	10
	As-1	75	0.472	ug/L	0.081	17	8903	9481	0
	Se	82	-0.184	ug/L	0.073	39	7	-26	50
	Se	78	1.476	ug/L	0.395	26	8997	9453	1
	Y	89		ug/L			362579	362185	2
	Kr	83		ug/L			485	681	1
>	In	115		ug/L			882860	855282	1
	Ag	107	0.014	ug/L	0.001	9	46	141	5
	Cd	111	0.243	ug/L	0.023	9	86	1049	9
	Cd	114	0.305	ug/L	0.011	3	54	3225	2
	Sb	121	0.065	ug/L	0.004	5	166	914	3
	Sb	123	0.062	ug/L	0.005	8	133	674	7
>	Tb	159		ug/L			1198298	1215659	1
	Tl	205	0.038	ug/L	0.004	9	237	1629	9
	Pb	208	0.021	ug/L	0.001	5	711	1690	1
	Bi	209		ug/L			2547204	2360370	1
	Th	232	0.139	ug/L	0.051	36	569	6735	31
	U	238	0.000	ug/L	0.000	87	23	38	34

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 11:45:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
	C	13		ug/L			59540	145060	2
	Cl	37		ug/L			3815490	10370893	3
>	Ge	72		ug/L			551628	558375	0
	Ni	60	**20.473**	ug/L	0.160	0	147	69588	0
	Ni	62	**24.522**	ug/L	0.351	1	661	12676	1
	Cu	63	**21.056**	ug/L	0.395	1	586	150212	1
	Cu	65	**19.874**	ug/L	0.662	3	100	64125	2
	Zn	66	**19.543**	ug/L	0 254	1	642	38065	1
	Zn	67	**21.810**	ug/L	0.579	2	105	7189	2
	Zn	68	**18.441**	ug/L	0.260	1	570	25891	0
	As	75	**19.416**	ug/L	0.039	0	279	35290	0
	As-1	75	**19.645**	ug/L	0.012	0	8903	44391	0
	Se	82	**-0.174**	ug/L	0.036	20	7	-25	26
	Se	78	**0.893**	ug/L	0.088	9	8997	9547	0
	Y	89		ug/L			362579	373013	2
	Kr	83		ug/L			485	686	3
>	In	115		ug/L			882860	898016	2
	Ag	107	**19.740**	ug/L	0.345	1	46	139742	0
	Cd	111	**19.647**	ug/L	0.733	3	86	81902	1
	Cd	114	**19.610**	ug/L	0.596	3	54	214152	0
	Sb	121	**0.061**	ug/L	0.000	0	166	908	2
	Sb	123	**0.060**	ug/L	0.004	6	133	689	4
>	Tb	159		ug/L			1198298	1262013	0
	Tl	205	**0.030**	ug/L	0 001	2	237	1374	2
	Pb	208	**0.021**	ug/L	0 001	7	711	1754	3
	Bi	209		ug/L			2547204	2417450	1
	Th	232	**0.047**	ug/L	0.006	13	569	2760	10
	U	238	**0.000**	ug/L	0 000	70	23	35	20

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~ICSA~~ 222222
Sample Dil Factor:
Comments: AM 2-7-13
Sample Date/Time: Thursday, February 07, 2013 11:51:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			59540	155073	4
	Cl	37		ug/L			3815490	10971910	1
>	Ge	72		ug/L			551628	562023	3
	Ni	60	**0.334**	ug/L	0.016	4	147	1290	4
	Ni	62	**5.116**	ug/L	0.251	4	661	3194	4
	Cu	63	**1.028**	ug/L	0.017	1	586	7945	2
	Cu	65	**0.367**	ug/L	0.032	8	100	1290	4
	Zn	66	**0.732**	ug/L	0.088	11	642	2062	5
	Zn	67	**4.859**	ug/L	0.258	5	105	1694	4
	Zn	68	**0.103**	ug/L	0.023	21	570	724	5
	As	75	**0.066**	ug/L	0.028	41	279	405	13
	As-1	75	**0.255**	ug/L	0.206	80	8903	9526	1
	Se	82	**-0.151**	ug/L	0.039	25	7	-21	32
	Se	78	**0.812**	ug/L	0.770	94	8997	9561	1
	Y	89		ug/L			362579	374141	0
	Kr	83		ug/L			485	665	3
>	In	115		ug/L			882860	916192	1
	Ag	107	**0.014**	ug/L	0.001	4	46	147	1
	Cd	111	**0.216**	ug/L	0 013	5	86	1009	3
	Cd	114	**0.298**	ug/L	0 005	1	54	3378	2
	Sb	121	**0.056**	ug/L	0.003	4	166	865	2
	Sb	123	**0.053**	ug/L	0.001	1	133	637	3
>	Tb	159		ug/L			1198298	1269062	0
	Tl	205	**0.028**	ug/L	0.001	2	237	1333	1
	Pb	208	**0.018**	ug/L	0 000	1	711	1654	1
	Bi	209		ug/L			2547204	2429862	1
	Th	232	**0.023**	ug/L	0.001	5	569	1677	3
	U	238	**-0.000**	ug/L	0.000	170	23	21	33

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 11:58:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	72171	1
	Cl	37		ug/L			3815490	4323989	1
>	Ge	72		ug/L			551628	549230	2
	Ni	60	199.668	ug/L	1.546	0	147	666220	1
	Ni	62	199.326	ug/L	8.471	4	661	96593	2
	Cu	63	202.248	ug/L	2.564	1	586	1414100	2
	Cu	65	198.047	ug/L	8.885	4	100	627333	2
	Zn	66	195.095	ug/L	5.153	2	642	367953	2
	Zn	67	194.498	ug/L	5.990	3	105	62212	0
	Zn	68	195.377	ug/L	1.188	0	570	264356	1
	As	75	198.374	ug/L	5.427	2	279	351960	0
	As-1	75	198.407	ug/L	4.821	2	8903	360198	0
	Se	82	197.915	ug/L	5.263	2	7	37235	0
	Se	78	195.007	ug/L	2.992	1	8997	103324	0
	Y	89		ug/L			362579	365927	2
	Kr	83		ug/L			485	693	1
>	In	115		ug/L			882860	883497	0
	Ag	107	200.888	ug/L	6.494	3	46	1398977	2
	Cd	111	199.480	ug/L	4.126	2	86	817767	1
	Cd	114	202.692	ug/L	1.162	0	54	2178358	1
	Sb	121	207.607	ug/L	5.266	2	166	2490652	1
	Sb	123	203.740	ug/L	4.046	1	133	1840440	1
>	Tb	159		ug/L			1198298	1214674	1
	Tl	205	196.899	ug/L	5.729	2	237	7151716	1
	Pb	208	198.538	ug/L	2.819	1	711	9331485	0
	Bi	209		ug/L			2547204	2368418	1
	Th	232	201.275	ug/L	2.315	1	569	8929319	2
	U	238	198.662	ug/L	5.983	3	23	8947274	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 12:04:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			59540	70798	3
	Cl	37		ug/L			3815490	4202547	2
>	Ge	72		ug/L			551628	560363	3
	Ni	60	0.045	ug/L	0.005	10	147	302	7
	Ni	62	0.888	ug/L	0.224	25	661	1105	6
	Cu	63	0.065	ug/L	0.007	11	586	1056	4
	Cu	65	0.025	ug/L	0.002	7	100	182	2
	Zn	66	0.620	ug/L	0.032	5	642	1843	0
	Zn	67	0.573	ug/L	0.038	6	105	293	3
	Zn	68	0.626	ug/L	0.021	3	570	1442	2
	As	75	0.001	ug/L	0.013	1902	279	285	7
	As-1	75	0.022	ug/L	0.156	705	8903	9078	0
	Se	82	-0.031	ug/L	0.063	199	7	1	806
	Se	78	0.096	ug/L	0.552	577	8997	9181	0
	Y	89		ug/L			362579	371358	0
	Kr	83		ug/L			485	524	9
>	In	115		ug/L			882860	905311	2
	Ag	107	0.005	ug/L	0.008	165	46	82	69
	Cd	111	0.006	ug/L	0.008	133	86	114	28
	Cd	114	0.006	ug/L	0.007	108	54	123	58
	Sb	121	0.097	ug/L	0.021	21	166	1354	16
	Sb	123	0.093	ug/L	0 025	26	133	990	21
>	Tb	159		ug/L			1198298	1234756	2
	Tl	205	0.014	ug/L	0.003	25	237	745	17
	Pb	208	0.011	ug/L	0.004	31	711	1261	12
	Bi	209		ug/L			2547204	2617902	0
	Th	232	0.166	ug/L	0.012	7	569	8057	8
	U	238	0.005	ug/L	0.002	33	23	251	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 12:08:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	70769	1
	Cl	37		ug/L			3815490	4035827	2
>	Ge	72		ug/L			551628	555968	2
	Ni	60	0.020	ug/L	0.002	10	147	215	3
	Ni	62	0.583	ug/L	0.067	11	661	950	1
	Cu	63	0.038	ug/L	0.002	4	586	863	3
	Cu	65	0.027	ug/L	0.021	77	100	188	38
	Zn	66	0.530	ug/L	0.031	5	642	1659	6
	Zn	67	0.436	ug/L	0.039	8	105	247	6
	Zn	68	0.527	ug/L	0.066	12	570	1295	7
	As	75	0.024	ug/L	0.037	153	279	326	23
	As-1	75	0.033	ug/L	0 134	402	8903	9029	1
	Se	82	0.054	ug/L	0.017	31	7	18	20
	Se	78	0.113	ug/L	0.633	560	8997	9119	1
	Y	89		ug/L			362579	367175	1
	Kr	83		ug/L			485	506	0
>	In	115		ug/L			882860	900671	2
	Ag	107	0.003	ug/L	0.009	327	46	66	92
	Cd	111	0.003	ug/L	0 009	331	86	100	39
	Cd	114	0.004	ug/L	0.007	188	54	98	81
	Sb	121	0.019	ug/L	0.001	5	166	402	4
	Sb	123	0.019	ug/L	0 002	10	133	308	7
>	Tb	159		ug/L			1198298	1209991	0
	Tl	205	0.006	ug/L	0 004	57	237	462	27
	Pb	208	0.013	ug/L	0 004	30	711	1325	13
	Bi	209		ug/L			2547204	2583742	0
	Th	232	0.039	ug/L	0.002	5	569	2299	4
	U	238	0.002	ug/L	0.002	100	23	124	80

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 12:13:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	67163	3
	Cl	37		ug/L			3815490	4142563	2
>	Ge	72		ug/L			551628	556131	2
	Ni	60	50.409	ug/L	1.626	3	147	170370	1
	Ni	62	50.846	ug/L	3.390	6	661	25439	4
	Cu	63	50.788	ug/L	0.904	1	586	359945	0
	Cu	65	51.593	ug/L	0.854	1	100	165665	3
	Zn	66	51.592	ug/L	2.598	5	642	98958	3
	Zn	67	50.079	ug/L	1.594	3	105	16299	1
	Zn	68	51.780	ug/L	1.874	3	570	71333	1
	As	75	51.441	ug/L	0.928	1	279	92635	0
	As-1	75	51.390	ug/L	1.225	2	8903	101122	1
	Se	82	52.542	ug/L	1.256	2	7	10016	1
	Se	78	51.520	ug/L	1.650	3	8997	34309	0
	Y	89		ug/L			362579	381509	2
	Kr	83		ug/L			485	522	3
>	In	115		ug/L			882860	914580	1
	Ag	107	50.000	ug/L	0.736	1	46	360476	1
	Cd	111	50.448	ug/L	0.827	1	86	214129	0
	Cd	114	50.132	ug/L	0.986	1	54	557625	0
	Sb	121	49.595	ug/L	1.242	2	166	615982	1
	Sb	123	49.782	ug/L	0.808	1	133	465554	0
>	Tb	159		ug/L			1198298	1245068	1
	Tl	205	49.601	ug/L	0.204	0	237	1847463	1
	Pb	208	49.711	ug/L	0.938	1	711	2395350	0
	Bi	209		ug/L			2547204	2572304	1
	Th	232	49.880	ug/L	1.063	2	569	2268130	1
	U	238	50.538	ug/L	1.008	1	23	2333723	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 12:19:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	66415	1
	Cl	37		ug/L			3815490	4113498	3
>	Ge	72		ug/L			551628	558349	2
	Ni	60	-0.019	ug/L	0 002	9	147	83	4
	Ni	62	0.156	ug/L	0.025	15	661	745	1
	Cu	63	-0.007	ug/L	0.002	25	586	546	4
	Cu	65	-0.009	ug/L	0.003	29	100	71	12
	Zn	66	-0.191	ug/L	0.006	3	642	285	6
	Zn	67	-0.164	ug/L	0.020	12	105	53	12
	Zn	68	-0.164	ug/L	0.017	10	570	352	7
	As	75	-0.001	ug/L	0.011	1084	279	280	4
	As-1	75	0.001	ug/L	0 102	14005	8903	9010	0
	Se	82	-0.024	ug/L	0.047	193	7	2	307
	Se	78	0.005	ug/L	0.371	7260	8997	9106	0
	Y	89		ug/L			362579	370265	0
	Kr	83		ug/L			485	506	4
>	In	115		ug/L			882860	907735	1
	Ag	107	-0.002	ug/L	0.001	59	46	34	21
	Cd	111	-0.004	ug/L	0.003	74	86	73	14
	Cd	114	-0.001	ug/L	0.001	58	54	46	11
	Sb	121	0.036	ug/L	0.005	12	166	619	9
	Sb	123	0.037	ug/L	0 008	21	133	481	15
>	Tb	159		ug/L			1198298	1219697	0
	Tl	205	0.004	ug/L	0.002	42	237	386	15
	Pb	208	-0.009	ug/L	0.001	7	711	319	9
	Bi	209		ug/L			2547204	2604859	0
	Th	232	0.139	ug/L	0.013	9	569	6773	8
	U	238	0.001	ug/L	0.000	11	23	86	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC40 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, February 07, 2013 12:23:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			59540	73667	1
	Cl	37		ug/L			3815490	4029268	5
>	Ge	72		ug/L			551628	568592	2
	Ni	60	-0.015	ug/L	0.004	24	147	100	14
	Ni	62	0.038	ug/L	0.031	81	661	700	3
	Cu	63	-0.003	ug/L	0.004	103	586	579	6
	Cu	65	0.000	ug/L	0.003	2215	100	103	6
	Zn	66	0.083	ug/L	0.010	11	642	823	1
	Zn	67	0.061	ug/L	0.033	54	105	128	7
	Zn	68	0.075	ug/L	0.012	16	570	692	1
	As	75	U 0.004	ug/L	0.006	138	279	295	4
	As-1	75	-0.041	ug/L	0.199	489	8903	9096	1
	Se	82	-0.022	ug/L	0.072	330	7	3	375
	Se	78	-0.141	ug/L	0.742	527	8997	9196	1
	Y	89		ug/L			362579	378901	1
	Kr	83		ug/L			485	528	6
>	In	115		ug/L			882860	919882	1
	Ag	107	-0.003	ug/L	0.000	10	46	26	9
	Cd	111	-0.003	ug/L	0.003	97	86	77	17
	Cd	114	-0.002	ug/L	0.000	2	54	37	0
	Sb	121	0.006	ug/L	0.003	61	166	243	16
	Sb	123	0.005	ug/L	0.003	71	133	180	15
>	Tb	159		ug/L			1198298	1247449	1
	Tl	205	0.002	ug/L	0.001	50	237	307	10
	Pb	208	-0.004	ug/L	0.000	11	711	539	3
	Bi	209		ug/L			2547204	2648446	0
	Th	232	0.080	ug/L	0.012	14	569	4223	11
	U	238	0.000	ug/L	0.000	83	23	34	24

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC40 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, February 07, 2013 12:26:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	86589	3
	Cl	37		ug/L			3815490	4060186	0
>	Ge	72		ug/L			551628	571999	2
	Ni	60	9.275	ug/L	0.360	3	147	32361	2
	Ni	62	10.657	ug/L	0.564	5	661	6030	5
	Cu	63	11.174	ug/L	0.392	3	586	81901	1
	Cu	65	11.278	ug/L	0.160	1	100	37318	1
	Zn	66	22.926	ug/L	0.948	4	642	45597	1
	Zn	67	24.325	ug/L	0.544	2	105	8200	1
	Zn	68	22.685	ug/L	0.228	1	570	32487	1
	As	75	1.402	ug/L	0.060	4	279	2877	1
	As-1	75	1.354	ug/L	0.183	13	8903	11725	0
	Se	82	-0.023	ug/L	0.062	274	7	3	356
	Se	78	-0.014	ug/L	0.479	3326	8997	9318	0
	Y	89		ug/L			362579	488330	1
	Kr	83		ug/L			485	623	4
>	In	115		ug/L			882860	915104	1
	Ag	107	0.024	ug/L	0.002	9	46	218	6
	Cd	111	0.051	ug/L	0.006	11	86	305	7
	Cd	114	0.022	ug/L	0 001	2	54	297	2
	Sb	121	0.002	ug/L	0 002	94	166	200	12
	Sb	123	0.002	ug/L	0.003	135	133	155	14
>	Tb	159		ug/L			1198298	1278692	0
	Tl	205	0.042	ug/L	0.001	1	237	1851	2
	Pb	208	1.288	ug/L	0.014	1	711	64500	0
	Bi	209		ug/L			2547204	2607942	0
	Th	232	0.873	ug/L	0.012	1	569	41380	0
	U	238	0.172	ug/L	0.002	0	23	8186	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC40 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Thursday, February 07, 2013 12:30:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			59540	72151	1
	Cl	37		ug/L			3815490	3940233	1
>	Ge	72		ug/L			551628	572433	1
	Ni	60	1.573	ug/L	0 044	2	147	5623	1
	Ni	62	1.636	ug/L	0.050	3	661	1507	0
	Cu	63	2.342	ug/L	0.010	0	586	17670	1
	Cu	65	2.404	ug/L	0.055	2	100	8044	2
	Zn	66	4.290	ug/L	0.145	3	642	9085	2
	Zn	67	4.624	ug/L	0.179	3	105	1648	2
	Zn	68	4.243	ug/L	0 072	1	570	6563	2
	As	75	0.283	ug/L	0.015	5	279	813	3
	As-1	75	0.141	ug/L	0 087	61	8903	9499	0
	Se	82	-0.027	ug/L	0.044	162	7	2	338
	Se	78	-0.516	ug/L	0.296	57	8997	9076	0
	Y	89		ug/L			362579	392511	1
	Kr	83		ug/L			485	523	4
>	In	115		ug/L			882860	903435	1
	Ag	107	0.004	ug/L	0.000	8	46	74	2
	Cd	111	0.011	ug/L	0.004	39	86	133	14
	Cd	114	0.003	ug/L	0.001	36	54	84	13
	Sb	121	-0.005	ug/L	0.002	51	166	113	24
	Sb	123	-0.003	ug/L	0.002	58	133	104	16
>	Tb	159		ug/L			1198298	1231612	0
	Tl	205	0.004	ug/L	0.001	15	237	410	6
	Pb	208	0.295	ug/L	0.005	1	711	14808	0
	Bi	209		ug/L			2547204	2647676	0
	Th	232	0.169	ug/L	0.004	2	569	8177	1
	U	238	0.040	ug/L	0.001	1	23	1835	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC40 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, February 07, 2013 12:34:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	80116	3
	Cl	37		ug/L			3815490	3951207	0
>	Ge	72		ug/L			551628	568997	2
	Ni	60	7.848	ug/L	0.218	2	147	27271	2
	Ni	62	8.714	ug/L	0.184	2	661	5028	1
	Cu	63	11.751	ug/L	0.443	3	586	85656	2
	Cu	65	11.797	ug/L	0.567	4	100	38807	2
	Zn	66	20.821	ug/L	0.708	3	642	41261	0
	Zn	67	22.094	ug/L	0.926	4	105	7417	2
	Zn	68	20.974	ug/L	0.433	2	570	29919	1
	As	75	1.403	ug/L	0.038	2	279	2864	0
	As-1	75	1.340	ug/L	0.161	12	8903	11639	0
	Se	82	-0.049	ug/L	0.051	104	7	-1	640
	Se	78	-0.101	ug/L	0.445	440	8997	9227	0
	Y	89		ug/L			362579	468782	3
	Kr	83		ug/L			485	615	1
>	In	115		ug/L			882860	909521	1
	Ag	107	0.028	ug/L	0.003	9	46	250	6
	Cd	111	0.057	ug/L	0.008	13	86	329	8
	Cd	114	0.020	ug/L	0.001	6	54	279	7
	Sb	121	-0.002	ug/L	0.001	23	166	141	5
	Sb	123	-0.004	ug/L	0.001	26	133	95	11
>	Tb	159		ug/L			1198298	1252113	2
	Tl	205	0.035	ug/L	0.001	2	237	1566	4
	Pb	208	1.454	ug/L	0.037	2	711	71160	0
	Bi	209		ug/L			2547204	2573796	0
	Th	232	0.833	ug/L	0.018	2	569	38688	0
	U	238	0.196	ug/L	0.009	4	23	9110	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC40 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, February 07, 2013 12:37:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
	C	13		ug/L			59540	87370	1
	Cl	37		ug/L			3815490	3959717	3
>	Ge	72		ug/L			551628	554652	1
	Ni	60	8.026	ug/L	0.070	0	147	27190	1
	Ni	62	9.070	ug/L	0.261	2	661	5075	2
	Cu	63	12.018	ug/L	0.256	2	586	85396	0
	Cu	65	11.974	ug/L	0 487	4	100	38404	2
	Zn	66	22.473	ug/L	0.487	2	642	43373	0
	Zn	67	24.250	ug/L	0.436	1	105	7931	3
	Zn	68	21.990	ug/L	0 555	2	570	30554	2
	As	75	1.411	ug/L	0.025	1	279	2808	1
	As-1	75	1.403	ug/L	0.068	4	8903	11460	0
	Se	82	-0.027	ug/L	0.038	143	7	2	275
	Se	78	0.163	ug/L	0.264	162	8997	9125	1
	Y	89		ug/L			362579	454836	2
	Kr	83		ug/L			485	628	2
>	In	115		ug/L			882860	906461	2
	Ag	107	0.028	ug/L	0.004	14	46	245	8
	Cd	111	0.058	ug/L	0.006	9	86	330	4
	Cd	114	0.026	ug/L	0 000	1	54	338	3
	Sb	121	-0.004	ug/L	0.002	57	166	124	22
	Sb	123	-0.005	ug/L	0.002	52	133	94	23
>	Tb	159		ug/L			1198298	1236886	1
	Tl	205	0.037	ug/L	0.001	2	237	1625	1
	Pb	208	1.501	ug/L	0 030	1	711	72576	0
	Bi	209		ug/L			2547204	2548942	0
	Th	232	0.824	ug/L	0.013	1	569	37816	0
	U	238	0.190	ug/L	0.006	3	23	8731	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC40 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, February 07, 2013 12:41:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	78868	2
	Cl	37		ug/L			3815490	3916905	4
>	Ge	72		ug/L			551628	561794	1
	Ni	60	36.356	ug/L	0.560	1	147	124236	2
	Ni	62	37.712	ug/L	1.509	4	661	19255	4
	Cu	63	42.298	ug/L	0.855	2	586	302940	0
	Cu	65	41.624	ug/L	1 220	2	100	135006	2
	Zn	66	114.186	ug/L	2 465	2	642	220557	1
	Zn	67	104.497	ug/L	2.087	1	105	34257	3
	Zn	68	109.163	ug/L	1.584	1	570	151332	0
	As	75	28.321	ug/L	0.447	1	279	51653	0
	As-1	75	27.898	ug/L	0.206	0	8903	59613	1
	Se	82	85.600	ug/L	0.786	0	7	16482	0
	Se	78	83.200	ug/L	0.759	0	8997	50357	2
	Y	89		ug/L			362579	480770	2
	Kr	83		ug/L			485	712	6
>	In	115		ug/L			882860	902538	1
	Ag	107	26.789	ug/L	0.187	0	46	190645	2
	Cd	111	26.638	ug/L	0.515	1	86	111621	0
	Cd	114	26.656	ug/L	0.404	1	54	292643	0
	Sb	121	-0.003	ug/L	0.002	81	166	132	21
	Sb	123	-0.005	ug/L	0.001	17	133	91	7
>	Tb	159		ug/L			1198298	1251205	1
	Tl	205	26.631	ug/L	0.098	0	237	996970	1
	Pb	208	28.774	ug/L	0.690	2	711	1393695	1
	Bi	209		ug/L			2547204	2551490	1
	Th	232	27.339	ug/L	0.530	1	569	1249559	0
	U	238	26.886	ug/L	0.363	1	23	1247699	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WC40 APOST SWN~~ 222222
Sample Dil Factor: 20
Comments: *12-7-13
Sample Date/Time: Thursday, February 07, 2013 12:44:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens	Intens. RSD
	C	13		ug/L			59540	82163	4
	Cl	37		ug/L			3815490	4014784	1
>	Ge	72		ug/L			551628	557493	0
	Ni	60	33.945	ug/L	0 381	1	147	115097	0
	Ni	62	34.522	ug/L	0.483	1	661	17545	1
	Cu	63	37.963	ug/L	0.533	1	586	269936	1
	Cu	65	38.800	ug/L	0.692	1	100	124912	2
	Zn	66	106.784	ug/L	3.147	2	642	204739	2
	Zn	67	97.523	ug/L	0.816	0	105	31729	0
	Zn	68	102.976	ug/L	2.121	2	570	141702	1
	As	75	27.886	ug/L	0.161	0	279	50482	0
	As-1	75	27.548	ug/L	0.681	2	8903	58526	1
	Se	82	84.579	ug/L	0.301	0	7	16162	0
	Se	78	82.383	ug/L	1.956	2	8997	49564	1
	Y	89		ug/L			362579	467319	2
	Kr	83		ug/L			485	631	1
>	In	115		ug/L			882860	908468	1
	Ag	107	25.884	ug/L	0.867	3	46	185358	2
	Cd	111	25.062	ug/L	0.412	1	86	105723	0
	Cd	114	24.855	ug/L	0.090	0	54	274705	0
	Sb	121	-0.004	ug/L	0.001	30	166	117	14
	Sb	123	-0.003	ug/L	0.001	41	133	108	9
>	Tb	159		ug/L			1198298	1235252	0
	Tl	205	25.539	ug/L	0.084	0	237	943895	0
	Pb	208	27.458	ug/L	0.123	0	711	1313273	0
	Bi	209		ug/L			2547204	2574064	1
	Th	232	26.747	ug/L	0 154	0	569	1207116	0
	U	238	25.127	ug/L	0.119	0	23	1151336	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC40 REF1 SWN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, February 07, 2013 12:48:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			59540	72369	3
	Cl	37		ug/L			3815490	3928339	0
>	Ge	72		ug/L			551628	558906	0
	Ni	60	24.202	ug/L	0.157	0	147	82316	1
	Ni	62	22.690	ug/L	0.608	2	661	11790	2
	Cu	63	29.527	ug/L	0.583	1	586	210616	2
	Cu	65	28.960	ug/L	0.515	1	100	93492	1
	Zn	66	79.303	ug/L	2.110	2	642	152614	2
	Zn	67	80.152	ug/L	1.425	1	105	26163	1
	Zn	68	83.720	ug/L	2.937	3	570	115624	3
	As	75	54.448	ug/L	0.907	1	279	98545	1
	As-1	75	54.265	ug/L	1.086	2	8903	106837	1
	Se	82	71.488	ug/L	0.740	1	7	13696	0
	Se	78	69.806	ug/L	1.222	1	8997	43498	1
	Y	89		ug/L			362579	498675	2
	Kr	83		ug/L			485	569	5
>	In	115		ug/L			882860	899215	1
	Ag	107	44.937	ug/L	1.121	2	46	318524	1
	Cd	111	28.647	ug/L	0.569	1	86	119628	2
	Cd	114	28.171	ug/L	0.077	0	54	308192	1
	Sb	121	1.761	ug/L	0 047	2	166	21674	1
	Sb	123	1.792	ug/L	0.029	1	133	16612	0
>	Tb	159		ug/L			1198298	1250724	1
	Tl	205	56.546	ug/L	1.476	2	237	2115036	0
	Pb	208	54.607	ug/L	1.044	1	711	2643138	0
	Bi	209		ug/L			2547204	2590311	0
	Th	232	5.120	ug/L	0.039	0	569	234409	1
	U	238	0.633	ug/L	0.018	2	23	29373	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC40 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, February 07, 2013 12:51:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			59540	73765	1
	Cl	37		ug/L			3815490	3956806	4
>	Ge	72		ug/L			551628	539329	0
	Ni	60	28.295	ug/L	0.452	1	147	92847	2
	Ni	62	27.161	ug/L	0 359	1	661	13490	0
	Cu	63	29.308	ug/L	0.602	2	586	201732	2
	Cu	65	28.580	ug/L	0.992	3	100	89022	2
	Zn	66	90.469	ug/L	1.157	1	642	167914	0
	Zn	67	82.286	ug/L	1.610	1	105	25916	2
	Zn	68	88.874	ug/L	1.353	1	570	118398	1
	As	75	28.005	ug/L	0.386	1	279	49043	1
	As-1	75	28.407	ug/L	0.877	3	8903	58111	1
	Se	82	88.337	ug/L	0.541	0	7	16330	1
	Se	78	88.625	ug/L	1.947	2	8997	50915	1
	Y	89		ug/L			362579	357561	1
	Kr	83		ug/L			485	511	6
>	In	115		ug/L			882860	895260	1
	Ag	107	27.118	ug/L	0.767	2	46	191380	1
	Cd	111	26.574	ug/L	0.514	1	86	110468	1
	Cd	114	26.259	ug/L	0.103	0	54	286009	1
	Sb	121	-0.004	ug/L	0.001	37	166	120	16
	Sb	123	-0.006	ug/L	0 001	26	133	84	17
>	Tb	159		ug/L			1198298	1217545	0
	Tl	205	26.934	ug/L	0.365	1	237	981147	1
	Pb	208	27.714	ug/L	0.442	1	711	1306441	0
	Bi	209		ug/L			2547204	2620471	1
	Th	232	26.432	ug/L	0.185	0	569	1175840	1
	U	238	26.096	ug/L	0.253	0	23	1178534	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 12:56:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	66801	3
	Cl	37		ug/L			3815490	4151393	3
>	Ge	72		ug/L			551628	549590	4
	Ni	60	51.278	ug/L	3.140	6	147	171048	2
	Ni	62	49.457	ug/L	1.438	2	661	24477	2
	Cu	63	51.618	ug/L	2.267	4	586	361218	2
	Cu	65	51.868	ug/L	1.808	3	100	164445	2
	Zn	66	51.909	ug/L	3.839	7	642	98254	3
	Zn	67	51.096	ug/L	2.248	4	105	16419	0
	Zn	68	52.306	ug/L	2.910	5	570	71142	2
	As	75	51.044	ug/L	2.207	4	279	90763	1
	As-1	75	51.308	ug/L	2.497	4	8903	99696	0
	Se	82	51.846	ug/L	1.908	3	7	9761	2
	Se	78	52.002	ug/L	3.075	5	8997	34109	0
	Y	89		ug/L			362579	365173	0
	Kr	83		ug/L			485	526	3
>	In	115		ug/L			882860	883284	2
	Ag	107	51.463	ug/L	2.105	4	46	358156	1
	Cd	111	51.817	ug/L	1.470	2	86	212388	1
	Cd	114	51.093	ug/L	0.234	0	54	548988	2
	Sb	121	50.715	ug/L	1.752	3	166	608170	1
	Sb	123	51.492	ug/L	1.488	2	133	464961	0
>	Tb	159		ug/L			1198298	1214050	0
	Tl	205	50.138	ug/L	0.179	0	237	1820989	0
	Pb	208	50.861	ug/L	0.732	1	711	2390068	0
	Bi	209		ug/L			2547204	2483538	1
	Th	232	51.953	ug/L	0.990	1	569	2303986	2
	U	238	51.866	ug/L	0.469	0	23	2335770	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 13:01:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			59540	64142	0
	Cl	37		ug/L			3815490	3889776	2
>	Ge	72		ug/L			551628	543156	3
	Ni	60	-0.027	ug/L	0.001	3	147	57	4
	Ni	62	-0.268	ug/L	0.065	24	661	522	4
	Cu	63	-0.021	ug/L	0.003	15	586	429	8
	Cu	65	-0.011	ug/L	0.002	19	100	64	6
	Zn	66	-0.184	ug/L	0.004	1	642	289	2
	Zn	67	-0.175	ug/L	0 027	15	105	48	14
	Zn	68	-0.167	ug/L	0.026	15	570	338	10
	As	75	0.007	ug/L	0.007	97	279	287	6
	As-1	75	0.046	ug/L	0.221	479	8903	8838	0
	Se	82	0.008	ug/L	0.084	1012	7	9	167
	Se	78	0.183	ug/L	0.793	432	8997	8938	0
	Y	89		ug/L			362579	355120	1
	Kr	83		ug/L			485	497	2
>	In	115		ug/L			882860	876004	1
	Ag	107	0.000	ug/L	0.005	1097	46	49	67
	Cd	111	-0.001	ug/L	0.001	117	86	82	3
	Cd	114	0.000	ug/L	0.003	12433	54	54	62
	Sb	121	0.039	ug/L	0.002	4	166	631	4
	Sb	123	0.038	ug/L	0 003	9	133	470	7
>	Tb	159		ug/L			1198298	1214201	1
	Tl	205	0.006	ug/L	0.001	8	237	458	5
	Pb	208	-0.008	ug/L	0.002	21	711	358	21
	Bi	209		ug/L			2547204	2564606	2
	Th	232	0.151	ug/L	0.012	8	569	7253	7
	U	238	0.002	ug/L	0.001	40	23	113	32

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC37 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, February 07, 2013 13:04:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas Intens.	Intens RSD
	C	13		ug/L			59540	72749	3
	Cl	37		ug/L			3815490	4017987	1
>	Ge	72		ug/L			551628	556720	2
	Ni	60	-0.012	ug/L	0.002	18	147	109	6
	Ni	62	-0.285	ug/L	0.066	23	661	527	4
	Cu	63	0.227	ug/L	0.005	2	586	2201	3
	Cu	65	0.252	ug/L	0.006	2	100	912	3
	Zn	66	0.559	ug/L	0.054	9	642	1714	3
	Zn	67	0.499	ug/L	0.042	8	105	267	5
	Zn	68	0.518	ug/L	0.056	10	570	1284	4
	As	75	0.003	ug/L	0.002	79	279	287	2
	As-1	75	U 0.117	ug/L	0.209	178	8903	9192	3
	Se	82	-0.013	ug/L	0.014	107	7	5	49
	Se	78	0.432	ug/L	0.766	177	8997	9289	3
	Y	89		ug/L			362579	374981	1
	Kr	83		ug/L			485	507	0
>	In	115		ug/L			882860	905838	1
	Ag	107	0.098	ug/L	0.166	168	46	756	157
	Cd	111	-0.001	ug/L	0.006	533	86	84	28
	Cd	114	U 0.001	ug/L	0.003	369	54	65	50
	Sb	121	0.007	ug/L	0.001	15	166	257	5
	Sb	123	U 0.005	ug/L	0.001	26	133	185	7
>	Tb	159		ug/L			1198298	1218316	0
	Ti	205	U 0.015	ug/L	0.001	8	237	794	6
	Pb	208	U 0.015	ug/L	0.002	12	711	1417	6
	Bi	209		ug/L			2547204	2584784	1
	Th	232	0.082	ug/L	0.015	18	569	4235	15
	U	238	0.002	ug/L	0.002	89	23	103	68

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC37 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, February 07, 2013 13:08:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
C	13		ug/L			59540	72773	3
Cl	37		ug/L			3815490	3907170	4
> Ge	72		ug/L			551628	560558	3
Ni	60	-0.020	ug/L	0.004	18	147	82	18
Ni	62	-0.353	ug/L	0.108	30	661	497	8
Cu	63	0.116	ug/L	0.007	6	586	1423	2
Cu	65	0.139	ug/L	0.016	11	100	549	5
Zn	66	0.367	ug/L	0.022	5	642	1358	0
Zn	67	0.291	ug/L	0.026	8	105	202	5
Zn	68	0.346	ug/L	0.036	10	570	1056	5
As	75	0.021	ug/L	0.008	38	279	322	4
As-1	75	0.025	ug/L	0.223	901	8903	9083	1
Se	82	0.042	ug/L	0.058	137	7	15	69
Se	78	0.056	ug/L	0.826	1474	8997	9161	1
Y	89		ug/L			362579	370073	2
Kr	83		ug/L			485	495	6
> In	115		ug/L			882860	908395	2
Ag	107	-0.001	ug/L	0.001	88	46	39	23
Cd	111	-0.003	ug/L	0.001	32	86	77	5
Cd	114	-0.002	ug/L	0.001	39	54	37	22
Sb	121	-0.001	ug/L	0.002	142	166	157	12
Sb	123	-0.000	ug/L	0.002	376	133	132	9
> Tb	159		ug/L			1198298	1228156	1
Tl	205	0.002	ug/L	0.001	35	237	324	8
Pb	208	-0.004	ug/L	0 000	6	711	553	2
Bi	209		ug/L			2547204	2608742	1
Th	232	0.034	ug/L	0.003	7	569	2112	5
U	238	0.001	ug/L	0.000	23	23	51	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC37 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, February 07, 2013 13:11:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
	C	13		ug/L			59540	85688	2
	Cl	37		ug/L			3815490	4968026	2
>	Ge	72		ug/L			551628	536908	1
	Ni	60	0.989	ug/L	0.034	3	147	3368	2
	Ni	62	32.602	ug/L	9.594	29	661	15969	27
	Cu	63	7.576	ug/L	0.836	11	586	52299	9
	Cu	65	2.074	ug/L	0.025	1	100	6523	1
	Zn	66	1.940	ug/L	0.106	5	642	4195	3
	Zn	67	2.476	ug/L	0.076	3	105	875	2
	Zn	68	3.152	ug/L	0.128	4	570	4715	2
	As	75	5.592	ug/L	0.043	0	279	9966	0
	As-1	75	5.900	ug/L	0.143	2	8903	18881	0
	Se	82	0.349	ug/L	0.032	9	7	71	7
	Se	78	1.576	ug/L	0.351	22	8997	9502	0
	Y	89		ug/L			362579	381638	0
	Kr	83		ug/L			485	550	4
>	In	115		ug/L			882860	857954	0
	Ag	107	0.009	ug/L	0.012	132	46	107	76
	Cd	111	0.023	ug/L	0.009	39	86	177	20
	Cd	114	0.032	ug/L	0 008	25	54	387	22
	Sb	121	0.147	ug/L	0.005	3	166	1876	3
	Sb	123	0.149	ug/L	0 001	0	133	1435	0
>	Tb	159		ug/L			1198298	1217470	1
	Tl	205	0.010	ug/L	0.005	56	237	594	32
	Pb	208	0.277	ug/L	0 005	1	711	13764	0
	Bi	209		ug/L			2547204	2316199	0
	Th	232	0.122	ug/L	0.005	4	569	5980	3
	U	238	0.458	ug/L	0.020	4	23	20691	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC37 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, February 07, 2013 13:15:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	82804	2
	Cl	37		ug/L			3815490	5067645	0
>	Ge	72		ug/L			551628	542158	3
	Ni	60	1.011	ug/L	0.047	4	147	3471	3
	Ni	62	10.252	ug/L	0.783	7	661	5518	5
	Cu	63	5.297	ug/L	0.039	0	586	37119	2
	Cu	65	1.824	ug/L	0.100	5	100	5799	2
	Zn	66	2.027	ug/L	0.161	7	642	4393	3
	Zn	67	2.770	ug/L	0.070	2	105	976	1
	Zn	68	3.477	ug/L	0.174	5	570	5192	3
	As	75	5.478	ug/L	0.234	4	279	9856	1
	As-1	75	5.626	ug/L	0.417	7	8903	18573	0
	Se	82	0.391	ug/L	0.085	21	7	79	17
	Se	78	0.979	ug/L	0.791	80	8997	9303	1
	Y	89		ug/L			362579	384431	0
	Kr	83		ug/L			485	521	2
>	In	115		ug/L			882860	862254	1
	Ag	107	0.002	ug/L	0 002	129	46	58	29
	Cd	111	5 0.014	ug/L	0.002	11	86	140	3
	Cd	114	0.032	ug/L	0 005	14	54	388	13
	Sb	121	0.140	ug/L	0.001	0	166	1805	1
	Sb	123	5 0.143	ug/L	0.002	1	133	1391	2
>	Tb	159		ug/L			1198298	1234404	0
	Tl	205	2 0.000	ug/L	0.000	82	237	263	5
	Pb	208	0.275	ug/L	0.002	0	711	13883	0
	Bi	209		ug/L			2547204	2316061	1
	Th	232	0.092	ug/L	0.004	4	569	4743	4
	U	238	0.436	ug/L	0.007	1	23	19984	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC37 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, February 07, 2013 13:18:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	87984	3
	Cl	37		ug/L			3815490	5044582	4
>	Ge	72		ug/L			551628	538457	1
	Ni	60	28.242	ug/L	0.803	2	147	92508	2
	Ni	62	36.667	ug/L	1.465	3	661	17951	2
	Cu	63	32.410	ug/L	0.322	0	586	222644	0
	Cu	65	28.418	ug/L	0.714	2	100	88382	2
	Zn	66	80.355	ug/L	2.440	3	642	148937	1
	Zn	67	74.831	ug/L	1.210	1	105	23536	0
	Zn	68	79.832	ug/L	1.536	1	570	106222	1
	As	75	31.906	ug/L	0.485	1	279	55742	0
	As-1	75	31.897	ug/L	0.364	1	8903	64081	1
	Se	82	78.934	ug/L	2.873	3	7	14565	2
	Se	78	77.851	ug/L	1.379	1	8997	45719	0
	Y	89		ug/L			362579	383051	1
	Kr	83		ug/L			485	525	1
>	In	115		ug/L			882860	865900	2
	Ag	107	18.981	ug/L	0.557	2	46	129555	0
	Cd	111	24.206	ug/L	0 395	1	86	97329	1
	Cd	114	23.640	ug/L	0.622	2	54	248954	1
	Sb	121	23.410	ug/L	0.645	2	166	275340	0
	Sb	123	23.211	ug/L	0.571	2	133	205559	0
>	Tb	159		ug/L			1198298	1227810	2
	Tl	205	25.143	ug/L	0.402	1	237	923521	1
	Pb	208	25.582	ug/L	0.808	3	711	1215697	1
	Bi	209		ug/L			2547204	2332053	1
	Th	232	24.684	ug/L	0.045	0	569	1107337	2
	U	238	26.077	ug/L	0.361	1	23	1187429	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC37 CDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, February 07, 2013 13:22:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			59540	84443	5
	Cl	37		ug/L			3815490	4976689	1
>	Ge	72		ug/L			551628	534671	1
	Ni	60	3.088	ug/L	0.071	2	147	10174	3
	Ni	62	14.943	ug/L	1.392	9	661	7653	10
	Cu	63	8.430	ug/L	0.095	1	586	57932	2
	Cu	65	4.776	ug/L	0.150	3	100	14827	2
	Zn	66	5.788	ug/L	0.084	1	642	11231	0
	Zn	67	6.498	ug/L	0.091	1	105	2122	1
	Zn	68	7.057	ug/L	0.230	3	570	9827	2
	As	75	7.035	ug/L	0.063	0	279	12416	0
	As-1	75	7.303	ug/L	0.111	1	8903	21222	0
	Se	82	0.534	ug/L	0.072	13	7	105	10
	Se	78	1.557	ug/L	0.237	15	8997	9454	0
	Y	89		ug/L			362579	394518	2
	Kr	83		ug/L			485	520	2
>	In	115		ug/L			882860	853037	1
	Ag	107	0.008	ug/L	0.001	17	46	102	8
	Cd	111	0.076	ug/L	0.009	11	86	385	8
	Cd	114	0.090	ug/L	0.005	5	54	986	4
	Sb	121	0.163	ug/L	0.006	3	166	2053	2
	Sb	123	0.165	ug/L	0.000	0	133	1565	1
>	Tb	159		ug/L			1198298	1225143	1
	Tl	205	0.007	ug/L	0.001	7	237	505	2
	Pb	208	0.983	ug/L	0.010	1	711	47321	1
	Bi	209		ug/L			2547204	2294391	0
	Th	232	0.390	ug/L	0.042	10	569	18020	9
	U	238	0.547	ug/L	0.003	0	23	24890	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC37 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, February 07, 2013 13:26:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			59540	84434	2
	Cl	37		ug/L			3815490	4932666	2
>	Ge	72		ug/L			551628	534905	2
	Ni	60	2.962	ug/L	0.166	5	147	9759	3
	Ni	62	16.023	ug/L	1.715	10	661	8147	8
	Cu	63	8.053	ug/L	0.286	3	586	55360	1
	Cu	65	4.725	ug/L	0.092	1	100	14681	3
	Zn	66	6.141	ug/L	0.105	1	642	11883	1
	Zn	67	7.065	ug/L	0.267	3	105	2299	3
	Zn	68	7.482	ug/L	0.286	3	570	10386	1
	As	75	6.982	ug/L	0.101	1	279	12328	1
	As-1	75	7.258	ug/L	0.265	3	8903	21148	0
	Se	82	0.520	ug/L	0.104	20	7	102	17
	Se	78	1.577	ug/L	0 651	41	8997	9463	1
	Y	89		ug/L			362579	396949	2
	Kr	83		ug/L			485	523	8
>	In	115		ug/L			882860	857483	1
	Ag	107	0.009	ug/L	0.003	36	46	105	20
	Cd	111	0.078	ug/L	0.007	8	86	396	6
	Cd	114	0.095	ug/L	0.004	3	54	1041	3
	Sb	121	0.152	ug/L	0.011	6	166	1931	4
	Sb	123	0.153	ug/L	0.004	2	133	1473	2
>	Tb	159		ug/L			1198298	1243321	0
	Tl	205	0.006	ug/L	0 001	16	237	467	8
	Pb	208	1.049	ug/L	0.016	1	711	51225	0
	Bi	209		ug/L			2547204	2336957	0
	Th	232	0.300	ug/L	0.006	1	569	14222	2
	U	238	0.536	ug/L	0.006	1	23	24722	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC37 CSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, February 07, 2013 13:29:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	83740	2
	Cl	37		ug/L			3815490	5057242	3
>	Ge	72		ug/L			551628	531211	2
	Ni	60	30.382	ug/L	1.084	3	147	98119	1
	Ni	62	44.522	ug/L	2.619	5	661	21365	5
	Cu	63	35.936	ug/L	1.335	3	586	243348	1
	Cu	65	32.039	ug/L	0.652	2	100	98266	0
	Zn	66	88.026	ug/L	3.325	3	642	160843	1
	Zn	67	79.691	ug/L	2.174	2	105	24713	0
	Zn	68	85.347	ug/L	2.602	3	570	111953	0
	As	75	33.571	ug/L	1.305	3	279	57815	1
	As-1	75	33.814	ug/L	1.439	4	8903	66466	1
	Se	82	81.200	ug/L	2.649	3	7	14777	0
	Se	78	81.069	ug/L	3.296	4	8997	46593	1
	Y	89		ug/L			362579	394841	1
	Kr	83		ug/L			485	559	3
>	In	115		ug/L			882860	850180	0
	Ag	107	11.238	ug/L	0.022	0	46	75362	0
	Cd	111	24.977	ug/L	0.227	0	86	98616	1
	Cd	114	24.956	ug/L	0.222	0	54	258120	0
	Sb	121	22.269	ug/L	0.218	0	166	257276	1
	Sb	123	22.713	ug/L	0.194	0	133	197563	0
>	Tb	159		ug/L			1198298	1230165	0
	Tl	205	25.306	ug/L	0.225	0	237	931461	1
	Pb	208	26.400	ug/L	0.532	2	711	1257397	1
	Bi	209		ug/L			2547204	2345576	0
	Th	232	24.962	ug/L	0.306	1	569	1121907	0
	U	238	26.581	ug/L	0.211	0	23	1212975	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC37 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, February 07, 2013 13:33:07
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8GFA+.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	77162	0
	Cl	37		ug/L			3815490	4003169	2
>	Ge	72		ug/L			551628	564700	1
	Ni	60	28.424	ug/L	1.043	3	147	97614	2
	Ni	62	36.608	ug/L	1.722	4	661	18807	5
	Cu	63	29.161	ug/L	0.311	1	586	210138	1
	Cu	65	27.965	ug/L	0 188	0	100	91228	2
	Zn	66	87.131	ug/L	2.533	2	642	169305	1
	Zn	67	79.666	ug/L	1.125	1	105	26273	1
	Zn	68	85.392	ug/L	2.716	3	570	119088	1
	As	75	26.639	ug/L	0.875	3	279	48841	1
	As-1	75	26.666	ug/L	0.846	3	8903	57663	1
	Se	82	83.652	ug/L	1.439	1	7	16189	0
	Se	78	82.599	ug/L	1.106	1	8997	50310	0
	Y	89		ug/L			362579	384186	4
	Kr	83		ug/L			485	510	1
>	In	115		ug/L			882860	897095	1
	Ag	107	26.865	ug/L	0 701	2	46	190009	2
	Cd	111	26.375	ug/L	0 174	0	86	109876	1
	Cd	114	25.704	ug/L	0.483	1	54	280505	1
	Sb	121	24.405	ug/L	0.169	0	166	297482	1
	Sb	123	24.415	ug/L	0.185	0	133	224073	1
>	Tb	159		ug/L			1198298	1241548	2
	Tl	205	27.235	ug/L	0.549	2	237	1011331	1
	Pb	208	27.562	ug/L	0.893	3	711	1324278	1
	Bi	209		ug/L			2547204	2653964	1
	Th	232	26.139	ug/L	0.828	3	569	1185077	1
	U	238	26.096	ug/L	0.760	2	23	1201158	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC37 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, February 07, 2013 13:36:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
	C	13		ug/L			59540	74003	1
	Cl	37		ug/L			3815490	3921139	3
>	Ge	72		ug/L			551628	557409	0
	Ni	60	27.656	ug/L	0.548	1	147	93779	1
	Ni	62	33.975	ug/L	0.776	2	661	17274	2
	Cu	63	29.104	ug/L	0.269	0	586	207040	0
	Cu	65	28.133	ug/L	0.230	0	100	90588	1
	Zn	66	85.258	ug/L	3.275	3	642	163589	3
	Zn	67	78.308	ug/L	1.774	2	105	25493	1
	Zn	68	84.555	ug/L	0.407	0	570	116446	0
	As	75	26.363	ug/L	0.072	0	279	47734	0
	As-1	75	26.227	ug/L	0.300	1	8903	56144	0
	Se	82	81.952	ug/L	0.836	1	7	15659	1
	Se	78	80.384	ug/L	0.797	0	8997	48578	1
	Y	89		ug/L			362579	371426	3
	Kr	83		ug/L			485	540	4
>	In	115		ug/L			882860	888959	2
	Ag	107	26.004	ug/L	0.667	2	46	182189	0
	Cd	111	25.910	ug/L	0.188	0	86	106967	3
	Cd	114	25.816	ug/L	0.680	2	54	279088	1
	Sb	121	24.051	ug/L	0.562	2	166	290382	0
	Sb	123	23.896	ug/L	0.827	3	133	217191	1
>	Tb	159		ug/L			1198298	1225694	0
	Tl	205	26.878	ug/L	0.357	1	237	985669	0
	Pb	208	27.506	ug/L	0.315	1	711	1305353	0
	Bi	209		ug/L			2547204	2648386	1
	Th	232	25.988	ug/L	0.270	1	569	1163819	1
	U	238	26.182	ug/L	0.428	1	23	1190425	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 13:40:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
	C	13		ug/L			59540	66984	2
	Cl	37		ug/L			3815490	4037401	3
>	Ge	72		ug/L			551628	557446	2
	Ni	60	52.300	ug/L	2.218	4	147	177140	2
	Ni	62	56.008	ug/L	1.661	2	661	28036	1
	Cu	63	51.776	ug/L	0.848	1	586	367842	1
	Cu	65	51.669	ug/L	1.261	2	100	166236	0
	Zn	66	51.928	ug/L	0.788	1	642	99880	0
	Zn	67	52.030	ug/L	2.247	4	105	16966	2
	Zn	68	52.147	ug/L	2.687	5	570	71995	3
	As	75	50.761	ug/L	1.314	2	279	91622	0
	As-1	75	50.903	ug/L	1.781	3	8903	100473	1
	Se	82	52.180	ug/L	0.870	1	7	9970	0
	Se	78	51.885	ug/L	2.506	4	8997	34566	1
	Y	89		ug/L			362579	372881	2
	Kr	83		ug/L			485	533	2
>	In	115		ug/L			882860	887850	1
	Ag	107	50.179	ug/L	1.087	2	46	351203	1
	Cd	111	50.544	ug/L	1.153	2	86	208265	0
	Cd	114	50.402	ug/L	0.753	1	54	544289	0
	Sb	121	50.208	ug/L	0.924	1	166	605543	2
	Sb	123	50.559	ug/L	0.613	1	133	459037	0
>	Tb	159		ug/L			1198298	1228759	0
	Tl	205	50.691	ug/L	0.242	0	237	1863407	0
	Pb	208	51.213	ug/L	0.378	0	711	2435876	0
	Bi	209		ug/L			2547204	2549920	1
	Th	232	52.133	ug/L	0.673	1	569	2340041	2
	U	238	52.732	ug/L	0.144	0	23	2403421	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 13:44:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
C	13		ug/L			59540	65026	2
Cl	37		ug/L			3815490	3917323	0
> Ge	72		ug/L			551628	545028	0
Ni	60	-0.022	ug/L	0.003	15	147	72	15
Ni	62	4.405	ug/L	0.176	3	661	2758	2
Cu	63	0.154	ug/L	0.004	2	586	1649	1
Cu	65	-0.008	ug/L	0.002	23	100	74	7
Zn	66	-0.178	ug/L	0.013	7	642	302	7
Zn	67	-0.156	ug/L	0.032	20	105	54	19
Zn	68	-0.162	ug/L	0.022	13	570	346	8
As	75	0.020	ug/L	0.007	33	279	312	4
As-1	75	0.132	ug/L	0.049	37	8903	9028	0
Se	82	0.048	ug/L	0.009	18	7	16	9
Se	78	0.490	ug/L	0.181	36	8997	9125	0
Y	89		ug/L			362579	359984	1
Kr	83		ug/L			485	502	4
> In	115		ug/L			882860	871493	2
Ag	107	-0.002	ug/L	0.001	29	46	32	14
Cd	111	-0.004	ug/L	0 003	74	86	71	13
Cd	114	-0.001	ug/L	0.002	342	54	48	39
Sb	121	0.039	ug/L	0.005	12	166	627	9
Sb	123	0.040	ug/L	0.006	16	133	486	12
> Tb	159		ug/L			1198298	1185941	2
Tl	205	0.005	ug/L	0.001	26	237	396	12
Pb	208	-0.008	ug/L	0.001	10	711	352	11
Bi	209		ug/L			2547204	2575595	1
Th	232	0.177	ug/L	0.012	6	569	8219	6
U	238	0.002	ug/L	0.001	37	23	102	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC37 D REN
Sample Dil Factor: 2
Comments: -M 2-7-13
Sample Date/Time: Thursday, February 07, 2013 13:50:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
C	13		ug/L			59540	87198	1
Cl	37		ug/L			3815490	4666996	4
> Ge	72		ug/L			551628	536755	1
Ni	60	**18.499**	ug/L	0.339	1	147	60449	1
Ni	62	**21.804**	ug/L	0.705	3	661	10901	1
Cu	63	**28.564**	ug/L	0.355	1	586	195681	2
Cu	65	**27.711**	ug/L	0.135	0	100	85922	2
Zn	66	**32.988**	ug/L	0.991	3	642	61314	1
Zn	67	**31.377**	ug/L	0.619	1	105	9896	0
Zn	68	**33.670**	ug/L	1.265	3	570	44969	2
As	75	**0.789**	ug/L	0.016	2	279	1638	0
As-1	75	**0.871**	ug/L	0.096	11	8903	10169	0
Se	82	**0.305**	ug/L	0.064	21	7	63	17
Se	78	**0.903**	ug/L	0.340	37	8997	9180	0
Y	89		ug/L			362579	920938	1
Kr	83		ug/L			485	655	3
> In	115		ug/L			882860	866146	0
Ag	107	**0.004**	ug/L	0.003	73	46	73	28
Cd	111	**2.398**	ug/L	0.038	1	86	9723	1
Cd	114	**2.389**	ug/L	0.018	0	54	25220	1
Sb	121	**0.324**	ug/L	0.011	3	166	3974	3
Sb	123	**0.330**	ug/L	0.003	0	133	3056	0
> Tb	159		ug/L			1198298	1257819	0
Tl	205	U **0.014**	ug/L	0.001	4	237	760	3
Pb	208	**0.823**	ug/L	0.008	0	711	40814	1
Bi	209		ug/L			2547204	2391810	1
Th	232	**0.142**	ug/L	0.033	23	569	7113	21
U	238	**0.660**	ug/L	0.013	1	23	30800	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC37 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Thursday, February 07, 2013 13:58:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			59540	90064	1
	Cl	37		ug/L			3815490	4893113	2
>	Ge	72		ug/L			551628	559849	1
	Ni	60	16.896	ug/L	0.253	1	147	57602	1
	Ni	62	19.448	ug/L	0.385	1	661	10216	0
	Cu	63	25.357	ug/L	0.291	1	586	181240	1
	Cu	65	24.578	ug/L	0.272	1	100	79497	1
	Zn	66	28.544	ug/L	0.722	2	642	55429	1
	Zn	67	26.243	ug/L	0.719	2	105	8650	1
	Zn	68	29.862	ug/L	0.430	1	570	41679	1
	As	75	0.671	ug/L	0.025	3	279	1496	2
	As-1	75	0.504	ug/L	0.119	23	8903	9943	0
	Se	82	0.293	ug/L	0.025	8	7	63	6
	Se	78	-0.084	ug/L	0.422	503	8997	9088	0
	Y	89		ug/L			362579	893946	2
	Kr	83		ug/L			485	642	1
>	In	115		ug/L			882860	918742	1
	Ag	107	-0.002	ug/L	0.001	32	46	34	12
	Cd	111	2.220	ug/L	0.067	3	86	9550	1
	Cd	114	2.139	ug/L	0.030	1	54	23955	0
	Sb	121	0.361	ug/L	0.009	2	166	4679	1
	Sb	123	0.359	ug/L	0.016	4	133	3510	3
>	Tb	159		ug/L			1198298	1295765	0
	Tl	205	0.005	ug/L	0.001	24	237	455	10
	Pb	208	0.702	ug/L	0.011	1	711	35976	1
	Bi	209		ug/L			2547204	2495664	1
	Th	232	0.034	ug/L	0.002	5	569	2247	4
	U	238	0.604	ug/L	0.009	1	23	29031	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 14:02:31
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8GFA+.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
	C	13		ug/L			59540	66902	4
	Cl	37		ug/L			3815490	4063096	1
>	Ge	72		ug/L			551628	566040	2
	Ni	60	48.788	ug/L	1.515	3	147	167845	1
	Ni	62	50.435	ug/L	1 507	2	661	25700	0
	Cu	63	48.574	ug/L	0.537	1	586	350558	3
	Cu	65	49.214	ug/L	0.225	0	100	160829	1
	Zn	66	49.004	ug/L	2.279	4	642	95706	2
	Zn	67	49.015	ug/L	1.428	2	105	16239	1
	Zn	68	49.644	ug/L	1.056	2	570	69648	0
	As	75	49.040	ug/L	1.277	2	279	89890	0
	As-1	75	48.878	ug/L	1.376	2	8903	98332	0
	Se	82	50.103	ug/L	0.801	1	7	9722	0
	Se	78	48.750	ug/L	1.172	2	8997	33542	0
	Y	89		ug/L			362579	378926	1
	Kr	83		ug/L			485	553	5
>	In	115		ug/L			882860	904658	0
	Ag	107	49.469	ug/L	1.102	2	46	352783	1
	Cd	111	49.852	ug/L	1.815	3	86	209307	2
	Cd	114	49.135	ug/L	1.319	2	54	540651	1
	Sb	121	48.818	ug/L	0.600	1	166	599885	1
	Sb	123	48.633	ug/L	0.343	0	133	449957	0
>	Tb	159		ug/L			1198298	1244572	1
	Tl	205	49.064	ug/L	0.739	1	237	1826572	0
	Pb	208	49.660	ug/L	1 016	2	711	2392028	0
	Bi	209		ug/L			2547204	2624990	0
	Th	232	49.797	ug/L	1.005	2	569	2263389	0
	U	238	50.572	ug/L	0.498	0	23	2334401	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, February 07, 2013 14:08:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8GFA+.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\020513a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
	C	13		ug/L			59540	66353	1
	Cl	37		ug/L			3815490	3874164	2
>	Ge	72		ug/L			551628	551606	2
	Ni	60	-0.027	ug/L	0.003	9	147	58	12
	Ni	62	2.546	ug/L	0.175	6	661	1891	2
	Cu	63	0.075	ug/L	0.008	10	586	1108	3
	Cu	65	-0.010	ug/L	0.001	12	100	69	7
	Zn	66	-0.184	ug/L	0.013	6	642	294	10
	Zn	67	-0.159	ug/L	0.011	7	105	54	7
	Zn	68	-0.175	ug/L	0.012	6	570	333	2
	As	75	0.026	ug/L	0.021	79	279	326	9
	As-1	75	-0.047	ug/L	0.121	258	8903	8817	0
	Se	82	0.007	ug/L	0.057	789	7	8	120
	Se	78	-0.136	ug/L	0 446	328	8997	8928	0
	Y	89		ug/L			362579	365681	1
	Kr	83		ug/L			485	561	3
>	In	115		ug/L			882860	907275	2
	Ag	107	-0.003	ug/L	0.000	6	46	25	8
	Cd	111	-0.004	ug/L	0 004	123	86	73	23
	Cd	114	-0.002	ug/L	0.001	27	54	31	21
	Sb	121	0.029	ug/L	0.006	20	166	533	14
	Sb	123	0.028	ug/L	0.007	24	133	399	15
>	Tb	159		ug/L			1198298	1224686	1
	Tl	205	0.003	ug/L	0 004	131	237	358	41
	Pb	208	-0.005	ug/L	0.004	69	711	471	36
	Bi	209		ug/L			2547204	2623485	1
	Th	232	0.123	ug/L	0.006	4	569	6077	4
	U	238	0.002	ug/L	0.002	108	23	110	83

Mercury Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WC37, WC38

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: LB

Date: 2-05-13

Final Volume –

Final Volume (Hg): 20.0

Sample ID WC38 BSPK, DSPK, MBISPK, MB2SPK

Prepcode:				
Spike Solution:		ICP Routine	ICP No GFA	GFA
Standard No.:				
Vol Added (mL):				
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	TLM	CVA	1.0	0.02	3607-14
Hg MBSPK	TLM	CVA	1.0	0.04	↓
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No

5033F

Revision 14, 11/21/05

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM **Matrix:** WATER
Analyst: CB **Date:** 02-05-13
Bath Temp: 90°C **Start Time:** 0820 **End Time:** 1020

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WC38 A	1	✓	20.0	20.0	2/12 1	Y	
" B	1	✓			1		
" BDup	1	✓			1		
" BSpk	1	✓			1		
" mBi	–	–			1		
" mBiSpk	–	–			1		
" C	1	✓			1		
" DDup	1	✓			1		
" D	1	✓			1		
" DSpk	1	✓			1		
" mB2	–	–			1		
" mB2Spk	–	–	20.0	20.0	1	Y	
			02-05-13 CB				

Chemical/Reagent ID:

HNO_3: I7970 H_2SO_4: I7677 HCl: –
5% $K_2S_2O_8$: MP2418 5% $KMnO_4$: MP2425 Digest Tube Lot: 1208057

WC37 00122

Mercury Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WC37, WC38

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 02-08-13

Page: 1 of 4

ARI Sample ID		Prep Code	Dilution	QC Data (ppb) ~~ppt~~	Comments	
STD	0.0	TLM	1X			
"	20.0					
"	50.0					
"	100.0					
"	200.0					
"	400.0					
"	1000.0					
ICV				467.14	Bkg in CLP %R=93	✓
ICB				12.57		✓
CCV1				490.30	%R=98	✓
CCB1				13.43		✓
CRA				34.62		✓
WCLS	MB1			12.28		✓
"	MB1SPK			216.77	%R=108	✓
"	A			13.85		
"	ADUP			13.44	No RPD: Undetected	✓
"	ASPK			109.94	%R=110	✓
"	MB2			13.62		✓
"	MB2SPK			211.58	%R=106	✓
"	B			13.68		
"	BDUP			12.60	No RPD: Undetected	✓
CCV2				494.62	%R=99	✓
CCB2				12.99		✓
WCLS	BSPK			109.97	%R=110	✓
WCB1	MB1			13.92		✓
"	MB1SPK			210.85	%R=105	✓
"	A			29.63		
"	ADUP			18.93		✓
"	ASPK			111.89	%R=82	✓
"	B	↓	↓			

Chemical/Reagent ID:

10% $SnCl_2$: MP2438

14% $NH_2OH/NaCl$: MP2398

Standard ID:

Standard: 3011-12

ICV/CCV: 3011-13

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 02-08-13

Page: 2 of 4

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
WC81 C	THM	1X		
WC36 MB1			13.81	✓
" MB1SPK			210.46	%R=105 ✓
CCV3			496.01	%R=99 ✓
CCB3			15.11	✓
WC36 A				
" B			13.36	
" BDUP			14.97	NO RPD: Undetected ✓
" BSPK			118.58	%R=119 ✓
" MB2			12.22	✓
" MB2SPK			224.54	%R=112 ✓
" C			23.19	
" D			13.79	
" DDUP			15.77	NO RPD: Undetected ✓
" DSPK			121.08	%R=121 ✓
CCV4			494.25	%R=99 ✓
CCB4			12.77	✓
WC80 MB1			15.87	✓
" MB1SPK			220.68	%R=110 ✓
" A				
" B			14.99	
" BDUP			16.91	NO RPD: Undetected ✓
" BSPK			120.20	%R=120 ✓
" C				
" D				
" E				
" F				
CCV5			499.44	%R=100 ✓
CCB5			12.22	✓
WC80 G	↓	↓		

2-8-13

Chemical/Reagent ID:
10% $SnCl_2$: MP2438

14% $NH_2OH/NaCl$: MP2398

Standard ID:
Standard: 3011-12

ICV/CCV: 3011-13

WC37 00125

ANALYTICAL RESOURCES INCORPORATED

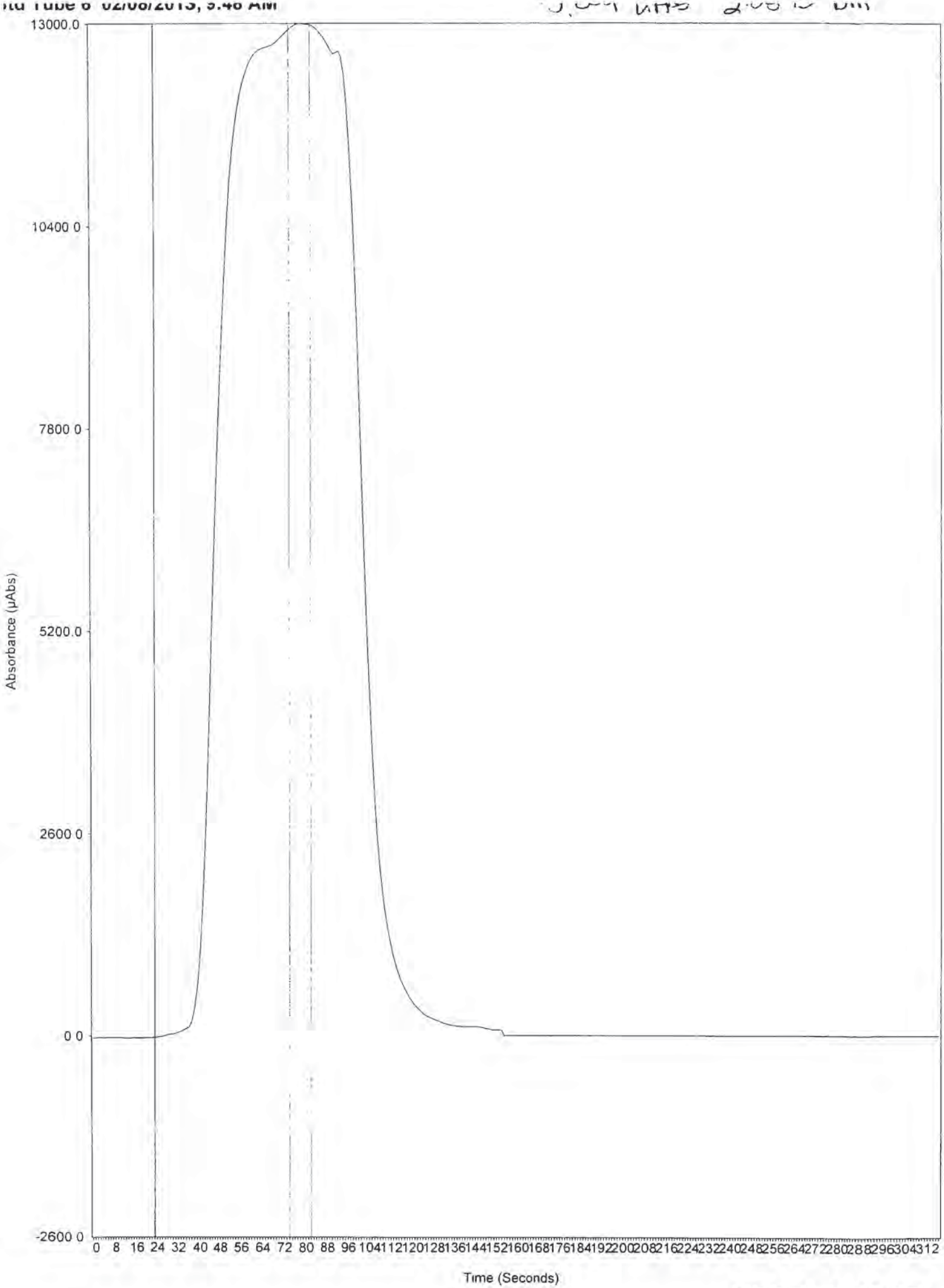
Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA

Analysis Date: 2-08-13

Low level	Analyst 2-08 DM	Peer 2-28-13	Comment
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
RSD's & SD's	✓	✓	See RUN LOG
Internal Standards	—	—	
Carry-over	—	—	
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	—	—	

ntd Tube 6 02/08/2013, 9:46 AM



WC37 00127

CETAC Hg Analysis Report - 13020800.DB - Friday, February 08, 2013, 2:00:12 PM

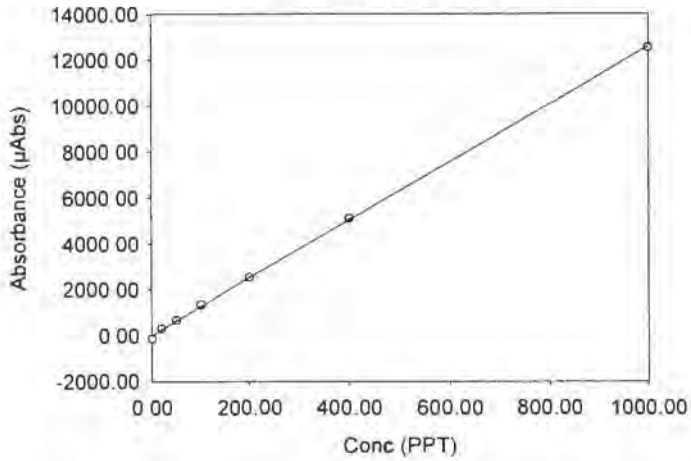
Analyst	
Date Started	Friday, February 08, 2013, 09:47 40
Worksheet	LOW LEVEL CALIB 20 TO 1000 PPT
Comment	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Std Tube 6	08-Feb-2013, 09 47	1000 00	0 17	13000 00	12976	13018	13024	13019	

Information about this calibration could not be retrieved from the Master File

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Calibration Zero	08-Feb-2013, 09:50	0.00	10.20	-148 00	-167	-152	-141	-133	
Standard #1	08-Feb-2013, 09.52	20.00	1 42	299.00	301	303	300	293	
Standard #2	08-Feb-2013, 09.55	50.00	0.58	666.00	664	664	665	672	
Standard #3	08-Feb-2013, 09:58	100 00	0 29	1330.00	1338	1332	1331	1338	
Standard #4	08-Feb-2013, 10.00	200.00	0 19	2530 00	2532	2528	2532	2539	
Standard #5	08-Feb-2013, 10.03	400.00	0.10	5110 00	5099	5108	5110	5109	
Standard #6	08-Feb-2013, 10.06	1000 00	0.26	12600.00	12508	12544	12572	12580	

Calibration Data



Int	0.000
Slope	12 592
Correlation	0 99984

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
ICV	08-Feb-2013, 10:10	467.00	0.18	5880.00	5868	5880	5891	5891	Exg:ICP
ICB	08-Feb-2013, 10:13	12.60	0.93	158 00	159	156	158	160	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	08-Feb-2013, 10:15	490.00	0 08	6170 00	6167	6177	6177	6175	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	08-Feb-2013, 10.18	13.40	0.81	169 00	167	170	170	168	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
CRA	08-Feb-2013, 10:21	34.60	0 66	436.00	436	440	435	433	
WC65 MB1 TLM	08-Feb-2013, 10:23	12.30	4 97	155.00	163	158	153	145	
WC65 MB1SPK TLM	08-Feb-2013, 10:26	217.00	0 07	2730 00	2731	2731	2728	2728	
WC65 A TLM	08-Feb-2013, 10.29	13 90	6 75	174.00	162	169	179	189	
WC65 ADUP TLM	08-Feb-2013, 10:31	13.40	0 63	169 00	169	171	169	169	
WC65 ASPK TLM	08-Feb-2013, 10:34	110.00	0 30	1380 00	1384	1388	1387	1379	
WC65 MB2 TLM	08-Feb-2013, 10:37	13.60	3.48	172 00	179	173	167	166	
WC65 MB2SPK TLM	08-Feb-2013, 10.40	212.00	0.03	2660 00	2662	2664	2664	2664	
WC65 B TLM	08-Feb-2013, 10.42	13.70	1.21	172 00	169	172	173	174	
WC65 BDUP TLM	08-Feb-2013, 10.45	12.60	1.16	159.00	160	156	160	158	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	08-Feb-2013, 10.48	495.00	0 04	6230 00	6225	6229	6231	6228	

CETAC Hg Analysis Report - 13020800.DB - Friday, February 08, 2013, 2:00:12 PM

Analyst
Date Started Friday, February 08, 2013, 10:51:01
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	08-Feb-2013, 10:51	13.00	2 38	164.00	158	164	168	165	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WC65 BSPK TLM	08-Feb-2013, 10:53	110 00	0.35	1380.00	1389	1388	1383	1379	
WC81 MB1 TLM	08-Feb-2013, 10:56	13.90	5 54	175 00	163	172	179	186	
WC81 MB1SPK TLM	08-Feb-2013, 10,59	211.00	0 25	2660 00	2647	2653	2657	2663	
WC81 A TLM	08-Feb-2013, 11 01	29 60	1 30	373 00	377	377	372	367	
WC81 ADUP TLM	08-Feb-2013, 11:04	18.90	0 63	238.00	239	239	239	236	
WC81 ASPK TLM	08-Feb-2013, 11:07	112 00	0 22	1410 00	1406	1407	1411	1413	
WC81 B TLM	08-Feb-2013, 11:09	26.40	4 38	333 00	344	343	330	313	
WC81 C TLM	08-Feb-2013, 11:12	16.40	1 67	207.00	211	205	204	208	
WC38 MB1 TLM	08-Feb-2013, 11:15	13.80	1.04	174.00	175	176	172	173	
WC38 MB1SPK TLM	08-Feb-2013, 11:17	210.00	0.17	2650 00	2646	2648	2651	2656	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	08-Feb-2013, 11:20	496.00	0 23	6250 00	6229	6240	6252	6262	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	08-Feb-2013, 11.23	15.10	2 79	190 00	196	193	189	183	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WC38 A TLM	08-Feb-2013, 11:26	17.50	0.87	220.00	223	220	219	219	
WC38 B TLM	08-Feb-2013, 11:28	13 40	11.40	168.00	192	174	162	146	
WC38 BDUP TLM	08-Feb-2013, 11:31	15.00	2.50	189.00	184	186	190	194	
WC38 BSPK TLM	08-Feb-2013, 11.34	119 00	0 14	1490 00	1491	1495	1492	1495	
WC38 MB2 TLM	08-Feb-2013, 11.36	12.20	3 25	154.00	154	151	150	161	
WC38 MB2SPK TLM	08-Feb-2013, 11:39	225 00	0 21	2830 00	2820	2826	2831	2833	
WC38 C TLM	08-Feb-2013, 11.42	23.20	2.07	292.00	298	295	291	284	
WC38 D TLM	08-Feb-2013, 11:45	13 80	2 68	174 00	176	176	176	167	
WC38 DDUP TLM	08-Feb-2013, 11:47	15 80	0 86	199.00	197	200	200	197	
WC38 DSPK TLM	08-Feb-2013, 11:50	121.00	0 14	1520.00	1523	1524	1527	1522	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	08-Feb-2013, 11 53	494 00	0.11	6220.00	6214	6224	6228	6228	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	08-Feb-2013, 11:55	12 80	2.08	161 00	157	161	165	160	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WC80 MB1 TLM	08-Feb-2013, 11.58	15.40	2 65	193 00	189	189	196	199	
WC80 MB1SPK TLM	08-Feb-2013, 12:01	221.00	0 25	2780.00	2772	2774	2783	2786	
WC80 A TLM	08-Feb-2013, 12:04	15 90	2.23	201.00	195	200	200	206	
WC80 B TLM	08-Feb-2013, 12:06	15.00	2 66	189.00	195	190	184	185	
WC80 BDUP TLM	08-Feb-2013, 12:09	16 90	2.53	213 00	208	210	214	220	
WC80 BSPK TLM	08-Feb-2013, 12:12	120.00	0.33	1510.00	1507	1514	1518	1516	
WC80 C TLM	08-Feb-2013, 12:14	14 90	0 60	187 00	188	188	186	186	
WC80 D TLM	08-Feb-2013, 12:17	15 20	3 01	191.00	184	190	195	197	
WC80 E TLM	08-Feb-2013, 12.20	29.10	0.58	367.00	369	368	365	364	
WC80 F TLM	08-Feb-2013, 12:23	17.30	3.51	217.00	209	214	221	226	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	08-Feb-2013, 12.25	499.00	0.24	6290.00	6269	6286	6298	6303	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	08-Feb-2013, 12:28	12 20	1.52	154.00	157	154	153	151	

Analyst	
Date Created:	Wednesday, November 27, 2002
Worksheet	LOW LEVEL CALIB 20 TO 1000 PPT
Comment	
Sip Duration (Sec.):	55
Rinse Duration (Sec.):	100
Read Delay:	75
Integration Time/Replicate:	2.00
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	20
Baseline Point 1 End Time:	24
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	148
Baseline Point 2 End Time:	152
Gas Flow (ml/min):	30
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	2
Calibration Standard #1 Conc.:	20.00 PPT
Calibration Standard #2 Conc.:	50.00 PPT
Calibration Standard #3 Conc.:	100 00 PPT
Calibration Standard #4 Conc.:	200.00 PPT
Calibration Standard #5 Conc.:	400.00 PPT
Calibration Standard #6 Conc.:	1000.00 PPT
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs > 200, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 90% . 110%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -20 .. 20,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Digested 20.0mL

Prep Code: TLM
Instrument: CETAC
Analyst: DM
Date: 2-05-13
Bath Temp: 95°C
Start Time: 1415
End Time: 1615

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	3011-12	0.02	↓	0.02	1
STD2	↓	0.05	↓	0.05	1
STD3	↓	0.10	↓	0.1	1
STD4	↓	0.20	↓	0.2	1
STD5	↓	~~0.50~~ 0.4	↓	0.4	1
STD6	↓	1.00	↓	1.00	1
CRA	↓	0.02	↓	0.02	1
ICB/CCB	—	0.00	↓	0.0	1
ICV/LCS	3011-13	0.5	↓	1.0	1
CCV	↓	0.5	100.0	1.0	1

Chemical/Reagent ID:

HNO_3: I8022
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2418
5% $KMnO_4$: MP2425

Prep Code:
Instrument:
Analyst:
Date:
Bath Temp:
Start Time:
End Time:

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0		0.00			
STD1					
STD2		0.05			
STD3		0.10			
STD4		0.20			
STD5		0.50			
STD6		1.00			
CRA					
ICB/CCB		0.00			
ICV/LCS					
CCV					

Chemical/Reagent ID:

HNO_3:
H_2SO_4:
HCl:
5% $K_2S_2O_8$:
5% $KMnO_4$:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Matrix: WATER
Analyst: CB
Date: 02-05-13
Bath Temp: 90°C
Start Time: 0820
End Time: 1020

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WC38 A	1	J	20.0	20.0	2/12 1	Y	
" B	1	J			1		
" BDup	1	J			1		
" BSPK	1	J			1		
" mBi	–	–			1		
" mBiSPK	–	–			1		
" C	1	J			1		
" DDup	1	J			1		
" D	1	J			1		
" DSPK	1	J			1		
" mB2	–	–			1		
" mB2SPK	–	–	20.0	20.0	1	Y	

02-05-13
CB

Chemical/Reagent ID:

HNO_3: I7970
H_2SO_4: I7677
HCl: –
5% $K_2S_2O_8$: MP2418
5% $KMnO_4$: MP2425
Digest Tube Lot: 1208057

Table of Contents: ARI Job WC79, WC80

Client: GeoEngineers

Project: 0504-068-00 ECY-Everett Lowland

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Mercury Analysis		
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Mercury Raw Data		
Preparation Bench Sheets and Notes	143	145
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AV
Signature

February-13-2013
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

February 14, 2013

Garrett Leque
GeoEngineers, Inc.
1101 Fawcett, Suite 200
Tacoma, WA 98402

RE: ECY-Everett Lowland, 0504-068-00
ARI Job Nos.: WC79 & WC80

Dear Garrett:

Please find enclosed the Chain-of-Custody record (COC), sample receipt documentation, and the data package for samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile WC79_WC80

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: WC79, WC80

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: WC79	Turn-around Requested: Standard
ARI Client Company: GeoEngineers	Phone: 253-3834940
Client Contact: Garrett Legue	
Client Project Name: Ecy - Everett Low land	
Client Project #: 0504-068-00	Samplers: Aaron Waggoner

Page: 1	of 1
Date: 2/5/13	Ice Present?
No. of Coolers:	Cooler Temps:

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Metals* Total	Metals** Dissolved							Notes/Comments
LLSW01-130205	2/5/13	0845	Water	2	X	X							
LLSW02-130204	2/4/13	1635			X	X							
LLSW03-130204	2/4/13	1435			X	X							
LLSW04-130205	2/5/13	1040			X	X							
LLSW05-130205	2/5/13	1215			X	X							
LLSW06-130204	2/4/13	0900			X	X							
LLSW07-130204	2/4/13	1115			X	X							

Comments/Special Instructions	Relinquished by (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
* Metals = As, Cd, Pb Hg, Sb, Tl	Printed Name: Aaron Waggoner	Printed Name: Rich Hudson	Printed Name:	Printed Name:
** Dissolved Sample Field Filtered	Company: GeoEngineers	Company: ARI	Company:	Company:
	Date & Time: 2/6/13 / 1230	Date & Time: 2/6/13 1230	Date & Time	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: GeoEngineers

Project Name: Ecy-Everett LL

COC No(s) _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other _____

Assigned ARI Job No: WC79

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)	3.3 5.9 3.0	

If cooler temperature is out of compliance fill out form 00070F — Temp Gun ID#: 90877952

Cooler Accepted by: _____ Date: 2/6/13 Time: 1330

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____			
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI.	NA		

Was Sample Split by ARI: NA YES Date/Time _____ Equipment _____ Split by: _____

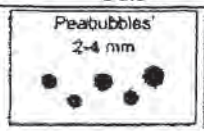
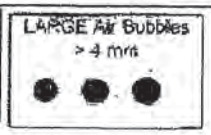
Samples Logged by: TC Date: 2-6-13 Time: 1600

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By _____ Date _____

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm
		

Small → "sm"	
Peabubbles → "pb"	
Large → "lg"	
Headspace → "hs"	

PRESERVATION VERIFICATION 02/06/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WC79**

Inquiry Number: NONE
Analysis Requested: 02/06/13
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: TS
Sample Set Used: Yes-481
Validatable Package: LV4
Deliverables:

PC: Cheronne
VTSR: 02/06/13

Project #: 0504-068-00
Project: ECY-Everett Lowland
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-2650 **WC79A**	LLSW01-130205						DIS P									Y						
13-2651 **WC79B**	LLSW02-130204						DIS P									Y						
13-2652 **WC79C**	LLSW03-130204						DIS P									Y						
13-2653 **WC79D**	LLSW04-130205						DIS P									Y						
13-2654 **WC79E**	LLSW05-130205						DIS P									Y						
13-2655 **WC79F**	LLSW06-130204						DIS P									Y						
13-2656 **WC79G**	LLSW07-130204						DIS P									Y						
13-2657 **WC79H**	LLSW01-130205						TOT P															
13-2658 **WC79I**	LLSW02-130204						TOT P															
13-2659 **WC79J**	LLSW03-130204						TOT P															
13-2660 **WC79K**	LLSW04-130205						TOT P															
13-2661 **WC79L**	LLSW05-130205						TOT P															
13-2662 **WC79M**	LLSW06-130204						TOT P															
13-2663 **WC79N**	LLSW07-130204						TOT P															

Pr Pass

Checked By TS Date 2-6-13

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Geosyntec

COC No(s): _____ NA

Assigned ARI Job No: UC80

Project Name: Ecy - Everett I.L

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)	3.3	5.9	3.0

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID# 90977957

Cooler Accepted by: _____ Date: 7/6/13 Time: 1330

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI:	NA		

Was Sample Split by ARI: NA YES Date/Time: _____ Equipment: _____ Split by: _____

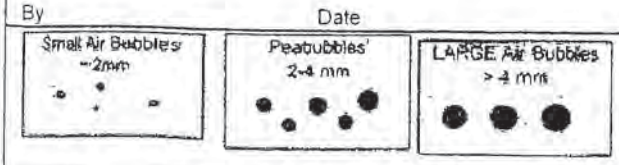
Samples Logged by: TS Date: 7-6-13 Time: ~~1250~~ 1600

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By Date



Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

PRESERVATION VERIFICATION 02/06/13

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: **WC80**

Inquiry Number: NONE
Analysis Requested: 02/06/13
Contact: Leque, Garrett
Client: GeoEngineers
Logged by: TS
Sample Set Used: Yes-481
Validatable Package: LV4
Deliverables:

PC: Cheronne
VTSR: 02/06/13

Project #: 0504-068-00
Project: ECY-Everett Lowland
Sample Site:
SDG No:
Analytical Protocol: In-house

LOGNUM ARI ID	CLIENT ID	CN >12	WAD >12	NH3 <2	COD <2	FOG <2	MET <2	PHEN <2	PHOS <2	TKN <2	NO23 <2	TOC <2	S2 >9	TPHD <2	Fe2+ <2	DMET FLT	DOC FLT	PARAMETER	ADJUSTED TO	LOT NUMBER	AMOUNT ADDED	DATE/BY
13-2664 **WC80A**	LLSW01-130205						DIS P									Y						
13-2665 **WC80B**	LLSW02-130204						DIS P									Y						
13-2666 **WC80C**	LLSW03-130204						DIS P									Y						
13-2667 **WC80D**	LLSW04-130205						DIS P									Y						
13-2668 **WC80E**	LLSW05-130205						DIS P									Y						
13-2669 **WC80F**	LLSW06-130204						DIS P									Y						
13-2670 **WC80G**	LLSW07-130204						DIS P									Y						
13-2671 **WC80H**	LLSW01-130205						TOT P															
13-2672 **WC80I**	LLSW02-130204						TOT P															
13-2673 **WC80J**	LLSW03-130204						TOT P															
13-2674 **WC80K**	LLSW04-130205						TOT P															
13-2675 **WC80L**	LLSW05-130205						TOT P															
13-2676 **WC80M**	LLSW06-130204						TOT P															
13-2677 **WC80N**	LLSW07-130204						TOT P															

P- Pass

Checked By TS Date 2-6-13

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: WC79, WC80

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative

Client: GeoEngineers
Project: ECY-Everett Lowland, 0504-068-00
ARI Job Nos.: WC79 & WC80

Sample Receipt

Seven water samples were received on February 6, 2013 under ARI jobs WC79 and WC80. The cooler temperatures measured by IR thermometer following ARI SOP were 3.0, 3.3, and 5.9°C. For details regarding sample receipt, refer to the Cooler Receipt Forms.

Total and Dissolved Metals by 200.8

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial and continuing calibrations were within limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

Total and Dissolved Mercury by SW7470A

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial and continuing calibrations were within limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recoveries and duplicate RPDs were within control limits.

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WC79
Client: GeoEngineers
Project Event: 0504-068-00
Project Name: ECY-Everett Lowland

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	LLSW01-130205	WC79A	13-2650	Water	02/05/13 08:45	02/06/13 12:30
2.	LLSW02-130204	WC79B	13-2651	Water	02/04/13 16:35	02/06/13 12:30
3.	LLSW03-130204	WC79C	13-2652	Water	02/04/13 14:35	02/06/13 12:30
4.	LLSW04-130205	WC79D	13-2653	Water	02/05/13 10:40	02/06/13 12:30
5.	LLSW05-130205	WC79E	13-2654	Water	02/05/13 12:15	02/06/13 12:30
6.	LLSW06-130204	WC79F	13-2655	Water	02/04/13 09:00	02/06/13 12:30
7.	LLSW07-130204	WC79G	13-2656	Water	02/04/13 11:15	02/06/13 12:30
8.	LLSW01-130205	WC79H	13-2657	Water	02/05/13 08:45	02/06/13 12:30
9.	LLSW02-130204	WC79I	13-2658	Water	02/04/13 16:35	02/06/13 12:30
10.	LLSW03-130204	WC79J	13-2659	Water	02/04/13 14:35	02/06/13 12:30
11.	LLSW04-130205	WC79K	13-2660	Water	02/05/13 10:40	02/06/13 12:30
12.	LLSW05-130205	WC79L	13-2661	Water	02/05/13 12:15	02/06/13 12:30
13.	LLSW06-130204	WC79M	13-2662	Water	02/04/13 09:00	02/06/13 12:30
14.	LLSW07-130204	WC79N	13-2663	Water	02/04/13 11:15	02/06/13 12:30

WC79:00010

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WC80
Client: GeoEngineers
Project Event: 0504-068-00
Project Name: ECY-Everett Lowland

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	LLSW01-130205	WC80A	13-2664	Water	02/05/13 08:45	02/06/13 12:30
2.	LLSW02-130204	WC80B	13-2665	Water	02/04/13 16:35	02/06/13 12:30
3.	LLSW03-130204	WC80C	13-2666	Water	02/04/13 14:35	02/06/13 12:30
4.	LLSW04-130205	WC80D	13-2667	Water	02/05/13 10:40	02/06/13 12:30
5.	LLSW05-130205	WC80E	13-2668	Water	02/05/13 12:15	02/06/13 12:30
6.	LLSW06-130204	WC80F	13-2669	Water	02/04/13 09:00	02/06/13 12:30
7.	LLSW07-130204	WC80G	13-2670	Water	02/04/13 11:15	02/06/13 12:30
8.	LLSW01-130205	WC80H	13-2671	Water	02/05/13 08:45	02/06/13 12:30
9.	LLSW02-130204	WC80I	13-2672	Water	02/04/13 16:35	02/06/13 12:30
10.	LLSW03-130204	WC80J	13-2673	Water	02/04/13 14:35	02/06/13 12:30
11.	LLSW04-130205	WC80K	13-2674	Water	02/05/13 10:40	02/06/13 12:30
12.	LLSW05-130205	WC80L	13-2675	Water	02/05/13 12:15	02/06/13 12:30
13.	LLSW06-130204	WC80M	13-2676	Water	02/04/13 09:00	02/06/13 12:30
14.	LLSW07-130204	WC80N	13-2677	Water	02/04/13 11:15	02/06/13 12:30

WC79 00011

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Quality Control Parameters for Metals Analysis ICP-MS EPA Methods 200.8 or 6020A

Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[3]	Solids[2]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium[4]	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium[4]	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume Solids LOQ based on 100% solids using 1.0 g sample 100 mL final volume.
(3) Relative Percent Difference in replicate analyzes. $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$ where C_O=Original, C_D=Duplicate
(4) ARI has no accreditation for these elements.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Quality Control Parameters for Mercury Analysis using CVAA
EPA Methods 7470A or 245.1 for Aqueous Samples
EPA Methods 7471B or 245.5 for Solid Samples

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[2]	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.025[3]	75 – 125	80 – 120	≤ 20
	Tissue Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.005[4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

WC79 00910

Metals Analysis
Report and Summary QC Forms

ARI Job ID: WC79, WC80

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC79

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLSW01-130205	WC79A	13-2650	
LLSW01-130205D	WC79ADUP	13-2650	
LLSW01-130205S	WC79ASPK	13-2650	
LLSW02-130204	WC79B	13-2651	
PBW	WC79MB1	13-2651	
LCSW	WC79MB1SPK	13-2651	
LLSW03-130204	WC79C	13-2652	
LLSW04-130205	WC79D	13-2653	
LLSW05-130205	WC79E	13-2654	
LLSW06-130204	WC79F	13-2655	
LLSW07-130204	WC79G	13-2656	
LLSW01-130205	WC79H	13-2657	
LLSW01-130205D	WC79HDUP	13-2657	
LLSW01-130205S	WC79HSPK	13-2657	
LLSW02-130204	WC79I	13-2658	
PBW	WC79MB2	13-2658	
LCSW	WC79MB2SPK	13-2658	
LLSW03-130204	WC79J	13-2659	
LLSW04-130205	WC79K	13-2660	
LLSW05-130205	WC79L	13-2661	
LLSW06-130204	WC79M	13-2662	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: Jay Kuhn Name: Jay Kuhn

Date: 2/14/13 Title: Inorganics Director

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC79

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLSW07-130204	WC79N	13-2663	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: Jay Kuhn Name: Jay Kuhn

Date: 12/11/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLSW01-130205
SAMPLE

Lab Sample ID: WC79A
LIMS ID: 13-2650
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/05/13
Date Received: 02/06/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/07/13	200.8	02/08/13	**7440-36-0**	**Antimony**	0.2	**0.6**	
200.8	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.2	**2.5**	
200.8	02/07/13	200.8	02/08/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	**7439-92-1**	**Lead**	0.1	**0.1**	
200.8	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLSW02-130204
SAMPLE

Lab Sample ID: WC79B
LIMS ID: 13-2651
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/07/13	200.8	02/08/13	**7440-36-0**	**Antimony**	0.2	**0.7**	
200.8	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.2	**5.0**	
200.8	02/07/13	200.8	02/08/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLSW03-130204
SAMPLE

Lab Sample ID: WC79C
LIMS ID: 13-2652
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/07/13	200.8	02/08/13	**7440-36-0**	**Antimony**	0.2	**0.3**	
200.8	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.2	**0.7**	
200.8	02/07/13	200.8	02/08/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	7439-92-1	Lead	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLSW04-130205
SAMPLE

Lab Sample ID: WC79D
LIMS ID: 13-2653
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/05/13
Date Received: 02/06/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/07/13	200.8	02/08/13	**7440-36-0**	**Antimony**	0.2	**1.5**	
200.8	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.2	**263**	
200.8	02/07/13	200.8	02/08/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLSW05-130205
SAMPLE

Lab Sample ID: WC79E
LIMS ID: 13-2654
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/05/13
Date Received: 02/06/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/07/13	200.8	02/08/13	**7440-36-0**	**Antimony**	0.2	**9.1**	
200.8	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.2	**233**	
200.8	02/07/13	200.8	02/08/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	**7439-92-1**	**Lead**	0.1	**2.3**	
200.8	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLSW06-130204
SAMPLE

Lab Sample ID: WC79F
LIMS ID: 13-2655
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/07/13	200.8	02/08/13	**7440-36-0**	**Antimony**	0.2	**0.3**	
200.8	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.2	**2.1**	
200.8	02/07/13	200.8	02/08/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	7439-92-1	Lead	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLSW07-130204
SAMPLE

Lab Sample ID: WC79G
LIMS ID: 13-2656
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/07/13	200.8	02/08/13	**7440-36-0**	**Antimony**	0.2	**0.4**	
200.8	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.2	**0.8**	
200.8	02/07/13	200.8	02/08/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	7439-92-1	Lead	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLSW01-130205
MATRIX SPIKE

Lab Sample ID: WC79A
LIMS ID: 13-2650
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/05/13
Date Received: 02/06/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.6	24.2	25.0	94.4%	
Arsenic	200.8	2.5	29.2	25.0	107%	
Cadmium	200.8	0.1 U	24.5	25.0	98.0%	
Lead	200.8	0.1	26.5	25.0	106%	
Thallium	200.8	0.2 U	24.8	25.0	99.2%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLSW01-130205
DUPLICATE

Lab Sample ID: WC79A
LIMS ID: 13-2650
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/05/13
Date Received: 02/06/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.6	0.6	0.0%	+/- 0.2	L
Arsenic	200.8	2.5	2.5	0.0%	+/- 20%	
Cadmium	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Lead	200.8	0.1	0.2	66.7%	+/- 0.1	L
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: WC79LCS
LIMS ID: 13-2651
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	23.8	25.0	95.2%	
Arsenic	200.8	26.6	25.0	106%	
Cadmium	200.8	25.0	25.0	100%	
Lead	200.8	26.8	25.0	107%	
Thallium	200.8	25.2	25.0	101%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: METHOD BLANK

Lab Sample ID: WC79MB
LIMS ID: 13-2651
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/07/13	200.8	02/08/13	7440-36-0	Antimony	0.2	0.2	U
200.8	02/07/13	200.8	02/08/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	02/07/13	200.8	02/08/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	7439-92-1	Lead	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSW01-130205
SAMPLE

Lab Sample ID: WC79H
LIMS ID: 13-2657
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/05/13
Date Received: 02/06/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/07/13	200.8	02/08/13	**7440-36-0**	**Antimony**	0.2	**0.5**	
200.8	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.2	**4.0**	
200.8	02/07/13	200.8	02/08/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	**7439-92-1**	**Lead**	0.1	**0.6**	
200.8	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSW02-130204
SAMPLE

Lab Sample ID: WC79I
LIMS ID: 13-2658
Matrix: Water
Data Release Authorized
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/07/13	200.8	02/08/13	**7440-36-0**	**Antimony**	0.2	**0.6**	
200.8	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.2	**6.7**	
200.8	02/07/13	200.8	02/08/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	**7439-92-1**	**Lead**	0.1	**0.9**	
200.8	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSW03-130204
SAMPLE

Lab Sample ID: WC79J
LIMS ID: 13-2659
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/07/13	200.8	02/08/13	**7440-36-0**	**Antimony**	0.2	**0.2**	
200.8	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.2	**1.2**	
200.8	02/07/13	200.8	02/08/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	**7439-92-1**	**Lead**	0.1	**0.4**	
200.8	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSW04-130205
SAMPLE

Lab Sample ID: WC79K
LIMS ID: 13-2660
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/05/13
Date Received: 02/06/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/07/13	200.8	02/08/13	**7440-36-0**	**Antimony**	0.2	**1.3**	
200.8	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.5	**378**	
200.8	02/07/13	200.8	02/08/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	**7439-92-1**	**Lead**	0.1	**1.9**	
200.8	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSW05-130205
SAMPLE

Lab Sample ID: WC79L
LIMS ID: 13-2661
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/05/13
Date Received: 02/06/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/07/13	200.8	02/08/13	**7440-36-0**	**Antimony**	0.2	**9.1**	
200.8	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.5	**347**	
200.8	02/07/13	200.8	02/08/13	**7440-43-9**	**Cadmium**	0.1	**0.2**	
200.8	02/07/13	200.8	02/08/13	**7439-92-1**	**Lead**	0.1	**6.2**	
200.8	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSW06-130204
SAMPLE

Lab Sample ID: WC79M
LIMS ID: 13-2662
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/07/13	200.8	02/08/13	**7440-36-0**	**Antimony**	0.2	**0.3**	
200.8	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.2	**3.5**	
200.8	02/07/13	200.8	02/08/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSW07-130204
SAMPLE

Lab Sample ID: WC79N
LIMS ID: 13-2663
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/07/13	200.8	02/08/13	**7440-36-0**	**Antimony**	0.2	**0.3**	
200.8	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.2	**1.4**	
200.8	02/07/13	200.8	02/08/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	**7439-92-1**	**Lead**	0.1	**0.3**	
200.8	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSW01-130205
MATRIX SPIKE

Lab Sample ID: WC79H
LIMS ID: 13-2657
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/05/13
Date Received: 02/06/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	200.8	0.5	24.0	25.0	94.0%	
Arsenic	200.8	4.0	31.7	25.0	111%	
Cadmium	200.8	0.1 U	25.3	25.0	101%	
Lead	200.8	0.6	27.6	25.0	108%	
Thallium	200.8	0.2 U	25.5	25.0	102%	

Reported in µg/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked
NR-Not Recovered

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSW01-130205
DUPLICATE

Lab Sample ID: WC79H
LIMS ID: 13-2657
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/05/13
Date Received: 02/06/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	200.8	0.5	0.5	0.0%	+/- 0.2	L
Arsenic	200.8	4.0	4.0	0.0%	+/- 20%	
Cadmium	200.8	0.1 U	0.1 U	0.0%	+/- 0.1	L
Lead	200.8	0.6	0.6	0.0%	+/- 20%	
Thallium	200.8	0.2 U	0.2 U	0.0%	+/- 0.2	L

Reported in µg/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: WC79LCS
LIMS ID: 13-2658
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	200.8	24.3	25.0	97.2%	
Arsenic	200.8	27.6	25.0	110%	
Cadmium	200.8	25.9	25.0	104%	
Lead	200.8	27.8	25.0	111%	
Thallium	200.8	26.1	25.0	104%	

Reported in µg/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: METHOD BLANK

Lab Sample ID: WC79MB
LIMS ID: 13-2658
Matrix: Water
Data Release Authorized:
Reported: 02/11/13

QC Report No: WC79-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: NA
Date Received: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	µg/L	Q
200.8	02/07/13	200.8	02/08/13	7440-36-0	Antimony	0.2	0.2	U
200.8	02/07/13	200.8	02/08/13	7440-38-2	Arsenic	0.2	0.2	U
200.8	02/07/13	200.8	02/08/13	7440-43-9	Cadmium	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	7439-92-1	Lead	0.1	0.1	U
200.8	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC79

UNITS:ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS020881	50.0	48.95	**97.9**	50.0	49.47	**98.9**	49.60	**99.2**	49.91	**99.8**	50.04	**100.1**	49.89	**99.8**
Arsenic	AS	PMS	MS020881	50.0	51.37	**102.7**	50.0	49.85	**99.7**	50.29	**100.6**	49.03	**98.1**	49.78	**99.6**	50.35	**100.7**
Cadmium	CD	PMS	MS020881	50.0	49.04	**98.1**	50.0	49.71	**99.4**	49.76	**99.5**	49.30	**98.6**	49.98	**100.0**	50.08	**100.2**
Lead	PB	PMS	MS020881	50.0	50.63	**101.3**	50.0	50.59	**101.2**	51.41	**102.8**	50.11	**100.2**	50.44	**100.9**	50.40	**100.8**
Thallium	TL	PMS	MS020881	50.0	47.57	**95.1**	50.0	48.07	**96.1**	48.56	**97.1**	48.01	**96.0**	48.16	**96.3**	47.81	**95.6**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC79

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	PMS	MS020881	50.0	49.69	**99.4**										
Arsenic	AS	PMS	MS020881	50.0	49.34	**98.7**										
Cadmium	CD	PMS	MS020881	50.0	49.29	**98.6**										
Lead	PB	PMS	MS020881	50.0	51.26	**102.5**										
Thallium	TL	PMS	MS020881	50.0	47.84	**95.7**										

Control Limits: Mercury 80-120; Other Metals 90-110

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

UNITS:ug/L

SDG: WC79

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Antimony	SB	PMS	MS020881	0.2	0.21	**105.0**										
Arsenic	AS	PMS	MS020881	0.2	0.22	**110.0**										
Cadmium	CD	PMS	MS020881	0.1	0.11	**110.0**										
Lead	PB	PMS	MS020881	0.1	0.10	**100.0**										
Thallium	TL	PMS	MS020881	0.2	0.21	**105.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC79

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS020881	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS020881	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS020881	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Lead	PB	PMS	MS020881	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Thallium	TL	PMS	MS020881	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC79

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	PMS	MS020881	60.0	0.2	0.2	U										
Arsenic	AS	PMS	MS020881	10.0	0.2	0.2	U										
Cadmium	CD	PMS	MS020881	5.0	0.1	0.1	U										
Lead	PB	PMS	MS020881	3.0	0.1	0.1	U										
Thallium	TL	PMS	MS020881	10.0	0.2	0.2	U										

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC79

ICS SOURCE: I.V.

RUNID: MS020881

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.8	**99.0**						
Cadmium		20	0.1	20.0	**100.0**						
Selenium			-0.1	-0.1							
Silver		20	0.0	20.1	**100.5**						

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC79

UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Antimony	SB	PMS	PE ELAN 6000 MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		
Cadmium	CD	PMS	PE ELAN 6000 MS	0.00		5	0.1	4/1/2012		
Lead	PB	PMS	PE ELAN 6000 MS	0.00		3	0.1	4/1/2012		
Thallium	TL	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC79

ANALYSIS METHOD: PMS

ARI PREP CODE: REN

PREPDATE: 2/7/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
LLSW01-130205	WC79A	0.000	50.0	25.0
LLSW01-130205D	WC79ADUP	0.000	50.0	25.0
LLSW01-130205S	WC79ASPK	0.000	50.0	25.0
LLSW02-130204	WC79B	0.000	50.0	25.0
LLSW03-130204	WC79C	0.000	50.0	25.0
LLSW04-130205	WC79D	0.000	50.0	25.0
LLSW05-130205	WC79E	0.000	50.0	25.0
LLSW06-130204	WC79F	0.000	50.0	25.0
LLSW07-130204	WC79G	0.000	50.0	25.0
LLSW01-130205	WC79H	0.000	50.0	25.0
LLSW01-130205D	WC79HDUP	0.000	50.0	25.0
LLSW01-130205S	WC79HSPK	0.000	50.0	25.0
LLSW02-130204	WC79I	0.000	50.0	25.0
LLSW03-130204	WC79J	0.000	50.0	25.0
LLSW04-130205	WC79K	0.000	50.0	25.0
LLSW05-130205	WC79L	0.000	50.0	25.0
LLSW06-130204	WC79M	0.000	50.0	25.0
PBW	WC79MB1	0.000	50.0	25.0
LCSW	WC79MB1SPK	0.000	50.0	25.0
PBW	WC79MB2	0.000	50.0	25.0
LCSW	WC79MB2SPK	0.000	50.0	25.0
LLSW07-130204	WC79N	0.000	50.0	25.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 2/8/2013

SDG: WC79 | RUNID: MS020881 METHOD: PMS | END DATE: 2/8/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	08360				X					X												X	X					X			
S1	S1	1.00	08400				X					X												X	X					X			
S2	S2	1.00	08450				X					X												X	X					X			
S3	S3	1.00	08500				X					X												X	X					X			
S4	S4	1.00	08540				X					X												X	X					X			
ZZZZZZ	Rinse Sampl	1.00	08590																														
ICV	MICV	1.00	09070				X					X												X	X					X			
ICB	ICB	1.00	09120				X					X												X	X					X			
CCV	MCCV1	1.00	09160				X					X												X	X					X			
CCB	CCB1	1.00	09220				X					X												X	X					X			
CRI	MCRI	1.00	09260				X					X												X	X					X			
ICSA	ICSAI	1.00	09300				X					X												X	X					X			
ICSAB	ICSABI	1.00	09350				X					X												X	X					X			
ZZZZZZ	LR200	1.00	09400																														
ZZZZZZ	LR300	1.00	09450																														
CCV	MCCV2	1.00	09500				X					X												X	X					X			
CCB	CCB2	1.00	09550				X					X												X	X					X			
PBW	WC79MB1	2.00	10030				X					X												X	X					X			
ZZZZZZ	WC43D	20.00	10070																														
ZZZZZZ	WC43E	20.00	10120																														
LLSW02-130204	WC79B	2.00	10170				X					X												X	X					X			
LLSW03-130204	WC79C	2.00	10220				X					X												X	X					X			
LLSW01-130205D	WC79ADUP	2.00	10270				X					X												X	X					X			
LLSW01-130205	WC79A	2.00	10310				X					X												X	X					X			
LLSW01-130205S	WC79ASPK	2.00	10360				X					X												X	X					X			
ZZZZZZ	ZZZZZZ	2.00	10410																														
LCSW	WC79MB1SPK	2.00	10460				X					X												X	X					X			
CCV	MCCV3	1.00	10510				X					X												X	X					X			
CCB	CCB3	1.00	10560				X					X												X	X					X			
PBW	WC79MB2	2.00	11000				X					X												X	X					X			
LLSW04-130205	WC79D	2.00	11050				X					X												X	X					X			
LLSW05-130205	WC79E	2.00	11100				X					X												X	X					X			
LLSW06-130204	WC79F	2.00	11150				X					X												X	X					X			
LLSW07-130204	WC79G	2.00	11190				X					X												X	X					X			
LLSW01-130205D	WC79HDUP	2.00	11240				X					X												X	X					X			

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 2/8/2013

SDG: WC79 | RUNID: MS020881 METHOD: PMS | END DATE: 2/8/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
LLSW01-130205	WC79H	2.00	11290				X					X												X	X					X			
LLSW01-130205S	WC79HSPK	2.00	11340				X					X												X	X					X			
ZZZZZZ	ZZZZZZ	2.00	11390																														
LCSW	WC79MB2SPK	2.00	11440				X					X												X	X					X			
CCV	MCCV4	1.00	11480				X					X												X	X					X			
CCB	CCB4	1.00	11540				X					X												X	X					X			
LLSW02-130204	WC79I	2.00	11590				X					X												X	X					X			
LLSW03-130204	WC79J	2.00	12040				X					X												X	X					X			
LLSW04-130205	WC79K	2.00	12080									X												X	X					X			
LLSW05-130205	WC79L	2.00	12130									X												X	X					X			
LLSW06-130204	WC79M	2.00	12180				X					X												X	X					X			
LLSW07-130204	WC79N	2.00	12230				X					X												X	X					X			
CCV	MCCV5	1.00	12280				X					X												X	X					X			
CCB	CCB5	1.00	12330				X					X												X	X					X			
ZZZZZZ	WC78MB1	20.00	12430																														
LLSW04-130205	WC79K	5.00	12480				X																										
LLSW05-130205	WC79L	5.00	12530				X																										
ZZZZZZ	WC78B	20.00	12580																														
ZZZZZZ	WC78C	20.00	13030																														
ZZZZZZ	WC78ADUP	20.00	13080																														
ZZZZZZ	WC78A	20.00	13120																														
ZZZZZZ	WC78ASPK	20.00	13170																														
ZZZZZZ	ZZZZZZ	20.00	13220																														
ZZZZZZ	WC78MB1SPK	20.00	13270																														
CCV	MCCV6	1.00	13320				X					X												X	X					X			
CCB	CCB6	1.00	13370				X					X												X	X					X			

Mercury Analysis
Report and Summary QC Forms

ARI Job ID: WC79, WC80

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC80

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLSW01-130205	WC80A	13-2664	
LLSW02-130204	WC80B	13-2665	
LLSW02-130204D	WC80BDUP	13-2665	
LLSW02-130204S	WC80BSPK	13-2665	
LLSW03-130204	WC80C	13-2666	
PBW	WC80MB1	13-2666	
LCSW	WC80MB1SPK	13-2666	
LLSW04-130205	WC80D	13-2667	
LLSW05-130205	WC80E	13-2668	
LLSW06-130204	WC80F	13-2669	
LLSW07-130204	WC80G	13-2670	
LLSW01-130205	WC80H	13-2671	
LLSW02-130204	WC80I	13-2672	
LLSW02-130204D	WC80IDUP	13-2672	
LLSW02-130204S	WC80ISPK	13-2672	
LLSW03-130204	WC80J	13-2673	
PBW	WC80MB2	13-2673	
LCSW	WC80MB2SPK	13-2673	
LLSW04-130205	WC80K	13-2674	
LLSW05-130205	WC80L	13-2675	
LLSW06-130204	WC80M	13-2676	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 2/11/13 Title: Inorganics Director

WC79 : 00050

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC80

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLSW07-130204	WC80N	13-2677	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: Jay Kuhn Name: Jay Kuhn

Date: 2/11/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Dissolved Mercury by Method SW7470A

Data Release Authorized:
Reported: 02/08/13
Date Received: 02/06/13

QC Report No238: WC80-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
LLSW01-130205 WC80A 13-2664	02/05/13	Water	02/07/13 02/08/13	20.0	20.0 U
LLSW02-130204 WC80B 13-2665	02/04/13	Water	02/07/13 02/08/13	20.0	20.0 U
LLSW03-130204 WC80C 13-2666	02/04/13	Water	02/07/13 02/08/13	20.0	20.0 U
LLSW04-130205 WC80D 13-2667	02/05/13	Water	02/07/13 02/08/13	20.0	20.0 U
LLSW05-130205 WC80E 13-2668	02/05/13	Water	02/07/13 02/08/13	**20.0**	**29.1**
LLSW06-130204 WC80F 13-2669	02/04/13	Water	02/07/13 02/08/13	20.0	20.0 U
LLSW07-130204 WC80G 13-2670	02/04/13	Water	02/07/13 02/08/13	20.0	20.0 U
MB-020713 Method Blank	NA	Water	02/07/13 02/08/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LLSW02-130204
MATRIX SPIKE

Lab Sample ID: WC80B
LIMS ID: 13-2665
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC80-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	20.0 U	120	100	120%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

WC79:00850

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS
Page 1 of 1

Sample ID: LLSW02-130204
DUPLICATE

Lab Sample ID: WC80B
LIMS ID: 13-2665
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC80-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	20.0 U	20.0 U	0.0%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
DISSOLVED METALS

Sample ID: LAB CONTROL

Lab Sample ID: WC80LCS
LIMS ID: 13-2666
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC80-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	221	200	110%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
Total Mercury by Method SW7470A

Data Release Authorized:
Reported: 02/08/13
Date Received: 02/06/13
Page 1 of 1

QC Report No: WC80-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00

Client/ ARI ID	Date Sampled	Matrix	Prep Date Anal Date	RL	Result
LLSW01-130205 WC80H 13-2671	02/05/13	Water	02/07/13 02/08/13	20.0	20.0 U
LLSW02-130204 WC80I 13-2672	02/04/13	Water	02/07/13 02/08/13	**20.0**	**21.7**
LLSW03-130204 WC80J 13-2673	02/04/13	Water	02/07/13 02/08/13	20.0	20.0 U
LLSW04-130205 WC80K 13-2674	02/05/13	Water	02/07/13 02/08/13	**20.0**	**23.4**
LLSW05-130205 WC80L 13-2675	02/05/13	Water	02/07/13 02/08/13	**20.0**	**41.3**
LLSW06-130204 WC80M 13-2676	02/04/13	Water	02/07/13 02/08/13	20.0	20.0 U
LLSW07-130204 WC80N 13-2677	02/04/13	Water	02/07/13 02/08/13	20.0	20.0 U
MB-020713 Method Blank	NA	Water	02/07/13 02/08/13	20.0	20.0 U

Reported in ng/L

RL-Analytical reporting limit
U-Undetected at reported detection limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSW02-130204
MATRIX SPIKE

Lab Sample ID: WC80I
LIMS ID: 13-2672
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC80-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Mercury	7470A	21.7	120	100	98.3%	

Reported in ng/L

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSW02-130204
DUPLICATE

Lab Sample ID: WC80I
LIMS ID: 13-2672
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC80-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Mercury	7470A	21.7	20.0 U	8.2%	+/- 20.0	L

Reported in ng/L

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

WC79 00050

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: WC80LCS
LIMS ID: 13-2673
Matrix: Water
Data Release Authorized:
Reported: 02/08/13

QC Report No: WC80-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Mercury	7470A	211	200	106%	

Reported in ng/L

N-Control limit not met
Control Limits: 80-120%

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

UNITS: ng/L

SDG: WC80

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Mercury	HG	CVL	HG020801	500.0	467.00	**93.4**	500.0	490.00	**98.0**	495.00	**99.0**	496.00	**99.2**	494.00	**98.8**	499.00	**99.8**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC80

UNITS: ng/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Mercury	HG	CVL	HG020801	500.0	498.00	99.6	497.00	99.4								

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC80

UNITS: ng/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Mercury	HG	CVL	HG020801	20.0	34.60	**173.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC80

UNITS: ng/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Mercury	HG	CVL	HG020801	25.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

UNITS: ng/L

SDG: WC80

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Mercury	HG	CVL	HG020801	25.0	20.0	20.0	U	20.0	U								

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC80

UNITS: ng/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ng/L)	ICP LR DATE
Mercury	HG	CVL	CETAC MERCURY	253.70		25	20.0	4/1/2012		

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC80

ANALYSIS METHOD: CVL

ARI PREP CODE: TLM

PREPDATE: 2/7/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
LLSW01-130205	WC80A	0.000	20.0	20.0
LLSW02-130204	WC80B	0.000	20.0	20.0
LLSW02-130204D	WC80BDUP	0.000	20.0	20.0
LLSW02-130204S	WC80BSPK	0.000	20.0	20.0
LLSW03-130204	WC80C	0.000	20.0	20.0
LLSW04-130205	WC80D	0.000	20.0	20.0
LLSW05-130205	WC80E	0.000	20.0	20.0
LLSW06-130204	WC80F	0.000	20.0	20.0
LLSW07-130204	WC80G	0.000	20.0	20.0
LLSW01-130205	WC80H	0.000	20.0	20.0
LLSW02-130204	WC80I	0.000	20.0	20.0
LLSW02-130204D	WC80IDUP	0.000	20.0	20.0
LLSW02-130204S	WC80ISPK	0.000	20.0	20.0
LLSW03-130204	WC80J	0.000	20.0	20.0
LLSW04-130205	WC80K	0.000	20.0	20.0
LLSW05-130205	WC80L	0.000	20.0	20.0
LLSW06-130204	WC80M	0.000	20.0	20.0
PBW	WC80MB1	0.000	20.0	20.0
LCSW	WC80MB1SPK	0.000	20.0	20.0
PBW	WC80MB2	0.000	20.0	20.0
LCSW	WC80MB2SPK	0.000	20.0	20.0
LLSW07-130204	WC80N	0.000	20.0	20.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland | INSTRUMENT ID: CETAC MERCURY | START DATE: 2/8/2013

SDG: WC80 | RUNID: HG020801 METHOD: CVL | END DATE: 2/8/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09500														X																
S20	S20	1.00	09524														X																
S50	S50	1.00	09553														X																
S100	S100	1.00	09581														X																
S200	S200	1.00	10005														X																
S400	S400	1.00	10033														X																
S1000	S1000	1.00	10062														X																
ICV	AICV	1.00	10102														X																
ICB	ICB	1.00	10130														X																
CCV	ACCV1	1.00	10154														X																
CCB	CCB1	1.00	10183														X																
CRA	CRA	1.00	10211														X																
ZZZZZZ	WC65MB1	1.00	10235																														
ZZZZZZ	WC65MB1SPK	1.00	10263																														
ZZZZZZ	WC65A	1.00	10291																														
ZZZZZZ	WC65ADUP	1.00	10315																														
ZZZZZZ	WC65ASPK	1.00	10344																														
ZZZZZZ	WC65MB2	1.00	10372																														
ZZZZZZ	WC65MB2SPK	1.00	10400																														
ZZZZZZ	WC65B	1.00	10424																														
ZZZZZZ	WC65BDUP	1.00	10453																														
CCV	ACCV2	1.00	10481														X																
CCB	CCB2	1.00	10510														X																
ZZZZZZ	WC65BSPK	1.00	10534																														
ZZZZZZ	WC81MB1	1.00	10562																														
ZZZZZZ	WC81MB1SPK	1.00	10590																														
ZZZZZZ	WC81A	1.00	11014																														
ZZZZZZ	WC81ADUP	1.00	11042																														
ZZZZZZ	WC81ASPK	1.00	11070																														
ZZZZZZ	WC81B	1.00	11094																														
ZZZZZZ	WC81C	1.00	11123																														
ZZZZZZ	WC38MB1	1.00	11151																														
ZZZZZZ	WC38MB1SPK	1.00	11175																														
CCV	ACCV3	1.00	11204														X																
CCB	CCB3	1.00	11232														X																

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland | INSTRUMENT ID: CETAC MERCURY | START DATE: 2/8/2013

SDG: WC80 | RUNID: HG020801 METHOD: CVL | END DATE: 2/8/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	WC38A	1.00	11261																														
ZZZZZZ	WC38B	1.00	11285																														
ZZZZZZ	WC38BDUP	1.00	11313																														
ZZZZZZ	WC38BSPK	1.00	11341																														
ZZZZZZ	WC38MB2	1.00	11365																														
ZZZZZZ	WC38MB2SPK	1.00	11393																														
ZZZZZZ	WC38C	1.00	11422																														
ZZZZZZ	WC38D	1.00	11450																														
ZZZZZZ	WC38DDUP	1.00	11474																														
ZZZZZZ	WC38DSPK	1.00	11502																														
CCV	ACCV4	1.00	11531														X																
CCB	CCB4	1.00	11555														X																
PBW	WC80MB1	1.00	11584														X																
LCSW	WC80MB1SPK	1.00	12012														X																
LLSW01-130205	WC80A	1.00	12040														X																
LLSW02-130204	WC80B	1.00	12065														X																
LLSW02-130204D	WC80BDUP	1.00	12093														X																
LLSW02-130204S	WC80BSPK	1.00	12121														X																
LLSW03-130204	WC80C	1.00	12145														X																
LLSW04-130205	WC80D	1.00	12173														X																
LLSW05-130205	WC80E	1.00	12201														X																
LLSW06-130204	WC80F	1.00	12230														X																
CCV	ACCV5	1.00	12254														X																
CCB	CCB5	1.00	12283														X																
LLSW07-130204	WC80G	1.00	12311														X																
PBW	WC80MB2	1.00	12335														X																
LCSW	WC80MB2SPK	1.00	12364														X																
LLSW01-130205	WC80H	1.00	12392														X																
LLSW02-130204	WC80I	1.00	12420														X																
LLSW02-130204D	WC80IDUP	1.00	12445														X																
LLSW02-130204S	WC80ISPK	1.00	12473														X																
LLSW03-130204	WC80J	1.00	12501														X																
LLSW04-130205	WC80K	1.00	12525														X																
LLSW05-130205	WC80L	1.00	12553														X																
CCV	ACCV6	1.00	12582														X																

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland | INSTRUMENT ID: CETAC MERCURY | START DATE: 2/8/2013

SDG: WC80 | RUNID: HG020801 METHOD: CVL | END DATE: 2/8/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
CCB	CCB6	1.00	13010														X																
LLSW06-130204	WC80M	1.00	13035														X																
LLSW07-130204	WC80N	1.00	13063														X																
CCV	ACCV7	1.00	13091														X																
CCB	CCB7	1.00	13120														X																

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WC79, WC80

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: CB

Date: 2-07-13

Final Volume 25.0

Final Volume (Hg):

Sample ID WC79 ASPIK, MBISPK, HSPIK, MBJSI

	Prepcode:			
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:			
	Vol Added (mL):			
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	REN ICP-MS #1	REN ICP-MS #2	ICP-MS Minerals
	29987-2	3001-1	
	0.05	0.05	
Ag	25		
Al			500
As	25 ✓		
Ba	25		
Be	25		
Ca			500
Cd	25 ✓		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25 ✓		
Sb		25 ✓	
Se	80		
Tl	25 ✓		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg		CVA	1.0		
Hg MBSPK		CVA	1.0		
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

5033F

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: CB **Date:** 02-07-13 **Time:** 0805

Matrix: WATER **Block ID:** #12 **Block Temp:** 95°C **Thermometer:** MP46

ARI Sample ID	Btl #	pH<2	Prep Code: REN Initial ~~Wt (g)~~ Vol (mL)	Prep Code: REN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
WC79 A	1	✓	50.0	25.0			
" Adup	1	✓					
" Aspk	1	✓					
" B	1	✓					
" C	1	✓					
" D	1	✓					
" E	1	✓					
" F	1	✓					
" G	1	✓					
" mB1	–	–					
" mB1spk	–	–					
" H	1	✓					
" Hdup	1	✓					
" Hspk	1	✓					
" mB2	–	–					
" mB2spk	–	–					
" I	1	✓					
" J	1	✓					
" K	1	✓					
" L	1	✓					
" M	1	✓	↓	↓			
" N	1	✓	50.0	25.0			
			02-07-13				
			CB				

Chemical/Reagent ID:

HNO_3: MP2426 **HCl:** – **H_2O_2:** I7845 **Tube Lot #:** 1208057

WC79 00072

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WC79, WC80

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 2-8-13

MS1	Analyst BA 2-8-13	Peer [illegible] 2-11-13	Comment
Logbook			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓		
Calibration			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	See log
Samples			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Distribution			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAFR	—	—	

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Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-8-13 **Analyst:** BA **Page:** 1 of 3

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			3009-6
		1			-12
		2			-13
		3			3011-1
		4			3009-14
		Rinse sample			
		ICV			2955-7
		ICB			
		CCV1			
		CCB1			
		Low Check			
		ICSA			
		ICSAB			
		LR200			
		LR300			
		CCV2			
		CCB2			
		WC79 MB1	REN	2	
		WC43 D	SWN	20	
		E			
		WC79 B	REN	2	
		C			
		ADUP			
		A			

WC79 00075

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-8-13 **Analyst:** BA **Page:** 2 of 3

All corrections made by analyst unless otherwise noted. BA 2-8-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WC79 ASPK	REN	2	
zzz		zzzzzz ~~APOST~~			0.06 mL ICPMS Spk#1 2999-12
		MB1SPK			
		CCV3			
		CCB3			End WC43
		WC79 MB2	REN	2	
		D			
		E			
		F			
		G			
		HDUP			
		H			
		HSPK			
zzz		zzzzzz ~~HPOST~~			0.06 mL ICPMS Spk#1 2999-12
		MB2SPK			
		CCV4			
		CCB4			As2↑
		WC79 I	REN	2	
		J			
		K			RR As (Sx)
		L			
		M			
		N			
		CCV5			

WC79 00076

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-8-13 **Analyst:** BA **Page:** 3 **of** 3

All corrections made by analyst unless otherwise noted. BA 2-8-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		CCB5			As2, ^{78}Se↑
		WC78 MB1	SWN	20	
		WC79 K	REN	5	As
		↓ L	↓	↓	↓
		WC78 B	SWN	20	
		C			✓
		ADUP			
		A			✓
		ASPK			
222		~~222222~~ ~~APOST~~			0.06mL ICPMS Spk#1 2999-12 ✓
		MB1SPK			
		CCV6			~~As2, ^{78}Se↑~~
		CCB6			As2, ^{78}Se↑ End WC79
		WC78 D	SWN	20	
		E			
		F			
		G			
		CCV7 BA			
		CCB7	2/8/13		As2↑ End Pkg (WC78)
		BA 2/8/13			

WC79 00077

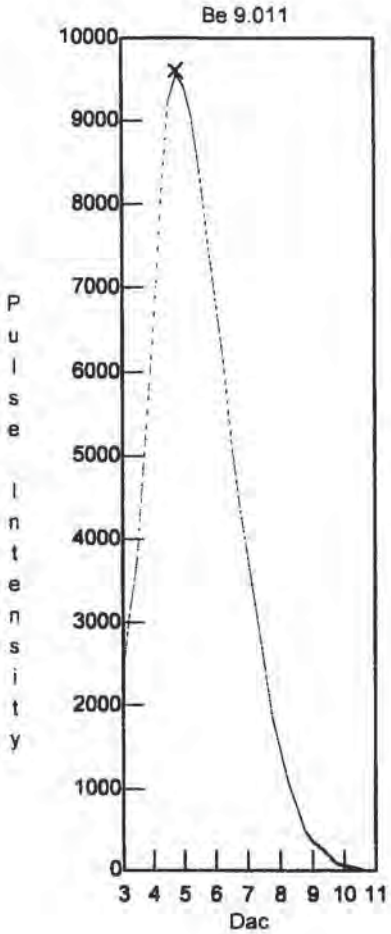
Instrument Tuning Report

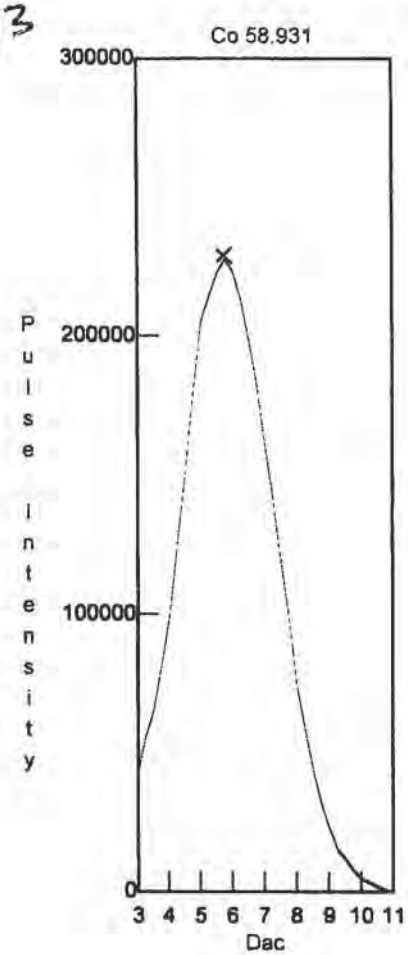
File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

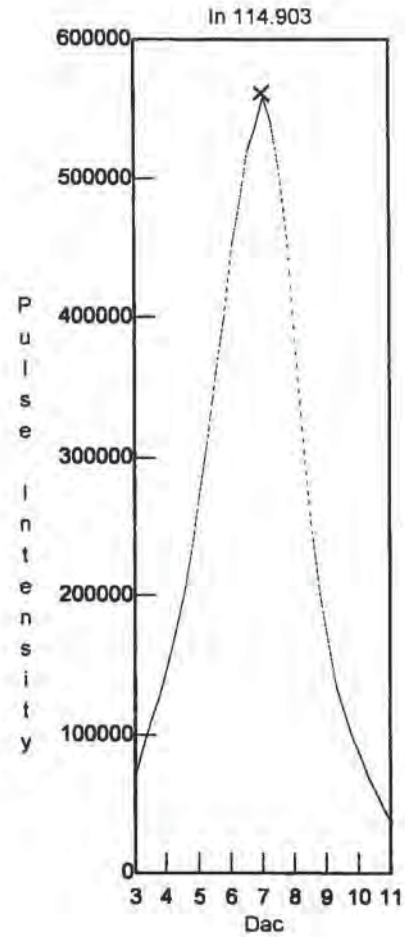
Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	9.026	2031	2155	0.671	
Mg	23.985	24.029	5666	2265	0.675	
Co	58.933	58.979	14160	2530	0.673	
In	114.904	114.928	27795	2970	0.690	
Pb	207.977	207.976	50444	3725	0.688	

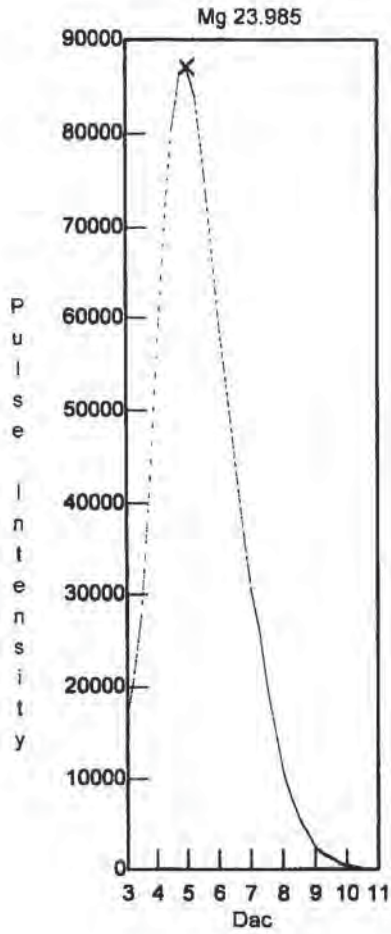
WC79 : 99975

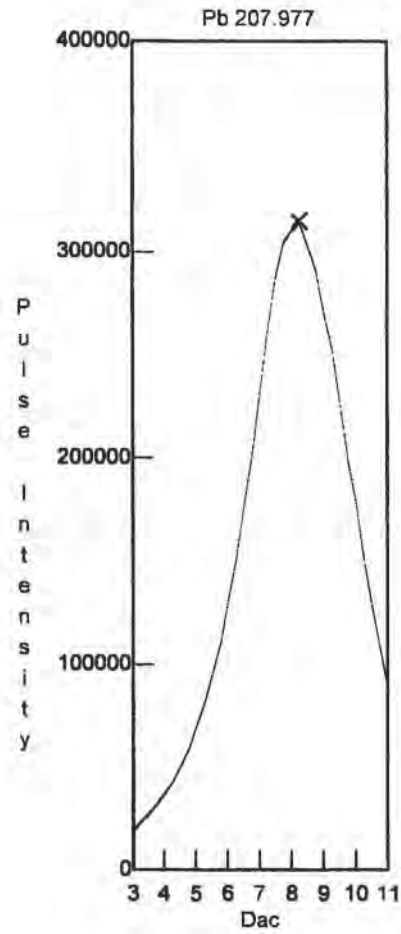
2-8-13

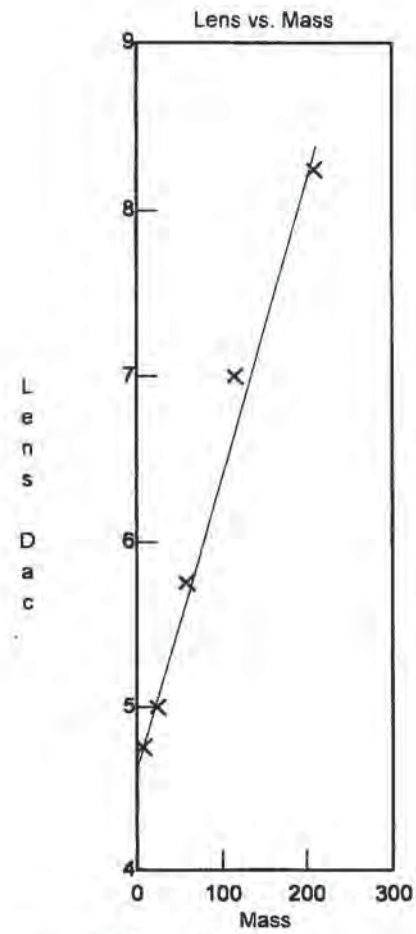












WC79 00079

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, February 08, 2013 08:01:50
Sample Description:
Sample File: 1119.sam
Method File: C:\Elandata\Method\aridailyperf.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.1377
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\Default.dac
Number of Replicates: 5
Dual Detector Mode: Dual

Neb 0.91

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24	37457.252	333.363	0.890
	In	115	286926.198	3293.322	1.148
	Pb	208	172819.529	2238.840	1.295
>	Ba	138	205132.160	3116.902	1.519
	Ba++	69	0.014	0.000	1.997
>	Ce	140	253559.456	3449.485	1.360
	CeO	156	0.029	0.001	1.810
	Bkgd	220	3.500	1.630	46.566

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 08:36:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020613a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L				254717	1
|	As	75		ug/L				200	0
|	As-1	75		ug/L				7304	0
|	Se	82		ug/L				-6	219
L	Se	78		ug/L				7429	0
	Cl	37		mg/L				2274202	0
	Y	89		ug/L				250297	1
	Kr	83		ug/L				145	9
⌈>	In	115		ug/L				260330	1
|	Ag	107		ug/L				29	19
|	Cd	111		ug/L				125	11
|	Cd	114		ug/L				25	19
|	Sb	121		ug/L				19	35
L	Sb	123		ug/L				18	39
⌈>	Tb	159		ug/L				303244	0
|	Tl	205		ug/L				42	24
|	Pb	208		ug/L				562	36
L	Bi	209		ug/L				248344	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 08:40:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020613a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L			254717	251113	0
|	As	75	10.000	ug/L	0.062	0	200	14800	0
|	As-1	75	10.000	ug/L	0.209	2	7304	21602	1
|	Se	82	10.000	ug/L	0.228	2	-6	1565	2
⌊	Se	78	10.000	ug/L	0.328	3	7429	11128	0
	Cl	37		mg/L			2274202	2262670	0
	Y	89		ug/L			250297	244680	1
	Kr	83		ug/L			145	148	2
⌈>	In	115		ug/L			260330	255697	0
|	Ag	107	10.000	ug/L	0.232	2	29	85033	1
|	Cd	111	10.000	ug/L	0.179	1	125	21971	1
|	Cd	114	10.000	ug/L	0.041	0	25	50225	1
|	Sb	121	10.000	ug/L	0.034	0	19	72908	0
⌊	Sb	123	10.000	ug/L	0.053	0	18	55114	0
⌈>	Tb	159		ug/L			303244	298458	0
|	Tl	205	10.000	ug/L	0.052	0	42	208511	0
|	Pb	208	10.000	ug/L	0.089	0	562	288213	0
⌊	Bi	209		ug/L			248344	243288	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 08:45:17
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020613a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L			254717	253119	1
|	As	75	19.994	ug/L	0.202	1	200	29592	0
|	As-1	75	19.983	ug/L	0.300	1	7304	36169	0
|	Se	82	20.016	ug/L	0.272	1	-6	3174	0
⌊	Se	78	19.970	ug/L	0.563	2	7429	14993	0
	Cl	37		mg/L			2274202	2269501	0
	Y	89		ug/L			250297	244502	0
	Kr	83		ug/L			145	149	3
⌈>	In	115		ug/L			260330	259673	0
|	Ag	107	19.960	ug/L	0.445	2	29	170963	1
|	Cd	111	19.909	ug/L	0.259	1	125	43510	1
|	Cd	114	19.938	ug/L	0.367	1	25	100433	1
|	Sb	121	20.025	ug/L	0.160	0	19	148994	1
⌊	Sb	123	19.983	ug/L	0.224	1	18	111438	0
⌈>	Tb	159		ug/L			303244	299678	0
|	Tl	205	20.042	ug/L	0.544	2	42	423020	2
|	Pb	208	19.985	ug/L	0.091	0	562	576083	0
⌊	Bi	209		ug/L			248344	247090	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 08:50:06
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020613a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L			254717	254224	1
|	As	75	49.951	ug/L	0.566	1	200	73589	0
|	As-1	75	49.936	ug/L	0.724	1	7304	79385	0
|	Se	82	49.901	ug/L	0.570	1	-6	7879	1
⌊	Se	78	49.833	ug/L	1.089	2	7429	26174	0
	Cl	37		mg/L			2274202	2279403	0
	Y	89		ug/L			250297	249944	1
	Kr	83		ug/L			145	152	1
⌈>	In	115		ug/L			260330	259260	0
|	Ag	107	49.965	ug/L	0.351	0	29	425806	0
|	Cd	111	50.011	ug/L	0.454	0	125	109053	0
|	Cd	114	49.915	ug/L	0.397	0	25	248873	0
|	Sb	121	49.987	ug/L	0.536	1	19	370800	1
⌊	Sb	123	50.001	ug/L	0.366	0	18	278418	0
⌈>	Tb	159		ug/L			303244	301524	1
|	Tl	205	49.968	ug/L	0.971	1	42	1057829	2
|	Pb	208	49.957	ug/L	0.555	1	562	1441733	0
⌊	Bi	209		ug/L			248344	250632	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 08:54:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020613a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L			254717	245474	0
|	As	75	100.358	ug/L	0.343	0	200	144305	0
|	As-1	75	100.265	ug/L	0.338	0	7304	148081	0
|	Se	82	100.565	ug/L	0.700	0	-6	15634	0
⌊	Se	78	100.224	ug/L	0.846	0	7429	43872	0
	Cl	37		mg/L			2274202	2258246	0
	Y	89		ug/L			250297	244776	0
	Kr	83		ug/L			145	159	2
⌈>	In	115		ug/L			260330	254425	1
|	Ag	107	99.886	ug/L	0.404	0	29	832172	0
|	Cd	111	100.237	ug/L	0.643	0	125	216074	0
|	Cd	114	100.351	ug/L	2.077	2	25	496818	2
|	Sb	121	100.174	ug/L	0.624	0	19	733434	0
⌊	Sb	123	100.307	ug/L	1.839	1	18	553704	0
⌈>	Tb	159		ug/L			303244	297909	0
|	Tl	205	101.283	ug/L	1.386	1	42	2213018	0
|	Pb	208	99.820	ug/L	1.033	1	562	2828937	1
⌊	Bi	209		ug/L			248344	241355	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 08:59:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020613a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	251536	0
	As	75	0.011	ug/L	0.020	177	200	214	13
	As-1	75	0.167	ug/L	0.003	2	7304	7453	0
	Se	82	0.023	ug/L	0.039	171	-6	-2	228
	Se	78	0.612	ug/L	0.049	8	7429	7566	0
	Cl	37		mg/L			2274202	2272068	0
	Y	89		ug/L			250297	251606	0
	Kr	83		ug/L			145	142	2
>	In	115		ug/L			260330	266887	0
	Ag	107	0.011	ug/L	0.002	17	29	128	12
	Cd	111	-0.002	ug/L	0.006	350	125	124	9
	Cd	114	-0.000	ug/L	0.001	150	25	24	11
	Sb	121	0.057	ug/L	0.016	27	19	455	25
	Sb	123	0.054	ug/L	0.012	22	18	329	20
>	Tb	159		ug/L			303244	303697	1
	Tl	205	0.005	ug/L	0.001	15	42	148	12
	Pb	208	0.004	ug/L	0.000	10	562	679	2
	Bi	209		ug/L			248344	254143	0

Quantitative Analysis - Calibration Report

Sample Date/Time: Friday, February 08, 2013 08:54:56
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Ge	72							
As	75	1.0000	0.0058	10	20	50	100	
As-1	75	1.0000	0.0057	10	20	50	100	
Se	82	0.9999	0.0006	10	20	50	100	
Se	78	1.0000	0.0015	10	20	50	100	
Cl	37							
Y	89							
Kr	83							
In	115							
Ag	107	1.0000	0.0327	10	20	50	100	
Cd	111	1.0000	0.0085	10	20	50	100	
Cd	114	1.0000	0.0195	10	20	50	100	
Sb	121	1.0000	0.0288	10	20	50	100	
Sb	123	1.0000	0.0217	10	20	50	100	
Tb	159							
Tl	205	0.9997	0.0733	10	20	50	100	
Pb	208	1.0000	0.0951	10	20	50	100	
Bi	209							

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:07:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	258962	1
	As	75	51.373	ug/L	0.142	0	200	78026	0
	As-1	75	50.808	ug/L	0.471	0	7304	82821	0
	Se	82	80.600	ug/L	0.384	0	-6	13217	0
	Se	78	80.738	ug/L	1.595	1	7429	38750	0
	Cl	37		mg/L			2274202	2292791	0
	Y	89		ug/L			250297	257636	0
	Kr	83		ug/L			145	159	6
>	In	115		ug/L			260330	270600	1
	Ag	107	50.839	ug/L	0.676	1	29	450448	0
	Cd	111	49.037	ug/L	1.182	2	125	112477	1
	Cd	114	48.894	ug/L	0.952	1	25	257411	0
	Sb	121	48.954	ug/L	0.668	1	19	381189	0
	Sb	123	48.558	ug/L	0.713	1	18	285095	0
>	Tb	159		ug/L			303244	313943	0
	Tl	205	47.573	ug/L	0.449	0	42	1095464	0
	Pb	208	50.630	ug/L	0.123	0	562	1512408	0
	Bi	209		ug/L			248344	255882	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:12:39
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	254577 ✓	0
|	As	75	0.023	ug/L	0.020	89	200	234	12
|	As-1	75	0.141	ug/L	0.039	27	7304	7505	0
|	Se	82	-0.020	ug/L	0.096	487	-6	-9	162
L	Se	78	0.453	ug/L	0.155	34	7429	7597	0
	Cl	37		mg/L			2274202	2308440	0
	Y	89		ug/L			250297	255062	0
	Kr	83		ug/L			145	148	5
[>	In	115		ug/L			260330	267892 ✓	1
|	Ag	107	0.007	ug/L	0.001	14	29	95	10
|	Cd	111	-0.002	ug/L	0.002	129	125	124	5
|	Cd	114	-0.000	ug/L	0.001	275	25	24	27
|	Sb	121	0.022	ug/L	0.007	30	19	192	26
L	Sb	123	0.021	ug/L	0.005	21	18	143	18
[>	Tb	159		ug/L			303244	304432 ✓	0
|	Tl	205	0.001	ug/L	0.000	18	42	65	6
|	Pb	208	0.005	ug/L	0.001	18	562	702	3
L	Bi	209		ug/L			248344	253604	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:16:59
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	250221 ✓	0
|	As	75	49.847	ug/L	0.371	0	200	73159	0
|	As-1	75	50.119	ug/L	0.255	0	7304	79041	0
|	Se	82	50.455	ug/L	0.952	1	-6	7992	1
[	Se	78	51.589	ug/L	0.623	1	7429	26560	0
	Cl	37		mg/L			2274202	2280222	0
	Y	89		ug/L			250297	250827	1
	Kr	83		ug/L			145	158	4
[>	In	115		ug/L			260330	263090 ✓	0
|	Ag	107	50.000	ug/L	0.564	1	29	430750	0
|	Cd	111	49.709	ug/L	0.432	0	125	110870	0
|	Cd	114	49.555	ug/L	0.957	1	25	253672	1
|	Sb	121	49.471	ug/L	0.815	1	19	374542	1
[	Sb	123	49.335	ug/L	0.723	1	18	281636	0
[>	Tb	159		ug/L			303244	303097 ✓	0
|	Tl	205	48.067	ug/L	0.252	0	42	1068581	0
|	Pb	208	50.586	ug/L	0.356	0	562	1458834	0
[	Bi	209		ug/L			248344	250673	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:22:09
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	255085 ✓	1
	As	75	0.015	ug/L	0.021	139	200	223	13
	As-1	75	0.149	ug/L	0.103	68	7304	7531	0
	Se	82	0.002	ug/L	0.041	2192	-6	-6	111
[	Se	78	0.537	ug/L	0.384	71	7429	7643	0
	Cl	37		mg/L			2274202	2302945	0
	Y	89		ug/L			250297	254262	1
	Kr	83		ug/L			145	148	0
[>	In	115		ug/L			260330	268888 ✓	0
	Ag	107	0.007	ug/L	0.001	14	29	94	10
	Cd	111	0.003	ug/L	0.009	295	125	136	15
	Cd	114	-0.001	ug/L	0.001	92	25	19	31
	Sb	121	0.023	ug/L	0.006	26	19	195	23
[	Sb	123	0.023	ug/L	0.004	15	18	153	13
[>	Tb	159		ug/L			303244	305440 ✓	1
	Tl	205	0.002	ug/L	0.000	11	42	85	6
	Pb	208	0.004	ug/L	0.000	10	562	690	2
[	Bi	209		ug/L			248344	259569	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:26:28
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	252554 ✓	0
	As	75	0.220	ug/L	0.016	7	200	524	4
	As-1	75	0.391	ug/L	0.034	8	7304	7808	0
	Se	82	0.467	ug/L	0.029	6	-6	68	6
	Se	78	1.207	ug/L	0.128	10	7429	7821	0
	Cl	37		mg/L			2274202	2342527	0
	Y	89		ug/L			250297	252975	0
	Kr	83		ug/L			145	153	4
>	In	115		ug/L			260330	264452 ✓	1
	Ag	107	0.204	ug/L	0.002	0	29	1793	2
	Cd	111	0.105	ug/L	0.002	1	125	363	2
	Cd	114	0.106	ug/L	0.002	1	25	572	1
	Sb	121	0.207	ug/L	0.007	3	19	1591	1
	Sb	123	0.205	ug/L	0.005	2	18	1196	1
>	Tb	159		ug/L			303244	304033 ✓	1
	Tl	205	0.205	ug/L	0.002	1	42	4608	0
	Pb	208	0.098	ug/L	0.003	3	562	3399	1
	Bi	209		ug/L			248344	253704	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:30:48
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	243192 ✓	1
|	As	75	0.124	ug/L	0.031	24	200	368	13
|	As-1	75	0.261	ug/L	0.056	21	7304	7337	1
|	Se	82	-0.050	ug/L	0.070	140	-6	-13	77
[	Se	78	0.674	ug/L	0.269	39	7429	7337	0
	Cl	37		mg/L			2274202	3857196	0
	Y	89		ug/L			250297	242606	1
	Kr	83		ug/L			145	168	2
[>	In	115		ug/L			260330	251858 ✓	1
|	Ag	107	0.030	ug/L	0.006	20	29	280	19
|	Cd	111	0.061	ug/L	0.023	37	125	251	18
|	Cd	114	0.667	ug/L	0.014	2	25	3295	3
|	Sb	121	0.069	ug/L	0.001	1	19	517	0
[	Sb	123	0.063	ug/L	0.003	5	18	364	5
[>	Tb	159		ug/L			303244	296960 ✓	1
|	Tl	205	0.031	ug/L	0.000	1	42	724	2
|	Pb	208	0.020	ug/L	0.001	5	562	1115	1
[	Bi	209		ug/L			248344	241158	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:35:37
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	241558 ✓	0
|	As	75	19.754	ug/L	0.045	0	200	28104	0
|	As-1	75	20.243	ug/L	0.051	0	7304	34948	0
|	Se	82	-0.070	ug/L	0.068	96	-6	-16	61
[	Se	78	0.432	ug/L	0.064	14	7429	7201	0
	Cl	37		mg/L			2274202	3776839	0
	Y	89		ug/L			250297	240942	0
	Kr	83		ug/L			145	167	3
[>	In	115		ug/L			260330	250061 ✓	1
|	Ag	107	20.076	ug/L	0.403	2	29	164393	1
|	Cd	111	20.035	ug/L	0.400	1	125	42538	0
|	Cd	114	20.951	ug/L	0.410	1	25	101948	1
|	Sb	121	0.068	ug/L	0.004	6	19	507	5
[	Sb	123	0.061	ug/L	0.007	11	18	351	11
[>	Tb	159		ug/L			303244	295456 ✓	1
|	Tl	205	0.030	ug/L	0.002	5	42	698	4
|	Pb	208	0.020	ug/L	0.001	3	562	1098	0
[	Bi	209		ug/L			248344	242238	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:40:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L			254717	244242 ✓	0
|	As	75	199.057	ug/L	2.155	1	200	284594	0
|	As-1	75	199.592	ug/L	2.089	1	7304	286357	0
|	Se	82	197.465	ug/L	2.624	1	-6	30550	1
⌊	Se	78	199.369	ug/L	2.313	1	7429	79787	0
	Cl	37		mg/L			2274202	2254806	0
	Y	89		ug/L			250297	245706	1
	Kr	83		ug/L			145	174	2
⌈>	In	115		ug/L			260330	253987 ✓	2
|	Ag	107	196.806	ug/L	2.428	1	29	1628424	2
|	Cd	111	198.363	ug/L	2.149	1	125	426785	2
|	Cd	114	197.817	ug/L	2.451	1	25	977444	1
|	Sb	121	202.150	ug/L	1.373	0	19	1477447	1
⌊	Sb	123	201.430	ug/L	4.509	2	18	1109788	0
⌈>	Tb	159		ug/L			303244	300818 ✓	1
|	Tl	205	204.201	ug/L	4.150	2	42	4504902	1
|	Pb	208	209.143	ug/L	2.195	1	562	5984052	0
⌊	Bi	209		ug/L			248344	236823	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:45:33
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	247228	0
	As	75	298.668	ug/L	3.538	1	200	432126	0
	As-1	75	298.565	ug/L	3.368	1	7304	430069	0
	Se	82	299.191	ug/L	4.888	1	-6	46856	1
	Se	78	298.826	ug/L	4.330	1	7429	117452	0
	Cl	37		mg/L			2274202	2276869	0
	Y	89		ug/L			250297	252609	2
	Kr	83		ug/L			145	196	1
>	In	115		ug/L			260330	265000	1
	Ag	107	310.896	ug/L	6.662	2	29	2697757	2
	Cd	111	290.993	ug/L	3.386	1	125	653165	1
	Cd	114	293.141	ug/L	6.553	2	25	1511419	2
	Sb	121	318.677	ug/L	1.740	0	19	2430268	1
	Sb	123	298.124	ug/L	2.122	0	18	1714221	1
>	Tb	159		ug/L			303244	306870	1
	Tl	205	308.022	ug/L	2.088	0	42	6932598	0
	Pb	208	317.635	ug/L	2.145	0	562	9271624	1
	Bi	209		ug/L			248344	234913	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:50:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	254722 ✓	1
	As	75	50.286	ug/L	0.618	1	200	75125	0
	As-1	75	50.249	ug/L	0.507	1	7304	80648	0
	Se	82	51.721	ug/L	0.806	1	-6	8339	0
	Se	78	51.747	ug/L	0.472	0	7429	27098	0
	Cl	37		mg/L			2274202	2308352	1
	Y	89		ug/L			250297	261298	1
	Kr	83		ug/L			145	163	0
>	In	115		ug/L			260330	275375 ✓	0
	Ag	107	50.617	ug/L	0.348	0	29	456441	0
	Cd	111	49.757	ug/L	0.339	0	125	116160	0
	Cd	114	49.139	ug/L	0.350	0	25	263309	0
	Sb	121	49.599	ug/L	0.422	0	19	393087	1
	Sb	123	48.730	ug/L	0.839	1	18	291171	1
>	Tb	159		ug/L			303244	308859 ✓	0
	Tl	205	48.561	ug/L	0.918	1	42	1100046	1
	Pb	208	51.414	ug/L	0.546	1	562	1510939	1
	Bi	209		ug/L			248344	258925	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:55:52
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	254949 ✓	0
|	As	75	0.048	ug/L	0.027	56	200	272	14
|	As-1	75	0.297	ug/L	0.009	2	7304	7744	0
|	Se	82	0.025	ug/L	0.047	190	-6	-2	318
L	Se	78	1.039	ug/L	0.052	5	7429	7831	0
	Cl	37		mg/L			2274202	2319774	1
	Y	89		ug/L			250297	259314	0
	Kr	83		ug/L			145	154	3
[>	In	115		ug/L			260330	275284 ✓	1
|	Ag	107	0.014	ug/L	0.005	33	29	153	25
|	Cd	111	0.004	ug/L	0.007	178	125	141	13
|	Cd	114	-0.002	ug/L	0.001	56	25	16	37
|	Sb	121	0.055	ug/L	0.010	18	19	458	16
L	Sb	123	0.053	ug/L	0.004	7	18	334	4
[>	Tb	159		ug/L			303244	306935 ✓	1
|	Tl	205	0.006	ug/L	0.002	33	42	180	26
|	Pb	208	0.004	ug/L	0.001	15	562	693	1
L	Bi	209		ug/L			248344	263970	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 10:03:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Ge**	**72**		ug/L			254717	256548 ✓	0
|	**As**	**75**	U **0.009**	ug/L	0.004	40	200	216	3
|	**As-1**	**75**	**0.312**	ug/L	0.027	8	7304	7815	0
|	**Se**	**82**	**-0.069**	ug/L	0.051	73	-6	-17	47
[	**Se**	**78**	**1.107**	ug/L	0.150	13	7429	7906	0
	Cl	**37**		mg/L			2274202	2289443	0
	Y	**89**		ug/L			250297	261857	1
	Kr	**83**		ug/L			145	149	3
[>	**In**	**115**		ug/L			260330	274065 ✓	0
|	**Ag**	**107**	**0.005**	ug/L	0.002	33	29	75	20
|	**Cd**	**111**	U **0.002**	ug/L	0.003	154	125	136	6
|	**Cd**	**114**	**-0.002**	ug/L	0.001	29	25	14	27
|	**Sb**	**121**	U **0.048**	ug/L	0.003	6	19	401	6
[	**Sb**	**123**	**0.053**	ug/L	0.004	6	18	333	6
[>	**Tb**	**159**		ug/L			303244	312993 ✓	1
|	**Tl**	**205**	U **0.005**	ug/L	0.002	31	42	159	23
|	**Pb**	**208**	U **0.001**	ug/L	0.001	78	562	620	3
[	**Bi**	**209**		ug/L			248344	263898	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC43 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 10:07:49
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	258736 ✓	0
	As	75	4.334	ug/L	0.019	0	200	6764	0
	As-1	75	4.649	ug/L	0.054	1	7304	14164	0
	Se	82	0.138	ug/L	0.045	32	-6	16	45
	Se	78	0.793	ug/L	0.124	15	7429	7853	0
	Cl	37		mg/L			2274202	2308717	1
	Y	89		ug/L			250297	367673	0
	Kr	83		ug/L			145	172	5
>	In	115		ug/L			260330	274818 ✓	0
	Ag	107	0.066	ug/L	0.003	4	29	629	5
	Cd	111	0.333	ug/L	0.006	1	125	907	1
	Cd	114	0.198	ug/L	0.009	4	25	1084	4
	Sb	121	0.025	ug/L	0.001	4	19	221	4
	Sb	123	0.027	ug/L	0.002	7	18	180	6
>	Tb	159		ug/L			303244	319774 ✓	0
	Tl	205	0.131	ug/L	0.004	3	42	3119	2
	Pb	208	3.008	ug/L	0.011	0	562	92083	1
	Bi	209		ug/L			248344	266029	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC43 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 10:12:38
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	268712	1
|	As	75	4.612	ug/L	0.130	2	200	7460	1
|	As-1	75	4.690	ug/L	0.164	3	7304	14925	0
|	Se	82	0.212	ug/L	0.033	15	-6	29	20
|	Se	78	0.299	ug/L	0.243	81	7429	7957	1
	Cl	37		mg/L			2274202	2326307	0
	Y	89		ug/L			250297	370111	0
	Kr	83		ug/L			145	175	3
[>	In	115		ug/L			260330	283578	1
|	Ag	107	0.115	ug/L	0.002	1	29	1100	0
|	Cd	111	0.574	ug/L	0.021	3	125	1515	3
|	Cd	114	0.443	ug/L	0.009	2	25	2473	2
|	Sb	121	0.035	ug/L	0.001	3	19	302	1
|	Sb	123	0.035	ug/L	0.005	13	18	233	11
[>	Tb	159		ug/L			303244	328192	2
|	Tl	205	0.151	ug/L	0.002	1	42	3670	2
|	Pb	208	11.991	ug/L	0.250	2	562	374809	0
|	Bi	209		ug/L			248344	268158	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 10:17:26
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	257183 ✓	1
|	As	75	4.959	ug/L	0.058	1	200	7662	0
|	As-1	75	5.364	ug/L	0.081	1	7304	15278	0
|	Se	82	0.151	ug/L	0.046	30	-6	18	41
|	Se	78	1.389	ug/L	0.129	9	7429	8034	0
	Cl	37		mg/L			2274202	2433543	0
	Y	89		ug/L			250297	270722	0
	Kr	83		ug/L			145	157	1
[>	In	115		ug/L			260330	274988 ✓	1
|	Ag	107	0.012	ug/L	0.001	5	29	142	3
|	Cd	111	< 0.047	ug/L	0.005	9	125	241	3
|	Cd	114	0.019	ug/L	0.001	3	25	128	1
|	Sb	121	0.715	ug/L	0.019	2	19	5675	2
|	Sb	123	0.712	ug/L	0.014	1	18	4267	0
[>	Tb	159		ug/L			303244	317766 ✓	0
|	Tl	205	< 0.004	ug/L	0.002	42	42	129	28
|	Pb	208	0.330	ug/L	0.003	0	562	10577	0
|	Bi	209		ug/L			248344	256750	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 10:22:17
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L			254717	269800 ✓	0
|	As	75	0.719	ug/L	0.007	0	200	1348	1
|	As-1	75	0.883	ug/L	0.073	8	7304	9102	0
|	Se	82	0.144	ug/L	0.061	42	-6	17	58
⌊	Se	78	0.696	ug/L	0.248	35	7429	8149	0
	Cl	37		mg/L			2274202	2460446	1
	Y	89		ug/L			250297	270938	1
	Kr	83		ug/L			145	148	2
⌈>	In	115		ug/L			260330	282804 ✓	1
|	Ag	107	0.001	ug/L	0.001	58	29	43	15
|	Cd	111	U 0.026	ug/L	0.006	24	125	197	7
|	Cd	114	0.025	ug/L	0.002	6	25	163	6
|	Sb	121	0.307	ug/L	0.009	2	19	2521	2
⌊	Sb	123	0.304	ug/L	0.003	0	18	1888	2
⌈>	Tb	159		ug/L			303244	324752 ✓	0
|	Tl	205	U 0.001	ug/L	0.000	57	42	64	17
|	Pb	208	U 0.015	ug/L	0.001	8	562	1052	3
⌊	Bi	209		ug/L			248344	268238	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 10:27:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Ge**	**72**		ug/L			254717	261010 ✓	0
	As	**75**	**2.536**	ug/L	0.002	0	200	4078	0
	As-1	**75**	**2.800**	ug/L	0.013	0	7304	11672	0
	Se	**82**	**0.118**	ug/L	0.036	30	-6	12	46
[	**Se**	**78**	**0.961**	ug/L	0.033	3	7429	7987	0
	Cl	**37**		mg/L			2274202	2469579	0
	Y	**89**		ug/L			250297	264366	1
	Kr	**83**		ug/L			145	152	2
[>	**In**	**115**		ug/L			260330	272060 ✓	0
	Ag	**107**	**0.004**	ug/L	0.000	7	29	63	4
	Cd	**111**	U **0.031**	ug/L	0.009	29	125	202	10
	Cd	**114**	**0.023**	ug/L	0.004	17	25	146	14
	Sb	**121**	**0.560**	ug/L	0.009	1	19	4408	2
[	**Sb**	**123**	**0.555**	ug/L	0.007	1	18	3296	0
[>	**Tb**	**159**		ug/L			303244	311655 ✓	0
	Tl	**205**	U **0.002**	ug/L	0.000	18	42	79	7
	Pb	**208**	**0.145**	ug/L	0.003	2	562	4870	1
[	**Bi**	**209**		ug/L			248344	258707	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 10:31:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	259513 ✓	0
	As	75	2.475	ug/L	0.027	1	200	3961	0
	As-1	75	2.658	ug/L	0.069	2	7304	11394	0
	Se	82	0.106	ug/L	0.066	61	-6	10	97
	Se	78	0.645	ug/L	0.173	26	7429	7818	0
	Cl	37		mg/L			2274202	2483690	0
	Y	89		ug/L			250297	258771	1
	Kr	83		ug/L			145	151	6
>	In	115		ug/L			260330	267017 ✓	0
	Ag	107	0.004	ug/L	0.001	38	29	63	19
	Cd	111	U 0.025	ug/L	0.003	12	125	184	4
	Cd	114	0.024	ug/L	0.001	5	25	148	3
	Sb	121	0.553	ug/L	0.012	2	19	4269	2
	Sb	123	0.560	ug/L	0.005	0	18	3262	0
>	Tb	159		ug/L			303244	309151 ✓	1
	Tl	205	U 0.002	ug/L	0.001	50	42	81	23
	Pb	208	0.143	ug/L	0.002	1	562	4790	0
	Bi	209		ug/L			248344	254297	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 10:36:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	255773 ✓	0
	As	75	29.247	ug/L	0.294	1	200	43961	0
	As-1	75	28.407	ug/L	0.388	1	7304	48970	0
	Se	82	80.528	ug/L	0.559	0	-6	13043	0
[	Se	78	81.354	ug/L	0.929	1	7429	38511	0
	Cl	37		mg/L			2274202	2463286	0
	Y	89		ug/L			250297	256901	1
	Kr	83		ug/L			145	155	4
[>	In	115		ug/L			260330	267068 ✓	0
	Ag	107	24.819	ug/L	0.267	1	29	217064	0
	Cd	111	24.455	ug/L	0.547	2	125	55431	1
	Cd	114	24.894	ug/L	0.197	0	25	129381	0
	Sb	121	24.164	ug/L	0.111	0	19	185728	0
[	Sb	123	23.908	ug/L	0.188	0	18	138560	0
[>	Tb	159		ug/L			303244	306010 ✓	1
	Tl	205	24.816	ug/L	0.625	2	42	556959	2
	Pb	208	26.470	ug/L	0.173	0	562	770961	1
[	Bi	209		ug/L			248344	253073	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WC79 APOST REN~~ 222222
Sample Dil Factor: 2 BA 2/8/13
Comments:
Sample Date/Time: Friday, February 08, 2013 10:41:34
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	251749	1
	As	75	28.914	ug/L	0.116	0	200	42778	0
	As-1	75	28.209	ug/L	0.150	0	7304	47913	0
	Se	82	79.193	ug/L	0.766	0	-6	12624	0
[	Se	78	80.486	ug/L	1.020	1	7429	37577	0
	Cl	37		mg/L			2274202	2450254	0
	Y	89		ug/L			250297	253114	0
	Kr	83		ug/L			145	157	2
[>	In	115		ug/L			260330	258803	0
	Ag	107	24.785	ug/L	0.175	0	29	210065	0
	Cd	111	24.163	ug/L	0.227	0	125	53083	1
	Cd	114	24.026	ug/L	0.562	2	25	120998	1
	Sb	121	0.540	ug/L	0.021	3	19	4041	4
[	Sb	123	0.572	ug/L	0.049	8	18	3230	8
[>	Tb	159		ug/L			303244	299850	1
	Tl	205	24.417	ug/L	0.622	2	42	536889	0
	Pb	208	26.062	ug/L	0.572	2	562	743656	0
[	Bi	209		ug/L			248344	248395	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 10:46:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	258039 ✓	0
	As	75	26.601	ug/L	0.223	0	200	40356	0
	As-1	75	25.721	ug/L	0.111	0	7304	45433	0
	Se	82	80.615	ug/L	1.455	1	-6	13172	1
	Se	78	81.491	ug/L	0.854	1	7429	38905	0
	Cl	37		mg/L			2274202	2388621	0
	Y	89		ug/L			250297	252604	0
	Kr	83		ug/L			145	154	2
>	In	115		ug/L			260330	265218 ✓	1
	Ag	107	25.664	ug/L	0.489	1	29	222879	1
	Cd	111	25.031	ug/L	0.473	1	125	56334	0
	Cd	114	25.125	ug/L	0.505	2	25	129654	0
	Sb	121	23.778	ug/L	0.311	1	19	181472	0
	Sb	123	23.897	ug/L	0.416	1	18	137511	0
>	Tb	159		ug/L			303244	307615 ✓	0
	Tl	205	25.158	ug/L	0.444	1	42	567633	1
	Pb	208	26.803	ug/L	0.268	0	562	784782	1
	Bi	209		ug/L			248344	258348	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 10:51:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	253173 ✓	0
	As	75	49.030	ug/L	0.392	0	200	72810	0
	As-1	75	49.375	ug/L	0.312	0	7304	78891	0
	Se	82	49.202	ug/L	0.740	1	-6	7885	0
	Se	78	50.612	ug/L	0.581	1	7429	26504	0
	Cl	37		mg/L			2274202	2413680	1
	Y	89		ug/L			250297	247092	0
	Kr	83		ug/L			145	165	4
[>	In	115		ug/L			260330	257302 ✓	1
	Ag	107	49.661	ug/L	0.411	0	29	418449	1
	Cd	111	49.300	ug/L	0.731	1	125	107533	0
	Cd	114	49.788	ug/L	0.773	1	25	249260	0
	Sb	121	49.914	ug/L	0.377	0	19	369603	1
	Sb	123	50.061	ug/L	0.788	1	18	279484	0
[>	Tb	159		ug/L			303244	297645 ✓	1
	Tl	205	48.014	ug/L	0.703	1	42	1048157	1
	Pb	208	50.109	ug/L	0.509	1	562	1418983	0
	Bi	209		ug/L			248344	245276	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 10:56:23
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	253732 ✓	0
	As	75	0.035	ug/L	0.010	28	200	251	5
	As-1	75	0.198	ug/L	0.038	19	7304	7563	0
	Se	82	-0.086	ug/L	0.039	45	-6	-20	31
	Se	78	0.666	ug/L	0.149	22	7429	7652	0
	Cl	37		mg/L			2274202	2488215	0
	Y	89		ug/L			250297	246881	0
	Kr	83		ug/L			145	164	1
>	In	115		ug/L			260330	262318 ✓	0
	Ag	107	0.005	ug/L	0.000	4	29	70	2
	Cd	111	0.007	ug/L	0.003	48	125	141	5
	Cd	114	-0.002	ug/L	0.001	27	25	13	23
	Sb	121	0.023	ug/L	0.005	21	19	193	19
	Sb	123	0.022	ug/L	0.007	30	18	143	26
>	Tb	159		ug/L			303244	293672 ✓	0
	Tl	205	0.003	ug/L	0.001	19	42	98	11
	Pb	208	0.005	ug/L	0.001	12	562	685	3
	Bi	209		ug/L			248344	246701	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:00:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	259015	0
|	As	75	0.030	ug/L	0.023	75	200	250	13
|	As-1	75	0.155	ug/L	0.028	17	7304	7657	0
|	Se	82	0.044	ug/L	0.057	127	-6	0	1125
|	Se	78	0.502	ug/L	0.078	15	7429	7748	0
	Cl	37		mg/L			2274202	2458051	0
	Y	89		ug/L			250297	255232	0
	Kr	83		ug/L			145	144	6
[>	In	115		ug/L			260330	271461	0
|	Ag	107	0.002	ug/L	0.001	51	29	46	16
|	Cd	111	0.011	ug/L	0.005	49	125	155	7
|	Cd	114	-0.001	ug/L	0.000	35	25	20	12
|	Sb	121	0.040	ug/L	0.003	6	19	332	6
|	Sb	123	0.037	ug/L	0.002	6	18	240	6
[>	Tb	159		ug/L			303244	307657	0
|	Tl	205	0.003	ug/L	0.001	35	42	106	21
|	Pb	208	0.006	ug/L	0.001	19	562	755	4
|	Bi	209		ug/L			248344	259139	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:05:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	257949 ✓	0
|	As	75	263.306	ug/L	2.941	1	200	397526	1
|	As-1	75	268.824	ug/L	3.031	1	7304	404777	1
|	Se	82	0.359	ug/L	0.060	16	-6	52	19
L	Se	78	0.553	ug/L	0.144	26	7429	7736	0
	Cl	37		mg/L			2274202	2477124	0
	Y	89		ug/L			250297	261603	0
	Kr	83		ug/L			145	149	3
[>	In	115		ug/L			260330	269387 ✓	2
|	Ag	107	0.007	ug/L	0.001	19	29	92	12
|	Cd	111	U 0.031	ug/L	0.015	47	125	199	16
|	Cd	114	0.027	ug/L	0.002	9	25	166	9
|	Sb	121	1.467	ug/L	0.024	1	19	11393	0
L	Sb	123	1.444	ug/L	0.019	1	18	8464	3
[>	Tb	159		ug/L			303244	311214 ✓	2
|	Tl	205	U 0.002	ug/L	0.000	21	42	88	9
|	Pb	208	0.327	ug/L	0.007	2	562	10248	3
L	Bi	209		ug/L			248344	254992	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:10:19
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Ge**	**72**		ug/L			254717	250728 ✓	0
|	**As**	**75**	**233.163**	ug/L	2.386	1	200	342167	0
|	**As-1**	**75**	**238.108**	ug/L	2.461	1	7304	349293	0
|	**Se**	**82**	**0.303**	ug/L	0.081	26	-6	41	31
L	**Se**	**78**	**0.761**	ug/L	0.121	15	7429	7598	0
	Cl	**37**		mg/L			2274202	2433660	0
	Y	**89**		ug/L			250297	249465	1
	Kr	**83**		ug/L			145	154	6
[>	**In**	**115**		ug/L			260330	258680 ✓	0
|	**Ag**	**107**	**0.038**	ug/L	0.004	9	29	348	8
|	**Cd**	**111**	U **0.068**	ug/L	0.010	14	125	273	8
|	**Cd**	**114**	**0.069**	ug/L	0.000	0	25	375	0
|	**Sb**	**121**	**9.113**	ug/L	0.094	1	19	67856	0
L	**Sb**	**123**	**9.050**	ug/L	0.079	0	18	50814	0
[>	**Tb**	**159**		ug/L			303244	298197 ✓	0
|	**Tl**	**205**	U **0.004**	ug/L	0.000	10	42	119	5
|	**Pb**	**208**	**2.326**	ug/L	0.042	1	562	66528	0
L	**Bi**	**209**		ug/L			248344	244755	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:15:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Ge**	**72**		ug/L			254717	248117	0
	As	**75**	**2.078**	ug/L	0.016	0	200	3211	0
	As-1	**75**	**2.280**	ug/L	0.042	1	7304	10357	0
	Se	**82**	**0.276**	ug/L	0.045	16	-6	37	19
	Se	**78**	**0.980**	ug/L	0.110	11	7429	7600	0
	Cl	**37**		mg/L			2274202	2668132	0
	Y	**89**		ug/L			250297	247737	0
	Kr	**83**		ug/L			145	151	4
>	**In**	**115**		ug/L			260330	257699	0
	Ag	**107**	**0.001**	ug/L	0.001	71	29	38	16
	Cd	**111**	**0.000**	ug/L	0.010	22789	125	124	18
	Cd	**114**	**0.007**	ug/L	0.002	23	25	59	14
	Sb	**121**	**0.324**	ug/L	0.009	2	19	2419	2
	Sb	**123**	**0.321**	ug/L	0.005	1	18	1814	1
>	**Tb**	**159**		ug/L			303244	300628	0
	Tl	**205**	**0.001**	ug/L	0.000	55	42	59	15
	Pb	**208**	**0.030**	ug/L	0.001	2	562	1428	0
	Bi	**209**		ug/L			248344	241349	1

WC79 08114

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:19:54
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	250698 ✓	0
	As	75	0.768	ug/L	0.022	2	200	1324	3
	As-1	75	0.952	ug/L	0.056	5	7304	8555	0
	Se	82	0.147	ug/L	0.114	77	-6	17	105
	Se	78	0.912	ug/L	0.217	23	7429	7653	0
	Cl	37		mg/L			2274202	2542383	0
	Y	89		ug/L			250297	253540	1
	Kr	83		ug/L			145	159	5
>	In	115		ug/L			260330	262970 ✓	1
	Ag	107	0.001	ug/L	0.001	137	29	36	25
	Cd	111	U 0.005	ug/L	0.004	74	125	137	5
	Cd	114	0.002	ug/L	0.001	78	25	33	18
	Sb	121	0.380	ug/L	0.013	3	19	2891	2
	Sb	123	0.383	ug/L	0.006	1	18	2201	0
>	Tb	159		ug/L			303244	303205 ✓	1
	Tl	205	U 0.000	ug/L	0.000	124	42	49	19
	Pb	208	U 0.032	ug/L	0.001	4	562	1472	2
	Bi	209		ug/L			248344	251485	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 HDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:24:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	258718 ✓	0
	As	75	3.978	ug/L	0.071	1	200	6224	1
	As-1	75	4.089	ug/L	0.145	3	7304	13481	1
	Se	82	0.065	ug/L	0.028	43	-6	4	109
	Se	78	0.276	ug/L	0.353	128	7429	7652	1
	Cl	37		mg/L			2274202	2521823	0
	Y	89		ug/L			250297	265453	1
	Kr	83		ug/L			145	161	1
>	In	115		ug/L			260330	275831 ✓	1
	Ag	107	0.009	ug/L	0.001	14	29	116	10
	Cd	111	U 0.042	ug/L	0.008	18	125	231	6
	Cd	114	0.029	ug/L	0.002	8	25	182	8
	Sb	121	0.626	ug/L	0.014	2	19	4193	3
	Sb	123	0.621	ug/L	0.010	1	18	3136	3
>	Tb	159		ug/L			303244	317416 ✓	0
	Tl	205	U 0.002	ug/L	0.001	27	42	94	15
	Pb	208	0.619	ug/L	0.012	1	562	19264	2
	Bi	209		ug/L			248344	263429	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:29:33
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	254959 ✓	0
|	As	75	3.975	ug/L	0.039	0	200	6128	0
|	As-1	75	4.232	ug/L	0.066	1	7304	13494	0
|	Se	82	0.126	ug/L	0.081	64	-6	13	93
|	Se	78	0.877	ug/L	0.146	16	7429	7770	0
	Cl	37		mg/L			2274202	2498499	0
	Y	89		ug/L			250297	259717	1
	Kr	83		ug/L			145	156	5
[>	In	115		ug/L			260330	270378 ✓	0
|	Ag	107	0.008	ug/L	0.001	16	29	99	10
|	Cd	111	U 0.042	ug/L	0.004	8	125	225	3
|	Cd	114	0.027	ug/L	0.003	13	25	166	11
|	Sb	121	0.520	ug/L	0.017	3	19	4065	2
|	Sb	123	0.522	ug/L	0.019	3	18	3084	4
[>	Tb	159		ug/L			303244	308517 ✓	1
|	Tl	205	U 0.002	ug/L	0.000	9	42	80	3
|	Pb	208	0.610	ug/L	0.006	0	562	18474	0
[	Bi	209		ug/L			248344	258275	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 HSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:34:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	**Ge**	**72**		ug/L			254717	255262 ✓	0
|	**As**	**75**	**31.729**	ug/L	0.421	1	200	47578	0
|	**As-1**	**75**	**30.815**	ug/L	0.253	0	7304	52395	0
|	**Se**	**82**	**82.939**	ug/L	1.189	1	-6	13406	0
⌊	**Se**	**78**	**83.526**	ug/L	0.606	0	7429	39261	0
	Cl	**37**		mg/L			2274202	2504418	0
	Y	**89**		ug/L			250297	262487	0
	Kr	**83**		ug/L			145	162	4
⌈>	**In**	**115**		ug/L			260330	268136 ✓	1
|	**Ag**	**107**	**25.350**	ug/L	0.403	1	29	222575	0
|	**Cd**	**111**	**25.342**	ug/L	0.419	1	125	57663	0
|	**Cd**	**114**	**25.498**	ug/L	0.630	2	25	133025	1
|	**Sb**	**121**	**24.032**	ug/L	0.386	1	19	185436	0
⌊	**Sb**	**123**	**23.990**	ug/L	0.629	2	18	139566	1
⌈>	**Tb**	**159**		ug/L			303244	309726 ✓	1
|	**Tl**	**205**	**25.528**	ug/L	0.644	2	42	579840	1
|	**Pb**	**208**	**27.619**	ug/L	0.169	0	562	814157	0
⌊	**Bi**	**209**		ug/L			248344	253807	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WC79 HPOST REN~~ ZZZZZZ
Sample Dil Factor: 2 BA 2/8/13
Comments:
Sample Date/Time: Friday, February 08, 2013 11:39:14
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	255792 ✓	0
	As	75	31.141	ug/L	0.417	1	200	46797	0
	As-1	75	30.291	ug/L	0.388	1	7304	51735	0
	Se	82	82.182	ug/L	1.134	1	-6	13312	1
	Se	78	83.040	ug/L	1.179	1	7429	39157	0
	Cl	37		mg/L			2274202	2497222	0
	Y	89		ug/L			250297	262407	0
	Kr	83		ug/L			145	168	2
>	In	115		ug/L			260330	269547 ✓	0
	Ag	107	25.030	ug/L	0.262	1	29	220938	0
	Cd	111	24.541	ug/L	0.053	0	125	56145	0
	Cd	114	24.691	ug/L	0.231	0	25	129517	0
	Sb	121	0.504	ug/L	0.009	1	19	3927	1
	Sb	123	0.510	ug/L	0.002	0	18	3003	0
>	Tb	159		ug/L			303244	308743 ✓	0
	Tl	205	25.160	ug/L	0.074	0	42	569788	0
	Pb	208	26.970	ug/L	0.200	0	562	792589	1
	Bi	209		ug/L			248344	258818	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:44:04
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Ge	72		ug/L			254717	253801	1
As	75	27.551	ug/L	0.628	2	200	41098	1
As-1	75	26.786	ug/L	0.521	1	7304	46231	0
Se	82	83.977	ug/L	1.653	1	-6	13495	0
Se	78	85.611	ug/L	1.237	1	7429	39824	0
Cl	37		mg/L			2274202	2402375	0
Y	89		ug/L			250297	257062	0
Kr	83		ug/L			145	171	2
In	115		ug/L			260330	267421	0
Ag	107	27.183	ug/L	0.352	1	29	238058	1
Cd	111	25.900	ug/L	0.189	0	125	58780	1
Cd	114	26.065	ug/L	0.465	1	25	135642	1
Sb	121	24.296	ug/L	0.345	1	19	186986	1
Sb	123	24.428	ug/L	0.359	1	18	141763	1
Tb	159		ug/L			303244	308261	0
Tl	205	26.143	ug/L	0.627	2	42	591040	1
Pb	208	27.752	ug/L	0.374	1	562	814186	0
Bi	209		ug/L			248344	263081	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 11:48:55
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L			254717	247559 ✓	0
|	As	75	49.778	ug/L	0.391	0	200	72279	0
|	As-1	75	50.102	ug/L	0.393	0	7304	78173	0
|	Se	82	50.169	ug/L	0.466	0	-6	7862	0
⌊	Se	78	51.583	ug/L	0.332	0	7429	26276	0
	Cl	37		mg/L			2274202	2423061	0
	Y	89		ug/L			250297	248154	1
	Kr	83		ug/L			145	171	3
⌈>	In	115		ug/L			260330	257505 ✓	0
|	Ag	107	50.295	ug/L	0.109	0	29	424112	0
|	Cd	111	49.977	ug/L	0.768	1	125	109104	1
|	Cd	114	49.965	ug/L	0.526	1	25	250354	0
|	Sb	121	50.035	ug/L	0.440	0	19	370798	1
⌊	Sb	123	49.771	ug/L	0.527	1	18	278099	0
⌈>	Tb	159		ug/L			303244	294805 ✓	0
|	Tl	205	48.159	ug/L	0.666	1	42	1041363	1
|	Pb	208	50.444	ug/L	0.685	1	562	1415023	1
⌊	Bi	209		ug/L			248344	243700	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 11:54:04
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	247397 ✓	0
|	As	75	0.062	ug/L	0.020	31	200	284	10
|	As-1	75	0.535	ug/L	0.040	7	7304	7853	0
|	Se	82	-0.042	ug/L	0.060	142	-6	-12	73
L	Se	78	1.936	ug/L	0.125	6	7429	7931	0
	Cl	37		mg/L			2274202	2469944	0
	Y	89		ug/L			250297	248048	1
	Kr	83		ug/L			145	166	2
[>	In	115		ug/L			260330	259173 ✓	1
|	Ag	107	0.004	ug/L	0.001	26	29	64	15
|	Cd	111	0.002	ug/L	0.004	226	125	128	7
|	Cd	114	-0.002	ug/L	0.001	23	25	13	21
|	Sb	121	0.022	ug/L	0.004	18	19	182	17
L	Sb	123	0.022	ug/L	0.006	28	18	144	25
[>	Tb	159		ug/L			303244	287490 ✓	0
|	Tl	205	0.004	ug/L	0.001	33	42	118	22
|	Pb	208	0.005	ug/L	0.001	18	562	680	3
L	Bi	209		ug/L			248344	244157	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 I REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:59:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	246108 ✓	0
|	As	75	6.741	ug/L	0.049	0	200	9899	0
|	As-1	75	7.414	ug/L	0.133	1	7304	17513	1
|	Se	82	0.102	ug/L	0.007	6	-6	9	11
|	Se	78	2.337	ug/L	0.352	15	7429	8037	1
	Cl	37		mg/L			2274202	2499797	0
	Y	89		ug/L			250297	255499	1
	Kr	83		ug/L			145	167	3
[>	In	115		ug/L			260330	260410 ✓	0
|	Ag	107	0.025	ug/L	0.002	6	29	239	5
|	Cd	111	U 0.071	ug/L	0.009	13	125	280	6
|	Cd	114	0.041	ug/L	0.001	3	25	232	2
|	Sb	121	0.626	ug/L	0.022	3	19	4712	2
|	Sb	123	0.611	ug/L	0.009	1	18	3474	1
[>	Tb	159		ug/L			303244	293776 ✓	0
|	Tl	205	U 0.004	ug/L	0.001	15	42	121	10
|	Pb	208	0.865	ug/L	0.005	0	562	24719	0
|	Bi	209		ug/L			248344	241077	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 J REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 12:04:02
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	250817 ✓	0
	As	75	1.150	ug/L	0.043	3	200	1885	3
	As-1	75	1.552	ug/L	0.080	5	7304	9423	0
	Se	82	0.030	ug/L	0.035	117	-6	-1	358
	Se	78	1.637	ug/L	0.207	12	7429	7928	0
	Cl	37		mg/L			2274202	2467701	0
	Y	89		ug/L			250297	249909	0
	Kr	83		ug/L			145	166	5
>	In	115		ug/L			260330	264159 ✓	0
	Ag	107	0.001	ug/L	0.001	100	29	38	20
	Cd	111	U 0.047	ug/L	0.010	21	125	231	9
	Cd	114	0.034	ug/L	0.004	11	25	202	9
	Sb	121	0.243	ug/L	0.007	3	19	1867	2
	Sb	123	0.242	ug/L	0.004	1	18	1408	2
>	Tb	159		ug/L			303244	297795 ✓	0
	Tl	205	U 0.000	ug/L	0.000	67	42	48	9
	Pb	208	0.447	ug/L	0.006	1	562	13221	0
	Bi	209		ug/L			248344	249369	0

WC79 08124

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 K REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 12:08:51
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

RR As (5x)

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	246029 ✓	1
	As	75	362.293	ug/L	5.507	1	200	521553	0
	As-1	75	370.185	ug/L	5.685	1	7304	528911	0
	Se	82	0.251	ug/L	0.022	8	-6	32	10
	Se	78	1.793	ug/L	0.272	15	7429	7833	0
	Cl	37		mg/L			2274202	2430564	0
	Y	89		ug/L			250297	257057	0
	Kr	83		ug/L			145	165	1
>	In	115		ug/L			260330	259343 ✓	1
	Ag	107	0.026	ug/L	0.004	13	29	252	13
	Cd	111	U 0.068	ug/L	0.005	7	125	274	3
	Cd	114	0.052	ug/L	0.005	9	25	289	9
	Sb	121	1.329	ug/L	0.027	2	19	9933	0
	Sb	123	1.335	ug/L	0.028	2	18	7527	1
>	Tb	159		ug/L			303244	294200 ✓	1
	Tl	205	U 0.004	ug/L	0.001	18	42	136	11
	Pb	208	1.870	ug/L	0.035	1	562	52853	0
	Bi	209		ug/L			248344	240916	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 L REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 12:13:39
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

RR As (5x)

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Ge**	**72**		ug/L			254717	243945 ✓	0
	As	**75**	**326.988**	ug/L	1.822	0	200	466807	0
	As-1	**75**	**334.064**	ug/L	1.852	0	7304	473989	0
	Se	**82**	**0.349**	ug/L	0.081	23	-6	47	25
[	**Se**	**78**	**1.601**	ug/L	0.137	8	7429	7698	0
	Cl	**37**		mg/L			2274202	2371208	0
	Y	**89**		ug/L			250297	247876	0
	Kr	**83**		ug/L			145	165	3
[>	**In**	**115**		ug/L			260330	256685 ✓	1
	Ag	**107**	**0.089**	ug/L	0.000	0	29	780	0
	Cd	**111**	**0.152**	ug/L	0.009	5	125	453	4
	Cd	**114**	**0.148**	ug/L	0.003	1	25	766	0
	Sb	**121**	**9.084**	ug/L	0.056	0	19	67122	1
[	**Sb**	**123**	**9.079**	ug/L	0.137	1	18	50580	0
[>	**Tb**	**159**		ug/L			303244	293127 ✓	1
	Tl	**205**	U **0.003**	ug/L	0.001	24	42	105	16
	Pb	**208**	**6.250**	ug/L	0.117	1	562	174754	0
[	**Bi**	**209**		ug/L			248344	240629	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 M REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 12:18:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	243855	0
	As	75	3.501	ug/L	0.061	1	200	5186	1
	As-1	75	3.953	ug/L	0.084	2	7304	12516	0
	Se	82	0.205	ug/L	0.063	30	-6	25	38
	Se	78	1.865	ug/L	0.081	4	7429	7791	0
	Cl	37		mg/L			2274202	2618959	0
	Y	89		ug/L			250297	247986	1
	Kr	83		ug/L			145	166	1
>	In	115		ug/L			260330	256623	0
	Ag	107	0.004	ug/L	0.000	11	29	60	6
	Cd	111	U 0.018	ug/L	0.007	37	125	163	9
	Cd	114	0.011	ug/L	0.001	6	25	80	3
	Sb	121	0.278	ug/L	0.010	3	19	2072	4
	Sb	123	0.276	ug/L	0.008	2	18	1555	2
>	Tb	159		ug/L			303244	290804	1
	Tl	205	U 0.001	ug/L	0.000	51	42	60	17
	Pb	208	0.294	ug/L	0.007	2	562	8668	1
	Bi	209		ug/L			248344	237398	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 N REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 12:23:15
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	243541 ✓	0
	As	75	1.357	ug/L	0.024	1	200	2125	2
	As-1	75	1.779	ug/L	0.052	2	7304	9466	0
	Se	82	0.116	ug/L	0.015	12	-6	11	19
	Se	78	1.833	ug/L	0.270	14	7429	7769	0
	Cl	37		mg/L			2274202	2519970	0
	Y	89		ug/L			250297	247281	0
	Kr	83		ug/L			145	167	3
>	In	115		ug/L			260330	257535 ✓	1
	Ag	107	0.002	ug/L	0.001	62	29	47	23
	Cd	111	U 0.011	ug/L	0.010	84	125	148	13
	Cd	114	0.008	ug/L	0.002	28	25	64	17
	Sb	121	0.313	ug/L	0.006	1	19	2340	0
	Sb	123	0.314	ug/L	0.010	3	18	1773	2
>	Tb	159		ug/L			303244	294488 ✓	1
	Tl	205	U 0.001	ug/L	0.001	62	42	62	20
	Pb	208	0.269	ug/L	0.004	1	562	8075	1
	Bi	209		ug/L			248344	239502	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 12:28:03
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L			254717	247587 ✓	0
|	As	75	50.354	ug/L	0.020	0	200	73124	0
|	As-1	75	50.886	ug/L	0.046	0	7304	79297	0
|	Se	82	50.797	ug/L	0.397	0	-6	7962	0
⌊	Se	78	52.970	ug/L	0.518	0	7429	26792	0
	Cl	37		mg/L			2274202	2440063	0
	Y	89		ug/L			250297	253430	1
	Kr	83		ug/L			145	165	4
⌈>	In	115		ug/L			260330	265801 ✓	0
|	Ag	107	50.087	ug/L	0.429	0	29	435950	0
|	Cd	111	50.075	ug/L	0.488	0	125	112838	1
|	Cd	114	49.515	ug/L	0.334	0	25	256105	1
|	Sb	121	49.892	ug/L	0.193	0	19	381642	0
⌊	Sb	123	49.428	ug/L	0.670	1	18	285080	0
⌈>	Tb	159		ug/L			303244	297876 ✓	0
|	Tl	205	47.811	ug/L	0.227	0	42	1044600	0
|	Pb	208	50.403	ug/L	0.648	1	562	1428539	1
⌊	Bi	209		ug/L			248344	246413	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 12:33:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	250169 ✓	0
|	As	75	0.069	ug/L	0.026	37	200	297	12
|	As-1	75	0.659	ug/L	0.051	7	7304	8117	0
|	Se	82	-0.009	ug/L	0.065	760	-6	-7	136
[	Se	78	2.405	ug/L	0.141	5	7429	8194	0
	Cl	37		mg/L			2274202	2489946	0
	Y	89		ug/L			250297	256576	1
	Kr	83		ug/L			145	166	2
[>	In	115		ug/L			260330	269732 ✓	0
|	Ag	107	0.004	ug/L	0.002	37	29	66	20
|	Cd	111	0.007	ug/L	0.006	98	125	144	10
|	Cd	114	-0.002	ug/L	0.001	37	25	18	16
|	Sb	121	0.019	ug/L	0.005	27	19	170	24
[	Sb	123	0.019	ug/L	0.003	13	18	132	11
[>	Tb	159		ug/L			303244	296288 ✓	0
|	Tl	205	0.004	ug/L	0.001	26	42	120	16
|	Pb	208	0.005	ug/L	0.001	9	562	699	1
[	Bi	209		ug/L			248344	248317	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 12:43:50
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	257782 ✓	0
	As	75	U 0.078	ug/L	0.021	26	200	321	10
	As-1	75	0.552	ug/L	0.059	10	7304	8206	0
	Se	82	0.005	ug/L	0.078	1591	-6	-5	229
[	Se	78	1.989	ug/L	0.231	11	7429	8283	0
	Cl	37		mg/L			2274202	2471869	0
	Y	89		ug/L			250297	262762	1
	Kr	83		ug/L			145	173	2
[>	In	115		ug/L			260330	278038 ✓	1
	Ag	107	0.000	ug/L	0.001	156	29	34	14
	Cd	111	0.007	ug/L	0.001	13	125	150	2
	Cd	114	-0.001	ug/L	0.001	54	25	21	17
	Sb	121	0.012	ug/L	0.001	11	19	114	7
[	Sb	123	0.013	ug/L	0.001	7	18	96	7
[>	Tb	159		ug/L			303244	304045 ✓	0
	Tl	205	U 0.002	ug/L	0.001	36	42	78	17
	Pb	208	-0.000	ug/L	0.000	524	562	561	2
[	Bi	209		ug/L			248344	254478	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 K REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, February 08, 2013 12:48:38
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Ge**	**72**		ug/L			254717	247008 ✓	0
|	**As**	**75**	**151.094**	ug/L	1.547	1	200	218512	0
|	**As-1**	**75**	**154.690**	ug/L	1.612	1	7304	226039	0
|	**Se**	**82**	**0.180**	ug/L	0.034	18	-6	21	24
[	**Se**	**78**	**2.179**	ug/L	0.182	8	7429	8007	0
	Cl	**37**		mg/L			2274202	2461664	0
	Y	**89**		ug/L			250297	251335	0
	Kr	**83**		ug/L			145	178	5
[>	**In**	**115**		ug/L			260330	258581 ✓	1
|	**Ag**	**107**	**0.012**	ug/L	0.001	10	29	135	7
|	**Cd**	**111**	**0.043**	ug/L	0.002	4	125	217	3
|	**Cd**	**114**	**0.021**	ug/L	0.002	7	25	129	7
|	**Sb**	**121**	**0.559**	ug/L	0.007	1	19	4175	0
[	**Sb**	**123**	**0.560**	ug/L	0.022	3	18	3163	3
[>	**Tb**	**159**		ug/L			303244	289469 ✓	0
|	**Tl**	**205**	**0.003**	ug/L	0.001	28	42	104	17
|	**Pb**	**208**	**0.771**	ug/L	0.003	0	562	21764	0
[	**Bi**	**209**		ug/L			248344	238976	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 L REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, February 08, 2013 12:53:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L			254717	241764 ✓	0
|	As	75	138.795	ug/L	1.305	0	200	196488	1
|	As-1	75	142.218	ug/L	1.413	0	7304	203970	1
|	Se	82	0.108	ug/L	0.024	22	-6	10	35
⌊	Se	78	2.449	ug/L	0.321	13	7429	7935	1
	Cl	37		mg/L			2274202	2403190	0
	Y	89		ug/L			250297	245198	1
	Kr	83		ug/L			145	178	4
⌈>	In	115		ug/L			260330	255699 ✓	0
|	Ag	107	0.039	ug/L	0.006	14	29	358	13
|	Cd	111	0.068	ug/L	0.003	4	125	269	1
|	Cd	114	0.062	ug/L	0.007	11	25	331	10
|	Sb	121	3.808	ug/L	0.025	0	19	28041	0
⌊	Sb	123	3.798	ug/L	0.040	1	18	21093	1
⌈>	Tb	159		ug/L			303244	285673 ✓	1
|	Tl	205	0.002	ug/L	0.000	23	42	79	11
|	Pb	208	2.602	ug/L	0.022	0	562	71228	0
⌊	Bi	209		ug/L			248344	241846	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 12:58:20
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	252422 ✓	0
	As	75	4.362	ug/L	0.027	0	200	6640	0
	As-1	75	4.826	ug/L	0.047	0	7304	14219	0
	Se	82	0.147	ug/L	0.037	25	-6	17	33
	Se	78	2.028	ug/L	0.119	5	7429	8126	0
	Cl	37		mg/L			2274202	2425296	0
	Y	89		ug/L			250297	350192	0
	Kr	83		ug/L			145	209	1
>	In	115		ug/L			260330	265014 ✓	1
	Ag	107	0.055	ug/L	0.004	7	29	510	8
	Cd	111	0.182	ug/L	0.006	3	125	535	3
	Cd	114	0.067	ug/L	0.004	5	25	369	4
	Sb	121	0.022	ug/L	0.002	9	19	188	7
	Sb	123	0.019	ug/L	0.003	17	18	127	13
>	Tb	159		ug/L			303244	302823 ✓	0
	Tl	205	0.050	ug/L	0.001	2	42	1160	2
	Pb	208	9.093	ug/L	0.129	1	562	262468	1
	Bi	209		ug/L			248344	254505	1

WC79 00134

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 13:03:11
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	250918 ✓	0
|	As	75	10.172	ug/L	0.070	0	200	15127	0
|	As-1	75	10.697	ug/L	0.097	0	7304	22575	0
|	Se	82	0.271	ug/L	0.036	13	-6	36	16
L	Se	78	1.986	ug/L	0.278	13	7429	8062	1
	Cl	37		mg/L			2274202	2419259	0
	Y	89		ug/L			250297	388240	0
	Kr	83		ug/L			145	215	3
[>	In	115		ug/L			260330	262026 ✓	0
|	Ag	107	0.085	ug/L	0.001	1	29	757	0
|	Cd	111	0.263	ug/L	0.028	10	125	709	8
|	Cd	114	0.096	ug/L	0.006	5	25	513	6
|	Sb	121	0.026	ug/L	0.002	7	19	213	6
L	Sb	123	0.023	ug/L	0.005	21	18	148	18
[>	Tb	159		ug/L			303244	302480 ✓	0
|	Tl	205	0.082	ug/L	0.002	2	42	1867	2
|	Pb	208	21.278	ug/L	0.076	0	562	612704	0
L	Bi	209		ug/L			248344	247720	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 13:08:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	255037 ✓	1
|	As	75	25.478	ug/L	0.418	1	200	38208	0
|	As-1	75	26.264	ug/L	0.468	1	7304	45692	0
|	Se	82	0.057	ug/L	0.009	16	-6	2	52
L	Se	78	1.339	ug/L	0.273	20	7429	7947	0
	Cl	37		mg/L			2274202	2479090	0
	Y	89		ug/L			250297	298039	0
	Kr	83		ug/L			145	190	1
[>	In	115		ug/L			260330	263615 ✓	1
|	Ag	107	0.066	ug/L	0.001	2	29	598	3
|	Cd	111	0.321	ug/L	0.027	8	125	843	7
|	Cd	114	0.210	ug/L	0.007	3	25	1103	4
|	Sb	121	0.046	ug/L	0.002	5	19	367	5
L	Sb	123	0.048	ug/L	0.004	7	18	291	5
[>	Tb	159		ug/L			303244	294307 ✓	0
|	Tl	205	0.023	ug/L	0.001	4	42	537	5
|	Pb	208	17.634	ug/L	0.105	0	562	494155	0
L	Bi	209		ug/L			248344	252340	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 13:12:51
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	253489 ✓	0
	As	75	24.928	ug/L	0.137	0	200	37165	0
	As-1	75	25.674	ug/L	0.157	0	7304	44563	0
	Se	82	0.068	ug/L	0.046	67	-6	4	159
	Se	78	1.210	ug/L	0.111	9	7429	7851	0
	Cl	37		mg/L			2274202	2455888	0
	Y	89		ug/L			250297	295354	0
	Kr	83		ug/L			145	184	5
>	In	115		ug/L			260330	263423 ✓	0
	Ag	107	0.070	ug/L	0.003	4	29	637	3
	Cd	111	0.297	ug/L	0.015	5	125	788	4
	Cd	114	0.173	ug/L	0.009	4	25	914	4
	Sb	121	0.048	ug/L	0.004	7	19	383	7
	Sb	123	0.044	ug/L	0.003	7	18	268	7
>	Tb	159		ug/L			303244	298279 ✓	1
	Tl	205	< 0.023	ug/L	0.001	4	42	537	5
	Pb	208	16.990	ug/L	0.178	1	562	482517	0
	Bi	209		ug/L			248344	252406	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 13:17:41
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	249300 ✓	0
|	As	75	50.509	ug/L	0.464	0	200	73854	0
|	As-1	75	50.329	ug/L	0.351	0	7304	79049	0
|	Se	82	74.716	ug/L	0.691	0	-6	11795	0
L	Se	78	76.187	ug/L	0.553	0	7429	35615	0
	Cl	37		mg/L			2274202	2461782	0
	Y	89		ug/L			250297	287280	0
	Kr	83		ug/L			145	190	1
[>	In	115		ug/L			260330	254956 ✓	1
|	Ag	107	23.627	ug/L	0.612	2	29	197244	1
|	Cd	111	24.734	ug/L	0.350	1	125	53518	0
|	Cd	114	24.348	ug/L	0.269	1	25	120799	0
|	Sb	121	0.049	ug/L	0.014	28	19	376	25
L	Sb	123	0.045	ug/L	0.004	7	18	266	6
[>	Tb	159		ug/L			303244	291468 ✓	0
|	Tl	205	23.903	ug/L	0.115	0	42	511029	0
|	Pb	208	42.503	ug/L	0.119	0	562	1178808	0
L	Bi	209		ug/L			248344	245211	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WC78 APOST SWN~~ ZZZZZZ
Sample Dil Factor: 20 BA 2/8/13
Comments:
Sample Date/Time: Friday, February 08, 2013 13:22:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	249060	0
|	As	75	51.566	ug/L	0.428	0	200	75324	0
|	As-1	75	51.143	ug/L	0.335	0	7304	80134	0
|	Se	82	81.066	ug/L	1.040	1	-6	12785	0
|	Se	78	81.945	ug/L	0.701	0	7429	37720	0
	Cl	37		mg/L			2274202	2459753	0
	Y	89		ug/L			250297	288283	1
	Kr	83		ug/L			145	179	4
[>	In	115		ug/L			260330	256918	0
|	Ag	107	25.250	ug/L	0.262	1	29	212435	0
|	Cd	111	24.947	ug/L	0.173	0	125	54397	0
|	Cd	114	24.577	ug/L	0.350	1	25	122884	1
|	Sb	121	0.067	ug/L	0.002	2	19	514	3
|	Sb	123	0.064	ug/L	0.003	5	18	375	5
[>	Tb	159		ug/L			303244	291764	0
|	Tl	205	24.982	ug/L	0.665	2	42	534605	2
|	Pb	208	43.484	ug/L	0.653	1	562	1207195	1
|	Bi	209		ug/L			248344	247944	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 13:27:18
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	246142 ✓	0
|	As	75	27.040	ug/L	0.168	0	200	39127	0
|	As-1	75	26.417	ug/L	0.261	0	7304	44319	0
|	Se	82	81.714	ug/L	0.759	0	-6	12736	0
|	Se	78	83.853	ug/L	0.679	0	7429	37978	0
	Cl	37		mg/L			2274202	2459933	0
	Y	89		ug/L			250297	240384	1
	Kr	83		ug/L			145	180	0
[>	In	115		ug/L			260330	253000 ✓	1
|	Ag	107	25.791	ug/L	0.102	0	29	213690	1
|	Cd	111	25.024	ug/L	0.324	1	125	53730	1
|	Cd	114	24.923	ug/L	0.716	2	25	122686	1
|	Sb	121	0.017	ug/L	0.002	10	19	144	7
|	Sb	123	0.019	ug/L	0.003	15	18	121	14
[>	Tb	159		ug/L			303244	289814 ✓	1
|	Tl	205	24.580	ug/L	0.367	1	42	522441	0
|	Pb	208	27.119	ug/L	0.601	2	562	747902	0
|	Bi	209		ug/L			248344	241446	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 13:32:06
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	241400 ✓	0
|	As	75	49.343	ug/L	0.380	0	200	69867	0
|	As-1	75	49.953	ug/L	0.426	0	7304	76022	0
|	Se	82	48.777	ug/L	0.646	1	-6	7453	0
[	Se	78	51.228	ug/L	0.925	1	7429	25494	0
	Cl	37		mg/L			2274202	2414272	0
	Y	89		ug/L			250297	238441	0
	Kr	83		ug/L			145	169	5
[>	In	115		ug/L			260330	248775 ✓	0
|	Ag	107	49.794	ug/L	0.118	0	29	405654	0
|	Cd	111	49.292	ug/L	0.342	0	125	103958	0
|	Cd	114	49.109	ug/L	0.264	0	25	237734	0
|	Sb	121	49.692	ug/L	0.366	0	19	355755	0
[	Sb	123	49.274	ug/L	0.240	0	18	265994	0
[>	Tb	159		ug/L			303244	281050 ✓	1
|	Tl	205	47.842	ug/L	0.548	1	42	986168	0
|	Pb	208	51.260	ug/L	0.553	1	562	1370684	0
[	Bi	209		ug/L			248344	233807	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 13:37:16
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	239879 ✓	0
	As	75	0.101	ug/L	0.029	28	200	331	11
	As-1	75	0.576	ug/L	0.047	8	7304	7669	0
	Se	82	0.063	ug/L	0.078	123	-6	3	332
[	Se	78	2.114	ug/L	0.159	7	7429	7753	0
	Cl	37		mg/L			2274202	2412957	0
	Y	89		ug/L			250297	239452	0
	Kr	83		ug/L			145	170	0
[>	In	115		ug/L			260330	247533 ✓	1
	Ag	107	0.005	ug/L	0.001	16	29	65	7
	Cd	111	0.007	ug/L	0.008	116	125	134	13
	Cd	114	-0.001	ug/L	0.000	5	25	18	0
	Sb	121	0.018	ug/L	0.003	18	19	147	15
[	Sb	123	0.020	ug/L	0.005	23	18	126	19
[>	Tb	159		ug/L			303244	281354 ✓	0
	Tl	205	0.005	ug/L	0.001	15	42	140	11
	Pb	208	0.006	ug/L	0.001	10	562	670	2
[	Bi	209		ug/L			248344	237955	0

Mercury Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WC79, WC80

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: CB

Date: 2-07-13

Final Volume —

Final Volume (Hg): 20.0

Sample ID WC81 ASPK, MBISPK
WC80 BSPK, MBISPK, ZSPK, MB2SPK

	Prepcode:			
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:			
	Vol Added (mL):			
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
Ag	25		
Al			500
As	25		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Tl	25		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	TLOM	CVA	1.0	0.02	3007-14
Hg MBSPK	↓	CVA	1.0	0.04	↓
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM **Matrix:** WATER
Analyst: CB **Date:** 02-07-13
Bath Temp: 90°C **Start Time:** 0920 **End Time:** 1120

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WC80 A	1	J	20.0	20.0	2/17 1	Y	
" B	1	J			1		
" BDup	1	J			1		
" BSPK	1	J			1		
" C	1	J			1		
" D	1	J			1		
" E	1	J			1		
" F	1	J			1		
" G	1	J			1		
" MB1	–	–			1		
" MB1SPK	–	–			1		
" H	1	J			1		
" I	1	J			1		
" IDup	1	J			1		
" ISPK	1	J			1		
" J	1	J			1		
" K	1	J			1		
" L	1	J			1		
" M	1	J			1		
" N	1	J			1		
" MB2	–	–			1		
" MB2SPK	–	–	20.0	20.0	1	Y	
			02-07-13 CB				

Chemical/Reagent ID:

HNO_3: I8022 H_2SO_4: I7677 HCl: –
5% $K_2S_2O_8$: M02418 5% $KMnO_4$: M02425 Digest Tube Lot: 1208057

WC79 00145

Mercury Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WC79, WC80

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 02.08.13

Page: 1 of 4

ARI Sample ID		Prep Code	Dilution	QC Data (ppb) ~~ppt~~	Comments	
STD	0.0	THM	1X			
"	20.0					
"	50.0					
"	100.0					
"	200.0					
"	400.0					
"	1000.0					
ICV				467.14	Bkg in CLP %R=93	✓
ICB				12.57		✓
CCV1				490.30	%R=98	✓
CCB1				13.43		✓
CRA				34.62		✓
WCLS	MB1			12.28		✓
"	MB1SPK			216.77	%R=108	✓
"	A			13.85		
"	ADUP			13.44	No RPD: Undetected	✓
"	ASPK			109.94	%R=110	✓
"	MB2			13.62		✓
"	MB2SPK			211.58	%R=106	✓
"	B			13.68		
"	BDUP			12.00	No RPD: Undetected	✓
CCV2				494.62	%R=99	✓
CCB2				12.99		✓
WCLS	BSPK			109.97	%R=110	✓
WCB1	MB1			13.92		✓
"	MB1SPK			210.85	%R=105	✓
"	A			29.63		
"	ADUP			18.93		✓
"	ASPK			111.89	%R=82	✓
"	B	↓	↓			

Chemical/Reagent ID:

10% $SnCl_2$: MP2438

14% $NH_2OH/NaCl$: MP2398

Standard ID:

Standard: 3011-12

ICV/CCV: 3011-13

WC79:08147

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 02-08-13

Page: 2 of 4

ARI Sample ID	Prep Code	Dilution	QC Data (ppb) ppt	Comments
WC81 C	THM	1X		
WC36 MB1			13.81	✓
" MB1SPK			210.46	%R=105 ✓
CCV3			496.01	%R=99 ✓
CCB3			15.11	✓
WC36 A				
" B			13.36	
" BDUP			14.97	NO RPD: Undetected ✓
" BSPK			118.58	%R=119 ✓
" MB2			12.22	✓
" MB2SPK			224.64	%R=112 ✓
" C			23.19	
" D			13.79	
" DDUP			15.77	NO RPD: Undetected ✓
" DSPK			121.08	%R=121 ✓
CCV4			494.25	%R=99 ✓
CCB4			12.77	✓
WC80 MB1			15.87	✓
" MB1SPK			220.68	%R=110 ✓
" A				
" B			14.99	
" BDUP			16.91	NO RPD: Undetected ✓
" BSPK			120.20	%R=120 ✓
" C				
" D				
" E				
" F				
CCV5			499.44	%R=100 ✓
CCB5			12.22	✓
WC80 G	↓	↓		

Chemical/Reagent ID:
10% $SnCl_2$: MP2438

14% $NH_2OH/NaCl$: MP2398

Standard ID:
Standard: 3011-12

ICV/CCV: 3011-13

WCTB 00140

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 02-08-13

Page: 3 of 4

ARI Sample ID		Prep Code	Dilution	QC Data ~~(ppb)~~ ppt	Comments	
WC80	MB2	TLM	1X	12.83		√
"	MB2SPK			211.41	%R = 106	√
"	H					
"	I			21.70		
"	IDUP			16.12		√
"	ISPK			120.23	%R = 98.53	√
"	J					
"	K					
"	L					
CCV6				498.17	%R = 100	√
CCB6				14.93		√
WC80	M					
"	N					
CCV7				496.53	%R = 99	√
CCB7				12.88	END CLP	√
WC94	MB			12.67		√
"	MBSPK			221.60	%R = 111	√
"	A			13.31		
"	ADUP			15.68	NO RPD: Undetected	√
"	ASPK			116.17	%R = 116	√
WC97	MB	DLM		13.19		√
"	MBSPK			223.68	%R = 112	√
"	A			14.88		
"	ADUP			18.40	NO RPD: Undetected H. RED	√
"	ASPK			119.21	%R = 119	√
CCV		TLM		495.96		√
CCB		TLM		11.86		√
WC97	B	DLM				
"	C					
"	D					

Chemical/Reagent ID:
10% $SnCl_2$: MP2438

14% $NH_2OH/NaCl$: MP2398

Standard ID:
Standard: 3011-12

ICV/CCV: 3011-13

WC79 00149

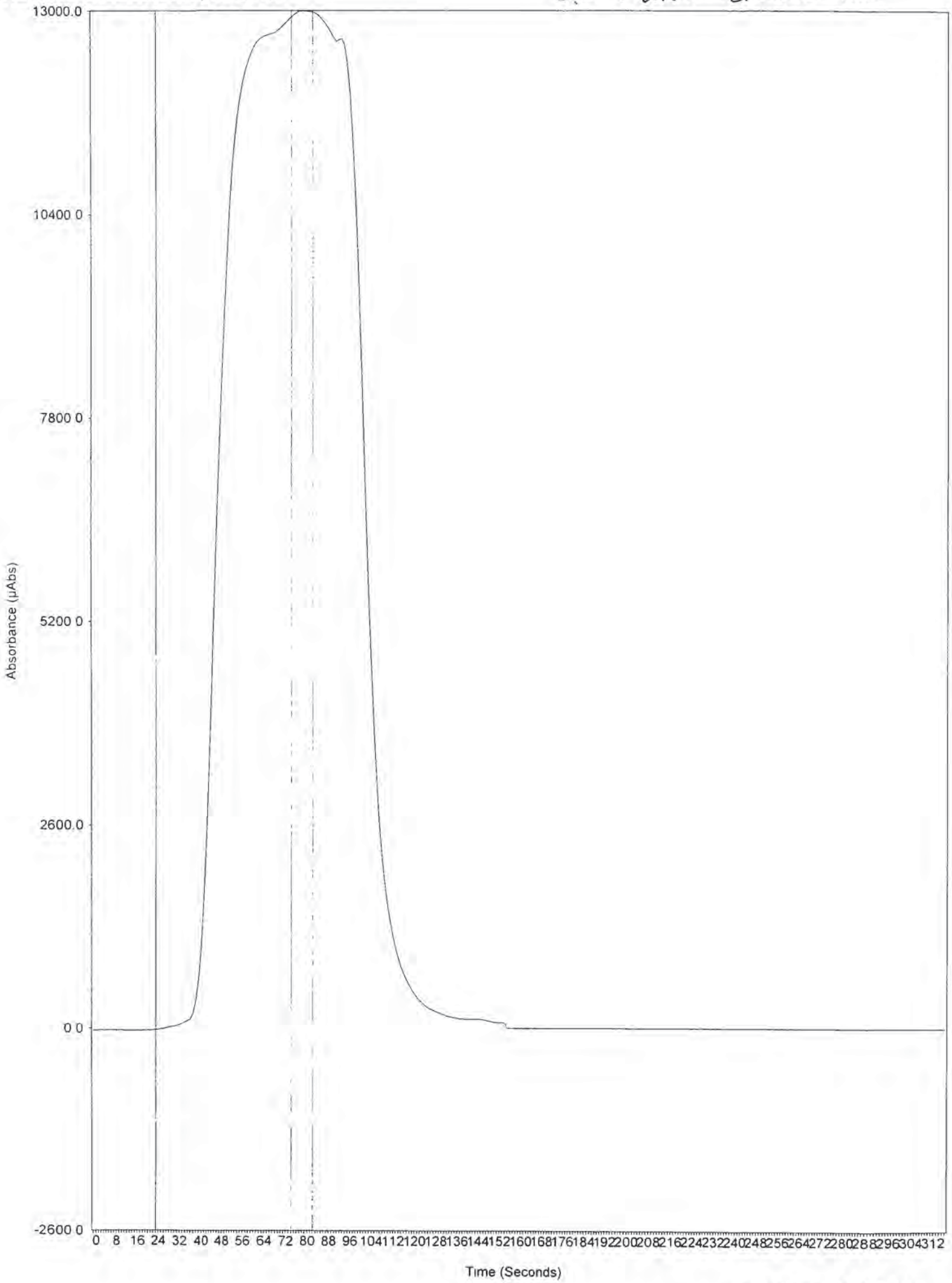
ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA

Analysis Date: 2-08-13

Low Level	Analyst 2-08 DM	Peer 2-28-13	Comment
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
RSD's & SD's	✓	✓	See RUN LOG
Internal Standards	—	—	
Carry-over	—	—	
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	—	—	


Std Tube 6 02/08/2013, 9:48 AM
13000.0
10400.0
7800.0
5200.0
2600.0
0.0
-2600.0
Absorbance (µAbs)
0 8 16 24 32 40 48 56 64 72 80 88 96 104 112 120 128 136 144 152 160 168 176 184 192 200 208 216 224 232 240 248 256 264 272 280 288 296 304 312
Time (Seconds)

WC79 00151

CETAC Hg Analysis Report - 13020800.DB - Friday, February 08, 2013, 2:00:12 PM

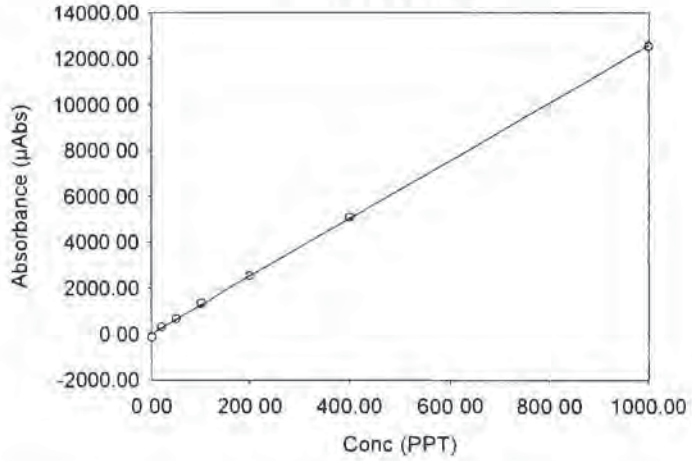
Analyst
Date Started Friday, February 08, 2013, 09:47:40
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Std Tube 6	08-Feb-2013, 09:47	1000 00	0 17	13000 00	12976	13018	13024	13019	

Information about this calibration could not be retrieved from the Master File.

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
Calibration Zero	08-Feb-2013, 09:50	0.00	10.20	-148.00	-167	-152	-141	-133	
Standard #1	08-Feb-2013, 09.52	20 00	1 42	299.00	301	303	300	293	
Standard #2	08-Feb-2013, 09:55	50.00	0.58	666 00	664	664	665	672	
Standard #3	08-Feb-2013, 09:58	100.00	0.29	1330 00	1338	1332	1331	1338	
Standard #4	08-Feb-2013, 10 00	200 00	0 19	2530 00	2532	2528	2532	2539	
Standard #5	08-Feb-2013, 10:03	400 00	0.10	5110 00	5099	5108	5110	5109	
Standard #6	08-Feb-2013, 10:06	1000 00	0.26	12600.00	12508	12544	12572	12580	

Calibration Data



Int	0 000
Slope	12 592
Correlation	0 99984

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
ICV	08-Feb-2013, 10:10	467.00	0.18	5880.00	5868	5880	5891	5891	Exg:ICLP
ICB	08-Feb-2013, 10.13	12.60	0.93	158 00	159	156	158	160	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	08-Feb-2013, 10 15	490.00	0.08	6170.00	6167	6177	6177	6175	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	08-Feb-2013, 10:18	13.40	0.81	169 00	167	170	170	168	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
CRA	08-Feb-2013, 10:21	34 60	0.66	436 00	436	440	435	433	
WC65 MB1 TLM	08-Feb-2013, 10:23	12.30	4.97	155 00	163	158	153	145	
WC65 MB1SPK TLM	08-Feb-2013, 10:26	217.00	0 07	2730.00	2731	2731	2728	2728	
WC65 A TLM	08-Feb-2013, 10:29	13 90	6.75	174 00	162	169	179	189	
WC65 ADUP TLM	08-Feb-2013, 10 31	13 40	0.63	169 00	169	171	169	169	
WC65 ASPK TLM	08-Feb-2013, 10.34	110 00	0 30	1380.00	1384	1388	1387	1379	
WC65 MB2 TLM	08-Feb-2013, 10:37	13 60	3 48	172.00	179	173	167	166	
WC65 MB2SPK TLM	08-Feb-2013, 10:40	212.00	0 03	2660.00	2662	2664	2664	2664	
WC65 B TLM	08-Feb-2013, 10:42	13.70	1.21	172 00	169	172	173	174	
WC65 BDUP TLM	08-Feb-2013, 10.45	12.60	1.16	159 00	160	156	160	158	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	08-Feb-2013, 10:48	495.00	0.04	6230 00	6225	6229	6231	6228	

CETAC Hg Analysis Report - 13020800.DB - Friday, February 08, 2013, 2:00:12 PM

Analyst
Date Started Friday, February 08, 2013, 10:51:01
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	08-Feb-2013, 10:51	13.00	2.38	164 00	158	164	168	165	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WC65 BSPK TLM	08-Feb-2013, 10:53	110 00	0 35	1380.00	1389	1388	1383	1379	
WC81 MB1 TLM	08-Feb-2013, 10.56	13.90	5 54	175 00	163	172	179	186	
WC81 MB1SPK TLM	08-Feb-2013, 10.59	211.00	0 25	2660 00	2647	2653	2657	2663	
WC81 A TLM	08-Feb-2013, 11.01	29 60	1 30	373 00	377	377	372	367	
WC81 ADUP TLM	08-Feb-2013, 11:04	18.90	0.63	238 00	239	239	239	236	
WC81 ASPK TLM	08-Feb-2013, 11:07	112.00	0.22	1410.00	1406	1407	1411	1413	
WC81 B TLM	08-Feb-2013, 11:09	26.40	4 38	333.00	344	343	330	313	
WC81 C TLM	08-Feb-2013, 11:12	16.40	1.67	207 00	211	205	204	208	
WC38 MB1 TLM	08-Feb-2013, 11:15	13.80	1.04	174.00	175	176	172	173	
WC38 MB1SPK TLM	08-Feb-2013, 11:17	210.00	0.17	2650 00	2646	2648	2651	2656	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	08-Feb-2013, 11:20	496.00	0 23	6250.00	6229	6240	6252	6262	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	08-Feb-2013, 11.23	15.10	2 79	190 00	196	193	189	183	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WC38 A TLM	08-Feb-2013, 11:26	17.50	0.87	220 00	223	220	219	219	
WC38 B TLM	08-Feb-2013, 11:28	13.40	11.40	168.00	192	174	162	146	
WC38 BDUP TLM	08-Feb-2013, 11:31	15.00	2.50	189 00	184	186	190	194	
WC38 BSPK TLM	08-Feb-2013, 11:34	119.00	0.14	1490 00	1491	1495	1492	1495	
WC38 MB2 TLM	08-Feb-2013, 11:36	12.20	3 25	154.00	154	151	150	161	
WC38 MB2SPK TLM	08-Feb-2013, 11.39	225 00	0.21	2830.00	2820	2826	2831	2833	
WC38 C TLM	08-Feb-2013, 11:42	23 20	2 07	292.00	298	295	291	284	
WC38 D TLM	08-Feb-2013, 11:45	13 80	2.68	174 00	176	176	176	167	
WC38 DDUP TLM	08-Feb-2013, 11 47	15 80	0.86	199 00	197	200	200	197	
WC38 DSPK TLM	08-Feb-2013, 11 50	121 00	0.14	1520 00	1523	1524	1527	1522	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	08-Feb-2013, 11:53	494.00	0.11	6220 00	6214	6224	6228	6228	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	08-Feb-2013, 11:55	12 80	2.08	161 00	157	161	165	160	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WC80 MB1 TLM	08-Feb-2013, 11:58	15.40	2 65	193 00	189	189	196	199	
WC80 MB1SPK TLM	08-Feb-2013, 12:01	221 00	0 25	2780.00	2772	2774	2783	2786	
WC80 A TLM	08-Feb-2013, 12:04	15.90	2.23	201.00	195	200	200	206	
WC80 B TLM	08-Feb-2013, 12:06	15.00	2.66	189 00	195	190	184	185	
WC80 BDUP TLM	08-Feb-2013, 12:09	16 90	2 53	213.00	208	210	214	220	
WC80 BSPK TLM	08-Feb-2013, 12:12	120.00	0 33	1510.00	1507	1514	1518	1516	
WC80 C TLM	08-Feb-2013, 12:14	14 90	0.60	187 00	188	188	186	186	
WC80 D TLM	08-Feb-2013, 12:17	15.20	3 01	191 00	184	190	195	197	
WC80 E TLM	08-Feb-2013, 12.20	29.10	0 58	367.00	369	368	365	364	
WC80 F TLM	08-Feb-2013, 12:23	17 30	3.51	217.00	209	214	221	226	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	08-Feb-2013, 12.25	499.00	0.24	6290 00	6269	6286	6298	6303	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	08-Feb-2013, 12:28	12 20	1.52	154 00	157	154	153	151	

CETAC Hg Analysis Report - 13020800.DB - Friday, February 08, 2013, 2:00:13 PM

Analyst
Date Started Friday, February 08, 2013, 12:31:14
Worksheet LOW LEVEL CALIB 20 TO 1000 PPT
Comment

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WC80 G TLM	08-Feb-2013, 12:31	14.70	4.44	186.00	194	189	184	175	
WC80 MB2 TLM	08-Feb-2013, 12:33	12.80	3 92	162.00	153	161	165	168	
WC80 MB2SPK TLM	08-Feb-2013, 12:36	211.00	0.45	2660 00	2647	2659	2670	2673	
WC80 H TLM	08-Feb-2013, 12.39	15.10	4.34	191.00	183	185	191	202	
WC80 I TLM	08-Feb-2013, 12.42	21.70	0.68	273.00	276	273	273	271	
WC80 IDUP TLM	08-Feb-2013, 12:44	16.10	4.51	203.00	213	207	199	193	
WC80 ISPK TLM	08-Feb-2013, 12:47	120.00	0.28	1510.00	1508	1517	1517	1514	
WC80 J TLM	08-Feb-2013, 12:50	15.00	1.74	188 00	186	187	188	193	
WC80 K TLM	08-Feb-2013, 12 52	23.40	2 01	295.00	300	300	290	290	
WC80 L TLM	08-Feb-2013, 12.55	41.30	0.51	520 00	517	519	522	523	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	08-Feb-2013, 12:58	498.00	0.21	6270 00	6258	6269	6276	6289	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	08-Feb-2013, 13.01	14.90	4 54	188.00	176	189	191	196	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WC80 M TLM	08-Feb-2013, 13:03	14.30	0 92	180.00	182	180	179	179	
WC80 N TLM	08-Feb-2013, 13:06	17.00	0 66	214 00	216	213	215	213	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	08-Feb-2013, 13:09	497.00	0.18	6250.00	6239	6248	6256	6265	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	08-Feb-2013, 13:12	12.90	5.81	162 00	154	155	167	173	ENDCLP

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WC94 MB TLM	08-Feb-2013, 13:15	12 70	12.20	160 00	135	154	169	180	
WC94 MBSPK TLM	08-Feb-2013, 13:17	222.00	0.26	2790 00	2783	2787	2792	2800	
WC94 A TLM	08-Feb-2013, 13:20	13 30	1 40	168.00	171	168	166	166	
WC94 ADUP TLM	08-Feb-2013, 13:23	15 70	1.70	197 00	201	199	197	193	
WC94 ASPK TLM	08-Feb-2013, 13 25	116.00	0 99	1460 00	1449	1453	1468	1481	
WC97 MB DLM	08-Feb-2013, 13:28	13.20	3 48	166 00	159	164	168	173	
WC97 MBSPK DLM	08-Feb-2013, 13:31	224.00	0 16	2820.00	2811	2815	2820	2821	
WC97 A DLM	08-Feb-2013, 13.33	14 90	1 15	187.00	185	186	189	190	
WC97 ADUP DLM	08-Feb-2013, 13:36	18 70	8 19	235.00	212	228	243	257	Q
WC97 ASPK DLM	08-Feb-2013, 13:39	119 00	0 28	1500.00	1506	1503	1497	1498	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	08-Feb-2013, 13:42	496.00	0.13	6250.00	6234	6245	6249	6252	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	08-Feb-2013, 13:44	11.90	7 01	149.00	161	156	142	139	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
WC97 B DLM	08-Feb-2013, 13:47	14.50	0.68	182 00	182	183	182	180	
WC97 C DLM	08-Feb-2013, 13:50	16.70	2.78	211.00	203	208	215	216	
WC97 D DLM	08-Feb-2013, 13.52	13.40	2.00	169.00	168	166	168	174	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Standard	08-Feb-2013, 13:55	497.00	0.04	6260 00	6258	6254	6255	6259	

Sample ID	Analysis Time	Conc (PPT)	%RSD	Avg. µAbs	Readings				Flags
QC Blank	08-Feb-2013, 13.58	12.30	3.24	155 00	162	153	151	152	

Analyst	
Date Created:	Wednesday, November 27, 2002
Worksheet	LOW LEVEL CALIB 20 TO 1000 PPT
Comment	
Sip Duration (Sec.):	55
Rinse Duration (Sec.):	100
Read Delay:	75
Integration Time/Replicate:	2.00
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	20
Baseline Point 1 End Time:	24
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	148
Baseline Point 2 End Time:	152
Gas Flow (ml/min):	30
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	2
Calibration Standard #1 Conc.:	20.00 PPT
Calibration Standard #2 Conc.:	50.00 PPT
Calibration Standard #3 Conc.:	100 00 PPT
Calibration Standard #4 Conc.:	200.00 PPT
Calibration Standard #5 Conc.:	400.00 PPT
Calibration Standard #6 Conc.:	1000.00 PPT
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5 0%, if µAbs. > 200, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 90% _ 110%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -20 20,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Prep Code: TLM Digested 20.0mL
Instrument: CETAC
Analyst: DM
Date: 2-05-13
Bath Temp: 95°C
Start Time: 1415
End Time: 1615

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	3011-12	0.02		0.02	1
STD2		0.05		0.05	1
STD3		0.10		0.1	1
STD4		0.20		0.2	1
STD5		~~0.50~~ 0.4		0.4	1
STD6		1.00		1.00	1
CRA		0.02		0.02	1
ICB/CCB	—	0.00		0.0	1
ICV/LCS	3011-13	0.5		1.0	1
CCV		0.5	100.0	1.0	1

Chemical/Reagent ID:

HNO_3: I8022
H_2SO_4: I1677
HCl: —
5% $K_2S_2O_8$: MP2478
5% $KMnO_4$: MP2485

Prep Code:
Instrument:
Analyst:
Date:
Bath Temp:
Start Time:
End Time:

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0		0.00			
STD1					
STD2		0.05			
STD3		0.10			
STD4		0.20			
STD5		0.50			
STD6		1.00			
CRA					
ICB/CCB		0.00			
ICV/LCS					
CCV					

Chemical/Reagent ID:

HNO_3:
H_2SO_4:
HCl:
5% $K_2S_2O_8$:
5% $KMnO_4$:

WC79:86150

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: TLM
Analyst: CB
Bath Temp: 90°C
Start Time: 0920
End Time: 1120
Matrix: WATER
Date: 02-07-13

ARI Sample ID	Sample Bottle #	pH<2	Initial ~~Weight (g)~~ Volume (mL)	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WC80 A	1	J	20.0	20.0	2/17 1	Y	
" B	1	J			1		
" BDup	1	J			1		
" BSPK	1	J			1		
" C	1	J			1		
" D	1	J			1		
" E	1	J			1		
" F	1	J			1		
" G	1	J			1		
" MBI	–	–			1		
" MBISPK	–	–			1		
" H	1	J			1		
" I	1	J			1		
" IDup	1	J			1		
" ISPK	1	J			1		
" J	1	J			1		
" K	1	J			1		
" L	1	J			1		
" M	1	J			1		
" N	1	J			1		
" MB2	–	–			1		
" MB2SPK	–	–	20.0	20.0	1	Y	
			02-07-13 CB				

Chemical/Reagent ID:

HNO_3: I8022
H_2SO_4: I7677
HCl: –
5% $K_2S_2O_8$: M02418
5% $KMnO_4$: M02425
Digest Tube Lot: 1208057

WC79.00157

APPENDIX B

Data Quality Assessment Report for Total/ Dissolved Metals in Water

DATA QUALITY ASSESSMENT REPORT

TOTAL/DISSOLVED METALS IN WATER BY METHODS SW200.8/SW7470A

ARI Laboratory SDG	Samples Validated (Bold indicates the sample was qualified)
VZ23/VZ24	LLMW01D-130108-W, LLMW02D-130107-W, LLMW03S-130107-W, LLMW03D-130107-W, LLMW08S-130108-W, LLMW08D-130108-W, LLMW018S-130108-W, LLMW018D-130109-W, LLMW21S-130108-W, LLMW21D-130108-W, LLMW22S-130108-W, LLMW22D-130108-W, LLMW23S-130108-W, LLMW23D-130108-W
VZ75/VZ76	LLMW04S-130110-W, LLMW04D-130110-W, LLMW05S-130109-W, LLMW05D-130109-W, LLMW06S-130109-W, LLMW07S-130109-W, LLMW07D-130109-W, LLMW11S-130109-W, LLMW11D-130109-W, LLMW14S-130111-W, LLMW14D-130111-W, LLMW15S-130111-W, LLMW15D-130111-W, LLMW16S-130111-W, LLMW16D-130111-W, LLMW17S-130109-W, LLMW17D-130109-W, LLMW19D-130110-W, **LLMW20D-130110-W, LLMWDUP1-130110-W**
WA06/WA10	BP04S-130115-W, BP04D-130115-W, BP05S-130115-W, BP05D-130115-W, DUP03-130115-W, BP05D2-130115-W
WA08/WA16	**BP01S-130114-W, DUP02-130114-W, BP01D-130114-W,** BP02S-130114-W, BP02D-130114-W, BP03S-130114-W, BP03D-130114-W, BP06S-130114-W, BP06D-130114-W, BP07S-130114-W, BP07D-130114-W, BP08S-130114-W, BP08D-130114-W, BP09S-130114-W, BP09D-130114-W, BP10S-130114-W, BP10D-130114-W
WA61/WA62	LLMW09S-130116-W, LLMW09D-130116-W, LLMW010S-130116-W, LLMW010D-130116-W, LLMW012S-130116-W, LLMW012D-130116-W, LLMW013S-130116-W, LLMW013D-130116-W, LLMW33S-130117-W, LLMW33D-130117-W, LLMW34S-130116-W, LLMW34D-130116-W, EV22A-130116-W, EV22B-130116-W, EV6A-130117-W, EV6B-130117-W, PZ1B-130117-W, PZ2B-130117-W, PZ3B-130117-W
WA66/WA67	**LLMW24D-130121-W, DUP04-130121-W**, LLMW25D-130121-W, LLMW27D-130121-W, LLMW29D-130118-W, EV19B-130118-W, EV20B-130118-W, UNK-130121-W
WC09/WC10	MW1202R-130129-W, MW1203R-130129-W, MW1301R-130129-W, MW1501R-130129-W, MW1701-130129-W
WC37/WC38	LLMW06D-130201-W, LLMW31D-130201-W
WC79/WC80	LLSW01-130205, LLSW02-130204, LLSW03-130204, LLSW04-130205, LLSW05-130205, LLSW06-130204, LLSW07-130204

PROJECT: EVERETT SMELTER LOWLAND AREA (00504-068-00)

This report documents the results of an Environmental Protection Agency (EPA) level 2b data validation of analytical data from the analyses of water samples and the associated laboratory and field quality control (QC) samples. The review included the following:

- Chain of Custody
- Holding Times and Sample Preservation
- Instrument Calibration
- ICP Interference Check Sample
- Method and Calibration Blanks
- Laboratory Control Samples
- Matrix Spikes
- Laboratory Duplicates
- Field Duplicates
- Internal Standards/Tunes

OBJECTIVE

The objective of the data validation was to review laboratory analytical procedures and quality control (QC) results to evaluate whether:

- The samples were analyzed using well-defined and acceptable methods that provide detection limits below applicable regulatory criteria;
- The precision and accuracy of the data are well defined and sufficient to provide defensible data; and
- The quality assurance/quality control (QA/QC) procedures utilized by the laboratory meet acceptable industry practices and standards.

Ninety-one (91) groundwater samples and seven (7) surface water samples were analyzed by one or more of the analytical methods listed in the title of this appendix.

DATA PACKAGE COMPLETENESS

Analytical Resources Incorporated (ARI), located in Tukwila, Washington, analyzed the water samples evaluated as part of this data quality assessment. The laboratory provided all required deliverables for the assessment according to the National Functional Guidelines. The laboratory followed adequate corrective action processes and all identified anomalies were discussed in the case narratives.

DATA QUALITY ASSESSMENT SUMMARY

The results for each of the QC elements are summarized below. The data assessment was performed using guidance in the USEPA Contract Laboratory Program *National Functional Guidelines for Inorganic Data Review* (USEPA, 2010).

Chain-of-Custody Documentation

Chain-of-custody (COC) forms were provided with the laboratory analytical reports. There were no anomalies noted on the COC forms; proper COC protocols appear to have been followed for this sampling event.

Holding Times and Sample Preservation

The holding time is defined as the time that elapses between sample collection and sample analysis. The maximum holding time criteria of 6 months (28 days for mercury) is prescribed for the two metals analytical methods to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample collection. Established holding times of 6 months (28 days for mercury) were met for all analyses.

Instrument Calibration

The laboratory followed the method requirements for satisfactory instrument calibration. Instrument calibration is necessary in order to ensure that the instrument is capable of producing acceptable quantitative data for the metals on the target analyte list in the QAPP. Initial Calibration Verification (ICV) demonstrates that the instrument is capable of acceptable performance at the beginning of the analytical run. The Continuing Calibration Verification (CCV) demonstrates that the initial calibration is still valid by checking the performance of the instrument on any given day that samples are being analyzed.

Each calibration curve was made up of a blank and at least five calibration standards with all measurements being within the working range of the instrument. The calibration curves were fitted using linear regression and each curve had a correlation coefficient of ≥ 0.995.

The ICV/CCV standards were within 90% to 110% of the true value in all cases.

ICP Interference Check Sample

The Interference Check Sample verifies the analytical instrument's ability to overcome isobaric interferences typical of those found in samples. The laboratory analyzed this QC sample at the proper frequency and location of the analytical run. All solution mixtures were within the control limit of 20% of the true value.

Method Blanks

Method blanks are analyzed to ensure that laboratory procedures and reagents do not introduce measurable concentrations of the analytes of interest. Method blanks were analyzed with each batch of samples, at a frequency of 1 per 20 samples. For all sample batches, method blanks were analyzed at the required frequency. None of the analytes of interest were detected above the reporting limits in any of the method blanks.

Matrix Spikes

Because the actual analyte concentration in an environmental sample is not known, the accuracy of a particular analysis is usually inferred by performing a matrix spike (MS) analysis. One aliquot of sample is analyzed in the normal manner, and then a second aliquot of the sample is spiked with a known amount of analyte concentration and analyzed. From these analyses, a percent recovery (%R) is calculated. In the event that a particular element is out of the recovery value control limits in the matrix spiked sample, the laboratory is required to analyze a "post-spiked" sample in order to further isolate any potential quality control issues with the given element.

Matrix spike analyses should be performed once per analytical batch or every 20 field samples, whichever is more frequent. The recovery criteria for matrix spikes are 75% to 125% for all of the elements in this report.

The frequency requirements were met for all analyses, with the following exceptions:

SDG WA08/WA16: The laboratory performed a matrix spike on Sample BP01S-130114-W. The %R value for total arsenic was greater than the control limit. The positive results for total arsenic were qualified as estimated (J) in the samples BP01S-130114-W, BP01D-130114-W, and DUP02-130114-W.

SDG WA66/WA67: The laboratory performed a matrix spike on Sample EV19B-130118-W. The %R values for total and dissolved arsenic were greater than the control limit. However, in both cases the parent sample concentrations were greater than four times the amount spiked into the sample. For this reason, no action was taken.

Laboratory Control Samples (LCS)

A laboratory control sample is essentially a blank sample that is spiked with a known amount of analyte concentration and analyzed. It is to be treated much like a matrix spike, without the possibility for matrix interference. As there is no actual sample matrix in the analysis, the analytical expectations for accuracy and precision are usually more rigorous and qualification would apply to all samples in the batch, instead of the parent sample only.

Laboratory control sample analyses should be performed once per analytical batch or every 20 field samples, whichever is more frequent. The recovery criteria for laboratory control samples are specified in the laboratory documents as are the relative percent difference values. The frequency requirements were met for all analyses, and the %R/RPD values were within the proper control limits.

Laboratory Duplicates

Internal laboratory duplicate analyses are performed to monitor the precision of the analyses. Two separate aliquots of a sample are analyzed as distinct samples in the laboratory, and the RPD between the two results is calculated. Duplicate analyses should be performed once per analytical batch. If one or more of the samples used has a concentration greater than five times the reporting limit for that sample, the absolute difference is used instead of the RPD.

Laboratory duplicates were analyzed at the proper frequency and the specified acceptance criteria were met in all cases.

Field Duplicates

Field duplicate samples were collected and analyzed along with the reviewed sample batches. The duplicate samples were analyzed for the same parameters as the associated parent samples. As mentioned above for the laboratory duplicates the RPD is used as the criteria for assessing precision, unless one or more of the samples used has a concentration greater than five times the reporting limit for that sample, the absolute difference is used instead of the RPD.

The RPD control limits for water samples is 50%, while the RPD control limits for water samples is 35%. The absolute difference control limits for soil samples is twice the PQL value, while the absolute difference control limits for water samples is the same as the PQL value. The four sets of field duplicates shown below were submitted to the laboratory:

- LLMW20D-130110-W and LLMWDUP1-130110-W
- BP05D-130115-W and DUP03-130115
- BP01S-130114-W and DUP03-130115-W
- LLMW24D-130121-W and DUP04-130121

The precision criteria were met for all target analytes, with the following exception:

SDG VZ75/VZ76: Samples LLMW20D-130110-W & LLMWDUP1-130110-W, was submitted to the laboratory. There was a postitive result for dissolved cadmium in one of the samples greater than twice the reporting limit, while cadmium was not detected in the other sample. For this reason, the positive result and reporting limit for dissolved cadmium were qualified as estimated (J/UJ) in both samples.

Reporting Limits and Miscellaneous

All SDGs: The reporting limits the target analytes met the requirements that were prescribed in the QAPP.

Internal Standards/Tunes

The laboratory appropriately added an internal standard into each sample, with the exception of the instrument tune. The intensity of the internal standard response in each sample was monitored and compared to the intensity of the response for that internal standard in the calibration blank. The percent relative intensity (%RI) in the samples were within 60-125% of the response in the calibration blank for the appropriate analytical run.

OVERALL ASSESSMENT

As was determined by this data quality assessement, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the LCS and MS %R values, with the exceptions mentioned above. Precision was acceptable, as demonstrated by the laboratory duplicate and field duplicate RPD values, with the exceptions noted above.

Data were qualified as estimated because of a matrix spike %R outlier and field duplicate precision outliers.

The data are acceptable for use.

APPENDIX C
Laboratory Analytical Reports for Metals in Sediment

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Client: GeoEngineers

Project: 0504-068-00 ECY-Everett Lowland

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BC
Signature

February-15-2013
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

February 15, 2013

Garrett Leque
GeoEngineers, Inc.
1101 Fawcett, Suite 200
Tacoma, WA 98402

RE: ECY-Everett Lowland, 0504-068-0000
ARI Job No.: WC78

Dear Garrett:

Please find enclosed the Chain-of-Custody record (COC), sample receipt documentation, and the data package for samples from the project referenced above.

Sample receipt and details of these analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
(206) 695-6214
cheronneo@arilabs.com
www.arilabs.com

cc: eFile WC78

Enclosures

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: WC78

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: VC78	Turn-around Requested: Standard	Page: 1 of 1	
ARI Client Company: GeoEngineers	Phone: 253-383-4940	Date: 2/5/13	Ice Present?
Client Contact: Garrett Legue		No. of Coolers:	Cooler Temps:
Client Project Name: Ecy - Everett Lowland			
Client Project #: 0504-068-00	Samplers: Aaron Waggoner		

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No Containers	Metals*	TOC	Grain Size						Notes/Comments
LLSD06-130204	2/4/13	1000	Sediment	2	X	X	X						
LLSD07-130204	2/4/13	1130			X	X	X						
LLSD03-130204	2/4/13	1500			X	X	X						
LLSD02-130204	2/4/13	1645			X	X	X						
LLSD01-130205	2/5/13	0855			X	X	X						
LLSD04-130205	2/5/13	1050			X	X	X						
LLSD05-120205	2/5/13	1225											

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
* As, Cd, Pb, Hg, Sb, Tl	Printed Name: Aaron Waggoner	Printed Name: Rich Hudson	Printed Name:	Printed Name:
	Company: GeoEngineers	Company: ARI	Company:	Company:
	Date & Time: 2/6/13 / 1230	Date & Time: 2/6/13 1230	Date & Time:	Date & Time:

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: GeoEngineers

Project Name: Fey - Everett LL

COC No(s) _____ (NA)

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: WC76

Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)	3.3 5.4 3.0	

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: 90377952

Cooler Accepted by: _____ Date: 2/6/13 Time: 1330

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		(YES)	NO
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	(NA)	YES	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Was Sample Split by ARI: (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: TB Date: 2-6-13 Time: 1517

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By Date

Small Air Bubbles ~2mm	Peabubbles 2-4 mm	LARGE Air Bubbles > 4 mm	
			Small → "sm"
			Peabubbles → "pb"
			Large → "lg"
			Headspace → "hs"

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: WC78

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative

Client: GeoEngineers
Project: ECY-Everett Lowland, 0504-068-00
ARI Job No.: WC78

Sample Receipt

Seven soil samples were received on February 6, 2013 under ARI job WC78. The cooler temperatures measured by IR thermometer following ARI SOP were 3.0, 3.3, and 5.9°C. For details regarding sample receipt, refer to the Cooler Receipt Forms.

Metals by SW6010/200.8/7471

The samples and associated laboratory QC were digested and analyzed within method recommended holding times.

The initial and continuing calibrations were within limits.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The matrix spike percent recovery of antimony fell outside the control limits low for sample **LLSD06-130204**. A post digestion spike was performed and the recovery was within control limits. All relevant data have been flagged with an "N" qualifier on the Form V. No further corrective action was taken.

The duplicate RPDs were within control limits.

TOC/TS by Plumb 1981/SM2540B

The samples and associated laboratory QC were prepared and analyzed within method recommended holding times.

The method blanks were clean at the reporting limits. The LCS percent recoveries were within control limits.

The SRM percent recoveries were within limits.

The matrix spike percent recovery and replicate RPDs were within control limits.

Geotechnical Parameters

A laboratory-specific narrative follows this page.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: GeoEngineers	**ARI Job No.:** WC78
Client Project: ECY-Everett Lowland	**Client Project No.:** 0504-068-00

Case Narrative

1. Seven samples were submitted for analysis on February 6, 2013.
2. The samples were submitted for grain size distribution according to ASTM D422. The samples were prepared according to ASTM D421.
3. An assumed specific gravity of 2.65 was used in the hydrometer calculations.
4. A standard milkshake mixer type device was used to disperse the fine fraction sample for one minute.
5. One sample from another job was chosen for triplicate analysis. The triplicate data can be found on the QA summary table.
6. Due to the sandy nature of some of the samples, there was not enough fine material to acquire accurate hydrometer readings. Two samples required curve fitting between the sand and silt fractions.
7. The data is provided in summary tables and plots.
8. There were no further anomalies in the samples or test method.

Released by: _____ Date: February 15, 2013
Technician

Reviewed by: _____ Date: 2/15/13
Geotechnical Division Manager

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: WC78
Client: GeoEngineers
Project Event: 0504-068-00
Project Name: ECY-Everett Lowland

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	LLSD06-130204	WC78A	13-2629	Sediment	02/04/13 10:00	02/06/13 12:30
2.	LLSD07-130204	WC78B	13-2630	Sediment	02/04/13 11:30	02/06/13 12:30
3.	LLSD03-130204	WC78C	13-2631	Sediment	02/04/13 15:00	02/06/13 12:30
4.	LLSD02-130204	WC78D	13-2632	Sediment	02/04/13 16:45	02/06/13 12:30
5.	LLSD01-130204	WC78E	13-2633	Sediment	02/05/13 08:55	02/06/13 12:30
6.	LLSD04-130204	WC78F	13-2634	Sediment	02/05/13 10:50	02/06/13 12:30
7.	LLSD05-130204	WC78G	13-2635	Sediment	02/05/13 12:25	02/06/13 12:30

WC78:00000

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Quality Control Parameters for Metals Analysis-ICP-OES
EPA Methods 200.7 and 6010C

	Aqueous Samples[2]			Spike Recovery		RPD[5]	Solids[3]	Tissue[4]
Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ mg/kg	LOQ mg/kg
Aluminum	7.57	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Antimony	6.28	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Arsenic	3.33	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Barium	1.33	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Beryllium	0.16	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Boron	7.39	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Cadmium	0.18	0.5	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Calcium	11.27	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Chromium	1.24	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Cobalt	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Copper	0.92	1.0	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Iron	7.50	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Lead	1.55	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Magnesium	9.61	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Manganese	0.28	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Molybdenum	0.79	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Nickel	3.86	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Potassium	65.70	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Selenium	4.99	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Silicon	8.17	30	**60**	75 – 125	80 – 120	≤ 20	**(6)**	**(6)**
Silver	0.43	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Sodium	11.35	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Strontium	0.09	1.0	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Thallium	3.10	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Tin	1.41	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Titanium	2.11	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.01**
Vanadium	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Zinc	1.45	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

(6) ARI does not analyze for Silicon in solids or tissue samples

WC79 : 00009

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Quality Control Parameters for Metals Analysis ICP-MS EPA Methods 200.8 or 6020A

Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[3]	Solids[2]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium[4]	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium[4]	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume Solids LOQ based on 100% solids using 1.0 g sample 100 mL final volume.
(3) Relative Percent Difference in replicate analyzes. $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$ where C_0=Original, C_D=Duplicate
(4) ARI has no accreditation for these elements.

WCTG 00018

Quality Control Parameters for Mercury Analysis using CVAA
EPA Methods 7470A or 245.1 for Aqueous Samples
EPA Methods 7471B or 245.5 for Solid Samples

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[2]	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.025[3]	75 – 125	80 – 120	≤ 20
	Tissue Samples			**Spike Recovery**		**RPD[5]**
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.005[4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

WC70 : 00011

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits for Conventional Wet Chemistry

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	ARI's Control Limits	
Sample Matrix:	Water	Soil / Sediment
Matrix Spike Recoveries	% Recovery	% Recovery
Ammonia	75 - 125	75 - 125
Bromide	75 125	75 - 125
Chloride	75 125	75 - 125
Cyanide	75 - 125	75 - 125
Ferrous Iron	75 - 125	75 - 125
Fluoride	75 - 125	75 - 125
Formaldehyde	75 - 125	75 - 125
Hexane Extractable Material	-- - --	78 - 114
Hexavalent Chromium	75 - 125	75 - 125
Nitrate/Nitrite	75 - 125	75 - 125
Oil and Grease	75 - 125	75 - 125
Phenol	75 - 125	75 - 125
Phosphorous	75 - 125	75 - 125
Sulfate	75 - 125	75 - 125
Sulfide	75 - 125	75 - 125
Total Kjeldahl Nitrogen	75 - 125	75 - 125
Total Organic Carbon	75 - 125	75 - 125
Duplicate RPDs		
Acidity	±20%	±20%
Alkalinity	±20%	±20%
BOD	±20%	±20%
Cation Exchange	±20%	±20%
COD	±20%	±20%
Conductivity	±20%	±20%
Salinity	±20%	±20%
Solids	±20%	±20%
Turbidity	±20%	±20%

WC70 : 00012

Metals Analysis
Report and Summary QC Forms

ARI Job ID: WC78

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC78

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
LLSD06-130204	WC78A	13-2629	
LLSD06-130204D	WC78ADUP	13-2629	
LLSD06-130204S	WC78ASPK	13-2629	
LLSD07-130204	WC78B	13-2630	
PBS	WC78MB1	13-2630	
LCSS	WC78MB1SPK	13-2630	
LLSD03-130204	WC78C	13-2631	
LLSD02-130204	WC78D	13-2632	
LLSD01-130204	WC78E	13-2633	
LLSD04-130204	WC78F	13-2634	
LLSD05-130204	WC78G	13-2635	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 2/12/13 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSD06-130204
SAMPLE

Lab Sample ID: WC78A
LIMS ID: 13-2629
Matrix: Sediment
Data Release Authorized:
Reported: 02/12/13

QC Report No: WC78-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Percent Total Solids: 22.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	02/07/13	6010C	02/11/13	7440-36-0	Antimony	20	20	U
3050B	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.8	**105**	
3050B	02/07/13	6010C	02/11/13	**7440-43-9**	**Cadmium**	0.8	**1.8**	
3050B	02/07/13	6010C	02/11/13	**7439-92-1**	**Lead**	8	**78**	
CLP	02/07/13	7471A	02/07/13	**7439-97-6**	**Mercury**	0.1	**0.1**	
3050B	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.8	0.8	U

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSD07-130204
SAMPLE

Lab Sample ID: WC78B
LIMS ID: 13-2630
Matrix: Sediment
Data Release Authorized:
Reported: 02/12/13

QC Report No: WC78-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Percent Total Solids: 36.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	02/07/13	6010C	02/11/13	7440-36-0	Antimony	10	10	U
3050B	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.5	**11.5**	
3050B	02/07/13	6010C	02/11/13	**7440-43-9**	**Cadmium**	0.5	**0.8**	
3050B	02/07/13	6010C	02/11/13	**7439-92-1**	**Lead**	5	**24**	
CLP	02/07/13	7471A	02/07/13	**7439-97-6**	**Mercury**	0.06	**0.06**	
3050B	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.5	0.5	U

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSD03-130204
SAMPLE

Lab Sample ID: WC78C
LIMS ID: 13-2631
Matrix: Sediment
Data Release Authorized:
Reported: 02/12/13

QC Report No: WC78-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Percent Total Solids: 51.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	02/07/13	6010C	02/11/13	7440-36-0	Antimony	9	9	U
3050B	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.4	**18.7**	
3050B	02/07/13	6010C	02/11/13	**7440-43-9**	**Cadmium**	0.4	**0.8**	
3050B	02/07/13	6010C	02/11/13	**7439-92-1**	**Lead**	4	**30**	
CLP	02/07/13	7471A	02/07/13	**7439-97-6**	**Mercury**	0.04	**0.07**	
3050B	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.4	0.4	U

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSD02-130204
SAMPLE

Lab Sample ID: WC78D
LIMS ID: 13-2632
Matrix: Sediment
Data Release Authorized:
Reported: 02/12/13

QC Report No: WC78-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Percent Total Solids: 76.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	02/07/13	6010C	02/11/13	7440-36-0	Antimony	7	7	U
3050B	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.2	**14.3**	
3050B	02/07/13	6010C	02/11/13	**7440-43-9**	**Cadmium**	0.3	**0.6**	
3050B	02/07/13	6010C	02/11/13	**7439-92-1**	**Lead**	3	**86**	
CLP	02/07/13	7471A	02/07/13	**7439-97-6**	**Mercury**	0.02	**0.05**	
3050B	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSD01-130204
SAMPLE

Lab Sample ID: WC78E
LIMS ID: 13-2633
Matrix: Sediment
Data Release Authorized:
Reported: 02/12/13

QC Report No: WC78-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/05/13
Date Received: 02/06/13

Percent Total Solids: 74.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	02/07/13	6010C	02/11/13	7440-36-0	Antimony	6	6	U
3050B	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.3	**6.3**	
3050B	02/07/13	6010C	02/11/13	**7440-43-9**	**Cadmium**	0.3	**0.5**	
3050B	02/07/13	6010C	02/11/13	**7439-92-1**	**Lead**	3	**10**	
CLP	02/07/13	7471A	02/07/13	7439-97-6	Mercury	0.03	0.03	U
3050B	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.3	0.3	U

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSD04-130204
SAMPLE

Lab Sample ID: WC78F
LIMS ID: 13-2634
Matrix: Sediment
Data Release Authorized:
Reported: 02/12/13

QC Report No: WC78-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/05/13
Date Received: 02/06/13

Percent Total Solids: 49.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	02/07/13	6010C	02/11/13	7440-36-0	Antimony	10	10	U
3050B	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.4	**219**	
3050B	02/07/13	6010C	02/11/13	**7440-43-9**	**Cadmium**	0.4	**0.9**	
3050B	02/07/13	6010C	02/11/13	**7439-92-1**	**Lead**	4	**31**	
CLP	02/07/13	7471A	02/07/13	7439-97-6	Mercury	0.03	0.03	U
3050B	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.4	0.4	U

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSD05-130204
SAMPLE

Lab Sample ID: WC78G
LIMS ID: 13-2635
Matrix: Sediment
Data Release Authorized:
Reported: 02/12/13

QC Report No: WC78-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/05/13
Date Received: 02/06/13

Percent Total Solids: 48.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	02/07/13	6010C	02/11/13	7440-36-0	Antimony	10	10	U
3050B	02/07/13	200.8	02/08/13	**7440-38-2**	**Arsenic**	0.4	**157**	
3050B	02/07/13	6010C	02/11/13	**7440-43-9**	**Cadmium**	0.4	**2.7**	
3050B	02/07/13	6010C	02/11/13	**7439-92-1**	**Lead**	4	**532**	
CLP	02/07/13	7471A	02/07/13	**7439-97-6**	**Mercury**	0.04	**0.15**	
3050B	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.4	0.4	U

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSD06-130204
MATRIX SPIKE

Lab Sample ID: WC78A
LIMS ID: 13-2629
Matrix: Sediment
Data Release Authorized:
Reported: 02/12/13

QC Report No: WC78-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Antimony	6010C	20 U	320	838	38.2%	N
Arsenic	200.8	105	211	105	101%	
Cadmium	6010C	1.8	233	210	110%	
Lead	6010C	78	953	838	104%	
Mercury	7471A	0.1	1.1	0.978	102%	
Thallium	200.8	0.8 U	100	105	95.2%	

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LLSD06-130204
DUPLICATE

Lab Sample ID: WC78A
LIMS ID: 13-2629
Matrix: Sediment
Data Release Authorized:
Reported: 02/12/13

QC Report No: WC78-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Antimony	6010C	20 U	20 U	0.0%	+/- 20	L
Arsenic	200.8	105	107	1.9%	+/- 20%	
Cadmium	6010C	1.8	1.7	5.7%	+/- 0.8	L
Lead	6010C	78	72	8.0%	+/- 20%	
Mercury	7471A	0.1	0.1	0.0%	+/- 0.1	L
Thallium	200.8	0.8 U	0.8 U	0.0%	+/- 0.8	L

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: LAB CONTROL

Lab Sample ID: WC78LCS
LIMS ID: 13-2630
Matrix: Sediment
Data Release Authorized:
Reported: 02/12/13

QC Report No: WC78-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Antimony	6010C	177	200	88.5%	
Arsenic	200.8	27.0	25.0	108%	
Cadmium	6010C	44.1	50.0	88.2%	
Lead	6010C	170	200	85.0%	
Mercury	7471A	0.49	0.50	98.0%	
Thallium	200.8	24.6	25.0	98.4%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: METHOD BLANK

Lab Sample ID: WC78MB
LIMS ID: 13-2630
Matrix: Sediment
Data Release Authorized:
Reported: 02/12/13

QC Report No: WC78-GeoEngineers
Project: ECY-Everett Lowland
0504-068-00
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	LOQ	mg/kg-dry	Q
3050B	02/07/13	6010C	02/11/13	7440-36-0	Antimony	5	5	U
3050B	02/07/13	200.8	02/08/13	7440-38-2	Arsenic	0.2	0.2	U
3050B	02/07/13	6010C	02/11/13	7440-43-9	Cadmium	0.2	0.2	U
3050B	02/07/13	6010C	02/11/13	7439-92-1	Lead	2	2	U
CLP	02/07/13	7471A	02/07/13	7439-97-6	Mercury	0.02	0.02	U
3050B	02/07/13	200.8	02/08/13	7440-28-0	Thallium	0.2	0.2	U

U-Analyte undetected at given LOQ
LOQ-Limit of Quantitation

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

UNITS: ug/L

SDG: WC78

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	ICP	IP021171	2000.0	2134.26	**106.7**	2000.0	2131.69	**106.6**	2131.54	**106.6**	2083.94	**104.2**				
Arsenic	AS	PMS	MS020881	50.0	51.37	**102.7**	50.0	49.85	**99.7**	50.29	**100.6**	49.03	**98.1**	49.78	**99.6**	50.35	**100.7**
Cadmium	CD	ICP	IP021171	1000.0	1055.99	**105.6**	1000.0	1048.75	**104.9**	1044.76	**104.5**	1026.04	**102.6**				
Lead	PB	ICP	IP021171	2000.0	2066.15	**103.3**	2000.0	2063.52	**103.2**	2059.98	**103.0**	2023.04	**101.2**				
Mercury	HG	CVA	HG020703	8.0	7.92	**99.0**	4.0	3.85	**96.3**	3.83	**95.8**	3.82	**95.5**				
Thallium	TL	PMS	MS020881	50.0	47.57	**95.1**	50.0	48.07	**96.1**	48.56	**97.1**	48.01	**96.0**	48.16	**96.3**	47.81	**95.6**

Control Limits: Mercury 80-120; Other Metals 90-110

WC78:00020

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

UNITS: ug/L

SDG: WC78

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	ICP	IP021171	2000.0												
Arsenic	AS	PMS	MS020881	50.0	49.34	**98.7**	49.87	**99.7**								
Cadmium	CD	ICP	IP021171	1000.0												
Lead	PB	ICP	IP021171	2000.0												
Mercury	HG	CVA	HG020703	4.0												
Thallium	TL	PMS	MS020881	50.0	47.84	**95.7**	47.76	**95.5**								

Control Limits: Mercury 80-120; Other Metals 90-110

WC78:00027

CRDL Standard

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC78

ANALYTICAL RESOURCES INCORPORATED

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Antimony	SB	ICP	IP021171	50.0	52.17	**104.3**										
Arsenic	AS	PMS	MS020881	0.2	0.22	**110.0**										
Cadmium	CD	ICP	IP021171	2.0	2.23	**111.5**										
Lead	PB	ICP	IP021171	20.0	20.10	**100.5**										
Mercury	HG	CVA	HG020703	0.1	0.07	**70.0**										
Thallium	TL	PMS	MS020881	0.2	0.21	**105.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

WC78:00028

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

UNITS: ug/L

SDG: WC78

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	ICP	IP021171	60.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U				
Arsenic	AS	PMS	MS020881	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	ICP	IP021171	5.0	2.0	2.0	U	2.0	U	2.0	U	2.0	U				
Lead	PB	ICP	IP021171	3.0	20.0	20.0	U	20.0	U	20.0	U	20.0	U				
Mercury	HG	CVA	HG020703	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U				
Thallium	TL	PMS	MS020881	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC78

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	ICP	IP021171	60.0	50.0												
Arsenic	AS	PMS	MS020881	10.0	0.2	0.2	U	0.2	U								
Cadmium	CD	ICP	IP021171	5.0	2.0												
Lead	PB	ICP	IP021171	3.0	20.0												
Mercury	HG	CVA	HG020703	0.2	0.1												
Thallium	TL	PMS	MS020881	10.0	0.2	0.2	U	0.2	U								

WC78 : 00030

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC78

ICS SOURCE: I.V.

RUNID: IP021171

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	198738.1	198364.9	**99.2**						
Antimony		1000	11.4	1050.1	**105.0**						
Arsenic		1000	16.2	1052.7	**105.3**						
Barium		1000	1.2	1048.2	**104.8**						
Beryllium		1000	0.1	1023.1	**102.3**						
Boron			-9.8	-10.4							
Cadmium		1000	2.0	1052.1	**105.2**						
Calcium	100000	100000	99194.7	97888.4	**97.9**						
Chromium		1000	-3.1	1039.0	**103.9**						
Cobalt		1000	1.7	987.3	**98.7**						
Copper		1000	1.8	1093.7	**109.4**						
Iron	200000	200000	194419.9	192457.2	**96.2**						
Lead		1000	-5.9	993.3	**99.3**						
Magnesium	100000	100000	102323.6	97683.2	**97.7**						
Manganese		1000	0.7	981.0	**98.1**						
Molybdenum			3.2	3.7							
Nickel		1000	-0.6	1018.3	**101.8**						
Potassium			40.2	1.2							
Selenium		1000	-12.8	1009.6	**101.0**						
Silicon			-8.0	-8.3							
Silver		1000	-0.3	1092.5	**109.3**						
Sodium			12.3	17.5							
Strontium			4.2	4.2							
Thallium		1000	7.0	970.9	**97.1**						
Tin			-12.4	-11.7							
Titanium			1.4	1.1							
Vanadium		1000	-0.1	1029.8	**103.0**						
Zinc		1000	0.6	996.7	**99.7**						

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC78

ICS SOURCE: I.V.

RUNID: MS020881

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.8	**99.0**						
Cadmium		20	0.1	20.0	**100.0**						
Selenium			-0.1	-0.1							
Silver		20	0.0	20.1	**100.5**						

Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

ANALYSIS METHOD: ICP

SDG: WC78

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	MATRIX	%R
Antimony	LLSD06-130204A	WC78APOST	IP021171	4806.90		100.00	U	4000	Sediment	**120.2**

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC78

UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Antimony	SB	ICP	OPTIMA ICP 2	206.84		60	50.0	4/1/2012	30000.0	1/22/2013
Arsenic	AS	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		
Cadmium	CD	ICP	OPTIMA ICP 2	228.80		5	2.0	4/1/2012	20000.0	1/22/2013
Lead	PB	ICP	OPTIMA ICP 2	220.35		3	20.0	4/1/2012	300000.0	1/22/2013
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2012		
Thallium	TL	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

IEC DATE: 1/22/2013

SDG: WC78

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	13.7020120	0.0000000	0.0000000
Arsenic	188.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0911890	0.0000000	-1.1057220	1.4447090	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1795110	0.0000000	0.0000000	0.1469350
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	5.5964570	0.0000000	0.0000000	0.0000000	0.0000000	0.1385480	0.0000000	0.0000000	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0295099	0.0000000	0.1250000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0309050
Cobalt	228.62	0.0000000	0.0000000	0.1133150	0.0000000	0.0000000	0.0000000	0.0000000	-0.0333930	0.0000000	0.0000000
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1698980	-0.0211960	0.0000000	-0.0491600
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.7025530	0.0000000	0.0000000
Lead	220.35	-0.2707930	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.8104440	1.2410760	0.0536970
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.1060020	0.0000000	-1.4277330	-1.1381670	0.0000000	0.5549620
Manganese	257.61	0.0049690	0.0000000	0.0000000	0.0000000	0.0038740	0.0000000	0.0125790	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0117860	0.0000000	0.0000000	0.0509920	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.1149780	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.4775670	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.2795240	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0054570	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	5.9747620	0.3985520	0.0000000	-0.1326730
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.0837380	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0594390	0.0000000	0.0000000	0.1892210	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-4.3335490	0.0000000	0.0501910
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1801790	0.0000000	0.0000000

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

IEC DATE: 1/22/2013

SDG: WC78

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	17.5877940	0.0000000	0.0000000	0.0000000	2.0603180	0.0000000	14.5677200	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.7545320	0.0000000	-3.8306350	0.0000000
Arsenic	188.98	0.0000000	0.0000000	3.3991370	0.0000000	0.0000000	0.0000000	-34.6204750	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.1174000	0.0000000	0.0000000	0.0000000	0.0000000	0.2171460	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0100680	0.0000000	0.2372710	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.9200350	0.0000000	0.0000000	0.0000000	0.0000000	0.0629730	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0938730	0.0834700	0.0738780	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.3293430	0.0000000
Cobalt	228.62	0.0000000	0.0000000	-0.1425980	0.1557020	0.0000000	0.0000000	1.7571760	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0053240	0.0000000	0.3083290	0.0000000	0.0000000	0.0000000	0.1931400	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	6.3157650	0.0000000
Lead	220.35	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-4.9970650	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	-0.1877320	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.4494500	0.0000000	0.4360770	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5722860	0.0000000
Silicon	288.16	-0.1122540	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.3208460	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	-1.6204090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	3.6226430	0.0000000
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.5136310	-0.1873890	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	1.0549050	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1522160	-0.5618640	0.0000000	0.0000000	0.0000000	0.5717940	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2590480	0.0000000	-0.0606610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC78

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 2/7/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
LLSD06-130204	WC78A	1.069	0.0	50.0
LLSD06-130204D	WC78ADUP	1.066	0.0	50.0
LLSD06-130204S	WC78ASPK	1.064	0.0	50.0
LLSD07-130204	WC78B	1.011	0.0	50.0
LLSD03-130204	WC78C	1.038	0.0	50.0
LLSD02-130204	WC78D	1.004	0.0	50.0
LLSD01-130204	WC78E	1.068	0.0	50.0
LLSD04-130204	WC78F	1.028	0.0	50.0
LLSD05-130204	WC78G	1.021	0.0	50.0
PBS	WC78MB1	1.000	0.0	50.0
LCSS	WC78MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC78

ANALYSIS METHOD: PMS

ARI PREP CODE: SWN

PREPDATE: 2/7/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
LLSD06-130204	WC78A	1.061	0.0	50.0
LLSD06-130204D	WC78ADUP	1.058	0.0	50.0
LLSD06-130204S	WC78ASPK	1.066	0.0	50.0
LLSD07-130204	WC78B	1.049	0.0	50.0
LLSD03-130204	WC78C	1.063	0.0	50.0
LLSD02-130204	WC78D	1.068	0.0	50.0
LLSD01-130204	WC78E	1.052	0.0	50.0
LLSD04-130204	WC78F	1.075	0.0	50.0
LLSD05-130204	WC78G	1.011	0.0	50.0
PBS	WC78MB1	1.000	0.0	50.0
LCSS	WC78MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland

SDG: WC78

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 2/7/2013

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
LLSD06-130204	WC78A	0.226	0.0	50.0
LLSD06-130204D	WC78ADUP	0.229	0.0	50.0
LLSD06-130204S	WC78ASPK	0.228	0.0	50.0
LLSD07-130204	WC78B	0.230	0.0	50.0
LLSD03-130204	WC78C	0.235	0.0	50.0
LLSD02-130204	WC78D	0.295	0.0	50.0
LLSD01-130204	WC78E	0.206	0.0	50.0
LLSD04-130204	WC78F	0.299	0.0	50.0
LLSD05-130204	WC78G	0.254	0.0	50.0
PBS	WC78MB1	0.200	0.0	50.0
LCSW	WC78MB1SPK	0.200	0.0	50.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland INSTRUMENT ID: OPTIMA ICP 2 START DATE: 2/11/2013

SDG: WC78 RUNID: IP021171 METHOD: ICP END DATE: 2/11/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	08395									X												X	X								
S2	S2	1.00	08441									X																					
S3	S3	1.00	08455																					X									
S4	S4	1.00	08483																						X								
S5	S5	1.00	08504																														
ICV	ICV	1.00	08545									X												X	X								
ICB	ICB	1.00	08581									X												X	X								
CRI	CRII	1.00	09023									X												X	X								
ICSA	ICSAI	1.00	09064									X												X	X								
ICSAB	ICSABI	1.00	09110									X												X	X								
ZZZZZZ	HiPurQC7M	1.00	09163																														
ZZZZZZ	SPEXQC21	1.00	09204																														
ZZZZZZ	DICHECK	1.00	09250																														
CCV	CCV1	1.00	09291									X												X	X								
CCB	CCB1	1.00	09323									X												X	X								
PBS	WC78MB1	2.00	09365									X												X	X								
LLSD07-130204	WC78B	2.00	09411									X												X	X								
LLSD03-130204	WC78C	2.00	09451									X												X	X								
LLSD02-130204	WC78D	2.00	09491									X												X	X								
LLSD01-130204	WC78E	2.00	09531									X												X	X								
LLSD06-130204D	WC78ADUP	2.00	09571									X												X	X								
LLSD06-130204	WC78A	2.00	10011									X												X	X								
LLSD06-130204S	WC78ASPK	2.00	10051									X												X	X								
LLSD06-130204A	WC78APOST	2.00	10092																						X								
LCSS	WC78MB1SPK	2.00	10132									X												X	X								
CCV	CCV2	1.00	10172									X												X	X								
CCB	CCB2	1.00	10204									X												X	X								
ZZZZZZ	WC96MB2	1.00	10250																														
ZZZZZZ	WC96E	1.00	10291																														
ZZZZZZ	WC96G	1.00	10333																														
ZZZZZZ	WC96H	1.00	10373																														
ZZZZZZ	WC96FDUP	1.00	10415																														
ZZZZZZ	WC96F	1.00	10460																														
ZZZZZZ	WC96FSPK	1.00	10502																														
LLSD04-130204	WC78F	2.00	10542									X												X	X								

FORM XIV

WC78 : 00040

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 2/11/2013

SDG: WC78 | RUNID: IP021171 | METHOD: ICP | END DATE: 2/11/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
LLSD05-130204	WC78G	2.00	10582									X												X	X								
ZZZZZZ	WC96MB2SPK	1.00	11022																														
CCV	CCV3	1.00	11062									X												X	X								
CCB	CCB3	1.00	11094									X												X	X								

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland INSTRUMENT ID: PE ELAN 6000 MS START DATE: 2/8/2013

SDG: WC78 RUNID: MS020881 METHOD: PMS END DATE: 2/8/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	08360				X																							X			
S1	S1	1.00	08400				X																							X			
S2	S2	1.00	08450				X																							X			
S3	S3	1.00	08500				X																							X			
S4	S4	1.00	08540				X																							X			
ZZZZZZ	Rinse Sampl	1.00	08590																														
ICV	MICV	1.00	09070				X																							X			
ICB	ICB	1.00	09120				X																							X			
CCV	MCCV1	1.00	09160				X																							X			
CCB	CCB1	1.00	09220				X																							X			
CRI	MCRI	1.00	09260				X																							X			
ICSA	ICSAI	1.00	09300				X																							X			
ICSAB	ICSABI	1.00	09350				X																							X			
ZZZZZZ	LR200	1.00	09400																														
ZZZZZZ	LR300	1.00	09450																														
CCV	MCCV2	1.00	09500				X																							X			
CCB	CCB2	1.00	09550				X																							X			
ZZZZZZ	WC79MB1	2.00	10030																														
ZZZZZZ	WC43D	20.00	10070																														
ZZZZZZ	WC43E	20.00	10120																														
ZZZZZZ	WC79B	2.00	10170																														
ZZZZZZ	WC79C	2.00	10220																														
ZZZZZZ	WC79ADUP	2.00	10270																														
ZZZZZZ	WC79A	2.00	10310																														
ZZZZZZ	WC79ASPK	2.00	10360																														
ZZZZZZ	ZZZZZZ	2.00	10410																														
ZZZZZZ	WC79MB1SPK	2.00	10460																														
CCV	MCCV3	1.00	10510				X																							X			
CCB	CCB3	1.00	10560				X																							X			
ZZZZZZ	WC79MB2	2.00	11000																														
ZZZZZZ	WC79D	2.00	11050																														
ZZZZZZ	WC79E	2.00	11100																														
ZZZZZZ	WC79F	2.00	11150																														
ZZZZZZ	WC79G	2.00	11190																														
ZZZZZZ	WC79HDUP	2.00	11240																														

FORM XIV

WC78:00042

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 2/8/2013

SDG: WC78 | RUNID: MS020881 METHOD: PMS | END DATE: 2/8/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	WC79H	2.00	11290																														
ZZZZZZ	WC79HSPK	2.00	11340																														
ZZZZZZ	ZZZZZZ	2.00	11390																														
ZZZZZZ	WC79MB2SPK	2.00	11440																														
CCV	MCCV4	1.00	11480				X																							X			
CCB	CCB4	1.00	11540				X																							X			
ZZZZZZ	WC79I	2.00	11590																														
ZZZZZZ	WC79J	2.00	12040																														
ZZZZZZ	WC79K	2.00	12080																														
ZZZZZZ	WC79L	2.00	12130																														
ZZZZZZ	WC79M	2.00	12180																														
ZZZZZZ	WC79N	2.00	12230																														
CCV	MCCV5	1.00	12280				X																							X			
CCB	CCB5	1.00	12330				X																							X			
PBS	WC78MB1	20.00	12430				X																							X			
ZZZZZZ	WC79K	5.00	12480																														
ZZZZZZ	WC79L	5.00	12530																														
LLSD07-130204	WC78B	20.00	12580				X																							X			
LLSD03-130204	WC78C	20.00	13030				X																							X			
LLSD06-130204D	WC78ADUP	20.00	13080				X																							X			
LLSD06-130204	WC78A	20.00	13120				X																							X			
LLSD06-130204S	WC78ASPK	20.00	13170				X																							X			
ZZZZZZ	ZZZZZZ	20.00	13220																														
LCSS	WC78MB1SPK	20.00	13270				X																							X			
CCV	MCCV6	1.00	13320				X																							X			
CCB	CCB6	1.00	13370				X																							X			
LLSD02-130204	WC78D	20.00	13410				X																							X			
LLSD01-130204	WC78E	20.00	13460				X																							X			
LLSD04-130204	WC78F	20.00	13510				X																							X			
LLSD05-130204	WC78G	20.00	13560				X																							X			
CCV	MCCV7	1.00	14010				X																							X			
CCB	CCB7	1.00	14060				X																							X			

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: GeoEngineers

PROJECT: ECY-Everett Lowland | INSTRUMENT ID: CETAC MERCURY | START DATE: 2/7/2013

SDG: WC78 | RUNID: HG020703 METHOD: CVA | END DATE: 2/7/2013

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	16220														X																
S0.1	S0.1	1.00	16233														X																
S0.5	S0.5	1.00	16251														X																
S1	S1	1.00	16265														X																
S2	S2	1.00	16282														X																
S5	S5	1.00	16300														X																
S10	S10	1.00	16314														X																
ICV	AICV	1.00	16361														X																
ICB	ICB	1.00	16375														X																
CCV	ACCV1	1.00	16393														X																
CCB	CCB1	1.00	16411														X																
CRA	CRA	1.00	16425														X																
PBW	WC78MB1	1.00	16442														X																
LCSW	WC78MB1SPK	1.00	16460														X																
LLSD06-130204	WC78A	1.00	16473														X																
LLSD06-130204D	WC78ADUP	1.00	16491														X																
LLSD06-130204S	WC78ASPK	1.00	16504														X																
LLSD07-130204	WC78B	1.00	16522														X																
LLSD03-130204	WC78C	1.00	16540														X																
LLSD02-130204	WC78D	1.00	16554														X																
LLSD01-130204	WC78E	1.00	16571														X																
CCV	ACCV2	1.00	16585														X																
CCB	CCB2	1.00	17004														X																
LLSD04-130204	WC78F	1.00	17021														X																
LLSD05-130204	WC78G	1.00	17035														X																
CCV	ACCV3	1.00	17053														X																
CCB	CCB3	1.00	17071														X																

General Chemistry Analysis
Report and Summary QC Forms

ARI Job ID: WC78

SAMPLE RESULTS-CONVENTIONALS
WC78-GeoEngineers

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: ECY-Everett Lowland
Event: 0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Client ID: LLSD06-130204
ARI ID: 13-2629 WC78A

Analyte	Date	Method	Units	RL	Sample
Total Solids	02/08/13 020813#1	SM2540B	Percent	0.01	18.70
Total Organic Carbon	02/12/13 021213#1	Plumb,1981	Percent	0.200	16.0

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
WC78-GeoEngineers

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: ECY-Everett Lowland
Event: 0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Client ID: LLSD07-130204
ARI ID: 13-2630 WC78B

Analyte	Date	Method	Units	RL	Sample
Total Solids	02/08/13 020813#1	SM2540B	Percent	0.01	32.60
Total Organic Carbon	02/13/13 021313#1	Plumb,1981	Percent	0.020	5.10

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
WC78-GeoEngineers

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: ECY-Everett Lowland
Event: 0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Client ID: LLSD03-130204
ARI ID: 13-2631 WC78C

Analyte	Date	Method	Units	RL	Sample
Total Solids	02/08/13 020813#1	SM2540B	Percent	0.01	55.90
Total Organic Carbon	02/13/13 021313#1	Plumb,1981	Percent	0.020	3.98

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
WC78-GeoEngineers

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: ECY-Everett Lowland
Event: 0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Client ID: LLSD02-130204
ARI ID: 13-2632 WC78D

Analyte	Date	Method	Units	RL	Sample
Total Solids	02/08/13 020813#1	SM2540B	Percent	0.01	80.70
Total Organic Carbon	02/13/13 021313#1	Plumb,1981	Percent	0.020	2.34

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
WC78-GeoEngineers

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: ECY-Everett Lowland
Event: 0504-068-00
Date Sampled: 02/05/13
Date Received: 02/06/13

Client ID: LLSD01-130204
ARI ID: 13-2633 WC78E

Analyte	Date	Method	Units	RL	Sample
Total Solids	02/08/13 020813#1	SM2540B	Percent	0.01	73.70
Total Organic Carbon	02/13/13 021313#1	Plumb,1981	Percent	0.020	1.93

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
WC78-GeoEngineers

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: ECY-Everett Lowland
Event: 0504-068-00
Date Sampled: 02/05/13
Date Received: 02/06/13

Client ID: LLSD04-130204
ARI ID: 13-2634 WC78F

Analyte	Date	Method	Units	RL	Sample
Total Solids	02/08/13 020813#1	SM2540B	Percent	0.01	51.10
Total Organic Carbon	02/13/13 021313#1	Plumb,1981	Percent	0.020	4.64

RL Analytical reporting limit
U Undetected at reported detection limit

SAMPLE RESULTS-CONVENTIONALS
WC78-GeoEngineers

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: ECY-Everett Lowland
Event: 0504-068-00
Date Sampled: 02/05/13
Date Received: 02/06/13

Client ID: LLSD05-130204
ARI ID: 13-2635 WC78G

Analyte	Date	Method	Units	RL	Sample
Total Solids	02/08/13 020813#1	SM2540B	Percent	0.01	53.80
Total Organic Carbon	02/13/13 021313#1	Plumb,1981	Percent	0.020	8.56

RL Analytical reporting limit
U Undetected at reported detection limit

MS/MSD RESULTS-CONVENTIONALS
WC78-GeoEngineers

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: ECY-Everett Lowland
Event: 0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: WC78B Client ID: LLSD07-130204						
Total Organic Carbon	02/13/13	Percent	5.10	11.3	6.76	91.7%

REPLICATE RESULTS-CONVENTIONALS
WC78-GeoEngineers

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: ECY-Everett Lowland
Event: 0504-068-00
Date Sampled: 02/04/13
Date Received: 02/06/13

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: WC78B Client ID: LLSD07-130204					
Total Solids	02/08/13	Percent	32.60	37.40 36.90	7.4%
Total Organic Carbon	02/13/13	Percent	5.10	4.84 4.51	6.1%

LAB CONTROL RESULTS-CONVENTIONALS
WC78-GeoEngineers

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: ECY-Everett Lowland
Event: 0504-068-00
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
Total Organic Carbon	ICVL	02/12/13	Percent	0.099	0.100	99.0%
Plumb,1981	ICVL	02/13/13		0.096	0.100	96.0%

METHOD BLANK RESULTS-CONVENTIONALS
WC78-GeoEngineers

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: ECY-Everett Lowland
Event: 0504-068-00
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	02/08/13	Percent	< 0.01 U
Total Organic Carbon	02/12/13	Percent	< 0.020 U
	02/13/13		< 0.020 U

WC78 : 00050

STANDARD REFERENCE RESULTS-CONVENTIONALS
WC78-GeoEngineers

ANALYTICAL RESOURCES INCORPORATED

Matrix: Sediment
Data Release Authorized:
Reported: 02/15/13

Project: ECY-Everett Lowland
Event: 0504-068-00
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon	02/12/13	Percent	3.31	2.99	110.7%
NIST 1941B	02/13/13		3.17	2.99	106.0%

Geotechnical Analysis
Report and Summary QC Forms

ARI Job ID: WC78

GeoEngineers
0504-068-00
ECY-Everett Lowland

Percent Finer (Passing) Than the Indicated Size

Sieve Size (microns)	3"	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4 (4750)	#10 (2000)	#20 (850)	#40 (425)	#60 (250)	#100 (150)	#200 (75)	32	22	13	9	7	3 2	1 3
VV01AA	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0	99 6	95.9	91 4	90 1	88 0	72.5	59 1	45 8	38 1	28 6	17 2	9 5
	100.0	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0	99 6	96 5	93 1	92.1	90 5	77 5	64 3	49 1	39.7	32 1	18 9	10 4
	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100 0	100.0	99.6	95 8	91.5	90.3	88 3	74 9	59 0	45 0	36.5	28 1	16 9	8 4
LLSD06-130204	100 0	100 0	100 0	100 0	100 0	100 0	100 0	99.9	99.9	95 7	88 7	83 5	79 1	72 5	59 3	50 4	39 5	33 6	24 7	13 8	5 9
LLSD07-130204	100.0	100.0	100 0	100 0	100 0	100 0	100 0	99.7	99 4	97.6	95 8	92 9	90 2	87 6	79 0	71 7	60 0	51 2	44 6	27 1	16 8
LLSD03-130204	100 0	100 0	100 0	100 0	100 0	100.0	100 0	99 9	98.1	94.9	91 3	88 7	87 1	85 0	78 8	69.9	59 3	51 2	43 9	26 8	16 3
LLSD02-130204	100 0	100 0	100 0	100 0	95 9	89 3	87 8	81 7	67 5	48 5	33 9	25 8	21 7	18.6	17 0	15.0	11 6	8 8	7 8	5 1	3 1
LLSD01-130204	100.0	100 0	100 0	100 0	100.0	91 8	90.0	82 5	72.8	61 3	45 8	30 7	20 7	14.2	11 8	10 4	7 2	6 5	5 7	3 6	1 8
LLSD04-130204	100 0	100.0	100 0	100 0	100 0	100.0	100 0	96 6	91 4	73 5	33 3	11 5	7 0	5 9	5 6	5 2	2 6	2 6	2 6	1 7	0 9
LLSD05-130204	100 0	100 0	100 0	100 0	100 0	90 0	83.1	71 7	55 8	42 1	29 1	20 9	17 2	14 9	14 6	12 9	10 9	8 6	7 6	5 0	3 0

Testing performed according to ASTM D421/D422

WC78

GeoEngineers
0504-068-00
ECY-Everett Lowland

Percent Retained in Each Size Fraction

Description	% Coarse Gravel				% Gravel			% Coarse Sand	% Medium Sand		% Fine Sand			% Very Coarse Silt	% Coarse Silt	% Medium Silt	% Fine Silt	% Fine Silt	% Very Fine Silt	% Clay	
Particle Size (microns)	3-2"	2-1 1/2"	1 1/2"-1"	1-3/4"	3/4-1/2"	1/2-3/8"	3/8"-4750	4750-2000	2000-850	850-425	425-250	250-150	150-75	75-32	32-22	22-13	13-9	9-7	7-3 2	3 2-1.3	<1 3
VV01AA	0 0	0 0	0 0	0.0	0 0	0 0	0 0	0 0	0 4	3 7	4.5	1 3	2 1	15 6	13 3	13 3	7 6	9.5	11 4	7.6	9 5
	0 0	0 0	0 0	0 0	0 0	0.0	0 0	0.0	0 4	3 1	3.3	1 0	1.6	13 0	13 2	15 1	9 5	7.6	13 2	8.5	10 4
	0.0	0 0	0.0	0 0	0 0	0 0	0 0	0 0	0 4	3 8	4.3	1 3	2 0	13 3	15 9	14.0	8 4	8 4	11 2	8 4	8 4
LLSD06-130204	0 0	0.0	0.0	0 0	0 0	0 0	0 1	0.0	4.2	7 0	5 2	4 4	6 7	13 2	8.9	10.9	5 9	8 9	10 9	7.9	5.9
LLSD07-130204	0 0	0.0	0 0	0 0	0 0	0 0	0 3	0 3	1 8	1 8	2.9	2 7	2.6	8 6	7 3	11.7	8 8	6.6	17 5	10.2	16.8
LLSD03-130204	0 0	0 0	0 0	0 0	0 0	0 0	0 1	1 8	3 2	3 5	2 7	1 6	2 1	6 2	8 9	10.6	8 1	7 3	17 1	10.6	16 3
LLSD02-130204	0 0	0 0	0 0	4.1	6 6	1 4	6 1	14 2	19.0	14 6	8 1	4.2	3 0	1 6	2 0	3 4	2 7	1 0	2.7	2 0	3 1
LLSD01-130204	0 0	0.0	0 0	0.0	8 2	1 8	7 4	9 7	11 5	15 5	15 1	10 0	6 5	2 4	1 4	3.2	0 7	0 7	2.2	1 8	1 8
LLSD04-130204	0 0	0 0	0 0	0 0	0 0	0 0	3 4	5 2	17 9	40.2	21 8	4 5	1.1	0 3	0 4	2 6	0.0	0 0	0 9	0 9	0 9
LLSD05-130204	0 0	0 0	0 0	0 0	10 0	6 9	11 4	15.8	13 7	13 0	8 2	3.7	2 3	0 3	1 7	2 0	2.3	1 0	2 7	2 0	3 0

WC78

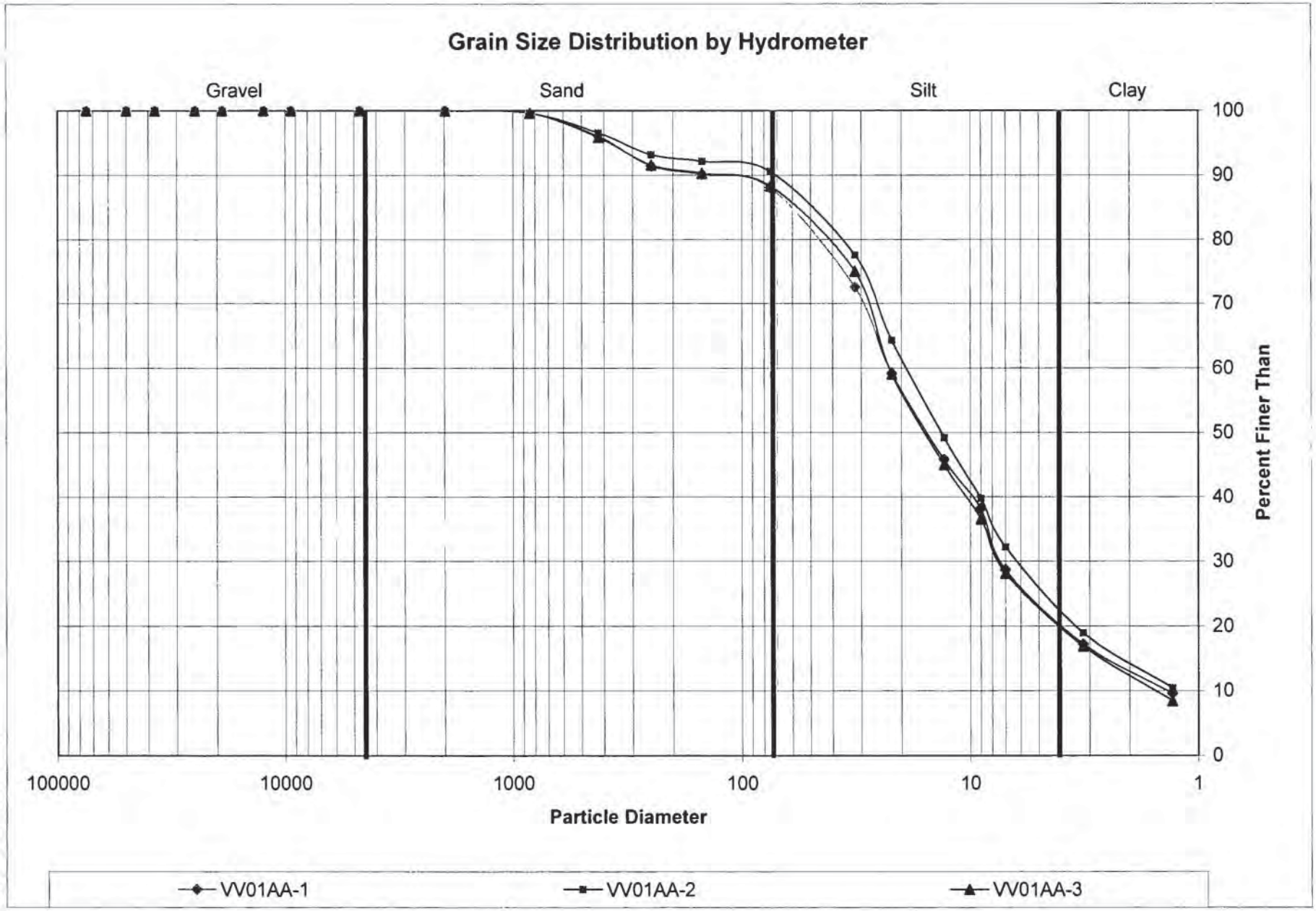
Client	GeoEngineers	Project No	0504-068-00
		Project	ECY-Everett Lowland
ARI Triplicate Sample ID	VV01AA	Batch No	WC78-01
		Page	1 of 1

Relative Standard Deviation, By Size

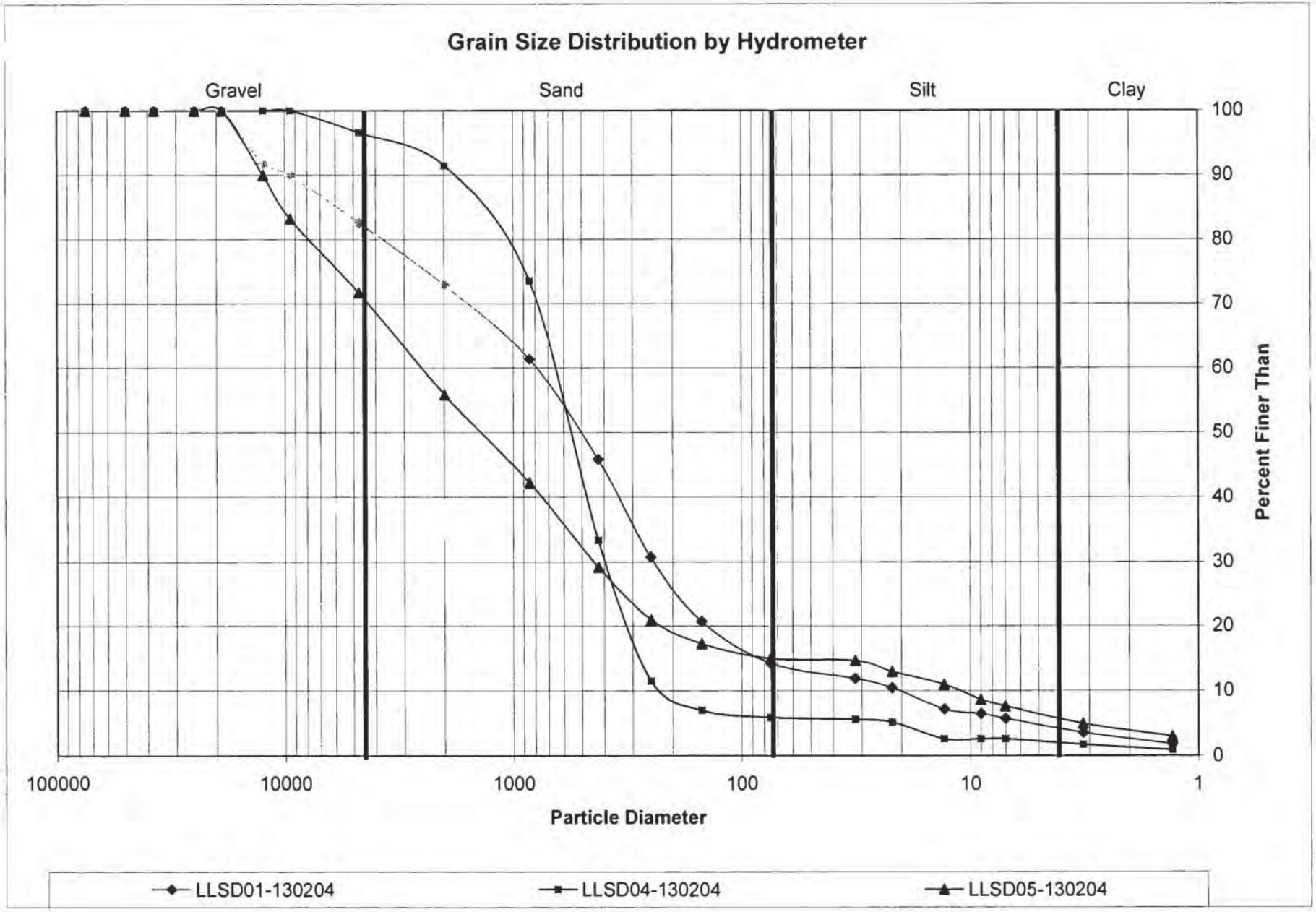
Sample ID	75000	50000	37500	25000	19000	12500	9500	4750	2000	850	425	250	150	75	32	22	13	9	7	3.2	1.3
VV01AA-1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.6	95.9	91.4	90.1	88.0	72.5	59.1	45.8	38.1	28.6	17.2	9.5
VV01AA-2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.6	96.5	93.1	92.1	90.5	77.5	64.3	49.1	39.7	32.1	18.9	10.4
VV01AA-3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.6	95.8	91.5	90.3	88.3	74.9	59.0	45.0	36.5	28.1	16.9	8.4
AVE	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.98	99.60	96.08	92.02	90.83	88.93	74.96	60.80	46.62	38.12	29.61	17.64	9.45
STDEV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.36	0.97	1.11	1.36	2.51	3.00	2.22	1.58	2.20	1.10	0.99
%RSD	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.37	1.06	1.22	1.53	3.35	4.94	4.76	4.15	7.42	6.24	10.43

This Triplicate applies to the Batch Containing the Followning Samples

Sample ID	Date Sampled	Date Set up	Date Started	Date Complete	Data Qualifiers
VV01AA	11/27/2012	12/11/2012	12/13/2012	12/19/2012	
	11/27/2012	12/11/2012	12/13/2012	12/19/2012	
	11/27/2012	12/11/2012	12/13/2012	12/19/2012	
LLSD06-130204	2/4/2013	2/7/2013	2/11/2013	2/14/2013	
LLSD07-130204	2/4/2013	2/7/2013	2/11/2013	2/14/2013	
LLSD03-130204	2/4/2013	2/7/2013	2/11/2013	2/14/2013	
LLSD02-130204	2/4/2013	2/7/2013	2/11/2013	2/14/2013	
LLSD01-130204	2/5/2013	2/7/2013	2/11/2013	2/14/2013	
LLSD04-130204	2/5/2013	2/7/2013	2/11/2013	2/14/2013	
LLSD05-130204	2/5/2013	2/7/2013	2/11/2013	2/14/2013	


Grain Size Distribution by Hydrometer
Gravel
Sand
Silt
Clay
100
90
80
70
60
50
40
30
20
10
0
Percent Finer Than
100000
10000
1000
100
10
1
Particle Diameter
VV01AA-1
VV01AA-2
VV01AA-3

Grain Size Distribution by Hydrometer
Gravel
Sand
Silt
Clay
100
90
80
70
60
50
40
30
20
10
0
Percent Finer Than
100000
10000
1000
100
10
1
Particle Diameter
LLSD06-130204
LLSD07-130204
LLSD03-130204
LLSD02-130204


Grain Size Distribution by Hydrometer
Gravel
Sand
Silt
Clay
100
90
80
70
60
50
40
30
20
10
0
Percent Finer Than
100000
10000
1000
100
10
1
Particle Diameter
LLSD01-130204
LLSD04-130204
LLSD05-130204

Total Solids

ARI Job ID: WC78

Solids Data Entry Report Checked by: NB Date: 02/08/13
Date: 02/08/13 Data Analyst: DM

Solids Determination performed on 02/07/13 by DM

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
WC78	A	LLSD06-130204	1.023	10.579	3.165	22.42
WC78	B	LLSD07-130204	0.979	10.307	4.343	36.06
WC78	C	LLSD03-130204	0.976	10.790	5.989	51.08
WC78	D	LLSD02-130204	0.985	10.635	8.353	76.35
WC78	E	LLSD01-130204	1.004	10.695	8.201	74.26
WC78	F	LLSD04-130204	1.016	10.809	5.863	49.49
WC78	G	LLSD05-130204	0.984	10.703	5.669	48.20

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Total Solids Bench Sheet

Laboratory Section Metals

Oven Identification: 07 **Balance ID:** 068755

Samples in Oven: Date: 2-07-13 Time: 1415 Temp: 104°C Analyst: DM

Removed from Oven: Date: 2-08-13 Time: 0720 Temp: 105°C Analyst: DM

ARI Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs[1]
WC78 A	1.023	10.579	3.165	–	✓
" B	0.979	10.307	4.343	–	✓
" C	0.976	10.790	5.989	–	✓
" D	0.985	10.635	8.353	–	✓
" E	1.004	10.695	8.201	–	✓
" F	1.016	10.809	5.863	–	✓
" G	0.984	10.703	5.669	–	✓
		2-7-13 DM			

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2nd bench sheet for additional weightings.

WC70 : 00067

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: WC78

Analytical Resources, Incorporated
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SPIKING LOG

Analyst: DM

Date: 2-07-13

Final Volume 50

Final Volume (Hg): 50

Sample ID WC78 ASPK, MBISPK

	Prepcode:	SWL		
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:	3001-10		
	Vol Added (mL):	1.0		
STOCK CONCENTRATION	Ag	50		2.0
	Al	200	200	
	As	200		10
	Ba	200	200	
	Be	50	50	
	Ca	1000	1000	
	Cd	50 ✓		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200	200	
	K	1000	1000	
	Mg	1000	1000	
	Mn	50	50	
	Na	1000	1000	
	Ni	50	50	
	Pb	200 ✓		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	SWN		
	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
	2987-2		
	1.0		
Ag	25		
Al			500
As	25 ✓		
Ba	25		
Be	25		
Ca			500
Cd	25		
Co	25		
Cr	25		
Cu	25		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25		
Pb	25		
Sb		25	
Se	80		
Tl	25 ✓		
U	25		
V	25		
Zn	80		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	SMM	CVA	1.0	0.05	3007-13
Hg MBSPK	↓	CVA	1.0	0.1	↓
Sb	SWC	ICP	2000	0.1	2941-4
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

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Digestion Log

Analyst: DM Date: 2-07-13 Time: 1415

Matrix: Soil Block ID: #5 Block Temp: 90°C Thermometer: MP8

ARI Sample ID	Btl #	pH<2	Prep Code: SWC Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWC Final Vol (mL)	Prep Code: SWN Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWN Final Vol (mL)	Comments
WC78 A	1	—	1.069	50.0	1.061	50.0	
" ADUP	1	—	1.066		1.058		
" ASPK	1	—	1.064		1.066		
" B	1	—	1.011		1.049		
" C	1	—	1.038		1.063		
" D	1	—	1.004		1.068		
" E	1	—	1.068		1.052		
" F	1	—	1.028		1.075		
" G	1	—	1.021		1.011		
" MB1	—	—	—		—		
" MB1SPK	—	—	—	50.0	—	50.0	

2-7-13 DM

Chemical/Reagent ID:

HNO_3: MK2436 | I7970 HCl: I7971 H_2O_2: I7645 Tube Lot #: DP5057

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: 5mm
Analyst: DM
Bath Temp: 95°C
Start Time: 1443
Matrix: Soil
Date: 2-07-13
End Time: 1513

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WC78 A	1	—	0.226	50.0	2/17 1	Y	
" ADUP	1	—	0.229		1		
" ASPK	1	—	0.228		1		
" B	1	—	0.230		1		
" C	1	—	0.235		1		
" D	1	—	0.295		1		
" E	1	—	0.206		1		
" F	1	—	0.299		1		
" G	1	—	0.254		1		
" MB1	—	—	—		1		
" MB1SPK	—	—	—	50.0	1	Y	

2-7-13 DM

Chemical/Reagent ID:

HNO_3: I8022
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2418
5% $KMnO_4$: MP2425
Digest Tube Lot: ~~12~~ MF06LKK01
DM 2-7-13

WC78 00071

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Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	WC7E
Unacceptable Blank:	☐	Date of Event:	2-1-13
Unacceptable Duplicate:	☐	Client ID:	GeoEngineers
Unacceptable Spike:	☑	Method/Element:	ICP
Unacceptable Reference:	☐	Prep Code:	SWL

Details of Problem/Recommended Corrective Action:

38%R for Sb in Ash
Post spike ok

Samples Affected:

Corrective Action Taken:

Analyst Initials: KT
Date: 2-1-13

Supervisor: [signature]
Date: 2/2/13

5049F

Revision 007
6/11/10

WC7G-00072

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: WC78

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA **Analysis Date:** 2-11-13

I2	Analyst M 2-12	Peer RL 2-12-13	Comment
Logbook			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
Samples			
RSD's & SD's	✓	✓	See log
Internal Standards	✓	✓	b
Carry-over	✓	✓	
Method QC			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	✓	
Matrix QC			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	WC78
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysis Notes and CAR's	✓	✓	CAF WC78

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: 1-22-13 Analysis Date: 2-1-13 Analyst: M

LR Date: 1-22-13 Page: 1 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD 0			3012-1
		2			3012-11
		3			-12
		4			-13
		5			-14
		ICV			3004-11
		ICB			
		CR1			
		ICSA			
		ICSAB			
		HiPwr QC7M		✓	
		SPER QC21		✓	
		DI check			
		CCV1			
		CCB1			
		WC78 MB1	Sub	2	
		B			
		C			
		D			
		E			
		ADup		✓	
		A			CAF
		Aspk			Sb low % R
		APost			✓ 0.016mL Sb1000 0.08mL ICPspk Sb

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 2-1-13 Analyst: AA

LR Date: — Page: 2 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		WC78 MBlspk	Sux	2 ✓	
		CCV2			
		CCB2			
		WC96 MB2	DMN		
		E			
		G			
		H			
		FDup		✓	
		F			
		Fspk		✓	0.08mL ICP std
		WC78 F	Sux	2	
		G			
		WC96MB2spk	DMN		✓ 0.08mL ICP spk
		CCV3			
		CCB3			end pkg
		WC89 MB	WMP		
	✓	B			Noisy clog?
	✓	C			
		D			
		E			
		F			
		ADup		✓	
		A			
		Aspk		✓	0.08mL ICP spk

AA 2-2-13

WC78 : 00078

Nebulizer Parameters: Hg_ReAlign

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

2/11/2013 8:10:47 AM Hg ReAlign... Actual peak offset (nm): 0.003
Drift (nm): -0.000 Slit adjustment: 0

Analysis Begun

Start Time: 2/11/2013 8:12:12 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 2/11/2013 7:24:20 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\BLKS.sif
Batch ID:
Results Data Set: blanks
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Method Loaded
Method Name: 7300bcESI2FAST
IEC File: 012213.iec
Method Description: 12Axial Elements
Method Last Saved: 2/11/2013 7:22:51 AM
MSF File:

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Al 308.215	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
B 249.677	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Be 313.042	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ca 317.933	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cd 228.802	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Cr 267.716	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Fe 273.955	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
K 766.490	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Mg 279.077	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mn 257.610	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Na 589.592	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Na 330.237	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ni 231.604	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Se 196.026	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Si 288.158	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Ti 334.903	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Zn 206.200	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
ScA 357.253	Lin, Calc Int	Peak Area	Axial	n/a	n/a
ScR 361.383	Lin, Calc Int	Peak Area	Radial	n/a	n/a

Sequence No.: 1
Sample ID: B1
Autosampler Location: 1
Date Collected: 2/11/2013 8:12:21 AM
Data Type: Original

Dilution: 1.000000X

AS 2-11-13

Nebulizer Parameters: B1

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Analysis Begun

Start Time: 2/11/2013 8:39:54 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 2/11/2013 7:24:20 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISETMON.sif
Batch ID:
Results Data Set: I2130211
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: Calib Blank 1

Autosampler Location: 1
Date Collected: 2/11/2013 8:39:55 AM
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	3124659.9	15342.67	0.49%	100.0	%
ScR 361.383	406886.1	732.11	0.18%	100.0	%
Ag 328.068†	-55.6	33.45	60.18%	[0.00]	mg/L
Al 308.215†	230.2	1.82	0.79%	[0.00]	mg/L
As 188.979†	-17.6	3.17	18.03%	[0.00]	mg/L
B 249.677†	64.1	10.31	16.08%	[0.00]	mg/L
Ba 233.527†	44.9	4.39	9.77%	[0.00]	mg/L
Be 313.042†	785.2	6.32	0.80%	[0.00]	mg/L
Ca 317.933†	117.1	9.53	8.14%	[0.00]	mg/L
Cd 228.802†	282.9	3.23	1.14%	[0.00]	mg/L
Co 228.616†	-107.5	2.90	2.70%	[0.00]	mg/L
Cr 267.716†	-203.1	9.60	4.72%	[0.00]	mg/L
Cu 324.752†	3714.1	36.28	0.98%	[0.00]	mg/L
Fe 273.955†	24.6	1.03	4.20%	[0.00]	mg/L
K 766.490†	440.4	32.97	7.49%	[0.00]	mg/L
Mg 279.077†	70.6	2.88	4.08%	[0.00]	mg/L
Mn 257.610†	236.1	3.95	1.68%	[0.00]	mg/L
Mo 202.031†	80.1	6.08	7.59%	[0.00]	mg/L
Na 589.592†	-401.5	42.45	10.57%	[0.00]	mg/L
Na 330.237†	-159.1	5.76	3.62%	[0.00]	mg/L
Ni 231.604†	11.4	4.88	42.93%	[0.00]	mg/L
Pb 220.353†	5.0	8.99	178.71%	[0.00]	mg/L
Sb 206.836†	59.6	4.50	7.56%	[0.00]	mg/L
Se 196.026†	-43.9	4.33	9.86%	[0.00]	mg/L
Si 288.158†	58.1	3.29	5.67%	[0.00]	mg/L
Sn 189.927†	-6.9	0.55	7.96%	[0.00]	mg/L
Sr 421.552†	328.9	31.65	9.62%	[0.00]	mg/L
Ti 334.903†	-75.1	10.11	13.46%	[0.00]	mg/L
Tl 190.801†	-43.2	7.00	16.19%	[0.00]	mg/L
V 292.402†	127.8	20.96	16.40%	[0.00]	mg/L
Zn 206.200†	-6.2	0.94	15.27%	[0.00]	mg/L

Sequence No.: 2
Sample ID: STD2

Autosampler Location: 2
Date Collected: 2/11/2013 8:44:11 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: STD2

	Mean Corrected				Calib

Analyte	Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	3114941.6	16024.93	0.51%	99.69	%
ScR 361.383	402436.9	1728.90	0.43%	98.91	%
Ba 233.527†	58588.8	758.25	1.29%	[10]	mg/L
Cd 228.802†	294151.1	759.69	0.26%	[10]	mg/L
Co 228.616†	453491.7	1749.42	0.39%	[10]	mg/L
Cr 267.716†	83568.3	128.81	0.15%	[10]	mg/L
Cu 324.752†	2981249.3	8992.98	0.30%	[10]	mg/L
Mn 257.610†	496014.1	1104.03	0.22%	[10]	mg/L
V 292.402†	1407745.8	4828.08	0.34%	[10]	mg/L

Sequence No.: 3
Sample ID: STD3

Autosampler Location: 3
Date Collected: 2/11/2013 8:45:58 AM
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	3039876.0	6062.02	0.20%	97.29	%
ScR 361.383	400652.0	585.44	0.15%	98.47	%
Ag 328.068†	231959.5	197.36	0.09%	[1.0]	mg/L
As 188.979†	19222.9	64.03	0.33%	[10]	mg/L
B 249.677†	85314.6	137.42	0.16%	[10]	mg/L
Be 313.042†	3334272.3	22818.03	0.68%	[5.0]	mg/L
Na 589.592†	652547.9	3371.37	0.52%	[50]	mg/L
Ni 231.604†	51838.6	224.99	0.43%	[10]	mg/L
Pb 220.353†	100681.9	205.11	0.20%	[10]	mg/L
Se 196.026†	18746.7	89.27	0.48%	[10]	mg/L
Sr 421.552†	4900112.5	18553.24	0.38%	[5]	mg/L
Tl 190.801†	25651.6	149.14	0.58%	[10]	mg/L
Zn 206.200†	47923.5	135.31	0.28%	[10]	mg/L

Sequence No.: 4
Sample ID: STD4

Autosampler Location: 4
Date Collected: 2/11/2013 8:48:32 AM
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	3120628.2	4597.54	0.15%	99.87	%
ScR 361.383	405586.8	614.83	0.15%	99.68	%
Mo 202.031†	235391.4	277.26	0.12%	[10]	mg/L
Sb 206.836†	37764.9	193.46	0.51%	[10]	mg/L
Si 288.158†	21108.4	173.44	0.82%	[10]	mg/L
Sn 189.927†	48996.8	92.08	0.19%	[10]	mg/L
Ti 334.903†	257791.7	689.76	0.27%	[10]	mg/L

Sequence No.: 5
Sample ID: STD5

Autosampler Location: 5
Date Collected: 2/11/2013 8:50:47 AM
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2933724.7	6581.75	0.22%	93.89	%
ScR 361.383	401035.6	1944.52	0.48%	98.56	%
Al 308.215†	50589.2	189.17	0.37%	[30]	mg/L
Ca 317.933†	472530.0	1640.66	0.35%	[30]	mg/L
Fe 273.955†	178853.8	673.16	0.38%	[100]	mg/L
K 766.490†	254556.9	855.11	0.34%	[100]	mg/L
Mg 279.077†	40692.3	212.69	0.52%	[30]	mg/L
Na 330.237†	3565.3	37.53	1.05%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	232000	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1686	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1922	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	8531	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	5859	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	666900	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	15750	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	29420	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	45350	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	8357	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	298100	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1789	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	2546	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1356	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	49600	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	23540	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	13050	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	35.65	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	5184	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	10070	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	3776	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1875	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	2111	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	4900	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	980000	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	25780	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	2565	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	140800	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	4792	0.00000	1.000000	

Analysis Begun

Start Time: 2/11/2013 8:54:56 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 2/11/2013 7:24:20 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISETMON.sif
Batch ID:
Results Data Set: I2130211
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: CV

Autosampler Location: 7
Date Collected: 2/11/2013 8:54:57 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3072032.0	98.32	%	0.336				0.34%
ScR 361.383	395426.3	97.18	%	0.377				0.39%
Ag 328.068†	248096.2	1.070	mg/L	0.0083	1.070	mg/L	0.0083	0.78%
Al 308.215†	3387.9	1.974	mg/L	0.0050	1.974	mg/L	0.0050	0.25%
As 188.979†	3949.0	2.086	mg/L	0.0147	2.086	mg/L	0.0147	0.70%
B 249.677†	8883.0	1.040	mg/L	0.0040	1.040	mg/L	0.0040	0.38%
Ba 233.527†	6141.7	1.048	mg/L	0.0078	1.048	mg/L	0.0078	0.74%
Be 313.042†	687303.0	1.030	mg/L	0.0036	1.030	mg/L	0.0036	0.35%
Ca 317.933†	32071.8	2.036	mg/L	0.0158	2.036	mg/L	0.0158	0.78%
Cd 228.802†	31378.1	1.056	mg/L	0.0046	1.056	mg/L	0.0046	0.43%
Co 228.616†	46474.8	1.023	mg/L	0.0037	1.023	mg/L	0.0037	0.36%
Cr 267.716†	8690.8	1.039	mg/L	0.0066	1.039	mg/L	0.0066	0.63%
Cu 324.752†	316685.9	1.062	mg/L	0.0048	1.062	mg/L	0.0048	0.45%
Fe 273.955†	3645.2	2.032	mg/L	0.0210	2.032	mg/L	0.0210	1.03%
K 766.490†	51160.2	20.10	mg/L	0.092	20.10	mg/L	0.092	0.46%
Mg 279.077†	2684.2	1.985	mg/L	0.0217	1.985	mg/L	0.0217	1.09%
Mn 257.610†	51901.4	1.047	mg/L	0.0084	1.047	mg/L	0.0084	0.80%
Mo 202.031†	24198.1	1.028	mg/L	0.0068	1.028	mg/L	0.0068	0.66%
Na 589.592†	688535.7	52.76	mg/L	0.104	52.76	mg/L	0.104	0.20%
Na 330.237†	1848.5	51.82	mg/L	0.229	51.82	mg/L	0.229	0.44%
Ni 231.604†	5393.1	1.040	mg/L	0.0036	1.040	mg/L	0.0036	0.35%
Pb 220.353†	20792.3	2.066	mg/L	0.0128	2.066	mg/L	0.0128	0.62%
Sb 206.836†	8066.9	2.134	mg/L	0.0060	2.134	mg/L	0.0060	0.28%
Se 196.026†	3823.4	2.038	mg/L	0.0132	2.038	mg/L	0.0132	0.65%
Si 288.158†	4407.4	2.083	mg/L	0.0037	2.083	mg/L	0.0037	0.18%
Sn 189.927†	4959.3	1.014	mg/L	0.0061	1.014	mg/L	0.0061	0.60%
Sr 421.552†	1021290.1	1.042	mg/L	0.0009	1.042	mg/L	0.0009	0.09%
Ti 334.903†	26761.5	1.037	mg/L	0.0014	1.037	mg/L	0.0014	0.13%
Tl 190.801†	5300.0	2.058	mg/L	0.0112	2.058	mg/L	0.0112	0.54%
V 292.402†	147556.2	1.053	mg/L	0.0060	1.053	mg/L	0.0060	0.57%
Zn 206.200†	5136.4	1.072	mg/L	0.0099	1.072	mg/L	0.0099	0.93%

Sequence No.: 4
Sample ID: ICSA

Autosampler Location: 302
Date Collected: 2/11/2013 9:06:48 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3010669.2	96.35	%	0.216				0.22%
ScR 361.383	391652.6	96.26	%	0.311				0.32%
Ag 328.068†	-224.2	-0.00032	mg/L	0.000083	-0.00032	mg/L	0.000083	25.57%
Al 308.215†	335133.9	198.7	mg/L	1.06	198.7	mg/L	1.06	0.53%
As 188.979†	48.1	0.01621	mg/L	0.000985	0.01621	mg/L	0.000985	6.08%
B 249.677†	-83.3	-0.00976	mg/L	0.002171	-0.00976	mg/L	0.002171	22.23%
Ba 233.527†	174.3	0.00118	mg/L	0.000227	0.00118	mg/L	0.000227	19.14%
Be 313.042†	80.5	0.00012	mg/L	0.000008	0.00012	mg/L	0.000008	6.53%
Ca 317.933†	1562416.1	99.19	mg/L	0.292	99.19	mg/L	0.292	0.29%
Cd 228.802†	63.0	0.00200	mg/L	0.000164	0.00200	mg/L	0.000164	8.19%
Co 228.616†	75.6	0.00165	mg/L	0.000290	0.00165	mg/L	0.000290	17.57%
Cr 267.716†	14.6	-0.00310	mg/L	0.001124	-0.00310	mg/L	0.001124	36.24%
Cu 324.752†	-2156.4	0.00178	mg/L	0.000285	0.00178	mg/L	0.000285	16.03%
Fe 273.955†	347727.4	194.4	mg/L	0.68	194.4	mg/L	0.68	0.35%
K 766.490†	102.4	0.04022	mg/L	0.018680	0.04022	mg/L	0.018680	46.44%
Mg 279.077†	138953.4	102.3	mg/L	0.52	102.3	mg/L	0.52	0.51%
Mn 257.610†	105.5	0.00075	mg/L	0.000206	0.00075	mg/L	0.000206	27.63%
Mo 202.031†	101.7	0.00315	mg/L	0.000209	0.00315	mg/L	0.000209	6.63%
Na 589.592†	161.2	0.01235	mg/L	0.002333	0.01235	mg/L	0.002333	18.89%
Na 330.237†	3.6	0.1041	mg/L	0.03054	0.1041	mg/L	0.03054	29.35%
Ni 231.604†	-3.3	-0.00062	mg/L	0.001100	-0.00062	mg/L	0.001100	176.12%
Pb 220.353†	-496.7	-0.00594	mg/L	0.000500	-0.00594	mg/L	0.000500	8.42%
Sb 206.836†	43.4	0.01135	mg/L	0.003119	0.01135	mg/L	0.003119	27.47%
Se 196.026†	18.9	-0.01279	mg/L	0.003814	-0.01279	mg/L	0.003814	29.81%
Si 288.158†	-41.5	-0.00796	mg/L	0.002287	-0.00796	mg/L	0.002287	28.72%
Sn 189.927†	-101.5	-0.01241	mg/L	0.000551	-0.01241	mg/L	0.000551	4.44%
Sr 421.552†	4148.2	0.00423	mg/L Cont	0.000013	0.00423	mg/L	0.000013	0.30%
Ti 334.903†	187.2	0.00136	mg/L	0.000153	0.00136	mg/L	0.000153	11.27%
Tl 190.801†	-48.1	0.00700	mg/L	0.002884	0.00700	mg/L	0.002884	41.22%
V 292.402†	1354.3	-0.00013	mg/L	0.000340	-0.00013	mg/L	0.000340	258.42%
Zn 206.200†	2.7	0.00056	mg/L	0.000670	0.00056	mg/L	0.000670	120.29%

Sequence No.: 5
Sample ID: ICSAB

Autosampler Location: 303
Date Collected: 2/11/2013 9:11:05 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3014257.7	96.47	%	0.325				0.34%
ScR 361.383	392227.4	96.40	%	0.602				0.62%
Ag 328.068†	253199.5	1.093	mg/L	0.0043	1.093	mg/L	0.0043	0.39%
Al 308.215†	334529.7	198.4	mg/L	2.06	198.4	mg/L	2.06	1.04%
As 188.979†	2041.1	1.053	mg/L	0.0038	1.053	mg/L	0.0038	0.36%
B 249.677†	-69.0	-0.01039	mg/L	0.000897	-0.01039	mg/L	0.000897	8.64%
Ba 233.527†	6307.7	1.048	mg/L	0.0090	1.048	mg/L	0.0090	0.86%
Be 313.042†	682455.2	1.023	mg/L	0.0174	1.023	mg/L	0.0174	1.70%
Ca 317.933†	1541840.8	97.89	mg/L	1.074	97.89	mg/L	1.074	1.10%
Cd 228.802†	31100.2	1.052	mg/L	0.0064	1.052	mg/L	0.0064	0.60%
Co 228.616†	44786.1	0.9873	mg/L	0.00494	0.9873	mg/L	0.00494	0.50%
Cr 267.716†	8723.7	1.039	mg/L	0.0097	1.039	mg/L	0.0097	0.93%
Cu 324.752†	323349.5	1.094	mg/L	0.0060	1.094	mg/L	0.0060	0.55%
Fe 273.955†	344227.4	192.5	mg/L	1.96	192.5	mg/L	1.96	1.02%
K 766.490†	3.1	0.00121	mg/L	0.001274	0.00121	mg/L	0.001274	105.64%
Mg 279.077†	132654.0	97.68	mg/L	0.941	97.68	mg/L	0.941	0.96%
Mn 257.610†	48717.0	0.9810	mg/L	0.01040	0.9810	mg/L	0.01040	1.06%
Mo 202.031†	115.8	0.00371	mg/L	0.000326	0.00371	mg/L	0.000326	8.77%
Na 589.592†	228.0	0.01747	mg/L	0.000806	0.01747	mg/L	0.000806	4.61%
Na 330.237†	12.6	0.05796	mg/L	0.099812	0.05796	mg/L	0.099812	172.20%
Ni 231.604†	5278.6	1.018	mg/L	0.0097	1.018	mg/L	0.0097	0.95%
Pb 220.353†	9558.2	0.9933	mg/L	0.00200	0.9933	mg/L	0.00200	0.20%
Sb 206.836†	4005.4	1.050	mg/L	0.0056	1.050	mg/L	0.0056	0.53%
Se 196.026†	1937.5	1.010	mg/L	0.0018	1.010	mg/L	0.0018	0.18%
Si 288.158†	-48.4	-0.00831	mg/L	0.002957	-0.00831	mg/L	0.002957	35.59%
Sn 189.927†	-100.4	-0.01174	mg/L	0.000557	-0.01174	mg/L	0.000557	4.75%
Sr 421.552†	4075.7	0.00416	mg/L	0.000027	0.00416	mg/L	0.000027	0.65%
Ti 334.903†	183.3	0.00109	mg/L	0.000324	0.00109	mg/L	0.000324	29.73%
Tl 190.801†	2450.8	0.9709	mg/L	0.00306	0.9709	mg/L	0.00306	0.32%
V 292.402†	145669.0	1.030	mg/L	0.0048	1.030	mg/L	0.0048	0.47%
Zn 206.200†	4775.2	0.9967	mg/L	0.00800	0.9967	mg/L	0.00800	0.80%

Sequence No.: 6
Sample ID: HiPurQC7M

Autosampler Location: 304
Date Collected: 2/11/2013 9:16:31 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: HiPurQC7M

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: HiPurQC7M

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3120763.2	99.88	%	0.139				0.14%
ScR 361.383	406077.0	99.80	%	0.752				0.75%
Ag 328.068†	245760.7	1.059	mg/L	0.0057	1.059	mg/L	0.0057	0.54%
Al 308.215†	3239.7	1.921	mg/L	0.0156	1.921	mg/L	0.0156	0.81%
As 188.979†	3.3	0.00174	mg/L	0.001138	0.00174	mg/L	0.001138	65.49%
B 249.677†	17389.0	2.038	mg/L	0.0168	2.038	mg/L	0.0168	0.82%
Ba 233.527†	12141.4	2.072	mg/L	0.0321	2.072	mg/L	0.0321	1.55%
Be 313.042†	22.8	0.00003	mg/L	0.000035	0.00003	mg/L	0.000035	102.59%
Ca 317.933†	46.4	0.00295	mg/L	0.000860	0.00295	mg/L	0.000860	29.18%
Cd 228.802†	5.0	0.00016	mg/L	0.000072	0.00016	mg/L	0.000072	44.74%
Co 228.616†	3.2	-0.00016	mg/L	0.000068	-0.00016	mg/L	0.000068	41.23%
Cr 267.716†	9.0	0.00108	mg/L	0.000389	0.00108	mg/L	0.000389	36.04%
Cu 324.752†	122.1	0.00041	mg/L	0.000177	0.00041	mg/L	0.000177	43.28%
Fe 273.955†	1.7	0.00093	mg/L	0.001071	0.00093	mg/L	0.001071	115.48%
K 766.490†	49222.4	19.34	mg/L	0.169	19.34	mg/L	0.169	0.88%
Mg 279.077†	3.4	0.00253	mg/L	0.001102	0.00253	mg/L	0.001102	43.56%
Mn 257.610†	3.4	0.00006	mg/L	0.000113	0.00006	mg/L	0.000113	194.43%
Mo 202.031†	0.6	0.00003	mg/L	0.000295	0.00003	mg/L	0.000295	>999.9%
Na 589.592†	26118.4	2.001	mg/L	0.0124	2.001	mg/L	0.0124	0.62%
Na 330.237†	66.2	1.858	mg/L	0.3093	1.858	mg/L	0.3093	16.65%
Ni 231.604†	-0.4	-0.00007	mg/L	0.000702	-0.00007	mg/L	0.000702	965.67%
Pb 220.353†	-7.5	-0.00022	mg/L	0.000498	-0.00022	mg/L	0.000498	224.11%
Sb 206.836†	9.7	0.00255	mg/L	0.000902	0.00255	mg/L	0.000902	35.38%
Se 196.026†	-5.1	-0.00293	mg/L	0.001721	-0.00293	mg/L	0.001721	58.67%
Si 288.158†	4292.1	2.033	mg/L	0.0214	2.033	mg/L	0.0214	1.05%
Sn 189.927†	-1.4	-0.00027	mg/L	0.000556	-0.00027	mg/L	0.000556	202.31%
Sr 421.552†	1.9	0.00000	mg/L	0.000031	0.00000	mg/L	0.000031	>999.9%
Ti 334.903†	-0.1	-0.00000	mg/L	0.000352	-0.00000	mg/L	0.000352	>999.9%
Tl 190.801†	4.3	0.00168	mg/L	0.002536	0.00168	mg/L	0.002536	150.96%
V 292.402†	3.1	0.00003	mg/L	0.000010	0.00003	mg/L	0.000010	36.05%
Zn 206.200†	-5.4	-0.00079	mg/L	0.000250	-0.00079	mg/L	0.000250	31.82%

Sequence No.: 7
Sample ID: SPEXQC21

Autosampler Location: 305
Date Collected: 2/11/2013 9:20:46 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SPEXQC21

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: SPEXQC21

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3130165.8	100.2	%	0.49				0.49%
ScR 361.383	398083.5	97.84	%	0.246				0.25%
Ag 328.068†	-61.4	0.00042	mg/L	0.000046	0.00042	mg/L	0.000046	11.18%
Al 308.215†	138.9	0.01298	mg/L	0.006339	0.01298	mg/L	0.006339	48.84%
As 188.979†	3823.5	2.053	mg/L	0.0103	2.053	mg/L	0.0103	0.50%
B 249.677†	94.4	0.00873	mg/L	0.000676	0.00873	mg/L	0.000676	7.74%
Ba 233.527†	4.1	0.00007	mg/L	0.001297	0.00007	mg/L	0.001297	>999.9%
Be 313.042†	1339847.4	2.009	mg/L	0.0038	2.009	mg/L	0.0038	0.19%
Ca 317.933†	31431.7	1.996	mg/L	0.0074	1.996	mg/L	0.0074	0.37%
Cd 228.802†	61327.9	2.075	mg/L	0.0114	2.075	mg/L	0.0114	0.55%
Co 228.616†	94272.1	2.075	mg/L	0.0066	2.075	mg/L	0.0066	0.32%
Cr 267.716†	17324.2	2.072	mg/L	0.0118	2.072	mg/L	0.0118	0.57%
Cu 324.752†	596785.2	2.001	mg/L	0.0043	2.001	mg/L	0.0043	0.22%
Fe 273.955†	3682.0	2.047	mg/L	0.0033	2.047	mg/L	0.0033	0.16%
K 766.490†	13.0	0.00512	mg/L	0.007979	0.00512	mg/L	0.007979	155.98%
Mg 279.077†	2769.2	2.055	mg/L	0.0093	2.055	mg/L	0.0093	0.45%
Mn 257.610†	101907.3	2.055	mg/L	0.0073	2.055	mg/L	0.0073	0.36%
Mo 202.031†	46576.7	1.979	mg/L	0.0055	1.979	mg/L	0.0055	0.28%
Na 589.592†	470.3	0.03603	mg/L	0.001618	0.03603	mg/L	0.001618	4.49%
Na 330.237†	-4.2	-0.1765	mg/L	0.18284	-0.1765	mg/L	0.18284	103.59%
Ni 231.604†	11052.0	2.132	mg/L	0.0084	2.132	mg/L	0.0084	0.39%
Pb 220.353†	20025.1	1.990	mg/L	0.0049	1.990	mg/L	0.0049	0.24%
Sb 206.836†	8129.8	2.134	mg/L	0.0125	2.134	mg/L	0.0125	0.58%
Se 196.026†	3790.1	2.020	mg/L	0.0163	2.020	mg/L	0.0163	0.81%
Si 288.158†	71.7	0.04106	mg/L	0.009662	0.04106	mg/L	0.009662	23.53%
Sn 189.927†	-14.0	-0.00119	mg/L	0.000767	-0.00119	mg/L	0.000767	64.21%
Sr 421.552†	2028263.0	2.070	mg/L	0.0044	2.070	mg/L	0.0044	0.21%
Ti 334.903†	53639.9	2.078	mg/L	0.0077	2.078	mg/L	0.0077	0.37%
Tl 190.801†	5362.6	2.073	mg/L	0.0115	2.073	mg/L	0.0115	0.56%
V 292.402†	292899.2	2.090	mg/L	0.0098	2.090	mg/L	0.0098	0.47%
Zn 206.200†	10282.5	2.146	mg/L	0.0058	2.146	mg/L	0.0058	0.27%

Sequence No.: 8
Sample ID: DI CHECK

Autosampler Location: 306
Date Collected: 2/11/2013 9:25:04 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: DI CHECK

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: DI CHECK

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3218481.3	103.0	%	0.39				0.38%
ScR 361.383	418935.6	103.0	%	1.12				1.09%
Ag 328.068†	-41.5	-0.00018	mg/L	0.000285	-0.00018	mg/L	0.000285	159.57%
Al 308.215†	-2.4	-0.00142	mg/L	0.001026	-0.00142	mg/L	0.001026	72.06%
As 188.979†	6.8	0.00352	mg/L	0.000886	0.00352	mg/L	0.000886	25.18%
B 249.677†	-21.8	-0.00256	mg/L	0.000211	-0.00256	mg/L	0.000211	8.23%
Ba 233.527†	-7.1	-0.00121	mg/L	0.000538	-0.00121	mg/L	0.000538	44.64%
Be 313.042†	9.8	0.00001	mg/L	0.000033	0.00001	mg/L	0.000033	224.03%
Ca 317.933†	-9.2	-0.00058	mg/L	0.000840	-0.00058	mg/L	0.000840	144.11%
Cd 228.802†	3.2	0.00009	mg/L	0.000308	0.00009	mg/L	0.000308	350.17%
Co 228.616†	10.9	0.00024	mg/L	0.000048	0.00024	mg/L	0.000048	19.98%
Cr 267.716†	13.6	0.00163	mg/L	0.000390	0.00163	mg/L	0.000390	23.95%
Cu 324.752†	62.3	0.00021	mg/L	0.000325	0.00021	mg/L	0.000325	155.35%
Fe 273.955†	-2.2	-0.00122	mg/L	0.001337	-0.00122	mg/L	0.001337	109.41%
K 766.490†	14.6	0.00575	mg/L	0.005373	0.00575	mg/L	0.005373	93.39%
Mg 279.077†	-1.0	-0.00071	mg/L	0.001378	-0.00071	mg/L	0.001378	192.90%
Mn 257.610†	-2.6	-0.00005	mg/L	0.000051	-0.00005	mg/L	0.000051	97.49%
Mo 202.031†	9.2	0.00039	mg/L	0.000331	0.00039	mg/L	0.000331	84.93%
Na 589.592†	19.7	0.00151	mg/L	0.001175	0.00151	mg/L	0.001175	77.81%
Na 330.237†	3.4	0.09456	mg/L	0.144777	0.09456	mg/L	0.144777	153.10%
Ni 231.604†	-5.0	-0.00097	mg/L	0.000328	-0.00097	mg/L	0.000328	33.68%
Pb 220.353†	2.7	0.00027	mg/L	0.000253	0.00027	mg/L	0.000253	92.88%
Sb 206.836†	-7.7	-0.00206	mg/L	0.000628	-0.00206	mg/L	0.000628	30.47%
Se 196.026†	8.1	0.00430	mg/L	0.002158	0.00430	mg/L	0.002158	50.18%
Si 288.158†	17.6	0.00833	mg/L	0.006307	0.00833	mg/L	0.006307	75.73%
Sn 189.927†	1.9	0.00038	mg/L	0.000488	0.00038	mg/L	0.000488	129.36%
Sr 421.552†	-1.5	-0.00000	mg/L	0.000010	-0.00000	mg/L	0.000010	638.59%
Ti 334.903†	-7.4	-0.00029	mg/L	0.001105	-0.00029	mg/L	0.001105	382.77%
Tl 190.801†	9.0	0.00350	mg/L	0.000469	0.00350	mg/L	0.000469	13.42%
V 292.402†	17.9	0.00013	mg/L	0.000019	0.00013	mg/L	0.000019	14.03%
Zn 206.200†	2.8	0.00059	mg/L	0.000726	0.00059	mg/L	0.000726	123.00%

Sequence No.: 9
Sample ID: CV

Autosampler Location: 7
Date Collected: 2/11/2013 9:29:19 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3076905.3	98.47	%	0.180				0.18%
ScR 361.383	398088.9	97.84	%	0.740				0.76%
Ag 328.068†	249574.3	1.076	mg/L	0.0020	1.076	mg/L	0.0020	0.18%
Al 308.215†	3408.5	1.986	mg/L	0.0355	1.986	mg/L	0.0355	1.79%
As 188.979†	3949.8	2.086	mg/L	0.0047	2.086	mg/L	0.0047	0.22%
B 249.677†	8899.6	1.042	mg/L	0.0136	1.042	mg/L	0.0136	1.30%
Ba 233.527†	6232.1	1.063	mg/L	0.0199	1.063	mg/L	0.0199	1.87%
Be 313.042†	680712.7	1.021	mg/L	0.0026	1.021	mg/L	0.0026	0.25%
Ca 317.933†	32022.3	2.033	mg/L	0.0249	2.033	mg/L	0.0249	1.23%
Cd 228.802†	31164.9	1.049	mg/L	0.0047	1.049	mg/L	0.0047	0.45%
Co 228.616†	46873.5	1.032	mg/L	0.0047	1.032	mg/L	0.0047	0.45%
Cr 267.716†	8714.9	1.042	mg/L	0.0123	1.042	mg/L	0.0123	1.18%
Cu 324.752†	316686.1	1.062	mg/L	0.0034	1.062	mg/L	0.0034	0.32%
Fe 273.955†	3585.1	1.999	mg/L	0.0233	1.999	mg/L	0.0233	1.16%
K 766.490†	50904.1	20.00	mg/L	0.195	20.00	mg/L	0.195	0.97%
Mg 279.077†	2704.1	2.000	mg/L	0.0321	2.000	mg/L	0.0321	1.60%
Mn 257.610†	51235.6	1.033	mg/L	0.0121	1.033	mg/L	0.0121	1.17%
Mo 202.031†	24134.3	1.025	mg/L	0.0020	1.025	mg/L	0.0020	0.19%
Na 589.592†	690362.9	52.90	mg/L	0.192	52.90	mg/L	0.192	0.36%
Na 330.237†	1843.2	51.67	mg/L	0.623	51.67	mg/L	0.623	1.21%
Ni 231.604†	5463.1	1.054	mg/L	0.0072	1.054	mg/L	0.0072	0.69%
Pb 220.353†	20765.8	2.064	mg/L	0.0031	2.064	mg/L	0.0031	0.15%
Sb 206.836†	8057.6	2.132	mg/L	0.0028	2.132	mg/L	0.0028	0.13%
Se 196.026†	3813.9	2.033	mg/L	0.0010	2.033	mg/L	0.0010	0.05%
Si 288.158†	4385.5	2.073	mg/L	0.0359	2.073	mg/L	0.0359	1.73%
Sn 189.927†	4921.5	1.006	mg/L	0.0025	1.006	mg/L	0.0025	0.24%
Sr 421.552†	1015490.1	1.036	mg/L	0.0029	1.036	mg/L	0.0029	0.28%
Ti 334.903†	26536.9	1.028	mg/L	0.0022	1.028	mg/L	0.0022	0.21%
Tl 190.801†	5320.5	2.066	mg/L	0.0046	2.066	mg/L	0.0046	0.22%
V 292.402†	148096.5	1.057	mg/L	0.0009	1.057	mg/L	0.0009	0.09%
Zn 206.200†	5156.2	1.076	mg/L	0.0101	1.076	mg/L	0.0101	0.94%

Sequence No.: 10
Sample ID: CB

Autosampler Location: 1
Date Collected: 2/11/2013 9:32:38 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3125458.7	100.0	%	0.40				0.40%
ScR 361.383	408336.3	100.4	%	0.46				0.46%
Ag 328.068†	-7.9	-0.00003	mg/L	0.000232	-0.00003	mg/L	0.000232	681.72%
Al 308.215†	-0.4	-0.00028	mg/L	0.001792	-0.00028	mg/L	0.001792	639.08%
As 188.979†	4.4	0.00228	mg/L	0.001516	0.00228	mg/L	0.001516	66.43%
B 249.677†	4.0	0.00047	mg/L	0.000919	0.00047	mg/L	0.000919	194.95%
Ba 233.527†	-2.7	-0.00046	mg/L	0.000176	-0.00046	mg/L	0.000176	38.13%
Be 313.042†	30.0	0.00004	mg/L	0.000032	0.00004	mg/L	0.000032	72.22%
Ca 317.933†	10.4	0.00066	mg/L	0.000704	0.00066	mg/L	0.000704	106.59%
Cd 228.802†	6.7	0.00022	mg/L	0.000059	0.00022	mg/L	0.000059	27.42%
Co 228.616†	0.4	0.00001	mg/L	0.000042	0.00001	mg/L	0.000042	493.91%
Cr 267.716†	9.2	0.00110	mg/L	0.000839	0.00110	mg/L	0.000839	76.27%
Cu 324.752†	204.9	0.00069	mg/L	0.000090	0.00069	mg/L	0.000090	13.12%
Fe 273.955†	-0.2	-0.00008	mg/L	0.001310	-0.00008	mg/L	0.001310	>999.9%
K 766.490†	59.2	0.02327	mg/L	0.004726	0.02327	mg/L	0.004726	20.31%
Mg 279.077†	1.6	0.00122	mg/L	0.002105	0.00122	mg/L	0.002105	172.89%
Mn 257.610†	1.3	0.00003	mg/L	0.000007	0.00003	mg/L	0.000007	26.37%
Mo 202.031†	36.5	0.00155	mg/L	0.000354	0.00155	mg/L	0.000354	22.85%
Na 589.592†	20.6	0.00158	mg/L	0.001068	0.00158	mg/L	0.001068	67.53%
Na 330.237†	15.2	0.4262	mg/L	0.01367	0.4262	mg/L	0.01367	3.21%
Ni 231.604†	-1.1	-0.00021	mg/L	0.001107	-0.00021	mg/L	0.001107	516.59%
Pb 220.353†	2.6	0.00026	mg/L	0.000906	0.00026	mg/L	0.000906	349.33%
Sb 206.836†	12.1	0.00319	mg/L	0.000700	0.00319	mg/L	0.000700	21.93%
Se 196.026†	-6.0	-0.00320	mg/L	0.002216	-0.00320	mg/L	0.002216	69.32%
Si 288.158†	-4.8	-0.00227	mg/L	0.002014	-0.00227	mg/L	0.002014	88.62%
Sn 189.927†	2.9	0.00060	mg/L	0.000401	0.00060	mg/L	0.000401	67.34%
Sr 421.552†	19.9	0.00002	mg/L	0.000015	0.00002	mg/L	0.000015	74.63%
Ti 334.903†	5.6	0.00022	mg/L	0.000619	0.00022	mg/L	0.000619	286.46%
Tl 190.801†	7.9	0.00310	mg/L	0.001160	0.00310	mg/L	0.001160	37.44%
V 292.402†	10.9	0.00008	mg/L	0.000071	0.00008	mg/L	0.000071	85.29%
Zn 206.200†	0.5	0.00011	mg/L	0.000537	0.00011	mg/L	0.000537	504.56%

Sequence No.: 11
Sample ID: WC78 MB1 SWC

Autosampler Location: 307
Date Collected: 2/11/2013 9:36:54 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WC78 MB1 SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: WC78 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3158839.6	101.1	%	0.60				0.59%
ScR 361.383	407639.1	100.2	%	0.60				0.59%
Ag 328.068†	-4.0	-0.00002	mg/L	0.000125	-0.00003	mg/L	0.000249	722.80%
Al 308.215†	3.7	0.00220	mg/L	0.007492	0.00439	mg/L	0.014984	341.04%
As 188.979†	2.7	0.00138	mg/L	0.000718	0.00277	mg/L	0.001436	51.86%
B 249.677†	-2.4	-0.00028	mg/L	0.000482	-0.00056	mg/L	0.000964	172.44%
Ba 233.527†	-2.4	-0.00040	mg/L	0.000515	-0.00081	mg/L	0.001031	127.31%
Be 313.042†	49.3	0.00007	mg/L	0.000027	0.00015	mg/L	0.000054	36.24%
Ca 317.933†	166.7	0.01059	mg/L	0.000407	0.02117	mg/L	0.000813	3.84%
Cd 228.802†	3.0	0.00009	mg/L	0.000056	0.00019	mg/L	0.000112	60.38%
Co 228.616†	-3.9	-0.00009	mg/L	0.000085	-0.00017	mg/L	0.000169	97.87%
Cr 267.716†	12.8	0.00153	mg/L	0.000674	0.00306	mg/L	0.001348	44.12%
Cu 324.752†	315.0	0.00106	mg/L	0.000226	0.00211	mg/L	0.000451	21.35%
Fe 273.955†	3.2	0.00182	mg/L	0.000358	0.00363	mg/L	0.000715	19.69%
K 766.490†	66.8	0.02623	mg/L	0.001019	0.05245	mg/L	0.002038	3.89%
Mg 279.077†	1.6	0.00117	mg/L	0.001519	0.00233	mg/L	0.003039	130.41%
Mn 257.610†	3.0	0.00006	mg/L	0.000162	0.00012	mg/L	0.000323	267.31%
Mo 202.031†	4.1	0.00017	mg/L	0.000041	0.00035	mg/L	0.000081	23.45%
Na 589.592†	34.8	0.00267	mg/L	0.002361	0.00534	mg/L	0.004721	88.49%
Na 330.237†	-0.9	-0.02663	mg/L	0.284207	-0.05326	mg/L	0.568414	>999.9%
Ni 231.604†	-1.5	-0.00029	mg/L	0.000435	-0.00057	mg/L	0.000871	152.73%
Pb 220.353†	2.6	0.00026	mg/L	0.000766	0.00052	mg/L	0.001532	296.94%
Sb 206.836†	0.0	-0.00001	mg/L	0.001187	-0.00002	mg/L	0.002374	>999.9%
Se 196.026†	-1.7	-0.00092	mg/L	0.002777	-0.00185	mg/L	0.005554	301.03%
Si 288.158†	2.0	0.00095	mg/L	0.001540	0.00190	mg/L	0.003079	162.30%
Sn 189.927†	2.1	0.00043	mg/L	0.000287	0.00086	mg/L	0.000574	66.78%
Sr 421.552†	1.0	0.00000	mg/L	0.000029	0.00000	mg/L	0.000057	>999.9%
Ti 334.903†	7.4	0.00028	mg/L	0.001095	0.00057	mg/L	0.002190	384.94%
Tl 190.801†	7.2	0.00280	mg/L	0.000096	0.00559	mg/L	0.000193	3.45%
V 292.402†	13.6	0.00010	mg/L	0.000157	0.00021	mg/L	0.000315	152.58%
Zn 206.200†	3.8	0.00080	mg/L	0.000059	0.00160	mg/L	0.000118	7.35%

Sequence No.: 12
Sample ID: WC78 B SWC

Autosampler Location: 308
Date Collected: 2/11/2013 9:41:11 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WC78 B SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: WC78 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3107059.0	99.44	%	0.355				0.36%
ScR 361.383	412245.0	101.3	%	0.48				0.47%
Ag 328.068†	-201.4	-0.00059	mg/L	0.000031	-0.00118	mg/L	0.000062	5.26%
Al 308.215†	169125.0	100.3	mg/L	1.07	200.6	mg/L	2.14	1.07%
As 188.979†	-270.2	0.03059	mg/L	0.005061	0.06119	mg/L	0.010122	16.54%
B 249.677†	224.6	0.02618	mg/L	0.000766	0.05237	mg/L	0.001532	2.93%
Ba 233.527†	1967.2	0.3193	mg/L	0.00282	0.6385	mg/L	0.00563	0.88%
Be 313.042†	1021.9	0.00140	mg/L	0.000013	0.00281	mg/L	0.000026	0.93%
Ca 317.933†	419699.3	26.65	mg/L	0.263	53.29	mg/L	0.526	0.99%
Cd 228.802†	56.5	0.00285	mg/L	0.000056	0.00570	mg/L	0.000111	1.95%
Co 228.616†	2339.1	0.04270	mg/L	0.000353	0.08539	mg/L	0.000706	0.83%
Cr 267.716†	2213.4	0.2639	mg/L	0.00269	0.5278	mg/L	0.00539	1.02%
Cu 324.752†	54410.2	0.1868	mg/L	0.00069	0.3736	mg/L	0.00139	0.37%
Fe 273.955†	199908.8	111.8	mg/L	1.19	223.5	mg/L	2.37	1.06%
K 766.490†	21369.1	8.395	mg/L	0.0923	16.79	mg/L	0.185	1.10%
Mg 279.077†	55978.7	41.21	mg/L	0.432	82.41	mg/L	0.865	1.05%
Mn 257.610†	69597.0	1.403	mg/L	0.0135	2.805	mg/L	0.0270	0.96%
Mo 202.031†	332.5	0.01380	mg/L	0.000308	0.02759	mg/L	0.000615	2.23%
Na 589.592†	28238.8	2.164	mg/L	0.0221	4.327	mg/L	0.0441	1.02%
Na 330.237†	33.8	2.253	mg/L	0.1389	4.505	mg/L	0.2777	6.16%
Ni 231.604†	945.3	0.1824	mg/L	0.00085	0.3647	mg/L	0.00171	0.47%
Pb 220.353†	667.0	0.08766	mg/L	0.000435	0.1753	mg/L	0.00087	0.50%
Sb 206.836†	27.6	0.00872	mg/L	0.001245	0.01744	mg/L	0.002490	14.28%
Se 196.026†	20.3	-0.00093	mg/L	0.005604	-0.00186	mg/L	0.011207	601.18%
Si 288.158†	4741.1	2.251	mg/L	0.0101	4.502	mg/L	0.0202	0.45%
Sn 189.927†	-56.8	-0.00841	mg/L	0.000555	-0.01681	mg/L	0.001111	6.61%
Sr 421.552†	199165.2	0.2032	mg/L	0.00196	0.4065	mg/L	0.00392	0.96%
Ti 334.903†	129526.2	5.023	mg/L	0.0487	10.05	mg/L	0.097	0.97%
Tl 190.801†	-29.6	0.00171	mg/L	0.000420	0.00341	mg/L	0.000840	24.59%
V 292.402†	46955.5	0.3264	mg/L	0.00032	0.6529	mg/L	0.00063	0.10%
Zn 206.200†	1552.4	0.3244	mg/L	0.00244	0.6487	mg/L	0.00487	0.75%

Sequence No.: 13
Sample ID: WC78 C SWC

Autosampler Location: 309
Date Collected: 2/11/2013 9:45:12 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WC78 C SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: WC78 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3109221.0	99.51	%	0.113				0.11%
ScR 361.383	411694.2	101.2	%	0.88				0.87%
Ag 328.068†	-253.8	-0.00077	mg/L	0.000144	-0.00154	mg/L	0.000288	18.68%
Al 308.215†	236469.9	140.2	mg/L	1.63	280.4	mg/L	3.26	1.16%
As 188.979†	-265.4	0.08293	mg/L	0.002953	0.1659	mg/L	0.00591	3.56%
B 249.677†	212.2	0.02469	mg/L	0.002277	0.04938	mg/L	0.004555	9.22%
Ba 233.527†	2236.3	0.3566	mg/L	0.00402	0.7132	mg/L	0.00804	1.13%
Be 313.042†	1400.8	0.00192	mg/L	0.000046	0.00385	mg/L	0.000091	2.37%
Ca 317.933†	419170.4	26.61	mg/L	0.283	53.22	mg/L	0.567	1.06%
Cd 228.802†	90.9	0.00405	mg/L	0.000074	0.00810	mg/L	0.000147	1.82%
Co 228.616†	3150.3	0.05803	mg/L	0.000540	0.1161	mg/L	0.00108	0.93%
Cr 267.716†	3085.7	0.3684	mg/L	0.00359	0.7369	mg/L	0.00718	0.97%
Cu 324.752†	75463.1	0.2599	mg/L	0.00085	0.5199	mg/L	0.00171	0.33%
Fe 273.955†	304351.1	170.2	mg/L	1.43	340.3	mg/L	2.86	0.84%
K 766.490†	25660.2	10.08	mg/L	0.118	20.16	mg/L	0.236	1.17%
Mg 279.077†	78251.4	57.59	mg/L	0.594	115.2	mg/L	1.19	1.03%
Mn 257.610†	91775.5	1.849	mg/L	0.0168	3.699	mg/L	0.0335	0.91%
Mo 202.031†	647.2	0.02716	mg/L	0.000455	0.05433	mg/L	0.000910	1.67%
Na 589.592†	39269.1	3.009	mg/L	0.0289	6.018	mg/L	0.0578	0.96%
Na 330.237†	52.9	3.153	mg/L	0.0339	6.306	mg/L	0.0678	1.07%
Ni 231.604†	1284.3	0.2478	mg/L	0.00146	0.4955	mg/L	0.00291	0.59%
Pb 220.353†	1300.7	0.1584	mg/L	0.00083	0.3168	mg/L	0.00166	0.52%
Sb 206.836†	39.0	0.01195	mg/L	0.001514	0.02391	mg/L	0.003028	12.67%
Se 196.026†	31.9	0.00056	mg/L	0.002868	0.00113	mg/L	0.005737	509.76%
Si 288.158†	3855.3	1.833	mg/L	0.0302	3.666	mg/L	0.0605	1.65%
Sn 189.927†	-60.0	-0.00881	mg/L	0.000608	-0.01761	mg/L	0.001216	6.90%
Sr 421.552†	179758.6	0.1834	mg/L	0.00191	0.3668	mg/L	0.00382	1.04%
Ti 334.903†	166781.7	6.468	mg/L	0.0707	12.94	mg/L	0.141	1.09%
Tl 190.801†	-48.7	0.00137	mg/L	0.002550	0.00273	mg/L	0.005100	186.70%
V 292.402†	66868.8	0.4647	mg/L	0.00149	0.9293	mg/L	0.00299	0.32%
Zn 206.200†	2176.6	0.4546	mg/L	0.00528	0.9091	mg/L	0.01055	1.16%

Sequence No.: 14
Sample ID: WC78 D SWC

Autosampler Location: 310
Date Collected: 2/11/2013 9:49:13 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WC78 D SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: WC78 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3124481.2	99.99	%	0.244				0.24%
ScR 361.383	410453.0	100.9	%	1.04				1.03%
Ag 328.068†	174.9	0.00122	mg/L	0.000157	0.00244	mg/L	0.000315	12.88%
Al 308.215†	182471.0	108.2	mg/L	1.44	216.4	mg/L	2.87	1.33%
As 188.979†	-288.3	0.06753	mg/L	0.003556	0.1351	mg/L	0.00711	5.27%
B 249.677†	163.3	0.01892	mg/L	0.000518	0.03785	mg/L	0.001037	2.74%
Ba 233.527†	3315.8	0.5433	mg/L	0.00930	1.087	mg/L	0.0186	1.71%
Be 313.042†	1105.3	0.00151	mg/L	0.000039	0.00301	mg/L	0.000078	2.60%
Ca 317.933†	852334.4	54.11	mg/L	0.728	108.2	mg/L	1.46	1.35%
Cd 228.802†	108.9	0.00482	mg/L	0.000111	0.00964	mg/L	0.000223	2.31%
Co 228.616†	3679.0	0.06971	mg/L	0.000176	0.1394	mg/L	0.00035	0.25%
Cr 267.716†	2430.2	0.2889	mg/L	0.00362	0.5777	mg/L	0.00724	1.25%
Cu 324.752†	68498.3	0.2357	mg/L	0.00062	0.4715	mg/L	0.00125	0.26%
Fe 273.955†	273940.5	153.2	mg/L	1.53	306.3	mg/L	3.07	1.00%
K 766.490†	17624.4	6.924	mg/L	0.0986	13.85	mg/L	0.197	1.42%
Mg 279.077†	81865.2	60.26	mg/L	0.889	120.5	mg/L	1.78	1.48%
Mn 257.610†	132630.5	2.673	mg/L	0.0292	5.347	mg/L	0.0585	1.09%
Mo 202.031†	144.7	0.00549	mg/L	0.000245	0.01099	mg/L	0.000491	4.47%
Na 589.592†	37907.7	2.905	mg/L	0.0410	5.809	mg/L	0.0820	1.41%
Na 330.237†	66.4	3.147	mg/L	0.2940	6.294	mg/L	0.5881	9.34%
Ni 231.604†	1780.3	0.3434	mg/L	0.00583	0.6869	mg/L	0.01166	1.70%
Pb 220.353†	6412.3	0.6582	mg/L	0.00365	1.316	mg/L	0.0073	0.55%
Sb 206.836†	40.7	0.01301	mg/L	0.002563	0.02603	mg/L	0.005126	19.69%
Se 196.026†	18.5	-0.00280	mg/L	0.004997	-0.00559	mg/L	0.009993	178.75%
Si 288.158†	4088.3	1.944	mg/L	0.0379	3.887	mg/L	0.0757	1.95%
Sn 189.927†	-59.7	-0.00645	mg/L	0.000153	-0.01289	mg/L	0.000307	2.38%
Sr 421.552†	216976.3	0.2214	mg/L	0.00267	0.4428	mg/L	0.00534	1.21%
Ti 334.903†	165882.4	6.431	mg/L	0.0844	12.86	mg/L	0.169	1.31%
Tl 190.801†	-38.6	0.00335	mg/L	0.002529	0.00669	mg/L	0.005058	75.56%
V 292.402†	51611.0	0.3569	mg/L	0.00035	0.7139	mg/L	0.00071	0.10%
Zn 206.200†	8214.2	1.714	mg/L	0.0266	3.429	mg/L	0.0532	1.55%

Sequence No.: 15
Sample ID: WC78 E SWC

Autosampler Location: 311
Date Collected: 2/11/2013 9:53:15 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WC78 E SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: WC78 E SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3147612.7	100.7	%	0.58				0.57%
ScR 361.383	409649.4	100.7	%	1.31				1.31%
Ag 328.068†	-151.8	-0.00035	mg/L	0.000143	-0.00070	mg/L	0.000285	40.71%
Al 308.215†	166250.7	98.57	mg/L	1.107	197.1	mg/L	2.21	1.12%
As 188.979†	-343.5	0.04031	mg/L	0.003535	0.08062	mg/L	0.007069	8.77%
B 249.677†	91.9	0.01057	mg/L	0.001093	0.02114	mg/L	0.002186	10.34%
Ba 233.527†	2730.9	0.4462	mg/L	0.00517	0.8924	mg/L	0.01035	1.16%
Be 313.042†	1117.8	0.00154	mg/L	0.000035	0.00307	mg/L	0.000071	2.30%
Ca 317.933†	494292.4	31.38	mg/L	0.311	62.76	mg/L	0.623	0.99%
Cd 228.802†	77.4	0.00389	mg/L	0.000107	0.00779	mg/L	0.000214	2.75%
Co 228.616†	3329.3	0.06205	mg/L	0.000366	0.1241	mg/L	0.00073	0.59%
Cr 267.716†	1961.7	0.2338	mg/L	0.00182	0.4676	mg/L	0.00363	0.78%
Cu 324.752†	35327.5	0.1237	mg/L	0.00046	0.2473	mg/L	0.00092	0.37%
Fe 273.955†	241128.0	134.8	mg/L	2.78	269.6	mg/L	5.55	2.06%
K 766.490†	10972.7	4.311	mg/L	0.0572	8.621	mg/L	0.1145	1.33%
Mg 279.077†	64041.8	47.14	mg/L	0.631	94.27	mg/L	1.263	1.34%
Mn 257.610†	101791.9	2.052	mg/L	0.0332	4.103	mg/L	0.0664	1.62%
Mo 202.031†	79.9	0.00301	mg/L	0.000194	0.00603	mg/L	0.000387	6.42%
Na 589.592†	26496.6	2.030	mg/L	0.0168	4.060	mg/L	0.0336	0.83%
Na 330.237†	20.0	2.229	mg/L	0.1674	4.458	mg/L	0.3349	7.51%
Ni 231.604†	1651.5	0.3186	mg/L	0.00505	0.6372	mg/L	0.01010	1.58%
Pb 220.353†	620.0	0.08131	mg/L	0.001296	0.1626	mg/L	0.00259	1.59%
Sb 206.836†	28.9	0.01045	mg/L	0.001270	0.02089	mg/L	0.002539	12.15%
Se 196.026†	14.1	-0.00406	mg/L	0.003714	-0.00811	mg/L	0.007429	91.60%
Si 288.158†	5454.0	2.589	mg/L	0.0347	5.178	mg/L	0.0693	1.34%
Sn 189.927†	-65.7	-0.00957	mg/L	0.000367	-0.01914	mg/L	0.000733	3.83%
Sr 421.552†	140160.9	0.1430	mg/L	0.00152	0.2860	mg/L	0.00303	1.06%
Ti 334.903†	165387.8	6.414	mg/L	0.0784	12.83	mg/L	0.157	1.22%
Tl 190.801†	-34.5	0.00275	mg/L	0.001329	0.00551	mg/L	0.002658	48.26%
V 292.402†	44536.9	0.3073	mg/L	0.00204	0.6145	mg/L	0.00409	0.67%
Zn 206.200†	1948.9	0.4071	mg/L	0.00607	0.8143	mg/L	0.01214	1.49%

Sequence No.: 16
Sample ID: WC78 ADUP SWC

Autosampler Location: 312
Date Collected: 2/11/2013 9:57:16 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WC78 ADUP SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: WC78 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3117322.2	99.77	%	0.234				0.23%
ScR 361.383	409690.5	100.7	%	1.69				1.68%
Ag 328.068†	-86.1	-0.00008	mg/L	0.000053	-0.00017	mg/L	0.000106	63.07%
Al 308.215†	66663.8	39.52	mg/L	0.892	79.05	mg/L	1.784	2.26%
As 188.979†	381.0	0.2711	mg/L	0.00371	0.5423	mg/L	0.00741	1.37%
B 249.677†	316.6	0.03703	mg/L	0.002150	0.07407	mg/L	0.004301	5.81%
Ba 233.527†	2541.7	0.4108	mg/L	0.00390	0.8217	mg/L	0.00780	0.95%
Be 313.042†	560.9	0.00077	mg/L	0.000034	0.00155	mg/L	0.000069	4.44%
Ca 317.933†	552585.7	35.08	mg/L	0.781	70.17	mg/L	1.562	2.23%
Cd 228.802†	148.9	0.00403	mg/L	0.000060	0.00805	mg/L	0.000120	1.49%
Co 228.616†	1433.1	0.02767	mg/L	0.000119	0.05534	mg/L	0.000238	0.43%
Cr 267.716†	998.0	0.1219	mg/L	0.00135	0.2439	mg/L	0.00270	1.11%
Cu 324.752†	46426.6	0.1629	mg/L	0.00100	0.3258	mg/L	0.00201	0.62%
Fe 273.955†	279373.8	156.2	mg/L	3.27	312.4	mg/L	6.55	2.10%
K 766.490†	8698.4	3.417	mg/L	0.0885	6.834	mg/L	0.1771	2.59%
Mg 279.077†	22961.6	16.84	mg/L	0.246	33.68	mg/L	0.491	1.46%
Mn 257.610†	129738.2	2.615	mg/L	0.0551	5.231	mg/L	0.1101	2.11%
Mo 202.031†	186.7	0.00751	mg/L	0.000146	0.01502	mg/L	0.000292	1.94%
Na 589.592†	31315.5	2.399	mg/L	0.0512	4.799	mg/L	0.1025	2.14%
Na 330.237†	81.0	2.495	mg/L	0.0976	4.989	mg/L	0.1951	3.91%
Ni 231.604†	505.3	0.09750	mg/L	0.001344	0.1950	mg/L	0.00269	1.38%
Pb 220.353†	1704.6	0.1716	mg/L	0.00101	0.3433	mg/L	0.00202	0.59%
Sb 206.836†	39.7	0.01123	mg/L	0.000978	0.02245	mg/L	0.001957	8.71%
Se 196.026†	1.9	-0.00367	mg/L	0.002936	-0.00735	mg/L	0.005873	79.93%
Si 288.158†	2425.9	1.151	mg/L	0.0140	2.303	mg/L	0.0279	1.21%
Sn 189.927†	-40.5	-0.00491	mg/L	0.001369	-0.00982	mg/L	0.002737	27.86%
Sr 421.552†	209662.1	0.2139	mg/L	0.00479	0.4279	mg/L	0.00957	2.24%
Ti 334.903†	56827.2	2.202	mg/L	0.0475	4.405	mg/L	0.0950	2.16%
Tl 190.801†	-33.3	0.00682	mg/L	0.000959	0.01365	mg/L	0.001918	14.06%
V 292.402†	26804.3	0.1822	mg/L	0.00003	0.3645	mg/L	0.00006	0.02%
Zn 206.200†	6324.8	1.320	mg/L	0.0212	2.640	mg/L	0.0424	1.61%

Sequence No.: 17
Sample ID: WC78 A SWC

Autosampler Location: 313
Date Collected: 2/11/2013 10:01:17 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WC78 A SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: WC78 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3130812.6	100.2	%	0.49				0.49%
ScR 361.383	405791.7	99.73	%	0.685				0.69%
Ag 328.068†	-74.1	-0.00001	mg/L	0.000065	-0.00001	mg/L	0.000131	>999.9%
Al 308.215†	76624.7	45.43	mg/L	0.859	90.86	mg/L	1.718	1.89%
As 188.979†	420.6	0.3029	mg/L	0.00323	0.6058	mg/L	0.00646	1.07%
B 249.677†	328.2	0.03838	mg/L	0.000308	0.07677	mg/L	0.000616	0.80%
Ba 233.527†	2927.8	0.4741	mg/L	0.00557	0.9482	mg/L	0.01114	1.17%
Be 313.042†	619.8	0.00086	mg/L	0.000012	0.00171	mg/L	0.000024	1.41%
Ca 317.933†	602784.2	38.27	mg/L	0.657	76.54	mg/L	1.314	1.72%
Cd 228.802†	162.0	0.00436	mg/L	0.000163	0.00873	mg/L	0.000326	3.74%
Co 228.616†	1620.4	0.03121	mg/L	0.000160	0.06242	mg/L	0.000319	0.51%
Cr 267.716†	1133.4	0.1384	mg/L	0.00178	0.2768	mg/L	0.00356	1.29%
Cu 324.752†	53740.8	0.1882	mg/L	0.00094	0.3764	mg/L	0.00189	0.50%
Fe 273.955†	310949.3	173.9	mg/L	3.40	347.7	mg/L	6.81	1.96%
K 766.490†	9761.4	3.835	mg/L	0.0733	7.669	mg/L	0.1467	1.91%
Mg 279.077†	25871.7	18.97	mg/L	0.164	37.95	mg/L	0.327	0.86%
Mn 257.610†	144558.8	2.914	mg/L	0.0530	5.828	mg/L	0.1060	1.82%
Mo 202.031†	208.7	0.00841	mg/L	0.000109	0.01682	mg/L	0.000218	1.30%
Na 589.592†	33018.2	2.530	mg/L	0.0453	5.060	mg/L	0.0906	1.79%
Na 330.237†	86.6	2.692	mg/L	0.2643	5.384	mg/L	0.5286	9.82%
Ni 231.604†	570.6	0.1101	mg/L	0.00101	0.2202	mg/L	0.00201	0.91%
Pb 220.353†	1846.3	0.1864	mg/L	0.00055	0.3727	mg/L	0.00109	0.29%
Sb 206.836†	39.3	0.01121	mg/L	0.000727	0.02241	mg/L	0.001453	6.49%
Se 196.026†	-0.6	-0.00569	mg/L	0.002434	-0.01137	mg/L	0.004868	42.81%
Si 288.158†	2595.5	1.232	mg/L	0.0071	2.464	mg/L	0.0142	0.58%
Sn 189.927†	-36.7	-0.00380	mg/L	0.000999	-0.00759	mg/L	0.001999	26.32%
Sr 421.552†	230469.6	0.2352	mg/L	0.00456	0.4703	mg/L	0.00911	1.94%
Ti 334.903†	65344.6	2.532	mg/L	0.0488	5.065	mg/L	0.0976	1.93%
Tl 190.801†	-44.5	0.00473	mg/L	0.000877	0.00945	mg/L	0.001755	18.57%
V 292.402†	29011.7	0.1969	mg/L	0.00149	0.3939	mg/L	0.00297	0.75%
Zn 206.200†	7134.0	1.489	mg/L	0.0131	2.978	mg/L	0.0262	0.88%

Sequence No.: 18
Sample ID: WC78 ASPK SWC

Autosampler Location: 314
Date Collected: 2/11/2013 10:05:19 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WC78 ASPK SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: WC78 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3088470.7	98.84	%	0.271				0.27%
ScR 361.383	403920.2	99.27	%	0.496				0.50%
Ag 328.068†	126683.9	0.5467	mg/L	0.00357	1.093	mg/L	0.0071	0.65%
Al 308.215†	74503.6	44.17	mg/L	0.536	88.33	mg/L	1.071	1.21%
As 188.979†	4517.7	2.427	mg/L	0.0088	4.854	mg/L	0.0176	0.36%
B 249.677†	331.1	0.03748	mg/L	0.000509	0.07496	mg/L	0.001017	1.36%
Ba 233.527†	15442.5	2.612	mg/L	0.0089	5.224	mg/L	0.0177	0.34%
Be 313.042†	347747.2	0.5213	mg/L	0.00645	1.043	mg/L	0.0129	1.24%
Ca 317.933†	734279.7	46.62	mg/L	0.604	93.24	mg/L	1.208	1.30%
Cd 228.802†	16751.6	0.5568	mg/L	0.00255	1.114	mg/L	0.0051	0.46%
Co 228.616†	25698.4	0.5622	mg/L	0.00066	1.124	mg/L	0.0013	0.12%
Cr 267.716†	5532.5	0.6633	mg/L	0.00246	1.327	mg/L	0.0049	0.37%
Cu 324.752†	214096.7	0.7256	mg/L	0.00354	1.451	mg/L	0.0071	0.49%
Fe 273.955†	288604.9	161.4	mg/L	2.59	322.7	mg/L	5.18	1.61%
K 766.490†	33910.0	13.32	mg/L	0.171	26.64	mg/L	0.343	1.29%
Mg 279.077†	38269.4	28.12	mg/L	0.104	56.24	mg/L	0.207	0.37%
Mn 257.610†	155812.3	3.141	mg/L	0.0490	6.283	mg/L	0.0979	1.56%
Mo 202.031†	218.7	0.00871	mg/L	0.000231	0.01741	mg/L	0.000463	2.66%
Na 589.592†	169931.7	13.02	mg/L	0.133	26.04	mg/L	0.266	1.02%
Na 330.237†	454.2	12.82	mg/L	0.200	25.64	mg/L	0.399	1.56%
Ni 231.604†	3305.4	0.6371	mg/L	0.00180	1.274	mg/L	0.0036	0.28%
Pb 220.353†	22848.4	2.273	mg/L	0.0041	4.546	mg/L	0.0081	0.18%
Sb 206.836†	2900.7	0.7635	mg/L	0.00348	1.527	mg/L	0.0070	0.46%
Se 196.026†	3884.5	2.066	mg/L	0.0078	4.133	mg/L	0.0157	0.38%
Si 288.158†	2302.6	1.096	mg/L	0.0038	2.192	mg/L	0.0075	0.34%
Sn 189.927†	-48.8	-0.00521	mg/L	0.000714	-0.01042	mg/L	0.001428	13.70%
Sr 421.552†	734173.7	0.7491	mg/L	0.00954	1.498	mg/L	0.0191	1.27%
Ti 334.903†	60620.6	2.349	mg/L	0.0328	4.697	mg/L	0.0655	1.40%
Tl 190.801†	5264.6	2.068	mg/L	0.0055	4.135	mg/L	0.0110	0.27%
V 292.402†	100915.0	0.7108	mg/L	0.00401	1.422	mg/L	0.0080	0.56%
Zn 206.200†	9243.2	1.929	mg/L	0.0067	3.858	mg/L	0.0133	0.35%

Sequence No.: 19
Sample ID: WC78 APOST SWC

Autosampler Location: 315
Date Collected: 2/11/2013 10:09:23 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WC78 APOST SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: WC78 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3129247.5	100.1	%	0.27				0.27%
ScR 361.383	406718.2	99.96	%	1.507				1.51%
Ag 328.068†	124735.1	0.5383	mg/L	0.00364	1.077	mg/L	0.0073	0.68%
Al 308.215†	78191.2	46.35	mg/L	0.805	92.70	mg/L	1.609	1.74%
As 188.979†	4473.4	2.408	mg/L	0.0060	4.816	mg/L	0.0121	0.25%
B 249.677†	332.5	0.03766	mg/L	0.000489	0.07532	mg/L	0.000978	1.30%
Ba 233.527†	15478.8	2.617	mg/L	0.0492	5.233	mg/L	0.0984	1.88%
Be 313.042†	343645.1	0.5151	mg/L	0.00659	1.030	mg/L	0.0132	1.28%
Ca 317.933†	747400.9	47.45	mg/L	0.729	94.90	mg/L	1.458	1.54%
Cd 228.802†	16446.2	0.5465	mg/L	0.00236	1.093	mg/L	0.0047	0.43%
Co 228.616†	25301.6	0.5532	mg/L	0.00184	1.106	mg/L	0.0037	0.33%
Cr 267.716†	5553.9	0.6662	mg/L	0.01236	1.332	mg/L	0.0247	1.86%
Cu 324.752†	215349.9	0.7302	mg/L	0.00232	1.460	mg/L	0.0046	0.32%
Fe 273.955†	305776.6	171.0	mg/L	2.65	341.9	mg/L	5.30	1.55%
K 766.490†	34960.4	13.73	mg/L	0.238	27.47	mg/L	0.477	1.73%
Mg 279.077†	37605.2	27.63	mg/L	0.423	55.25	mg/L	0.846	1.53%
Mn 257.610†	165448.0	3.336	mg/L	0.0503	6.671	mg/L	0.1006	1.51%
Mo 202.031†	224.3	0.00894	mg/L	0.000295	0.01787	mg/L	0.000590	3.30%
Na 589.592†	167995.2	12.87	mg/L	0.207	25.74	mg/L	0.414	1.61%
Na 330.237†	448.9	12.69	mg/L	0.158	25.38	mg/L	0.316	1.24%
Ni 231.604†	3283.1	0.6335	mg/L	0.01289	1.267	mg/L	0.0258	2.04%
Pb 220.353†	22496.7	2.238	mg/L	0.0072	4.476	mg/L	0.0144	0.32%
Sb 206.836†	9093.7	2.403	mg/L	0.0077	4.807	mg/L	0.0154	0.32%
Se 196.026†	3984.0	2.119	mg/L	0.0082	4.238	mg/L	0.0163	0.39%
Si 288.158†	2495.2	1.187	mg/L	0.0214	2.374	mg/L	0.0428	1.80%
Sn 189.927†	-52.4	-0.00501	mg/L	0.000432	-0.01002	mg/L	0.000864	8.62%
Sr 421.552†	726054.9	0.7409	mg/L	0.01163	1.482	mg/L	0.0233	1.57%
Ti 334.903†	63679.1	2.467	mg/L	0.0369	4.934	mg/L	0.0738	1.50%
Tl 190.801†	5183.4	2.037	mg/L	0.0049	4.074	mg/L	0.0098	0.24%
V 292.402†	102181.9	0.7193	mg/L	0.00453	1.439	mg/L	0.0091	0.63%
Zn 206.200†	9489.5	1.981	mg/L	0.0427	3.961	mg/L	0.0853	2.15%

Sequence No.: 20
Sample ID: WC78 MB1SPK SWC

Autosampler Location: 316
Date Collected: 2/11/2013 10:13:25 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: WC78 MB1SPK SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: WC78 MB1SPK SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3120236.4	99.86	%	0.265				0.27%
ScR 361.383	405613.6	99.69	%	0.849				0.85%
Ag 328.068†	104308.5	0.4499	mg/L	0.00066	0.8998	mg/L	0.00132	0.15%
Al 308.215†	2876.4	1.699	mg/L	0.0191	3.399	mg/L	0.0382	1.12%
As 188.979†	3395.6	1.766	mg/L	0.0108	3.531	mg/L	0.0216	0.61%
B 249.677†	-13.2	-0.00256	mg/L	0.000270	-0.00512	mg/L	0.000539	10.53%
Ba 233.527†	10518.5	1.795	mg/L	0.0254	3.590	mg/L	0.0509	1.42%
Be 313.042†	285914.6	0.4286	mg/L	0.00662	0.8573	mg/L	0.01324	1.54%
Ca 317.933†	128713.5	8.172	mg/L	0.1022	16.34	mg/L	0.204	1.25%
Cd 228.802†	13245.4	0.4407	mg/L	0.00207	0.8815	mg/L	0.00415	0.47%
Co 228.616†	19749.6	0.4352	mg/L	0.00187	0.8705	mg/L	0.00375	0.43%
Cr 267.716†	3703.6	0.4422	mg/L	0.00472	0.8843	mg/L	0.00944	1.07%
Cu 324.752†	129780.1	0.4354	mg/L	0.00120	0.8709	mg/L	0.00240	0.28%
Fe 273.955†	3037.2	1.696	mg/L	0.0154	3.391	mg/L	0.0308	0.91%
K 766.490†	20934.3	8.224	mg/L	0.1152	16.45	mg/L	0.230	1.40%
Mg 279.077†	11545.2	8.511	mg/L	0.0928	17.02	mg/L	0.186	1.09%
Mn 257.610†	21477.5	0.4333	mg/L	0.00420	0.8666	mg/L	0.00841	0.97%
Mo 202.031†	23.0	0.00086	mg/L	0.000102	0.00172	mg/L	0.000205	11.92%
Na 589.592†	111718.2	8.560	mg/L	0.0762	17.12	mg/L	0.152	0.89%
Na 330.237†	305.9	8.450	mg/L	0.1508	16.90	mg/L	0.302	1.78%
Ni 231.604†	2292.2	0.4422	mg/L	0.00336	0.8844	mg/L	0.00671	0.76%
Pb 220.353†	17140.5	1.703	mg/L	0.0063	3.406	mg/L	0.0127	0.37%
Sb 206.836†	6702.2	1.770	mg/L	0.0103	3.541	mg/L	0.0206	0.58%
Se 196.026†	3277.8	1.748	mg/L	0.0106	3.496	mg/L	0.0212	0.61%
Si 288.158†	-9.6	-0.00207	mg/L	0.000738	-0.00414	mg/L	0.001476	35.64%
Sn 189.927†	-30.6	-0.00465	mg/L	0.000595	-0.00931	mg/L	0.001190	12.78%
Sr 421.552†	418942.7	0.4275	mg/L	0.00586	0.8550	mg/L	0.01172	1.37%
Ti 334.903†	31.4	0.00065	mg/L	0.000351	0.00130	mg/L	0.000702	54.08%
Tl 190.801†	4477.1	1.741	mg/L	0.0088	3.482	mg/L	0.0177	0.51%
V 292.402†	61317.4	0.4375	mg/L	0.00177	0.8749	mg/L	0.00354	0.40%
Zn 206.200†	2097.8	0.4379	mg/L	0.00344	0.8758	mg/L	0.00689	0.79%

Sequence No.: 21
Sample ID: CV2

Autosampler Location: 7
Date Collected: 2/11/2013 10:17:26 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3099430.9	99.19	%	0.400				0.40%
ScR 361.383	396385.9	97.42	%	0.348				0.36%
Ag 328.068†	248762.3	1.073	mg/L	0.0010	1.073	mg/L	0.0010	0.09%
Al 308.215†	3426.5	1.997	mg/L	0.0103	1.997	mg/L	0.0103	0.51%
As 188.979†	3931.3	2.077	mg/L	0.0083	2.077	mg/L	0.0083	0.40%
B 249.677†	8952.0	1.048	mg/L	0.0110	1.048	mg/L	0.0110	1.05%
Ba 233.527†	6299.8	1.075	mg/L	0.0056	1.075	mg/L	0.0056	0.52%
Be 313.042†	682010.8	1.022	mg/L	0.0065	1.022	mg/L	0.0065	0.63%
Ca 317.933†	32252.3	2.048	mg/L	0.0238	2.048	mg/L	0.0238	1.16%
Cd 228.802†	31045.7	1.045	mg/L	0.0006	1.045	mg/L	0.0006	0.06%
Co 228.616†	46599.3	1.026	mg/L	0.0040	1.026	mg/L	0.0040	0.39%
Cr 267.716†	8795.1	1.052	mg/L	0.0077	1.052	mg/L	0.0077	0.73%
Cu 324.752†	314600.2	1.055	mg/L	0.0037	1.055	mg/L	0.0037	0.35%
Fe 273.955†	3630.5	2.024	mg/L	0.0250	2.024	mg/L	0.0250	1.23%
K 766.490†	51264.2	20.14	mg/L	0.148	20.14	mg/L	0.148	0.73%
Mg 279.077†	2727.1	2.017	mg/L	0.0177	2.017	mg/L	0.0177	0.88%
Mn 257.610†	51904.3	1.047	mg/L	0.0130	1.047	mg/L	0.0130	1.24%
Mo 202.031†	24042.9	1.021	mg/L	0.0030	1.021	mg/L	0.0030	0.29%
Na 589.592†	692544.2	53.06	mg/L	0.133	53.06	mg/L	0.133	0.25%
Na 330.237†	1846.5	51.76	mg/L	0.819	51.76	mg/L	0.819	1.58%
Ni 231.604†	5497.6	1.061	mg/L	0.0109	1.061	mg/L	0.0109	1.03%
Pb 220.353†	20729.8	2.060	mg/L	0.0089	2.060	mg/L	0.0089	0.43%
Sb 206.836†	8057.6	2.132	mg/L	0.0059	2.132	mg/L	0.0059	0.28%
Se 196.026†	3805.2	2.028	mg/L	0.0079	2.028	mg/L	0.0079	0.39%
Si 288.158†	4436.2	2.097	mg/L	0.0239	2.097	mg/L	0.0239	1.14%
Sn 189.927†	4915.3	1.005	mg/L	0.0029	1.005	mg/L	0.0029	0.29%
Sr 421.552†	1017940.5	1.039	mg/L	0.0056	1.039	mg/L	0.0056	0.54%
Ti 334.903†	26617.0	1.031	mg/L	0.0056	1.031	mg/L	0.0056	0.54%
Tl 190.801†	5305.2	2.060	mg/L	0.0061	2.060	mg/L	0.0061	0.30%
V 292.402†	147795.9	1.054	mg/L	0.0029	1.054	mg/L	0.0029	0.27%
Zn 206.200†	5217.0	1.089	mg/L	0.0131	1.089	mg/L	0.0131	1.21%

Sequence No.: 22
Sample ID: CB

Autosampler Location: 1
Date Collected: 2/11/2013 10:20:45 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3106496.4	99.42	%	0.437				0.44%
ScR 361.383	407002.3	100.0	%	0.96				0.96%
Ag 328.068†	19.6	0.00008	mg/L	0.000204	0.00008	mg/L	0.000204	240.94%
Al 308.215†	-2.7	-0.00164	mg/L	0.001507	-0.00164	mg/L	0.001507	91.93%
As 188.979†	3.5	0.00183	mg/L	0.001359	0.00183	mg/L	0.001359	74.48%
B 249.677†	-12.9	-0.00151	mg/L	0.000957	-0.00151	mg/L	0.000957	63.58%
Ba 233.527†	-0.4	-0.00007	mg/L	0.000272	-0.00007	mg/L	0.000272	393.95%
Be 313.042†	41.5	0.00006	mg/L	0.000020	0.00006	mg/L	0.000020	32.52%
Ca 317.933†	6.4	0.00041	mg/L	0.000889	0.00041	mg/L	0.000889	217.49%
Cd 228.802†	5.9	0.00019	mg/L	0.000083	0.00019	mg/L	0.000083	43.52%
Co 228.616†	-1.3	-0.00003	mg/L	0.000108	-0.00003	mg/L	0.000108	377.39%
Cr 267.716†	1.1	0.00013	mg/L	0.001097	0.00013	mg/L	0.001097	817.80%
Cu 324.752†	222.9	0.00075	mg/L	0.000124	0.00075	mg/L	0.000124	16.61%
Fe 273.955†	2.3	0.00131	mg/L	0.001474	0.00131	mg/L	0.001474	112.39%
K 766.490†	39.6	0.01555	mg/L	0.007517	0.01555	mg/L	0.007517	48.33%
Mg 279.077†	0.1	0.00009	mg/L	0.003526	0.00009	mg/L	0.003526	>999.9%
Mn 257.610†	6.1	0.00012	mg/L	0.000171	0.00012	mg/L	0.000171	138.20%
Mo 202.031†	24.9	0.00106	mg/L	0.000064	0.00106	mg/L	0.000064	6.02%
Na 589.592†	20.5	0.00157	mg/L	0.001192	0.00157	mg/L	0.001192	76.07%
Na 330.237†	5.6	0.1583	mg/L	0.15722	0.1583	mg/L	0.15722	99.34%
Ni 231.604†	3.6	0.00069	mg/L	0.001125	0.00069	mg/L	0.001125	163.37%
Pb 220.353†	-3.5	-0.00035	mg/L	0.000458	-0.00035	mg/L	0.000458	129.78%
Sb 206.836†	13.5	0.00358	mg/L	0.001996	0.00358	mg/L	0.001996	55.79%
Se 196.026†	-3.3	-0.00176	mg/L	0.001145	-0.00176	mg/L	0.001145	65.07%
Si 288.158†	-1.8	-0.00085	mg/L	0.002090	-0.00085	mg/L	0.002090	245.77%
Sn 189.927†	0.2	0.00004	mg/L	0.000487	0.00004	mg/L	0.000487	>999.9%
Sr 421.552†	-5.4	-0.00001	mg/L	0.000011	-0.00001	mg/L	0.000011	202.49%
Ti 334.903†	0.9	0.00004	mg/L	0.000556	0.00004	mg/L	0.000556	>999.9%
Tl 190.801†	1.1	0.00044	mg/L	0.001424	0.00044	mg/L	0.001424	322.33%
V 292.402†	20.2	0.00014	mg/L	0.000057	0.00014	mg/L	0.000057	39.57%
Zn 206.200†	-0.3	-0.00007	mg/L	0.000322	-0.00007	mg/L	0.000322	447.06%

Sequence No.: 23
Sample ID: WC96 MB2 DMN
Analyst: ALA
Dilution: 1.000000X

Autosampler Location: 317
Date Collected: 2/11/2013 10:25:01 AM
Data Type: Original

Nebulizer Parameters: WC96 MB2 DMN

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: WC96 MB2 DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3219354.7	103.0	%	0.45				0.44%
ScR 361.383	416150.1	102.3	%	0.79				0.77%
Ag 328.068†	-7.5	-0.00003	mg/L	0.000157	-0.00003	mg/L	0.000157	507.06%
Al 308.215†	156.1	0.09257	mg/L	0.006537	0.09257	mg/L	0.006537	7.06%
As 188.979†	6.4	0.00331	mg/L	0.001035	0.00331	mg/L	0.001035	31.26%
B 249.677†	215.3	0.02523	mg/L	0.000395	0.02523	mg/L	0.000395	1.57%
Ba 233.527†	0.2	0.00004	mg/L	0.000604	0.00004	mg/L	0.000604	>999.9%
Be 313.042†	22.1	0.00003	mg/L	0.000042	0.00003	mg/L	0.000042	125.28%
Ca 317.933†	3432.5	0.2179	mg/L	0.00323	0.2179	mg/L	0.00323	1.48%
Cd 228.802†	8.0	0.00025	mg/L	0.000112	0.00025	mg/L	0.000112	43.93%
Co 228.616†	9.2	0.00020	mg/L	0.000069	0.00020	mg/L	0.000069	33.87%
Cr 267.716†	7.2	0.00086	mg/L	0.000875	0.00086	mg/L	0.000875	101.92%
Cu 324.752†	138.4	0.00046	mg/L	0.000198	0.00046	mg/L	0.000198	42.54%
Fe 273.955†	5.8	0.00326	mg/L	0.002434	0.00326	mg/L	0.002434	74.60%
K 766.490†	64.0	0.02516	mg/L	0.013450	0.02516	mg/L	0.013450	53.46%
Mg 279.077†	2.3	0.00165	mg/L	0.002382	0.00165	mg/L	0.002382	144.58%
Mn 257.610†	6.2	0.00012	mg/L	0.000088	0.00012	mg/L	0.000088	70.62%
Mo 202.031†	-10.8	-0.00046	mg/L	0.000052	-0.00046	mg/L	0.000052	11.29%
Na 589.592†	658.6	0.05046	mg/L	0.002504	0.05046	mg/L	0.002504	4.96%
Na 330.237†	-2.4	-0.06825	mg/L	0.479593	-0.06825	mg/L	0.479593	702.74%
Ni 231.604†	-2.6	-0.00051	mg/L	0.000484	-0.00051	mg/L	0.000484	94.72%
Pb 220.353†	6.5	0.00067	mg/L	0.000486	0.00067	mg/L	0.000486	72.91%
Sb 206.836†	-13.3	-0.00352	mg/L	0.000413	-0.00352	mg/L	0.000413	11.72%
Se 196.026†	7.9	0.00420	mg/L	0.002173	0.00420	mg/L	0.002173	51.73%
Si 288.158†	-1.3	-0.00063	mg/L	0.001567	-0.00063	mg/L	0.001567	249.67%
Sn 189.927†	0.2	0.00006	mg/L	0.000371	0.00006	mg/L	0.000371	633.53%
Sr 421.552†	1176.3	0.00120	mg/L	0.000023	0.00120	mg/L	0.000023	1.90%
Ti 334.903†	4.6	0.00017	mg/L	0.000326	0.00017	mg/L	0.000326	194.74%
Tl 190.801†	6.1	0.00239	mg/L	0.001189	0.00239	mg/L	0.001189	49.77%
V 292.402†	14.9	0.00011	mg/L	0.000183	0.00011	mg/L	0.000183	167.11%
Zn 206.200†	2.5	0.00053	mg/L	0.000746	0.00053	mg/L	0.000746	141.52%

Sequence No.: 24
Sample ID: WC96 E DMN
Analyst: ALA
Dilution: 1.000000X

Autosampler Location: 318
Date Collected: 2/11/2013 10:29:18 AM
Data Type: Original

Nebulizer Parameters: WC96 E DMN

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: WC96 E DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3188719.4	102.1	%	0.13				0.13%
ScR 361.383	416958.7	102.5	%	0.76				0.75%
Ag 328.068†	-23.1	0.00001	mg/L	0.000063	0.00001	mg/L	0.000063	663.22%
Al 308.215†	121.4	0.07194	mg/L	0.001106	0.07194	mg/L	0.001106	1.54%
As 188.979†	22.9	0.01043	mg/L	0.002212	0.01043	mg/L	0.002212	21.20%
B 249.677†	1417.1	0.1661	mg/L	0.00151	0.1661	mg/L	0.00151	0.91%
Ba 233.527†	24.2	0.00412	mg/L	0.000839	0.00412	mg/L	0.000839	20.36%
Be 313.042†	29.0	0.00004	mg/L	0.000009	0.00004	mg/L	0.000009	21.16%
Ca 317.933†	265377.0	16.85	mg/L	0.097	16.85	mg/L	0.097	0.57%
Cd 228.802†	6.7	0.00016	mg/L	0.000005	0.00016	mg/L	0.000005	2.93%
Co 228.616†	9.9	0.00022	mg/L	0.000123	0.00022	mg/L	0.000123	56.88%
Cr 267.716†	17.2	0.00104	mg/L	0.000149	0.00104	mg/L	0.000149	14.37%
Cu 324.752†	449.2	0.00146	mg/L	0.000168	0.00146	mg/L	0.000168	11.47%
Fe 273.955†	36.7	0.02051	mg/L	0.001085	0.02051	mg/L	0.001085	5.29%
K 766.490†	9009.7	3.539	mg/L	0.0189	3.539	mg/L	0.0189	0.54%
Mg 279.077†	11130.6	8.204	mg/L	0.0234	8.204	mg/L	0.0234	0.29%
Mn 257.610†	22068.0	0.4448	mg/L	0.00043	0.4448	mg/L	0.00043	0.10%
Mo 202.031†	47.4	0.00181	mg/L	0.000274	0.00181	mg/L	0.000274	15.08%
Na 589.592†	335317.6	25.69	mg/L	0.068	25.69	mg/L	0.068	0.26%
Na 330.237†	893.1	25.05	mg/L	0.258	25.05	mg/L	0.258	1.03%
Ni 231.604†	7.5	0.00145	mg/L	0.001062	0.00145	mg/L	0.001062	73.42%
Pb 220.353†	-8.0	-0.00077	mg/L	0.000498	-0.00077	mg/L	0.000498	64.42%
Sb 206.836†	-4.3	-0.00124	mg/L	0.001396	-0.00124	mg/L	0.001396	112.48%
Se 196.026†	-1.2	-0.00062	mg/L	0.005009	-0.00062	mg/L	0.005009	804.60%
Si 288.158†	32004.8	15.16	mg/L	0.035	15.16	mg/L	0.035	0.23%
Sn 189.927†	-45.5	-0.00788	mg/L	0.000453	-0.00788	mg/L	0.000453	5.75%
Sr 421.552†	86219.8	0.08798	mg/L	0.000269	0.08798	mg/L	0.000269	0.31%
Ti 334.903†	42.0	0.00062	mg/L	0.000929	0.00062	mg/L	0.000929	149.02%
Tl 190.801†	16.5	0.00642	mg/L	0.002728	0.00642	mg/L	0.002728	42.48%
V 292.402†	83.7	0.00067	mg/L	0.000072	0.00067	mg/L	0.000072	10.78%
Zn 206.200†	34.1	0.00967	mg/L	0.000303	0.00967	mg/L	0.000303	3.13%

Sequence No.: 25
Sample ID: WC96 G DMN
Analyst: ALA
Dilution: 1.000000X

Autosampler Location: 319
Date Collected: 2/11/2013 10:33:34 AM
Data Type: Original

Nebulizer Parameters: WC96 G DMN

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: WC96 G DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3218138.6	103.0	%	0.42				0.41%
ScR 361.383	419207.9	103.0	%	0.71				0.69%
Ag 328.068†	-26.9	0.00007	mg/L	0.000253	0.00007	mg/L	0.000253	379.56%
Al 308.215†	0.1	0.00001	mg/L	0.001223	0.00001	mg/L	0.001223	>999.9%
As 188.979†	29.4	0.01280	mg/L	0.000640	0.01280	mg/L	0.000640	5.00%
B 249.677†	1515.3	0.1776	mg/L	0.00084	0.1776	mg/L	0.00084	0.48%
Ba 233.527†	51.4	0.00845	mg/L	0.000384	0.00845	mg/L	0.000384	4.54%
Be 313.042†	47.6	0.00007	mg/L	0.000016	0.00007	mg/L	0.000016	21.93%
Ca 317.933†	445165.8	28.26	mg/L	0.165	28.26	mg/L	0.165	0.58%
Cd 228.802†	11.8	0.00031	mg/L	0.000184	0.00031	mg/L	0.000184	58.46%
Co 228.616†	29.4	0.00064	mg/L	0.000045	0.00064	mg/L	0.000045	6.94%
Cr 267.716†	23.3	0.00175	mg/L	0.000458	0.00175	mg/L	0.000458	26.18%
Cu 324.752†	414.4	0.00146	mg/L	0.000210	0.00146	mg/L	0.000210	14.45%
Fe 273.955†	3943.5	2.205	mg/L	0.0105	2.205	mg/L	0.0105	0.48%
K 766.490†	14443.6	5.674	mg/L	0.0203	5.674	mg/L	0.0203	0.36%
Mg 279.077†	10394.4	7.659	mg/L	0.0254	7.659	mg/L	0.0254	0.33%
Mn 257.610†	16929.7	0.3412	mg/L	0.00151	0.3412	mg/L	0.00151	0.44%
Mo 202.031†	67.7	0.00254	mg/L	0.000228	0.00254	mg/L	0.000228	8.96%
Na 589.592†	123569.8	9.468	mg/L	0.0376	9.468	mg/L	0.0376	0.40%
Na 330.237†	342.1	9.580	mg/L	0.1696	9.580	mg/L	0.1696	1.77%
Ni 231.604†	1.5	0.00029	mg/L	0.000575	0.00029	mg/L	0.000575	195.40%
Pb 220.353†	-7.1	-0.00082	mg/L	0.000563	-0.00082	mg/L	0.000563	68.68%
Sb 206.836†	-1.3	-0.00047	mg/L	0.000344	-0.00047	mg/L	0.000344	72.83%
Se 196.026†	-1.2	-0.00063	mg/L	0.000785	-0.00063	mg/L	0.000785	124.57%
Si 288.158†	23474.2	11.12	mg/L	0.012	11.12	mg/L	0.012	0.11%
Sn 189.927†	-60.3	-0.00994	mg/L	0.000230	-0.00994	mg/L	0.000230	2.31%
Sr 421.552†	184961.1	0.1887	mg/L	0.00034	0.1887	mg/L	0.00034	0.18%
Ti 334.903†	61.4	0.00070	mg/L	0.000190	0.00070	mg/L	0.000190	27.09%
Tl 190.801†	14.7	0.00600	mg/L	0.001184	0.00600	mg/L	0.001184	19.72%
V 292.402†	28.0	0.00015	mg/L	0.000071	0.00015	mg/L	0.000071	46.81%
Zn 206.200†	270.0	0.05822	mg/L	0.001226	0.05822	mg/L	0.001226	2.11%

Sequence No.: 26
Sample ID: WC96 H DMN
Analyst: ALA
Dilution: 1.000000X

Autosampler Location: 320
Date Collected: 2/11/2013 10:37:35 AM
Data Type: Original

Nebulizer Parameters: WC96 H DMN

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: WC96 H DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3216347.5	102.9	%	0.57				0.55%
ScR 361.383	419039.4	103.0	%	0.95				0.93%
Ag 328.068†	-13.6	0.00005	mg/L	0.000043	0.00005	mg/L	0.000043	86.39%
Al 308.215†	26.2	0.01550	mg/L	0.003544	0.01550	mg/L	0.003544	22.86%
As 188.979†	23.2	0.01064	mg/L	0.000662	0.01064	mg/L	0.000662	6.22%
B 249.677†	1544.2	0.1810	mg/L	0.00138	0.1810	mg/L	0.00138	0.76%
Ba 233.527†	21.7	0.00369	mg/L	0.000773	0.00369	mg/L	0.000773	20.94%
Be 313.042†	25.1	0.00004	mg/L	0.000041	0.00004	mg/L	0.000041	109.05%
Ca 317.933†	262972.0	16.70	mg/L	0.069	16.70	mg/L	0.069	0.41%
Cd 228.802†	10.1	0.00027	mg/L	0.000105	0.00027	mg/L	0.000105	38.52%
Co 228.616†	10.8	0.00023	mg/L	0.000108	0.00023	mg/L	0.000108	46.12%
Cr 267.716†	18.9	0.00106	mg/L	0.000373	0.00106	mg/L	0.000373	35.10%
Cu 324.752†	280.5	0.00089	mg/L	0.000074	0.00089	mg/L	0.000074	8.33%
Fe 273.955†	124.3	0.06949	mg/L	0.000366	0.06949	mg/L	0.000366	0.53%
K 766.490†	10800.6	4.243	mg/L	0.0278	4.243	mg/L	0.0278	0.65%
Mg 279.077†	13777.4	10.16	mg/L	0.073	10.16	mg/L	0.073	0.72%
Mn 257.610†	24389.6	0.4916	mg/L	0.00519	0.4916	mg/L	0.00519	1.06%
Mo 202.031†	39.9	0.00150	mg/L	0.000037	0.00150	mg/L	0.000037	2.49%
Na 589.592†	443974.7	34.02	mg/L	0.170	34.02	mg/L	0.170	0.50%
Na 330.237†	1176.9	33.01	mg/L	0.206	33.01	mg/L	0.206	0.62%
Ni 231.604†	-1.1	-0.00021	mg/L	0.000194	-0.00021	mg/L	0.000194	92.53%
Pb 220.353†	-17.4	-0.00173	mg/L	0.000750	-0.00173	mg/L	0.000750	43.45%
Sb 206.836†	-11.3	-0.00310	mg/L	0.000054	-0.00310	mg/L	0.000054	1.73%
Se 196.026†	10.9	0.00580	mg/L	0.002760	0.00580	mg/L	0.002760	47.58%
Si 288.158†	38357.5	18.17	mg/L	0.135	18.17	mg/L	0.135	0.74%
Sn 189.927†	-48.6	-0.00853	mg/L	0.000719	-0.00853	mg/L	0.000719	8.43%
Sr 421.552†	85212.9	0.08695	mg/L	0.000243	0.08695	mg/L	0.000243	0.28%
Ti 334.903†	61.7	0.00140	mg/L	0.000485	0.00140	mg/L	0.000485	34.71%
Tl 190.801†	11.3	0.00441	mg/L	0.001737	0.00441	mg/L	0.001737	39.40%
V 292.402†	100.9	0.00080	mg/L	0.000149	0.00080	mg/L	0.000149	18.64%
Zn 206.200†	66.5	0.01694	mg/L	0.000653	0.01694	mg/L	0.000653	3.85%

Sequence No.: 27
Sample ID: WC96 FDUP DMN
Analyst: ALA
Dilution: 1.000000X

Autosampler Location: 321
Date Collected: 2/11/2013 10:41:51 AM
Data Type: Original

Nebulizer Parameters: WC96 FDUP DMN

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: WC96 FDUP DMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3208842.2	102.7	%	0.75				0.73%
ScR 361.383	422076.6	103.7	%	0.46				0.44%
Ag 328.068†	-16.0	0.00004	mg/L	0.000031	0.00004	mg/L	0.000031	72.55%
Al 308.215†	52.7	0.03119	mg/L	0.005615	0.03119	mg/L	0.005615	18.00%
As 188.979†	25.0	0.01158	mg/L	0.002265	0.01158	mg/L	0.002265	19.56%
B 249.677†	1598.6	0.1874	mg/L	0.00194	0.1874	mg/L	0.00194	1.04%
Ba 233.527†	27.0	0.00409	mg/L	0.000719	0.00409	mg/L	0.000719	17.56%
Be 313.042†	13.2	0.00002	mg/L	0.000034	0.00002	mg/L	0.000034	177.91%
Ca 317.933†	269537.1	17.11	mg/L	0.089	17.11	mg/L	0.089	0.52%
Cd 228.802†	8.4	0.00021	mg/L	0.000229	0.00021	mg/L	0.000229	108.11%
Co 228.616†	13.8	0.00030	mg/L	0.000051	0.00030	mg/L	0.000051	17.09%
Cr 267.716†	18.3	0.00100	mg/L	0.000555	0.00100	mg/L	0.000555	55.40%
Cu 324.752†	376.4	0.00138	mg/L	0.000100	0.00138	mg/L	0.000100	7.25%
Fe 273.955†	6325.5	3.537	mg/L	0.0375	3.537	mg/L	0.0375	1.06%
K 766.490†	10995.4	4.319	mg/L	0.0236	4.319	mg/L	0.0236	0.55%
Mg 279.077†	14780.9	10.89	mg/L	0.044	10.89	mg/L	0.044	0.41%
Mn 257.610†	34476.9	0.6950	mg/L	0.00504	0.6950	mg/L	0.00504	0.72%
Mo 202.031†	44.2	0.00167	mg/L	0.000127	0.00167	mg/L	0.000127	7.61%
Na 589.592†	475708.9	36.45	mg/L	0.035	36.45	mg/L	0.035	0.10%
Na 330.237†	1263.0	35.43	mg/L	0.298	35.43	mg/L	0.298	0.84%
Ni 231.604†	1.2	0.00023	mg/L	0.000170	0.00023	mg/L	0.000170	73.65%
Pb 220.353†	-9.3	-0.00110	mg/L	0.000739	-0.00110	mg/L	0.000739	67.07%
Sb 206.836†	-16.4	-0.00445	mg/L	0.001455	-0.00445	mg/L	0.001455	32.72%
Se 196.026†	0.7	0.00039	mg/L	0.002334	0.00039	mg/L	0.002334	599.51%
Si 288.158†	41929.5	19.87	mg/L	0.027	19.87	mg/L	0.027	0.14%
Sn 189.927†	-48.7	-0.00852	mg/L	0.000547	-0.00852	mg/L	0.000547	6.43%
Sr 421.552†	86809.5	0.08858	mg/L	0.000159	0.08858	mg/L	0.000159	0.18%
Ti 334.903†	123.9	0.00379	mg/L	0.000499	0.00379	mg/L	0.000499	13.17%
Tl 190.801†	11.3	0.00486	mg/L	0.001286	0.00486	mg/L	0.001286	26.44%
V 292.402†	304.1	0.00210	mg/L	0.000139	0.00210	mg/L	0.000139	6.63%
Zn 206.200†	23.2	0.00819	mg/L	0.001004	0.00819	mg/L	0.001004	12.26%

Sequence No.: 28
Sample ID: WC96 F DMN
Analyst: ALA
Dilution: 1.000000X

Autosampler Location: 322
Date Collected: 2/11/2013 10:46:07 AM
Data Type: Original

Nebulizer Parameters: WC96 F DMN

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: WC96 F DMN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3209186.9	102.7	%	0.28				0.28%
ScR 361.383	418373.4	102.8	%	1.03				1.00%
Ag 328.068†	-12.3	0.00006	mg/L	0.000053	0.00006	mg/L	0.000053	91.34%
Al 308.215†	22.4	0.01322	mg/L	0.001161	0.01322	mg/L	0.001161	8.78%
As 188.979†	20.2	0.00906	mg/L	0.001213	0.00906	mg/L	0.001213	13.39%
B 249.677†	1609.3	0.1886	mg/L	0.00188	0.1886	mg/L	0.00188	1.00%
Ba 233.527†	23.3	0.00347	mg/L	0.000492	0.00347	mg/L	0.000492	14.18%
Be 313.042†	6.9	0.00001	mg/L	0.000037	0.00001	mg/L	0.000037	382.96%
Ca 317.933†	269067.2	17.08	mg/L	0.030	17.08	mg/L	0.030	0.18%
Cd 228.802†	11.4	0.00033	mg/L	0.000154	0.00033	mg/L	0.000154	46.60%
Co 228.616†	17.2	0.00037	mg/L	0.000066	0.00037	mg/L	0.000066	17.61%
Cr 267.716†	19.0	0.00110	mg/L	0.001015	0.00110	mg/L	0.001015	92.57%
Cu 324.752†	318.9	0.00118	mg/L	0.000156	0.00118	mg/L	0.000156	13.22%
Fe 273.955†	6132.3	3.429	mg/L	0.0376	3.429	mg/L	0.0376	1.10%
K 766.490†	10917.8	4.289	mg/L	0.0256	4.289	mg/L	0.0256	0.60%
Mg 279.077†	14684.7	10.82	mg/L	0.061	10.82	mg/L	0.061	0.57%
Mn 257.610†	34071.3	0.6868	mg/L	0.00578	0.6868	mg/L	0.00578	0.84%
Mo 202.031†	40.5	0.00152	mg/L	0.000221	0.00152	mg/L	0.000221	14.55%
Na 589.592†	478235.7	36.64	mg/L	0.064	36.64	mg/L	0.064	0.17%
Na 330.237†	1270.1	35.62	mg/L	0.213	35.62	mg/L	0.213	0.60%
Ni 231.604†	5.5	0.00106	mg/L	0.000344	0.00106	mg/L	0.000344	32.44%
Pb 220.353†	-8.4	-0.00102	mg/L	0.000255	-0.00102	mg/L	0.000255	25.16%
Sb 206.836†	-5.7	-0.00159	mg/L	0.000439	-0.00159	mg/L	0.000439	27.55%
Se 196.026†	7.2	0.00382	mg/L	0.002340	0.00382	mg/L	0.002340	61.32%
Si 288.158†	41901.9	19.85	mg/L	0.115	19.85	mg/L	0.115	0.58%
Sn 189.927†	-50.0	-0.00878	mg/L	0.000785	-0.00878	mg/L	0.000785	8.94%
Sr 421.552†	86947.7	0.08872	mg/L	0.000060	0.08872	mg/L	0.000060	0.07%
Ti 334.903†	101.5	0.00292	mg/L	0.000415	0.00292	mg/L	0.000415	14.22%
Tl 190.801†	13.9	0.00587	mg/L	0.000300	0.00587	mg/L	0.000300	5.11%
V 292.402†	309.8	0.00214	mg/L	0.000261	0.00214	mg/L	0.000261	12.21%
Zn 206.200†	18.7	0.00725	mg/L	0.000461	0.00725	mg/L	0.000461	6.36%

Sequence No.: 29
Sample ID: WC96 FSPK DMN
Analyst: ALA
Dilution: 1.000000X

Autosampler Location: 323
Date Collected: 2/11/2013 10:50:23 AM
Data Type: Original

Nebulizer Parameters: WC96 FSPK DMN

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: WC96 FSPK DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3193996.8	102.2	%	0.18				0.17%
ScR 361.383	415590.2	102.1	%	1.08				1.05%
Ag 328.068†	109600.7	0.4728	mg/L	0.00656	0.4728	mg/L	0.00656	1.39%
Al 308.215†	3416.4	2.018	mg/L	0.0170	2.018	mg/L	0.0170	0.84%
As 188.979†	4147.1	2.155	mg/L	0.0075	2.155	mg/L	0.0075	0.35%
B 249.677†	1615.5	0.1882	mg/L	0.00087	0.1882	mg/L	0.00087	0.46%
Ba 233.527†	12411.0	2.117	mg/L	0.0159	2.117	mg/L	0.0159	0.75%
Be 313.042†	333433.0	0.4999	mg/L	0.00356	0.4999	mg/L	0.00356	0.71%
Ca 317.933†	418635.4	26.58	mg/L	0.198	26.58	mg/L	0.198	0.75%
Cd 228.802†	16162.1	0.5377	mg/L	0.00432	0.5377	mg/L	0.00432	0.80%
Co 228.616†	23072.7	0.5085	mg/L	0.00255	0.5085	mg/L	0.00255	0.50%
Cr 267.716†	4345.7	0.5176	mg/L	0.00422	0.5176	mg/L	0.00422	0.82%
Cu 324.752†	152923.8	0.5132	mg/L	0.00413	0.5132	mg/L	0.00413	0.80%
Fe 273.955†	9803.7	5.479	mg/L	0.0546	5.479	mg/L	0.0546	1.00%
K 766.490†	35952.0	14.12	mg/L	0.062	14.12	mg/L	0.062	0.44%
Mg 279.077†	28811.8	21.24	mg/L	0.208	21.24	mg/L	0.208	0.98%
Mn 257.610†	57498.0	1.159	mg/L	0.0107	1.159	mg/L	0.0107	0.92%
Mo 202.031†	56.2	0.00205	mg/L	0.000140	0.00205	mg/L	0.000140	6.85%
Na 589.592†	611394.1	46.85	mg/L	0.123	46.85	mg/L	0.123	0.26%
Na 330.237†	1647.7	46.06	mg/L	0.526	46.06	mg/L	0.526	1.14%
Ni 231.604†	2684.3	0.5169	mg/L	0.00476	0.5169	mg/L	0.00476	0.92%
Pb 220.353†	20247.2	2.012	mg/L	0.0102	2.012	mg/L	0.0102	0.51%
Sb 206.836†	14.6	-0.00137	mg/L	0.001346	-0.00137	mg/L	0.001346	97.99%
Se 196.026†	4485.3	2.392	mg/L	0.0105	2.392	mg/L	0.0105	0.44%
Si 288.158†	42360.8	20.07	mg/L	0.161	20.07	mg/L	0.161	0.80%
Sn 189.927†	-63.4	-0.01072	mg/L	0.000730	-0.01072	mg/L	0.000730	6.81%
Sr 421.552†	581717.7	0.5936	mg/L	0.00074	0.5936	mg/L	0.00074	0.12%
Ti 334.903†	125.3	0.00318	mg/L	0.000396	0.00318	mg/L	0.000396	12.45%
Tl 190.801†	5357.5	2.084	mg/L	0.0046	2.084	mg/L	0.0046	0.22%
V 292.402†	72623.6	0.5180	mg/L	0.00407	0.5180	mg/L	0.00407	0.79%
Zn 206.200†	2517.2	0.5289	mg/L	0.00635	0.5289	mg/L	0.00635	1.20%

Sequence No.: 30
Sample ID: WC78 F SWC
Analyst: ALA
Dilution: 2.000000X

Autosampler Location: 324
Date Collected: 2/11/2013 10:54:25 AM
Data Type: Original

Nebulizer Parameters: WC78 F SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: WC78 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3175047.6	101.6	%	0.37				0.36%
ScR 361.383	416330.9	102.3	%	1.06				1.03%
Ag 328.068†	1145.1	0.00518	mg/L	0.001980	0.01037	mg/L	0.003961	38.20%
Al 308.215†	125610.9	74.48	mg/L	0.610	149.0	mg/L	1.22	0.82%
As 188.979†	2490.1	1.443	mg/L	0.0101	2.885	mg/L	0.0201	0.70%
B 249.677†	195.8	0.02282	mg/L	0.000113	0.04565	mg/L	0.000226	0.50%
Ba 233.527†	5669.9	0.9496	mg/L	0.00938	1.899	mg/L	0.0188	0.99%
Be 313.042†	834.6	0.00115	mg/L	0.000006	0.00229	mg/L	0.000012	0.51%
Ca 317.933†	402039.3	25.52	mg/L	0.339	51.05	mg/L	0.679	1.33%
Cd 228.802†	343.5	0.00456	mg/L	0.000149	0.00912	mg/L	0.000298	3.27%
Co 228.616†	2276.5	0.04247	mg/L	0.000183	0.08494	mg/L	0.000366	0.43%
Cr 267.716†	1145.3	0.1365	mg/L	0.00068	0.2729	mg/L	0.00136	0.50%
Cu 324.752†	43296.6	0.1502	mg/L	0.00041	0.3005	mg/L	0.00083	0.28%
Fe 273.955†	220434.8	123.2	mg/L	1.59	246.5	mg/L	3.17	1.29%
K 766.490†	14524.4	5.706	mg/L	0.0486	11.41	mg/L	0.097	0.85%
Mg 279.077†	55951.8	41.18	mg/L	0.432	82.36	mg/L	0.864	1.05%
Mn 257.610†	75786.1	1.527	mg/L	0.0175	3.055	mg/L	0.0351	1.15%
Mo 202.031†	178.2	0.00726	mg/L	0.000128	0.01453	mg/L	0.000256	1.76%
Na 589.592†	24206.9	1.855	mg/L	0.0142	3.710	mg/L	0.0284	0.77%
Na 330.237†	39.1	2.046	mg/L	0.2430	4.091	mg/L	0.4861	11.88%
Ni 231.604†	866.8	0.1672	mg/L	0.00378	0.3344	mg/L	0.00756	2.26%
Pb 220.353†	1442.8	0.1569	mg/L	0.00073	0.3138	mg/L	0.00145	0.46%
Sb 206.836†	15.7	0.00651	mg/L	0.003310	0.01301	mg/L	0.006620	50.88%
Se 196.026†	15.1	-0.00070	mg/L	0.002361	-0.00140	mg/L	0.004722	337.27%
Si 288.158†	1668.8	0.7953	mg/L	0.00445	1.591	mg/L	0.0089	0.56%
Sn 189.927†	-40.3	-0.00527	mg/L	0.000843	-0.01053	mg/L	0.001687	16.01%
Sr 421.552†	143134.8	0.1461	mg/L	0.00097	0.2921	mg/L	0.00193	0.66%
Ti 334.903†	111490.7	4.323	mg/L	0.0355	8.647	mg/L	0.0711	0.82%
Tl 190.801†	-31.3	0.00289	mg/L	0.002381	0.00577	mg/L	0.004762	82.46%
V 292.402†	36272.0	0.2498	mg/L	0.00088	0.4997	mg/L	0.00176	0.35%
Zn 206.200†	4138.5	0.8637	mg/L	0.01241	1.727	mg/L	0.0248	1.44%

Sequence No.: 31
Sample ID: WC78 G SWC
Analyst: ALA
Dilution: 2.000000X

Autosampler Location: 325
Date Collected: 2/11/2013 10:58:26 AM
Data Type: Original

Nebulizer Parameters: WC78 G SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: WC78 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3152193.1	100.9	%	0.37				0.36%
ScR 361.383	415591.8	102.1	%	0.32				0.31%
Ag 328.068†	821.7	0.00392	mg/L	0.000050	0.00784	mg/L	0.000101	1.28%
Al 308.215†	131329.2	77.87	mg/L	0.365	155.7	mg/L	0.73	0.47%
As 188.979†	1138.6	0.7305	mg/L	0.00520	1.461	mg/L	0.0104	0.71%
B 249.677†	179.4	0.02081	mg/L	0.000509	0.04163	mg/L	0.001017	2.44%
Ba 233.527†	6399.9	1.073	mg/L	0.0049	2.146	mg/L	0.0098	0.46%
Be 313.042†	922.6	0.00129	mg/L	0.000010	0.00257	mg/L	0.000020	0.77%
Ca 317.933†	733956.6	46.60	mg/L	0.344	93.19	mg/L	0.687	0.74%
Cd 228.802†	485.5	0.01341	mg/L	0.000161	0.02682	mg/L	0.000323	1.20%
Co 228.616†	3905.7	0.07873	mg/L	0.000530	0.1575	mg/L	0.00106	0.67%
Cr 267.716†	1699.9	0.2033	mg/L	0.00091	0.4065	mg/L	0.00182	0.45%
Cu 324.752†	251682.0	0.8497	mg/L	0.00419	1.699	mg/L	0.0084	0.49%
Fe 273.955†	235890.4	131.9	mg/L	1.18	263.8	mg/L	2.37	0.90%
K 766.490†	14780.5	5.806	mg/L	0.0431	11.61	mg/L	0.086	0.74%
Mg 279.077†	48374.7	35.59	mg/L	0.248	71.17	mg/L	0.496	0.70%
Mn 257.610†	126286.5	2.546	mg/L	0.0209	5.092	mg/L	0.0419	0.82%
Mo 202.031†	262.4	0.01059	mg/L	0.000254	0.02117	mg/L	0.000508	2.40%
Na 589.592†	41587.1	3.187	mg/L	0.0221	6.373	mg/L	0.0443	0.69%
Na 330.237†	162.2	3.482	mg/L	0.1556	6.964	mg/L	0.3113	4.47%
Ni 231.604†	1379.9	0.2662	mg/L	0.00191	0.5324	mg/L	0.00382	0.72%
Pb 220.353†	26229.0	2.618	mg/L	0.0141	5.237	mg/L	0.0282	0.54%
Sb 206.836†	72.8	0.02076	mg/L	0.003494	0.04152	mg/L	0.006988	16.83%
Se 196.026†	7.9	-0.00492	mg/L	0.000340	-0.00985	mg/L	0.000680	6.91%
Si 288.158†	3035.2	1.442	mg/L	0.0059	2.883	mg/L	0.0118	0.41%
Sn 189.927†	131.1	0.03144	mg/L	0.000746	0.06288	mg/L	0.001492	2.37%
Sr 421.552†	301472.9	0.3076	mg/L	0.00166	0.6152	mg/L	0.00333	0.54%
Ti 334.903†	106236.6	4.118	mg/L	0.0241	8.236	mg/L	0.0481	0.58%
Tl 190.801†	-19.6	0.00840	mg/L	0.001071	0.01681	mg/L	0.002143	12.75%
V 292.402†	33331.6	0.2291	mg/L	0.00094	0.4581	mg/L	0.00187	0.41%
Zn 206.200†	35726.9	7.455	mg/L	0.0252	14.91	mg/L	0.050	0.34%

Sequence No.: 32
Sample ID: WC96 MB2SPK DMN
Analyst: ALA
Dilution: 1.000000X

Autosampler Location: 326
Date Collected: 2/11/2013 11:02:28 AM
Data Type: Original

Nebulizer Parameters: WC96 MB2SPK DMN

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: WC96 MB2SPK DMN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3223839.9	103.2	%	0.75				0.72%
ScR 361.383	425413.4	104.6	%	1.29				1.24%
Ag 328.068†	127624.2	0.5504	mg/L	0.00323	0.5504	mg/L	0.00323	0.59%
Al 308.215†	3534.7	2.088	mg/L	0.0276	2.088	mg/L	0.0276	1.32%
As 188.979†	4204.2	2.186	mg/L	0.0243	2.186	mg/L	0.0243	1.11%
B 249.677†	201.6	0.02241	mg/L	0.000972	0.02241	mg/L	0.000972	4.34%
Ba 233.527†	12374.0	2.112	mg/L	0.0253	2.112	mg/L	0.0253	1.20%
Be 313.042†	338477.4	0.5074	mg/L	0.00834	0.5074	mg/L	0.00834	1.64%
Ca 317.933†	156043.2	9.907	mg/L	0.0961	9.907	mg/L	0.0961	0.97%
Cd 228.802†	16501.4	0.5491	mg/L	0.00415	0.5491	mg/L	0.00415	0.76%
Co 228.616†	23818.6	0.5249	mg/L	0.00553	0.5249	mg/L	0.00553	1.05%
Cr 267.716†	4348.5	0.5191	mg/L	0.00637	0.5191	mg/L	0.00637	1.23%
Cu 324.752†	153582.3	0.5153	mg/L	0.00442	0.5153	mg/L	0.00442	0.86%
Fe 273.955†	3544.8	1.979	mg/L	0.0266	1.979	mg/L	0.0266	1.35%
K 766.490†	25080.8	9.853	mg/L	0.0470	9.853	mg/L	0.0470	0.48%
Mg 279.077†	13678.1	10.08	mg/L	0.116	10.08	mg/L	0.116	1.15%
Mn 257.610†	25288.4	0.5102	mg/L	0.00691	0.5102	mg/L	0.00691	1.35%
Mo 202.031†	20.4	0.00072	mg/L	0.000140	0.00072	mg/L	0.000140	19.39%
Na 589.592†	134546.1	10.31	mg/L	0.054	10.31	mg/L	0.054	0.52%
Na 330.237†	366.9	10.13	mg/L	0.106	10.13	mg/L	0.106	1.05%
Ni 231.604†	2717.2	0.5232	mg/L	0.00657	0.5232	mg/L	0.00657	1.26%
Pb 220.353†	20848.5	2.071	mg/L	0.0235	2.071	mg/L	0.0235	1.14%
Sb 206.836†	7.3	-0.00322	mg/L	0.000856	-0.00322	mg/L	0.000856	26.56%
Se 196.026†	4593.9	2.450	mg/L	0.0293	2.450	mg/L	0.0293	1.20%
Si 288.158†	-13.7	-0.00346	mg/L	0.002669	-0.00346	mg/L	0.002669	77.21%
Sn 189.927†	-27.8	-0.00485	mg/L	0.000356	-0.00485	mg/L	0.000356	7.35%
Sr 421.552†	497521.6	0.5077	mg/L	0.00277	0.5077	mg/L	0.00277	0.55%
Ti 334.903†	33.7	0.00062	mg/L	0.000460	0.00062	mg/L	0.000460	74.12%
Tl 190.801†	5466.4	2.126	mg/L	0.0188	2.126	mg/L	0.0188	0.89%
V 292.402†	73891.0	0.5271	mg/L	0.00349	0.5271	mg/L	0.00349	0.66%
Zn 206.200†	2523.0	0.5267	mg/L	0.00718	0.5267	mg/L	0.00718	1.36%

Sequence No.: 33
Sample ID: CV 3
Analyst: ALA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 2/11/2013 11:06:29 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3138616.2	100.4	%	0.69				0.69%
ScR 361.383	408575.2	100.4	%	0.43				0.43%
Ag 328.068†	244059.3	1.053	mg/L	0.0085	1.053	mg/L	0.0085	0.80%
Al 308.215†	3325.6	1.937	mg/L	0.0160	1.937	mg/L	0.0160	0.83%
As 188.979†	3871.5	2.045	mg/L	0.0226	2.045	mg/L	0.0226	1.11%
B 249.677†	8674.1	1.016	mg/L	0.0082	1.016	mg/L	0.0082	0.80%
Ba 233.527†	6088.3	1.039	mg/L	0.0055	1.039	mg/L	0.0055	0.53%
Be 313.042†	664683.6	0.9965	mg/L	0.00485	0.9965	mg/L	0.00485	0.49%
Ca 317.933†	31327.9	1.989	mg/L	0.0159	1.989	mg/L	0.0159	0.80%
Cd 228.802†	30490.5	1.026	mg/L	0.0045	1.026	mg/L	0.0045	0.43%
Co 228.616†	45822.6	1.009	mg/L	0.0095	1.009	mg/L	0.0095	0.94%
Cr 267.716†	8556.3	1.023	mg/L	0.0037	1.023	mg/L	0.0037	0.36%
Cu 324.752†	308719.8	1.035	mg/L	0.0069	1.035	mg/L	0.0069	0.67%
Fe 273.955†	3524.3	1.965	mg/L	0.0143	1.965	mg/L	0.0143	0.73%
K 766.490†	49679.1	19.52	mg/L	0.065	19.52	mg/L	0.065	0.33%
Mg 279.077†	2648.1	1.959	mg/L	0.0124	1.959	mg/L	0.0124	0.63%
Mn 257.610†	50341.6	1.015	mg/L	0.0072	1.015	mg/L	0.0072	0.71%
Mo 202.031†	23566.2	1.001	mg/L	0.0100	1.001	mg/L	0.0100	1.00%
Na 589.592†	673829.0	51.63	mg/L	0.144	51.63	mg/L	0.144	0.28%
Na 330.237†	1790.9	50.20	mg/L	0.210	50.20	mg/L	0.210	0.42%
Ni 231.604†	5373.7	1.037	mg/L	0.0076	1.037	mg/L	0.0076	0.74%
Pb 220.353†	20358.3	2.023	mg/L	0.0200	2.023	mg/L	0.0200	0.99%
Sb 206.836†	7877.2	2.084	mg/L	0.0185	2.084	mg/L	0.0185	0.89%
Se 196.026†	3747.0	1.997	mg/L	0.0154	1.997	mg/L	0.0154	0.77%
Si 288.158†	4293.6	2.029	mg/L	0.0165	2.029	mg/L	0.0165	0.81%
Sn 189.927†	4834.8	0.9882	mg/L	0.00778	0.9882	mg/L	0.00778	0.79%
Sr 421.552†	990353.4	1.011	mg/L	0.0012	1.011	mg/L	0.0012	0.12%
Ti 334.903†	25947.6	1.005	mg/L	0.0011	1.005	mg/L	0.0011	0.11%
Tl 190.801†	5220.0	2.027	mg/L	0.0209	2.027	mg/L	0.0209	1.03%
V 292.402†	144994.6	1.034	mg/L	0.0051	1.034	mg/L	0.0051	0.49%
Zn 206.200†	5093.9	1.063	mg/L	0.0063	1.063	mg/L	0.0063	0.59%

Sequence No.: 34
Sample ID: CB 3
Analyst: ALA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 2/11/2013 11:09:47 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	3202108.5	102.5	%	0.08				0.07%
ScR 361.383	418009.4	102.7	%	0.28				0.27%
Ag 328.068†	32.4	0.00014	mg/L	0.000250	0.00014	mg/L	0.000250	178.56%
Al 308.215†	-1.1	-0.00068	mg/L	0.004994	-0.00068	mg/L	0.004994	739.36%
As 188.979†	2.5	0.00129	mg/L	0.002550	0.00129	mg/L	0.002550	197.37%
B 249.677†	-12.1	-0.00142	mg/L	0.000140	-0.00142	mg/L	0.000140	9.90%
Ba 233.527†	-3.3	-0.00056	mg/L	0.000570	-0.00056	mg/L	0.000570	102.04%
Be 313.042†	25.3	0.00004	mg/L	0.000022	0.00004	mg/L	0.000022	57.65%
Ca 317.933†	-1.7	-0.00011	mg/L	0.001020	-0.00011	mg/L	0.001020	924.57%
Cd 228.802†	12.9	0.00043	mg/L	0.000628	0.00043	mg/L	0.000628	145.48%
Co 228.616†	20.3	0.00045	mg/L	0.000830	0.00045	mg/L	0.000830	185.72%
Cr 267.716†	13.6	0.00163	mg/L	0.000219	0.00163	mg/L	0.000219	13.44%
Cu 324.752†	175.6	0.00059	mg/L	0.000230	0.00059	mg/L	0.000230	39.10%
Fe 273.955†	-0.4	-0.00025	mg/L	0.001296	-0.00025	mg/L	0.001296	513.90%
K 766.490†	41.3	0.01622	mg/L	0.001616	0.01622	mg/L	0.001616	9.97%
Mg 279.077†	-5.5	-0.00405	mg/L	0.001150	-0.00405	mg/L	0.001150	28.38%
Mn 257.610†	-2.6	-0.00005	mg/L	0.000084	-0.00005	mg/L	0.000084	158.03%
Mo 202.031†	43.1	0.00183	mg/L	0.001170	0.00183	mg/L	0.001170	63.93%
Na 589.592†	81.0	0.00621	mg/L	0.001093	0.00621	mg/L	0.001093	17.61%
Na 330.237†	4.3	0.1218	mg/L	0.42969	0.1218	mg/L	0.42969	352.88%
Ni 231.604†	-1.9	-0.00037	mg/L	0.000875	-0.00037	mg/L	0.000875	237.61%
Pb 220.353†	6.8	0.00068	mg/L	0.001352	0.00068	mg/L	0.001352	198.30%
Sb 206.836†	7.6	0.00199	mg/L	0.002784	0.00199	mg/L	0.002784	139.99%
Se 196.026†	-1.4	-0.00073	mg/L	0.001187	-0.00073	mg/L	0.001187	162.42%
Si 288.158†	-5.2	-0.00246	mg/L	0.002256	-0.00246	mg/L	0.002256	91.86%
Sn 189.927†	6.1	0.00125	mg/L	0.001464	0.00125	mg/L	0.001464	117.17%
Sr 421.552†	-26.1	-0.00003	mg/L	0.000036	-0.00003	mg/L	0.000036	133.47%
Ti 334.903†	8.8	0.00034	mg/L	0.000994	0.00034	mg/L	0.000994	291.63%
Tl 190.801†	7.0	0.00274	mg/L	0.001562	0.00274	mg/L	0.001562	57.07%
V 292.402†	51.4	0.00037	mg/L	0.000371	0.00037	mg/L	0.000371	99.35%
Zn 206.200†	0.0	0.00001	mg/L	0.000219	0.00001	mg/L	0.000219	>999.9%

end pkg

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA **Analysis Date:** 2-8-13

MS 1	Analyst BA 2-8-13	Peer 2-11-13	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓		
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	See log
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	—	—	

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-8-13 **Analyst:** BA **Page:** 1 **of** 3

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			3009-6
		1			-12
		2			-13
		3			3011-1
		4			3009-14
		Rinse sample			
		ICV			2955-7
		ICB			
		CCV1			
		CCB1			
		Low Check			
		ICSA			
		ICSAB			
		LR200			
		LR300			
		CCV2			
		CCB2			
		WC79 MB1	REN	2	
		WC43 D	SWN	20	
		E			
		WC79 B	REN	2	
		C			
		ADMP			
		A			

WC79 : 00114

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-8-13 **Analyst:** BA **Page:** 2 of 3

All corrections made by analyst unless otherwise noted. BA 2-8-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		WC79 ASPK	REN	2	
zzz		zzzzzz ~~APOST~~			0.06 mL ICPMS Spk#1 2999-12
		MB1SPK			
		CCV3			
		CCB3			End WC43
		WC79 MB2	REN	2	
		D			
		E			
		F			
		G			
		HDUP			
		H			
		HSPK			
zzz		zzzzzz ~~HPOST~~			0.06 mL ICPMS Spk#1 2999-12
		MB2SPK			
		CCV4			
		CCB4			As2↑
		WC79 I	REN	2	
		J			
		K			RR As (Sx)
		L			
		M			
		N			
		CCV5			

WC70:00115

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 2-8-13 **Analyst:** BA **Page:** 3 **of** 3

All corrections made by analyst unless otherwise noted. BA 2-8-13

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		CCB5			As2, ^{78}Se↑
		WC78 MB1	SWN	20	
		WC79 K	REN	5	As
		↓ L	↓	↓	↓
		WC78 B	SWN	20	
		C			
		ADUP			✓
		A			
		ASPK			✓
222		~~222222~~ ~~APST~~			0.06mL ICPMS Spk#1 2999-12
		MB1SPK			✓
		CCV6			~~As2, ^{78}Se↑~~
		CCB6			As2, ^{78}Se↑ End WC79
		WC78 D	SWN	20	
		E			
		F			
		G			
		CCV7			
		CCB7			As2↑ End Pkg (WC78)
		BA 2/8/13			

WC79 : 00110

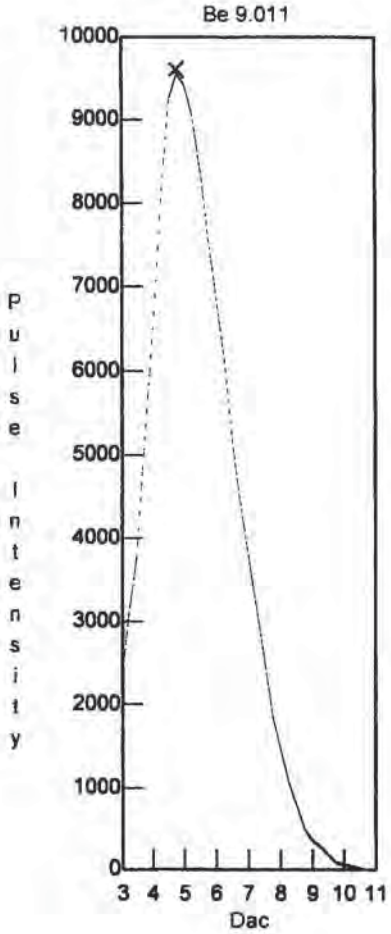
Instrument Tuning Report

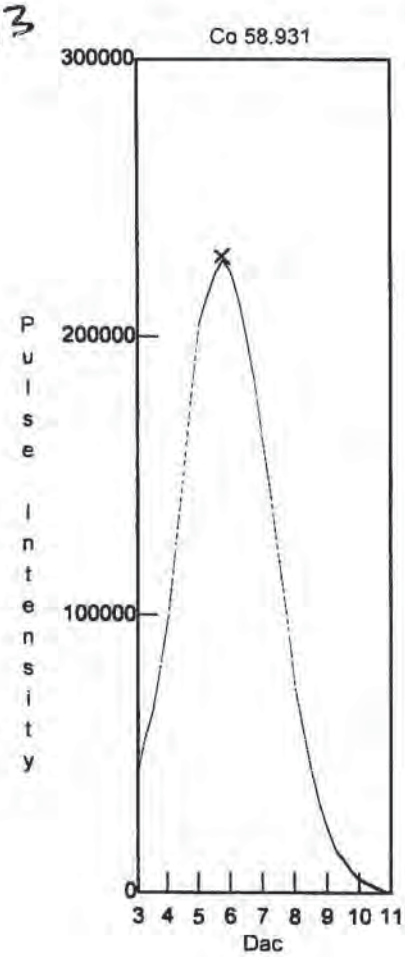
File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

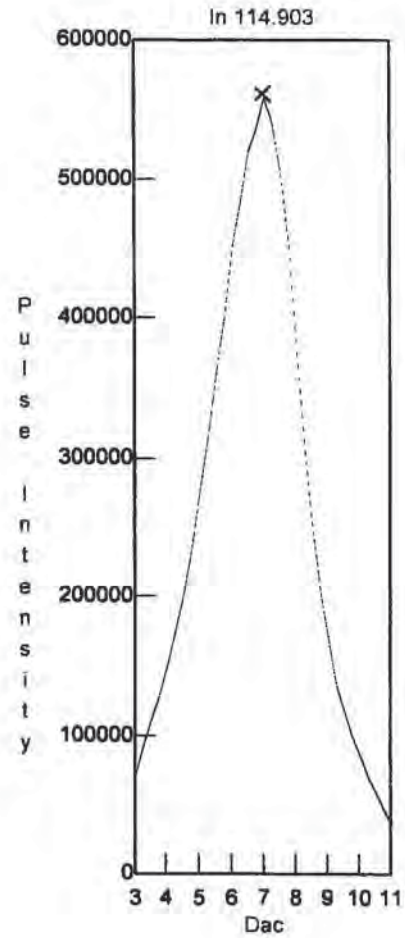
Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	9.026	2031	2155	0.671	
Mg	23.985	24.029	5666	2265	0.675	
Co	58.933	58.979	14160	2530	0.673	
In	114.904	114.928	27795	2970	0.690	
Pb	207.977	207.976	50444	3725	0.688	

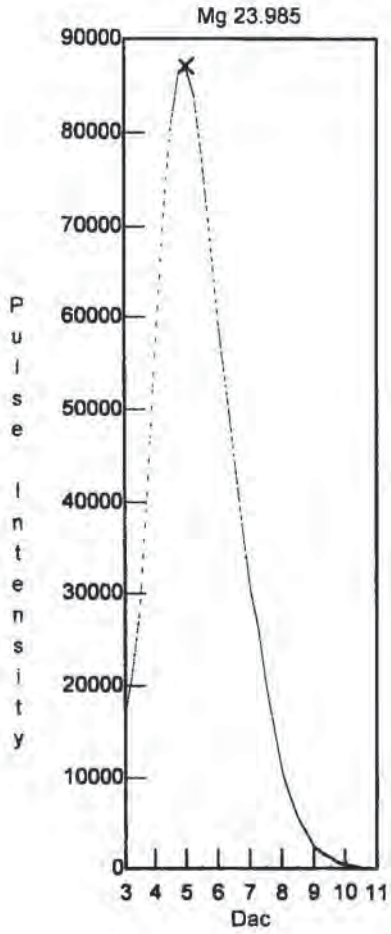
WC70.00117

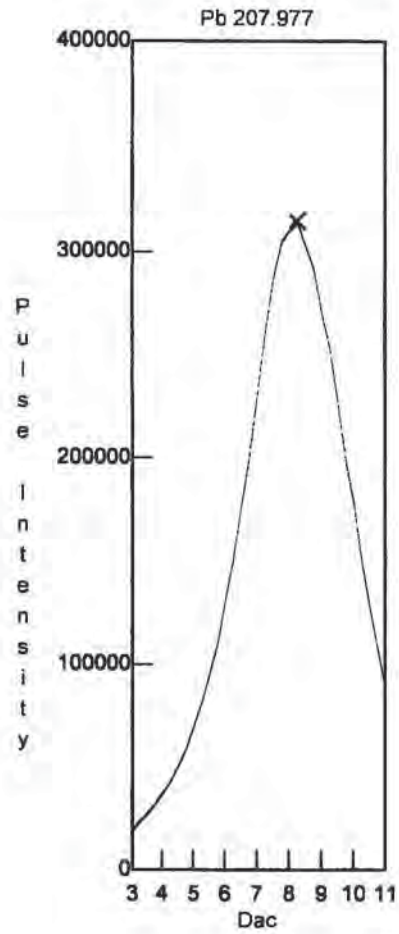
2-8-13

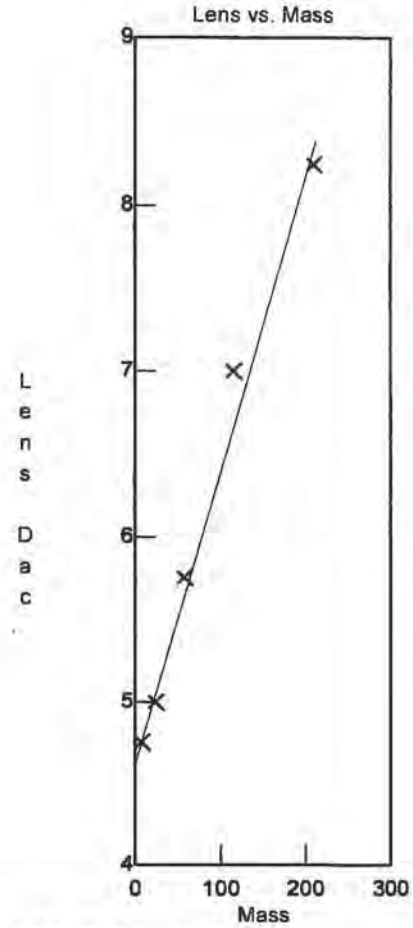












WCTS 00110

Daily Performance Report

Sample ID: Sample
Sample Date/Time: Friday, February 08, 2013 08:01:50
Sample Description:
Sample File: 1119.sam
Method File: C:\Elandata\Method\aridailyperf.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.1377
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\Default.dac
Number of Replicates: 5
Dual Detector Mode: Dual

Neb 0.91

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24	37457.252 -	333.363	0.890
	In	115	286926.198 -	3293.322	1.148
	Pb	208	172819.529	2238.840	1.295
⌈>	Ba	138	205132.160	3116.902	1.519
⌊	Ba++	69	0.014	0.000	1.997
⌈>	Ce	140	253559.456	3449.485	1.360
⌊	CeO	156	0.029	0.001	1.810
	Bkgd	220	3.500	1.630	46.566

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 08:36:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020613a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L				254717	1
	As	75		ug/L				200	0
	As-1	75		ug/L				7304	0
	Se	82		ug/L				-6	219
	Se	78		ug/L				7429	0
	Cl	37		mg/L				2274202	0
	Y	89		ug/L				250297	1
	Kr	83		ug/L				145	9
>	In	115		ug/L				260330	1
	Ag	107		ug/L				29	19
	Cd	111		ug/L				125	11
	Cd	114		ug/L				25	19
	Sb	121		ug/L				19	35
	Sb	123		ug/L				18	39
>	Tb	159		ug/L				303244	0
	Tl	205		ug/L				42	24
	Pb	208		ug/L				562	36
	Bi	209		ug/L				248344	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 08:40:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020613a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	251113	0
|	As	75	10.000	ug/L	0.062	0	200	14800	0
|	As-1	75	10.000	ug/L	0.209	2	7304	21602	1
|	Se	82	10.000	ug/L	0.228	2	-6	1565	2
|	Se	78	10.000	ug/L	0.328	3	7429	11128	0
	Cl	37		mg/L			2274202	2262670	0
	Y	89		ug/L			250297	244680	1
	Kr	83		ug/L			145	148	2
[>	In	115		ug/L			260330	255697	0
|	Ag	107	10.000	ug/L	0.232	2	29	85033	1
|	Cd	111	10.000	ug/L	0.179	1	125	21971	1
|	Cd	114	10.000	ug/L	0.041	0	25	50225	1
|	Sb	121	10.000	ug/L	0.034	0	19	72908	0
|	Sb	123	10.000	ug/L	0.053	0	18	55114	0
[>	Tb	159		ug/L			303244	298458	0
|	Tl	205	10.000	ug/L	0.052	0	42	208511	0
|	Pb	208	10.000	ug/L	0.089	0	562	288213	0
|	Bi	209		ug/L			248344	243288	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 08:45:17
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020613a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	253119	1
	As	75	19.994	ug/L	0.202	1	200	29592	0
	As-1	75	19.983	ug/L	0.300	1	7304	36169	0
	Se	82	20.016	ug/L	0.272	1	-6	3174	0
	Se	78	19.970	ug/L	0.563	2	7429	14993	0
	Cl	37		mg/L			2274202	2269501	0
	Y	89		ug/L			250297	244502	0
	Kr	83		ug/L			145	149	3
>	In	115		ug/L			260330	259673	0
	Ag	107	19.960	ug/L	0.445	2	29	170963	1
	Cd	111	19.909	ug/L	0.259	1	125	43510	1
	Cd	114	19.938	ug/L	0.367	1	25	100433	1
	Sb	121	20.025	ug/L	0.160	0	19	148994	1
	Sb	123	19.983	ug/L	0.224	1	18	111438	0
>	Tb	159		ug/L			303244	299678	0
	Tl	205	20.042	ug/L	0.544	2	42	423020	2
	Pb	208	19.985	ug/L	0.091	0	562	576083	0
	Bi	209		ug/L			248344	247090	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 08:50:06
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020613a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L			254717	254224	1
|	As	75	49.951	ug/L	0.566	1	200	73589	0
|	As-1	75	49.936	ug/L	0.724	1	7304	79385	0
|	Se	82	49.901	ug/L	0.570	1	-6	7879	1
⌊	Se	78	49.833	ug/L	1.089	2	7429	26174	0
	Cl	37		mg/L			2274202	2279403	0
	Y	89		ug/L			250297	249944	1
	Kr	83		ug/L			145	152	1
⌈>	In	115		ug/L			260330	259260	0
|	Ag	107	49.965	ug/L	0.351	0	29	425806	0
|	Cd	111	50.011	ug/L	0.454	0	125	109053	0
|	Cd	114	49.915	ug/L	0.397	0	25	248873	0
|	Sb	121	49.987	ug/L	0.536	1	19	370800	1
⌊	Sb	123	50.001	ug/L	0.366	0	18	278418	0
⌈>	Tb	159		ug/L			303244	301524	1
|	Tl	205	49.968	ug/L	0.971	1	42	1057829	2
|	Pb	208	49.957	ug/L	0.555	1	562	1441733	0
⌊	Bi	209		ug/L			248344	250632	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 08:54:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020613a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L			254717	245474	0
|	As	75	100.358	ug/L	0.343	0	200	144305	0
|	As-1	75	100.265	ug/L	0.338	0	7304	148081	0
|	Se	82	100.565	ug/L	0.700	0	-6	15634	0
⌊	Se	78	100.224	ug/L	0.846	0	7429	43872	0
	Cl	37		mg/L			2274202	2258246	0
	Y	89		ug/L			250297	244776	0
	Kr	83		ug/L			145	159	2
⌈>	In	115		ug/L			260330	254425	1
|	Ag	107	99.886	ug/L	0.404	0	29	832172	0
|	Cd	111	100.237	ug/L	0.643	0	125	216074	0
|	Cd	114	100.351	ug/L	2.077	2	25	496818	2
|	Sb	121	100.174	ug/L	0.624	0	19	733434	0
⌊	Sb	123	100.307	ug/L	1.839	1	18	553704	0
⌈>	Tb	159		ug/L			303244	297909	0
|	Tl	205	101.283	ug/L	1.386	1	42	2213018	0
|	Pb	208	99.820	ug/L	1.033	1	562	2828937	1
⌊	Bi	209		ug/L			248344	241355	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 08:59:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020613a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	251536	0
	As	75	0.011	ug/L	0.020	177	200	214	13
	As-1	75	0.167	ug/L	0.003	2	7304	7453	0
	Se	82	0.023	ug/L	0.039	171	-6	-2	228
	Se	78	0.612	ug/L	0.049	8	7429	7566	0
	Cl	37		mg/L			2274202	2272068	0
	Y	89		ug/L			250297	251606	0
	Kr	83		ug/L			145	142	2
>	In	115		ug/L			260330	266887	0
	Ag	107	0.011	ug/L	0.002	17	29	128	12
	Cd	111	-0.002	ug/L	0.006	350	125	124	9
	Cd	114	-0.000	ug/L	0.001	150	25	24	11
	Sb	121	0.057	ug/L	0.016	27	19	455	25
	Sb	123	0.054	ug/L	0.012	22	18	329	20
>	Tb	159		ug/L			303244	303697	1
	Tl	205	0.005	ug/L	0.001	15	42	148	12
	Pb	208	0.004	ug/L	0.000	10	562	679	2
	Bi	209		ug/L			248344	254143	0

Quantitative Analysis - Calibration Report

Sample Date/Time: Friday, February 08, 2013 08:54:56
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Ge	72							
As	75	1.0000	0.0058	10	20	50	100	
As-1	75	1.0000	0.0057	10	20	50	100	
Se	82	0.9999	0.0006	10	20	50	100	
Se	78	1.0000	0.0015	10	20	50	100	
Cl	37							
Y	89							
Kr	83							
In	115							
Ag	107	1.0000	0.0327	10	20	50	100	
Cd	111	1.0000	0.0085	10	20	50	100	
Cd	114	1.0000	0.0195	10	20	50	100	
Sb	121	1.0000	0.0288	10	20	50	100	
Sb	123	1.0000	0.0217	10	20	50	100	
Tb	159							
Tl	205	0.9997	0.0733	10	20	50	100	
Pb	208	1.0000	0.0951	10	20	50	100	
Bi	209							

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:07:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	258962	1
	As	75	51.373	ug/L	0.142	0	200	78026	0
	As-1	75	50.808	ug/L	0.471	0	7304	82821	0
	Se	82	80.600	ug/L	0.384	0	-6	13217	0
	Se	78	80.738	ug/L	1.595	1	7429	38750	0
	Cl	37		mg/L			2274202	2292791	0
	Y	89		ug/L			250297	257636	0
	Kr	83		ug/L			145	159	6
>	In	115		ug/L			260330	270600	1
	Ag	107	50.839	ug/L	0.676	1	29	450448	0
	Cd	111	49.037	ug/L	1.182	2	125	112477	1
	Cd	114	48.894	ug/L	0.952	1	25	257411	0
	Sb	121	48.954	ug/L	0.668	1	19	381189	0
	Sb	123	48.558	ug/L	0.713	1	18	285095	0
>	Tb	159		ug/L			303244	313943	0
	Tl	205	47.573	ug/L	0.449	0	42	1095464	0
	Pb	208	50.630	ug/L	0.123	0	562	1512408	0
	Bi	209		ug/L			248344	255882	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:12:39
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	254577 ✓	0
|	As	75	0.023	ug/L	0.020	89	200	234	12
|	As-1	75	0.141	ug/L	0.039	27	7304	7505	0
|	Se	82	-0.020	ug/L	0.096	487	-6	-9	162
|	Se	78	0.453	ug/L	0.155	34	7429	7597	0
	Cl	37		mg/L			2274202	2308440	0
	Y	89		ug/L			250297	255062	0
	Kr	83		ug/L			145	148	5
[>	In	115		ug/L			260330	267892 ✓	1
|	Ag	107	0.007	ug/L	0.001	14	29	95	10
|	Cd	111	-0.002	ug/L	0.002	129	125	124	5
|	Cd	114	-0.000	ug/L	0.001	275	25	24	27
|	Sb	121	0.022	ug/L	0.007	30	19	192	26
|	Sb	123	0.021	ug/L	0.005	21	18	143	18
[>	Tb	159		ug/L			303244	304432 ✓	0
|	Tl	205	0.001	ug/L	0.000	18	42	65	6
|	Pb	208	0.005	ug/L	0.001	18	562	702	3
|	Bi	209		ug/L			248344	253604	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:16:59
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	250221 ✓	0
|	As	75	49.847	ug/L	0.371	0	200	73159	0
|	As-1	75	50.119	ug/L	0.255	0	7304	79041	0
|	Se	82	50.455	ug/L	0.952	1	-6	7992	1
|	Se	78	51.589	ug/L	0.623	1	7429	26560	0
	Cl	37		mg/L			2274202	2280222	0
	Y	89		ug/L			250297	250827	1
	Kr	83		ug/L			145	158	4
[>	In	115		ug/L			260330	263090 ✓	0
|	Ag	107	50.000	ug/L	0.564	1	29	430750	0
|	Cd	111	49.709	ug/L	0.432	0	125	110870	0
|	Cd	114	49.555	ug/L	0.957	1	25	253672	1
|	Sb	121	49.471	ug/L	0.815	1	19	374542	1
|	Sb	123	49.335	ug/L	0.723	1	18	281636	0
[>	Tb	159		ug/L			303244	303097 ✓	0
|	Tl	205	48.067	ug/L	0.252	0	42	1068581	0
|	Pb	208	50.586	ug/L	0.356	0	562	1458834	0
|	Bi	209		ug/L			248344	250673	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:22:09
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	255085 ✓	1
	As	75	0.015	ug/L	0.021	139	200	223	13
	As-1	75	0.149	ug/L	0.103	68	7304	7531	0
	Se	82	0.002	ug/L	0.041	2192	-6	-6	111
	Se	78	0.537	ug/L	0.384	71	7429	7643	0
	Cl	37		mg/L			2274202	2302945	0
	Y	89		ug/L			250297	254262	1
	Kr	83		ug/L			145	148	0
>	In	115		ug/L			260330	268888 ✓	0
	Ag	107	0.007	ug/L	0.001	14	29	94	10
	Cd	111	0.003	ug/L	0.009	295	125	136	15
	Cd	114	-0.001	ug/L	0.001	92	25	19	31
	Sb	121	0.023	ug/L	0.006	26	19	195	23
	Sb	123	0.023	ug/L	0.004	15	18	153	13
>	Tb	159		ug/L			303244	305440 ✓	1
	Tl	205	0.002	ug/L	0.000	11	42	85	6
	Pb	208	0.004	ug/L	0.000	10	562	690	2
	Bi	209		ug/L			248344	259569	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:26:28
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L			254717	252554✓	0
|	As	75	0.220	ug/L	0.016	7	200	524	4
|	As-1	75	0.391	ug/L	0.034	8	7304	7808	0
|	Se	82	0.467	ug/L	0.029	6	-6	68	6
L	Se	78	1.207	ug/L	0.128	10	7429	7821	0
	Cl	37		mg/L			2274202	2342527	0
	Y	89		ug/L			250297	252975	0
	Kr	83		ug/L			145	153	4
⌈>	In	115		ug/L			260330	264452✓	1
|	Ag	107	0.204	ug/L	0.002	0	29	1793	2
|	Cd	111	0.105	ug/L	0.002	1	125	363	2
|	Cd	114	0.106	ug/L	0.002	1	25	572	1
|	Sb	121	0.207	ug/L	0.007	3	19	1591	1
L	Sb	123	0.205	ug/L	0.005	2	18	1196	1
⌈>	Tb	159		ug/L			303244	304033✓	1
|	Tl	205	0.205	ug/L	0.002	1	42	4608	0
|	Pb	208	0.098	ug/L	0.003	3	562	3399	1
L	Bi	209		ug/L			248344	253704	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:30:48
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	243192 ✓	1
	As	75	0.124	ug/L	0.031	24	200	368	13
	As-1	75	0.261	ug/L	0.056	21	7304	7337	1
	Se	82	-0.050	ug/L	0.070	140	-6	-13	77
	Se	78	0.674	ug/L	0.269	39	7429	7337	0
	Cl	37		mg/L			2274202	3857196	0
	Y	89		ug/L			250297	242606	1
	Kr	83		ug/L			145	168	2
>	In	115		ug/L			260330	251858 ✓	1
	Ag	107	0.030	ug/L	0.006	20	29	280	19
	Cd	111	0.061	ug/L	0.023	37	125	251	18
	Cd	114	0.667	ug/L	0.014	2	25	3295	3
	Sb	121	0.069	ug/L	0.001	1	19	517	0
	Sb	123	0.063	ug/L	0.003	5	18	364	5
>	Tb	159		ug/L			303244	296960 ✓	1
	Tl	205	0.031	ug/L	0.000	1	42	724	2
	Pb	208	0.020	ug/L	0.001	5	562	1115	1
	Bi	209		ug/L			248344	241158	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:35:37
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L			254717	241558 ✓	0
|	As	75	19.754	ug/L	0.045	0	200	28104	0
|	As-1	75	20.243	ug/L	0.051	0	7304	34948	0
|	Se	82	-0.070	ug/L	0.068	96	-6	-16	61
⌊	Se	78	0.432	ug/L	0.064	14	7429	7201	0
	Cl	37		mg/L			2274202	3776839	0
	Y	89		ug/L			250297	240942	0
	Kr	83		ug/L			145	167	3
⌈>	In	115		ug/L			260330	250061 ✓	1
|	Ag	107	20.076	ug/L	0.403	2	29	164393	1
|	Cd	111	20.035	ug/L	0.400	1	125	42538	0
|	Cd	114	20.951	ug/L	0.410	1	25	101948	1
|	Sb	121	0.068	ug/L	0.004	6	19	507	5
⌊	Sb	123	0.061	ug/L	0.007	11	18	351	11
⌈>	Tb	159		ug/L			303244	295456 ✓	1
|	Tl	205	0.030	ug/L	0.002	5	42	698	4
|	Pb	208	0.020	ug/L	0.001	3	562	1098	0
⌊	Bi	209		ug/L			248344	242238	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:40:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	244242 ✓	0
	As	75	199.057	ug/L	2.155	1	200	284594	0
	As-1	75	199.592	ug/L	2.089	1	7304	286357	0
	Se	82	197.465	ug/L	2.624	1	-6	30550	1
[	Se	78	199.369	ug/L	2.313	1	7429	79787	0
	Cl	37		mg/L			2274202	2254806	0
	Y	89		ug/L			250297	245706	1
	Kr	83		ug/L			145	174	2
[>	In	115		ug/L			260330	253987 ✓	2
	Ag	107	195.806	ug/L	2.428	1	29	1628424	2
	Cd	111	198.363	ug/L	2.149	1	125	426785	2
	Cd	114	197.817	ug/L	2.451	1	25	977444	1
	Sb	121	202.150	ug/L	1.373	0	19	1477447	1
[	Sb	123	201.430	ug/L	4.509	2	18	1109788	0
[>	Tb	159		ug/L			303244	300818 ✓	1
	Tl	205	204.201	ug/L	4.150	2	42	4504902	1
	Pb	208	209.143	ug/L	2.195	1	562	5984052	0
[	Bi	209		ug/L			248344	236823	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:45:33
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	247228 ✓	0
|	As	75	298.668	ug/L	3.538	1	200	432126	0
|	As-1	75	298.565	ug/L	3.368	1	7304	430069	0
|	Se	82	299.191	ug/L	4.888	1	-6	46856	1
[	Se	78	298.826	ug/L	4.330	1	7429	117452	0
	Cl	37		mg/L			2274202	2276869	0
	Y	89		ug/L			250297	252609	2
	Kr	83		ug/L			145	196	1
[>	In	115		ug/L			260330	265000 ✓	1
|	Ag	107	310.896	ug/L	6.662	2	29	2697757	2
|	Cd	111	290.993	ug/L	3.386	1	125	653165	1
|	Cd	114	293.141	ug/L	6.553	2	25	1511419	2
|	Sb	121	318.677	ug/L	1.740	0	19	2430268	1
[	Sb	123	298.124	ug/L	2.122	0	18	1714221	1
[>	Tb	159		ug/L			303244	306870 ✓	1
|	Tl	205	308.022	ug/L	2.088	0	42	6932598	0
|	Pb	208	317.635	ug/L	2.145	0	562	9271624	1
[	Bi	209		ug/L			248344	234913	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:50:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	254722 ✓	1
	As	75	50.286	ug/L	0.618	1	200	75125	0
	As-1	75	50.249	ug/L	0.507	1	7304	80648	0
	Se	82	51.721	ug/L	0.806	1	-6	8339	0
	Se	78	51.747	ug/L	0.472	0	7429	27098	0
	Cl	37		mg/L			2274202	2308352	1
	Y	89		ug/L			250297	261298	1
	Kr	83		ug/L			145	163	0
>	In	115		ug/L			260330	275375 ✓	0
	Ag	107	50.617	ug/L	0.348	0	29	456441	0
	Cd	111	49.757	ug/L	0.339	0	125	116160	0
	Cd	114	49.139	ug/L	0.350	0	25	263309	0
	Sb	121	49.599	ug/L	0.422	0	19	393087	1
	Sb	123	48.730	ug/L	0.839	1	18	291171	1
>	Tb	159		ug/L			303244	308859 ✓	0
	Tl	205	48.561	ug/L	0.918	1	42	1100046	1
	Pb	208	51.414	ug/L	0.546	1	562	1510939	1
	Bi	209		ug/L			248344	258925	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 09:55:52
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Ge**	**72**		ug/L			254717	254949 ✓	0
|	**As**	**75**	**0.048**	ug/L	0.027	56	200	272	14
|	**As-1**	**75**	**0.297**	ug/L	0.009	2	7304	7744	0
|	**Se**	**82**	**0.025**	ug/L	0.047	190	-6	-2	318
L	**Se**	**78**	**1.039**	ug/L	0.052	5	7429	7831	0
	Cl	**37**		mg/L			2274202	2319774	1
	Y	**89**		ug/L			250297	259314	0
	Kr	**83**		ug/L			145	154	3
[>	**In**	**115**		ug/L			260330	275284 ✓	1
|	**Ag**	**107**	**0.014**	ug/L	0.005	33	29	153	25
|	**Cd**	**111**	**0.004**	ug/L	0.007	178	125	141	13
|	**Cd**	**114**	**-0.002**	ug/L	0.001	56	25	16	37
|	**Sb**	**121**	**0.055**	ug/L	0.010	18	19	458	16
L	**Sb**	**123**	**0.053**	ug/L	0.004	7	18	334	4
[>	**Tb**	**159**		ug/L			303244	306935 ✓	1
|	**Tl**	**205**	**0.006**	ug/L	0.002	33	42	180	26
|	**Pb**	**208**	**0.004**	ug/L	0.001	15	562	693	1
L	**Bi**	**209**		ug/L			248344	263970	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 10:03:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	256548 ✓	0
	As	75	U 0.009	ug/L	0.004	40	200	216	3
	As-1	75	0.312	ug/L	0.027	8	7304	7815	0
	Se	82	-0.069	ug/L	0.051	73	-6	-17	47
	Se	78	1.107	ug/L	0.150	13	7429	7906	0
	Cl	37		mg/L			2274202	2289443	0
	Y	89		ug/L			250297	261857	1
	Kr	83		ug/L			145	149	3
>	In	115		ug/L			260330	274065 ✓	0
	Ag	107	0.006	ug/L	0.002	33	29	75	20
	Cd	111	U 0.002	ug/L	0.003	154	125	136	6
	Cd	114	-0.002	ug/L	0.001	29	25	14	27
	Sb	121	U 0.048	ug/L	0.003	6	19	401	6
	Sb	123	0.053	ug/L	0.004	6	18	333	6
>	Tb	159		ug/L			303244	312993 ✓	1
	Tl	205	U 0.005	ug/L	0.002	31	42	159	23
	Pb	208	U 0.001	ug/L	0.001	78	562	620	3
	Bi	209		ug/L			248344	263898	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC43 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 10:07:49
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Ge**	**72**		ug/L			254717	258736 ✓	0
|	**As**	**75**	**4.334**	ug/L	0.019	0	200	6764	0
|	**As-1**	**75**	**4.549**	ug/L	0.054	1	7304	14164	0
|	**Se**	**82**	**0.138**	ug/L	0.045	32	-6	16	45
|	**Se**	**78**	**0.793**	ug/L	0.124	15	7429	7853	0
	Cl	**37**		mg/L			2274202	2308717	1
	Y	**89**		ug/L			250297	367673	0
	Kr	**83**		ug/L			145	172	5
[>	**In**	**115**		ug/L			260330	274818 ✓	0
|	**Ag**	**107**	**0.066**	ug/L	0.003	4	29	629	5
|	**Cd**	**111**	**0.333**	ug/L	0.006	1	125	907	1
|	**Cd**	**114**	**0.198**	ug/L	0.009	4	25	1084	4
|	**Sb**	**121**	**0.025**	ug/L	0.001	4	19	221	4
|	**Sb**	**123**	**0.027**	ug/L	0.002	7	18	180	6
[>	**Tb**	**159**		ug/L			303244	319774 ✓	0
|	**Tl**	**205**	**0.131**	ug/L	0.004	3	42	3119	2
|	**Pb**	**208**	**3.008**	ug/L	0.011	0	562	92083	1
|	**Bi**	**209**		ug/L			248344	266029	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC43 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 10:12:38
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	268712	1
|	As	75	4.612	ug/L	0.130	2	200	7460	1
|	As-1	75	4.690	ug/L	0.164	3	7304	14925	0
|	Se	82	0.212	ug/L	0.033	15	-6	29	20
|	Se	78	0.299	ug/L	0.243	81	7429	7957	1
	Cl	37		mg/L			2274202	2326307	0
	Y	89		ug/L			250297	370111	0
	Kr	83		ug/L			145	175	3
[>	In	115		ug/L			260330	283578	1
|	Ag	107	0.115	ug/L	0.002	1	29	1100	0
|	Cd	111	0.574	ug/L	0.021	3	125	1515	3
|	Cd	114	0.443	ug/L	0.009	2	25	2473	2
|	Sb	121	0.035	ug/L	0.001	3	19	302	1
|	Sb	123	0.035	ug/L	0.005	13	18	233	11
[>	Tb	159		ug/L			303244	328192	2
|	Tl	205	0.151	ug/L	0.002	1	42	3670	2
|	Pb	208	11.991	ug/L	0.250	2	562	374809	0
|	Bi	209		ug/L			248344	268158	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 10:17:26
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	257183 ✓	1
|	As	75	4.959	ug/L	0.058	1	200	7662	0
|	As-1	75	5.364	ug/L	0.081	1	7304	15278	0
|	Se	82	0.151	ug/L	0.046	30	-6	18	41
|	Se	78	1.389	ug/L	0.129	9	7429	8034	0
	Cl	37		mg/L			2274202	2433543	0
	Y	89		ug/L			250297	270722	0
	Kr	83		ug/L			145	157	1
[>	In	115		ug/L			260330	274988 ✓	1
|	Ag	107	0.012	ug/L	0.001	5	29	142	3
|	Cd	111	U 0.047	ug/L	0.005	9	125	241	3
|	Cd	114	0.019	ug/L	0.001	3	25	128	1
|	Sb	121	0.715	ug/L	0.019	2	19	5675	2
|	Sb	123	0.712	ug/L	0.014	1	18	4267	0
[>	Tb	159		ug/L			303244	317766 ✓	0
|	Tl	205	U 0.004	ug/L	0.002	42	42	129	28
|	Pb	208	0.330	ug/L	0.003	0	562	10577	0
|	Bi	209		ug/L			248344	256750	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 10:22:17
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	269800 ✓	0
|	As	75	0.719	ug/L	0.007	0	200	1348	1
|	As-1	75	0.883	ug/L	0.073	8	7304	9102	0
|	Se	82	0.144	ug/L	0.061	42	-6	17	58
L	Se	78	0.696	ug/L	0.248	35	7429	8149	0
	Cl	37		mg/L			2274202	2460446	1
	Y	89		ug/L			250297	270938	1
	Kr	83		ug/L			145	148	2
[>	In	115		ug/L			260330	282804 ✓	1
|	Ag	107	0.001	ug/L	0.001	58	29	43	15
|	Cd	111	U 0.026	ug/L	0.006	24	125	197	7
|	Cd	114	0.025	ug/L	0.002	6	25	163	6
|	Sb	121	0.307	ug/L	0.009	2	19	2521	2
L	Sb	123	0.304	ug/L	0.003	0	18	1888	2
[>	Tb	159		ug/L			303244	324752 ✓	0
|	Tl	205	U 0.001	ug/L	0.000	57	42	64	17
|	Pb	208	U 0.015	ug/L	0.001	8	562	1052	3
L	Bi	209		ug/L			248344	268238	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 10:27:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	261010 ✓	0
	As	75	2.536	ug/L	0.002	0	200	4078	0
	As-1	75	2.800	ug/L	0.013	0	7304	11672	0
	Se	82	0.118	ug/L	0.036	30	-6	12	46
[	Se	78	0.961	ug/L	0.033	3	7429	7987	0
	Cl	37		mg/L			2274202	2469579	0
	Y	89		ug/L			250297	264366	1
	Kr	83		ug/L			145	152	2
[>	In	115		ug/L			260330	272060 ✓	0
	Ag	107	0.004	ug/L	0.000	7	29	63	4
	Cd	111	U 0.031	ug/L	0.009	29	125	202	10
	Cd	114	0.023	ug/L	0.004	17	25	146	14
	Sb	121	0.560	ug/L	0.009	1	19	4408	2
[	Sb	123	0.555	ug/L	0.007	1	18	3296	0
[>	Tb	159		ug/L			303244	311655 ✓	0
	Tl	205	U 0.002	ug/L	0.000	18	42	79	7
	Pb	208	0.145	ug/L	0.003	2	562	4870	1
[	Bi	209		ug/L			248344	258707	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 10:31:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	259513 ✓	0
	As	75	2.475	ug/L	0.027	1	200	3961	0
	As-1	75	2.658	ug/L	0.069	2	7304	11394	0
	Se	82	0.106	ug/L	0.066	61	-6	10	97
	Se	78	0.645	ug/L	0.173	26	7429	7818	0
	Cl	37		mg/L			2274202	2483690	0
	Y	89		ug/L			250297	258771	1
	Kr	83		ug/L			145	151	6
>	In	115		ug/L			260330	267017 ✓	0
	Ag	107	0.004	ug/L	0.001	38	29	63	19
	Cd	111	∧ 0.025	ug/L	0.003	12	125	184	4
	Cd	114	0.024	ug/L	0.001	5	25	148	3
	Sb	121	0.553	ug/L	0.012	2	19	4269	2
	Sb	123	0.560	ug/L	0.005	0	18	3262	0
>	Tb	159		ug/L			303244	309151 ✓	1
	Tl	205	∧ 0.002	ug/L	0.001	50	42	81	23
	Pb	208	0.143	ug/L	0.002	1	562	4790	0
	Bi	209		ug/L			248344	254297	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 10:36:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	255773 ✓	0
	As	75	29.247	ug/L	0.294	1	200	43961	0
	As-1	75	28.407	ug/L	0.388	1	7304	48970	0
	Se	82	80.528	ug/L	0.559	0	-6	13043	0
	Se	78	81.354	ug/L	0.929	1	7429	38511	0
	Cl	37		mg/L			2274202	2463286	0
	Y	89		ug/L			250297	256901	1
	Kr	83		ug/L			145	155	4
>	In	115		ug/L			260330	267068 ✓	0
	Ag	107	24.819	ug/L	0.267	1	29	217064	0
	Cd	111	24.455	ug/L	0.547	2	125	55431	1
	Cd	114	24.894	ug/L	0.197	0	25	129381	0
	Sb	121	24.164	ug/L	0.111	0	19	185728	0
	Sb	123	23.908	ug/L	0.188	0	18	138560	0
>	Tb	159		ug/L			303244	306010 ✓	1
	Tl	205	24.816	ug/L	0.625	2	42	556959	2
	Pb	208	26.470	ug/L	0.173	0	562	770961	1
	Bi	209		ug/L			248344	253073	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WC79 APOST REN~~ 222222
Sample Dil Factor: 2 BA 2/8/13
Comments:
Sample Date/Time: Friday, February 08, 2013 10:41:34
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L			254717	251749	1
|	As	75	28.914	ug/L	0.116	0	200	42778	0
|	As-1	75	28.209	ug/L	0.150	0	7304	47913	0
|	Se	82	79.193	ug/L	0.766	0	-6	12624	0
⌊	Se	78	80.486	ug/L	1.020	1	7429	37577	0
	Cl	37		mg/L			2274202	2450254	0
	Y	89		ug/L			250297	253114	0
	Kr	83		ug/L			145	157	2
⌈>	In	115		ug/L			260330	258803	0
|	Ag	107	24.785	ug/L	0.175	0	29	210065	0
|	Cd	111	24.163	ug/L	0.227	0	125	53083	1
|	Cd	114	24.026	ug/L	0.562	2	25	120998	1
|	Sb	121	0.540	ug/L	0.021	3	19	4041	4
⌊	Sb	123	0.572	ug/L	0.049	8	18	3230	8
⌈>	Tb	159		ug/L			303244	299850	1
|	Tl	205	24.417	ug/L	0.622	2	42	536889	0
|	Pb	208	26.062	ug/L	0.572	2	562	743656	0
⌊	Bi	209		ug/L			248344	248395	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 10:46:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Ge**	**72**		ug/L			254717	258039 ✓	0
|	**As**	**75**	**26.601**	ug/L	0.223	0	200	40356	0
|	**As-1**	**75**	**25.721**	ug/L	0.111	0	7304	45433	0
|	**Se**	**82**	**80.615**	ug/L	1.455	1	-6	13172	1
|	**Se**	**78**	**81.491**	ug/L	0.854	1	7429	38905	0
	Cl	**37**		mg/L			2274202	2388621	0
	Y	**89**		ug/L			250297	252604	0
	Kr	**83**		ug/L			145	154	2
[>	**In**	**115**		ug/L			260330	265218 ✓	1
|	**Ag**	**107**	**25.664**	ug/L	0.489	1	29	222879	1
|	**Cd**	**111**	**25.031**	ug/L	0.473	1	125	56334	0
|	**Cd**	**114**	**25.125**	ug/L	0.505	2	25	129654	0
|	**Sb**	**121**	**23.778**	ug/L	0.311	1	19	181472	0
|	**Sb**	**123**	**23.897**	ug/L	0.416	1	18	137511	0
[>	**Tb**	**159**		ug/L			303244	307615 ✓	0
|	**Tl**	**205**	**25.158**	ug/L	0.444	1	42	567633	1
|	**Pb**	**208**	**26.803**	ug/L	0.268	0	562	784782	1
|	**Bi**	**209**		ug/L			248344	258348	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 10:51:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	**Ge**	**72**		ug/L			254717	253173 ✓	0
|	**As**	**75**	**49.030**	ug/L	0.392	0	200	72810	0
|	**As-1**	**75**	**49.375**	ug/L	0.312	0	7304	78891	0
|	**Se**	**82**	**49.202**	ug/L	0.740	1	-6	7885	0
⌊	**Se**	**78**	**50.612**	ug/L	0.581	1	7429	26504	0
	Cl	**37**		mg/L			2274202	2413680	1
	Y	**89**		ug/L			250297	247092	0
	Kr	**83**		ug/L			145	165	4
⌈>	**In**	**115**		ug/L			260330	257302 ✓	1
|	**Ag**	**107**	**49.661**	ug/L	0.411	0	29	418449	1
|	**Cd**	**111**	**49.300**	ug/L	0.731	1	125	107533	0
|	**Cd**	**114**	**49.788**	ug/L	0.773	1	25	249260	0
|	**Sb**	**121**	**49.914**	ug/L	0.377	0	19	369603	1
⌊	**Sb**	**123**	**50.061**	ug/L	0.788	1	18	279484	0
⌈>	**Tb**	**159**		ug/L			303244	297645 ✓	1
|	**Tl**	**205**	**48.014**	ug/L	0.703	1	42	1048157	1
|	**Pb**	**208**	**50.109**	ug/L	0.509	1	562	1418983	0
⌊	**Bi**	**209**		ug/L			248344	245276	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 10:56:23
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Ge**	**72**		ug/L			254717	253732 ✓	0
	As	**75**	**0.035**	ug/L	0.010	28	200	251	5
	As-1	**75**	**0.198**	ug/L	0.038	19	7304	7563	0
	Se	**82**	**-0.086**	ug/L	0.039	45	-6	-20	31
	Se	**78**	**0.666**	ug/L	0.149	22	7429	7652	0
	Cl	**37**		mg/L			2274202	2488215	0
	Y	**89**		ug/L			250297	246881	0
	Kr	**83**		ug/L			145	164	1
>	**In**	**115**		ug/L			260330	262318 ✓	0
	Ag	**107**	**0.005**	ug/L	0.000	4	29	70	2
	Cd	**111**	**0.007**	ug/L	0.003	48	125	141	5
	Cd	**114**	**-0.002**	ug/L	0.001	27	25	13	23
	Sb	**121**	**0.023**	ug/L	0.005	21	19	193	19
	Sb	**123**	**0.022**	ug/L	0.007	30	18	143	26
>	**Tb**	**159**		ug/L			303244	293672 ✓	0
	Tl	**205**	**0.003**	ug/L	0.001	19	42	98	11
	Pb	**208**	**0.005**	ug/L	0.001	12	562	685	3
	Bi	**209**		ug/L			248344	246701	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:00:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Ge	72		ug/L			254717	259015	0
As	75	0.030	ug/L	0.023	75	200	250	13
As-1	75	0.155	ug/L	0.028	17	7304	7657	0
Se	82	0.044	ug/L	0.057	127	-6	0	1125
Se	78	0.502	ug/L	0.078	15	7429	7748	0
Cl	37		mg/L			2274202	2458051	0
Y	89		ug/L			250297	255232	0
Kr	83		ug/L			145	144	6
In	115		ug/L			260330	271461	0
Ag	107	0.002	ug/L	0.001	51	29	46	16
Cd	111	0.011	ug/L	0.005	49	125	155	7
Cd	114	-0.001	ug/L	0.000	35	25	20	12
Sb	121	0.040	ug/L	0.003	6	19	332	6
Sb	123	0.037	ug/L	0.002	6	18	240	6
Tb	159		ug/L			303244	307657	0
Tl	205	0.003	ug/L	0.001	35	42	106	21
Pb	208	0.006	ug/L	0.001	19	562	755	4
Bi	209		ug/L			248344	259139	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:05:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	257949 ✓	0
	As	75	263.306	ug/L	2.941	1	200	397526	1
	As-1	75	268.824	ug/L	3.031	1	7304	404777	1
	Se	82	0.359	ug/L	0.060	16	-6	52	19
	Se	78	0.553	ug/L	0.144	26	7429	7736	0
	Cl	37		mg/L			2274202	2477124	0
	Y	89		ug/L			250297	261603	0
	Kr	83		ug/L			145	149	3
>	In	115		ug/L			260330	269387 ✓	2
	Ag	107	0.007	ug/L	0.001	19	29	92	12
	Cd	111	U 0.031	ug/L	0.015	47	125	199	16
	Cd	114	0.027	ug/L	0.002	9	25	166	9
	Sb	121	1.467	ug/L	0.024	1	19	11393	0
	Sb	123	1.444	ug/L	0.019	1	18	8464	3
>	Tb	159		ug/L			303244	311214 ✓	2
	Tl	205	U 0.002	ug/L	0.000	21	42	88	9
	Pb	208	0.327	ug/L	0.007	2	562	10248	3
	Bi	209		ug/L			248344	254992	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:10:19
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Ge**	**72**		ug/L			254717	250728 ✓	0
|	**As**	**75**	**233.163**	ug/L	2.386	1	200	342167	0
|	**As-1**	**75**	**238.108**	ug/L	2.461	1	7304	349293	0
|	**Se**	**82**	**0.303**	ug/L	0.081	26	-6	41	31
|	**Se**	**78**	**0.761**	ug/L	0.121	15	7429	7598	0
	Cl	**37**		mg/L			2274202	2433660	0
	Y	**89**		ug/L			250297	249465	1
	Kr	**83**		ug/L			145	154	6
[>	**In**	**115**		ug/L			260330	258680 ✓	0
|	**Ag**	**107**	**0.038**	ug/L	0.004	9	29	348	8
|	**Cd**	**111**	U **0.068**	ug/L	0.010	14	125	273	8
|	**Cd**	**114**	**0.069**	ug/L	0.000	0	25	375	0
|	**Sb**	**121**	**9.113**	ug/L	0.094	1	19	67856	0
|	**Sb**	**123**	**9.050**	ug/L	0.079	0	18	50814	0
[>	**Tb**	**159**		ug/L			303244	298197 ✓	0
|	**Tl**	**205**	U **0.004**	ug/L	0.000	10	42	119	5
|	**Pb**	**208**	**2.326**	ug/L	0.042	1	562	66528	0
|	**Bi**	**209**		ug/L			248344	244755	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:15:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	248117 ✓	0
|	As	75	2.078	ug/L	0.016	0	200	3211	0
|	As-1	75	2.280	ug/L	0.042	1	7304	10357	0
|	Se	82	0.276	ug/L	0.045	16	-6	37	19
|	Se	78	0.980	ug/L	0.110	11	7429	7600	0
	Cl	37		mg/L			2274202	2668132	0
	Y	89		ug/L			250297	247737	0
	Kr	83		ug/L			145	151	4
[>	In	115		ug/L			260330	257699 ✓	0
|	Ag	107	0.001	ug/L	0.001	71	29	38	16
|	Cd	111	U 0.000	ug/L	0.010	22789	125	124	18
|	Cd	114	0.007	ug/L	0.002	23	25	59	14
|	Sb	121	0.324	ug/L	0.009	2	19	2419	2
|	Sb	123	0.321	ug/L	0.005	1	18	1814	1
[>	Tb	159		ug/L			303244	300628 ✓	0
|	Tl	205	U 0.001	ug/L	0.000	55	42	59	15
|	Pb	208	U 0.030	ug/L	0.001	2	562	1428	0
|	Bi	209		ug/L			248344	241349	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:19:54
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	250698 ✓	0
	As	75	0.768	ug/L	0.022	2	200	1324	3
	As-1	75	0.952	ug/L	0.056	5	7304	8555	0
	Se	82	0.147	ug/L	0.114	77	-6	17	105
	Se	78	0.912	ug/L	0.217	23	7429	7653	0
	Cl	37		mg/L			2274202	2542383	0
	Y	89		ug/L			250297	253540	1
	Kr	83		ug/L			145	159	5
>	In	115		ug/L			260330	262970 ✓	1
	Ag	107	0.001	ug/L	0.001	137	29	36	25
	Cd	111	U 0.005	ug/L	0.004	74	125	137	5
	Cd	114	0.002	ug/L	0.001	78	25	33	18
	Sb	121	0.380	ug/L	0.013	3	19	2891	2
	Sb	123	0.383	ug/L	0.006	1	18	2201	0
>	Tb	159		ug/L			303244	303205 ✓	1
	Tl	205	U 0.000	ug/L	0.000	124	42	49	19
	Pb	208	U 0.032	ug/L	0.001	4	562	1472	2
	Bi	209		ug/L			248344	251485	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 HDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:24:42
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	258718 ✓	0
	As	75	3.978	ug/L	0.071	1	200	6224	1
	As-1	75	4.089	ug/L	0.145	3	7304	13481	1
	Se	82	0.065	ug/L	0.028	43	-6	4	109
	Se	78	0.276	ug/L	0.353	128	7429	7652	1
	Cl	37		mg/L			2274202	2521823	0
	Y	89		ug/L			250297	265453	1
	Kr	83		ug/L			145	161	1
>	In	115		ug/L			260330	275831 ✓	1
	Ag	107	0.009	ug/L	0.001	14	29	116	10
	Cd	111	U 0.042	ug/L	0.008	18	125	231	6
	Cd	114	0.029	ug/L	0.002	8	25	182	8
	Sb	121	0.526	ug/L	0.014	2	19	4193	3
	Sb	123	0.521	ug/L	0.010	1	18	3136	3
>	Tb	159		ug/L			303244	317416 ✓	0
	Tl	205	U 0.002	ug/L	0.001	27	42	94	15
	Pb	208	0.619	ug/L	0.012	1	562	19264	2
	Bi	209		ug/L			248344	263429	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:29:33
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	254959 ✓	0
|	As	75	3.975	ug/L	0.039	0	200	6128	0
|	As-1	75	4.232	ug/L	0.066	1	7304	13494	0
|	Se	82	0.126	ug/L	0.081	64	-6	13	93
L	Se	78	0.877	ug/L	0.146	16	7429	7770	0
	Cl	37		mg/L			2274202	2498499	0
	Y	89		ug/L			250297	259717	1
	Kr	83		ug/L			145	156	5
[>	In	115		ug/L			260330	270378 ✓	0
|	Ag	107	0.008	ug/L	0.001	16	29	99	10
|	Cd	111	U 0.042	ug/L	0.004	8	125	225	3
|	Cd	114	0.027	ug/L	0.003	13	25	166	11
|	Sb	121	0.520	ug/L	0.017	3	19	4065	2
L	Sb	123	0.522	ug/L	0.019	3	18	3084	4
[>	Tb	159		ug/L			303244	308517 ✓	1
|	Tl	205	U 0.002	ug/L	0.000	9	42	80	3
|	Pb	208	0.610	ug/L	0.006	0	562	18474	0
L	Bi	209		ug/L			248344	258275	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 HSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:34:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	**Ge**	**72**		ug/L			254717	255262 ✓	0
|	**As**	**75**	**31.729**	ug/L	0.421	1	200	47578	0
|	**As-1**	**75**	**30.815**	ug/L	0.253	0	7304	52395	0
|	**Se**	**82**	**82.939**	ug/L	1.189	1	-6	13406	0
⌊	**Se**	**78**	**83.526**	ug/L	0.606	0	7429	39261	0
	Cl	**37**		mg/L			2274202	2504418	0
	Y	**89**		ug/L			250297	262487	0
	Kr	**83**		ug/L			145	162	4
⌈>	**In**	**115**		ug/L			260330	268136 ✓	1
|	**Ag**	**107**	**25.350**	ug/L	0.403	1	29	222575	0
|	**Cd**	**111**	**25.342**	ug/L	0.419	1	125	57663	0
|	**Cd**	**114**	**25.498**	ug/L	0.630	2	25	133025	1
|	**Sb**	**121**	**24.032**	ug/L	0.386	1	19	185436	0
⌊	**Sb**	**123**	**23.990**	ug/L	0.629	2	18	139566	1
⌈>	**Tb**	**159**		ug/L			303244	309726 ✓	1
|	**Tl**	**205**	**25.528**	ug/L	0.644	2	42	579840	1
|	**Pb**	**208**	**27.619**	ug/L	0.169	0	562	814157	0
⌊	**Bi**	**209**		ug/L			248344	253807	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WC79 HPOST REN~~ ZZZZZZ
Sample Dil Factor: 2 ZA 2/8/13
Comments:
Sample Date/Time: Friday, February 08, 2013 11:39:14
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	255792 ✓	0
|	As	75	31.141	ug/L	0.417	1	200	46797	0
|	As-1	75	30.291	ug/L	0.388	1	7304	51735	0
|	Se	82	82.182	ug/L	1.134	1	-6	13312	1
[	Se	78	83.040	ug/L	1.179	1	7429	39157	0
	Cl	37		mg/L			2274202	2497222	0
	Y	89		ug/L			250297	262407	0
	Kr	83		ug/L			145	168	2
[>	In	115		ug/L			260330	269547 ✓	0
|	Ag	107	25.030	ug/L	0.262	1	29	220938	0
|	Cd	111	24.541	ug/L	0.053	0	125	56145	0
|	Cd	114	24.691	ug/L	0.231	0	25	129517	0
|	Sb	121	0.504	ug/L	0.009	1	19	3927	1
[	Sb	123	0.510	ug/L	0.002	0	18	3003	0
[>	Tb	159		ug/L			303244	308743 ✓	0
|	Tl	205	25.160	ug/L	0.074	0	42	569788	0
|	Pb	208	26.970	ug/L	0.200	0	562	792589	1
[	Bi	209		ug/L			248344	258818	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:44:04
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	253801	1
|	As	75	27.551	ug/L	0.628	2	200	41098	1
|	As-1	75	26.786	ug/L	0.521	1	7304	46231	0
|	Se	82	83.977	ug/L	1.653	1	-6	13495	0
_	Se	78	85.611	ug/L	1.237	1	7429	39824	0
	Cl	37		mg/L			2274202	2402375	0
	Y	89		ug/L			250297	257062	0
	Kr	83		ug/L			145	171	2
[>	In	115		ug/L			260330	267421	0
|	Ag	107	27.183	ug/L	0.352	1	29	238058	1
|	Cd	111	25.900	ug/L	0.189	0	125	58780	1
|	Cd	114	26.065	ug/L	0.465	1	25	135642	1
|	Sb	121	24.296	ug/L	0.345	1	19	186986	1
_	Sb	123	24.428	ug/L	0.359	1	18	141763	1
[>	Tb	159		ug/L			303244	308261	0
|	Tl	205	26.143	ug/L	0.627	2	42	591040	1
|	Pb	208	27.752	ug/L	0.374	1	562	814186	0
_	Bi	209		ug/L			248344	263081	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 11:48:55
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	247559 ✓	0
	As	75	49.778	ug/L	0.391	0	200	72279	0
	As-1	75	50.102	ug/L	0.393	0	7304	78173	0
	Se	82	50.169	ug/L	0.466	0	-6	7862	0
	Se	78	51.583	ug/L	0.332	0	7429	26276	0
	Cl	37		mg/L			2274202	2423061	0
	Y	89		ug/L			250297	248154	1
	Kr	83		ug/L			145	171	3
>	In	115		ug/L			260330	257505 ✓	0
	Ag	107	50.295	ug/L	0.109	0	29	424112	0
	Cd	111	49.977	ug/L	0.768	1	125	109104	1
	Cd	114	49.965	ug/L	0.526	1	25	250354	0
	Sb	121	50.035	ug/L	0.440	0	19	370798	1
	Sb	123	49.771	ug/L	0.527	1	18	278099	0
>	Tb	159		ug/L			303244	294805 ✓	0
	Tl	205	48.159	ug/L	0.666	1	42	1041363	1
	Pb	208	50.444	ug/L	0.685	1	562	1415023	1
	Bi	209		ug/L			248344	243700	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 11:54:04
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L			254717	247397 ✓	0
|	As	75	0.062	ug/L	0.020	31	200	284	10
|	As-1	75	0.535	ug/L	0.040	7	7304	7853	0
|	Se	82	-0.042	ug/L	0.060	142	-6	-12	73
⌊	Se	78	1.936	ug/L	0.125	6	7429	7931	0
	Cl	37		mg/L			2274202	2469944	0
	Y	89		ug/L			250297	248048	1
	Kr	83		ug/L			145	166	2
⌈>	In	115		ug/L			260330	259173 ✓	1
|	Ag	107	0.004	ug/L	0.001	26	29	64	15
|	Cd	111	0.002	ug/L	0.004	226	125	128	7
|	Cd	114	-0.002	ug/L	0.001	23	25	13	21
|	Sb	121	0.022	ug/L	0.004	18	19	182	17
⌊	Sb	123	0.022	ug/L	0.006	28	18	144	25
⌈>	Tb	159		ug/L			303244	287490 ✓	0
|	Tl	205	0.004	ug/L	0.001	33	42	118	22
|	Pb	208	0.005	ug/L	0.001	18	562	680	3
⌊	Bi	209		ug/L			248344	244157	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 I REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 11:59:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	246108 ✓	0
	As	75	6.741	ug/L	0.049	0	200	9899	0
	As-1	75	7.414	ug/L	0.133	1	7304	17513	1
	Se	82	0.102	ug/L	0.007	6	-6	9	11
[	Se	78	2.337	ug/L	0.352	15	7429	8037	1
	Cl	37		mg/L			2274202	2499797	0
	Y	89		ug/L			250297	255499	1
	Kr	83		ug/L			145	167	3
[>	In	115		ug/L			260330	260410 ✓	0
	Ag	107	0.025	ug/L	0.002	6	29	239	5
	Cd	111	U 0.071	ug/L	0.009	13	125	280	6
	Cd	114	0.041	ug/L	0.001	3	25	232	2
	Sb	121	0.626	ug/L	0.022	3	19	4712	2
[	Sb	123	0.611	ug/L	0.009	1	18	3474	1
[>	Tb	159		ug/L			303244	293776 ✓	0
	Tl	205	U 0.004	ug/L	0.001	15	42	121	10
	Pb	208	0.865	ug/L	0.005	0	562	24719	0
[	Bi	209		ug/L			248344	241077	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 J REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 12:04:02
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	250817 ✓	0
|	As	75	1.150	ug/L	0.043	3	200	1885	3
|	As-1	75	1.552	ug/L	0.080	5	7304	9423	0
|	Se	82	0.030	ug/L	0.035	117	-6	-1	358
|	Se	78	1.637	ug/L	0.207	12	7429	7928	0
	Cl	37		mg/L			2274202	2467701	0
	Y	89		ug/L			250297	249909	0
	Kr	83		ug/L			145	166	5
[>	In	115		ug/L			260330	264159 ✓	0
|	Ag	107	0.001	ug/L	0.001	100	29	38	20
|	Cd	111	U 0.047	ug/L	0.010	21	125	231	9
|	Cd	114	0.034	ug/L	0.004	11	25	202	9
|	Sb	121	0.243	ug/L	0.007	3	19	1867	2
|	Sb	123	0.242	ug/L	0.004	1	18	1408	2
[>	Tb	159		ug/L			303244	297795 ✓	0
|	Tl	205	U 0.000	ug/L	0.000	67	42	48	9
|	Pb	208	0.447	ug/L	0.006	1	562	13221	0
|	Bi	209		ug/L			248344	249369	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 K REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 12:08:51
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

RR As (5x)

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	**Ge**	**72**		ug/L			254717	246029 ✓	1
|	**As**	**75**	**362.293**	ug/L	5.507	1	200	521553	0
|	**As-1**	**75**	**370.185**	ug/L	5.685	1	7304	528911	0
|	**Se**	**82**	**0.251**	ug/L	0.022	8	-6	32	10
⌊	**Se**	**78**	**1.793**	ug/L	0.272	15	7429	7833	0
	Cl	**37**		mg/L			2274202	2430564	0
	Y	**89**		ug/L			250297	257057	0
	Kr	**83**		ug/L			145	165	1
⌈>	**In**	**115**		ug/L			260330	259343 ✓	1
|	**Ag**	**107**	**0.026**	ug/L	0.004	13	29	252	13
|	**Cd**	**111**	U **0.068**	ug/L	0.005	7	125	274	3
|	**Cd**	**114**	**0.052**	ug/L	0.005	9	25	289	9
|	**Sb**	**121**	**1.329**	ug/L	0.027	2	19	9933	0
⌊	**Sb**	**123**	**1.336**	ug/L	0.028	2	18	7527	1
⌈>	**Tb**	**159**		ug/L			303244	294200 ✓	1
|	**Tl**	**205**	U **0.004**	ug/L	0.001	18	42	136	11
|	**Pb**	**208**	**1.870**	ug/L	0.035	1	562	52853	0
⌊	**Bi**	**209**		ug/L			248344	240916	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 L REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 12:13:39
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

RR As (5x)

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	243945 ✓	0
	As	75	326.988	ug/L	1.822	0	200	466807	0
	As-1	75	334.064	ug/L	1.852	0	7304	473989	0
	Se	82	0.349	ug/L	0.081	23	-6	47	25
	Se	78	1.601	ug/L	0.137	8	7429	7698	0
	Cl	37		mg/L			2274202	2371208	0
	Y	89		ug/L			250297	247876	0
	Kr	83		ug/L			145	165	3
>	In	115		ug/L			260330	256685 ✓	1
	Ag	107	0.089	ug/L	0.000	0	29	780	0
	Cd	111	0.152	ug/L	0.009	5	125	453	4
	Cd	114	0.148	ug/L	0.003	1	25	766	0
	Sb	121	9.084	ug/L	0.056	0	19	67122	1
	Sb	123	9.079	ug/L	0.137	1	18	50580	0
>	Tb	159		ug/L			303244	293127 ✓	1
	Tl	205	0.003	ug/L	0.001	24	42	105	16
	Pb	208	6.250	ug/L	0.117	1	562	174754	0
	Bi	209		ug/L			248344	240629	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 M REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 12:18:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	243855	0
|	As	75	3.501	ug/L	0.061	1	200	5186	1
|	As-1	75	3.953	ug/L	0.084	2	7304	12516	0
|	Se	82	0.205	ug/L	0.063	30	-6	25	38
L	Se	78	1.865	ug/L	0.081	4	7429	7791	0
	Cl	37		mg/L			2274202	2618959	0
	Y	89		ug/L			250297	247986	1
	Kr	83		ug/L			145	166	1
[>	In	115		ug/L			260330	256623	0
|	Ag	107	0.004	ug/L	0.000	11	29	60	6
|	Cd	111	U 0.018	ug/L	0.007	37	125	163	9
|	Cd	114	0.011	ug/L	0.001	6	25	80	3
|	Sb	121	0.278	ug/L	0.010	3	19	2072	4
L	Sb	123	0.276	ug/L	0.008	2	18	1555	2
[>	Tb	159		ug/L			303244	290804	1
|	Tl	205	U 0.001	ug/L	0.000	51	42	60	17
|	Pb	208	0.294	ug/L	0.007	2	562	8668	1
L	Bi	209		ug/L			248344	237398	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 N REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, February 08, 2013 12:23:15
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	243541 ✓	0
	As	75	1.357	ug/L	0.024	1	200	2125	2
	As-1	75	1.779	ug/L	0.052	2	7304	9466	0
	Se	82	0.116	ug/L	0.015	12	-6	11	19
	Se	78	1.833	ug/L	0.270	14	7429	7769	0
	Cl	37		mg/L			2274202	2519970	0
	Y	89		ug/L			250297	247281	0
	Kr	83		ug/L			145	167	3
>	In	115		ug/L			260330	257535 ✓	1
	Ag	107	0.002	ug/L	0.001	62	29	47	23
	Cd	111	U 0.011	ug/L	0.010	84	125	148	13
	Cd	114	0.008	ug/L	0.002	28	25	64	17
	Sb	121	0.313	ug/L	0.006	1	19	2340	0
	Sb	123	0.314	ug/L	0.010	3	18	1773	2
>	Tb	159		ug/L			303244	294488 ✓	1
	Tl	205	U 0.001	ug/L	0.001	62	42	62	20
	Pb	208	0.269	ug/L	0.004	1	562	8075	1
	Bi	209		ug/L			248344	239502	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 12:28:03
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L			254717	247587 ✓	0
|	As	75	50.354	ug/L	0.020	0	200	73124	0
|	As-1	75	50.886	ug/L	0.046	0	7304	79297	0
|	Se	82	50.797	ug/L	0.397	0	-6	7962	0
⌊	Se	78	52.970	ug/L	0.518	0	7429	26792	0
	Cl	37		mg/L			2274202	2440063	0
	Y	89		ug/L			250297	253430	1
	Kr	83		ug/L			145	165	4
⌈>	In	115		ug/L			260330	265801 ✓	0
|	Ag	107	50.087	ug/L	0.429	0	29	435950	0
|	Cd	111	50.075	ug/L	0.488	0	125	112838	1
|	Cd	114	49.515	ug/L	0.334	0	25	256105	1
|	Sb	121	49.892	ug/L	0.193	0	19	381642	0
⌊	Sb	123	49.428	ug/L	0.670	1	18	285080	0
⌈>	Tb	159		ug/L			303244	297876 ✓	0
|	Tl	205	47.811	ug/L	0.227	0	42	1044600	0
|	Pb	208	50.403	ug/L	0.648	1	562	1428539	1
⌊	Bi	209		ug/L			248344	246413	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 12:33:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	250169 ✓	0
|	As	75	0.069	ug/L	0.026	37	200	297	12
|	As-1	75	0.659	ug/L	0.051	7	7304	8117	0
|	Se	82	-0.009	ug/L	0.065	760	-6	-7	136
[	Se	78	2.405	ug/L	0.141	5	7429	8194	0
	Cl	37		mg/L			2274202	2489946	0
	Y	89		ug/L			250297	256576	1
	Kr	83		ug/L			145	166	2
[>	In	115		ug/L			260330	269732 ✓	0
|	Ag	107	0.004	ug/L	0.002	37	29	66	20
|	Cd	111	0.007	ug/L	0.006	98	125	144	10
|	Cd	114	-0.002	ug/L	0.001	37	25	18	16
|	Sb	121	0.019	ug/L	0.005	27	19	170	24
[	Sb	123	0.019	ug/L	0.003	13	18	132	11
[>	Tb	159		ug/L			303244	296288 ✓	0
|	Tl	205	0.004	ug/L	0.001	26	42	120	16
|	Pb	208	0.005	ug/L	0.001	9	562	699	1
[	Bi	209		ug/L			248344	248317	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 12:43:50
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	257782 ✓	0
	As	75	U 0.078	ug/L	0.021	26	200	321	10
	As-1	75	0.552	ug/L	0.059	10	7304	8206	0
	Se	82	0.005	ug/L	0.078	1591	-6	-5	229
[	Se	78	1.989	ug/L	0.231	11	7429	8283	0
	Cl	37		mg/L			2274202	2471869	0
	Y	89		ug/L			250297	262762	1
	Kr	83		ug/L			145	173	2
[>	In	115		ug/L			260330	278038 ✓	1
	Ag	107	0.000	ug/L	0.001	156	29	34	14
	Cd	111	0.007	ug/L	0.001	13	125	150	2
	Cd	114	-0.001	ug/L	0.001	54	25	21	17
	Sb	121	0.012	ug/L	0.001	11	19	114	7
[	Sb	123	0.013	ug/L	0.001	7	18	96	7
[>	Tb	159		ug/L			303244	304045 ✓	0
	Tl	205	U 0.002	ug/L	0.001	36	42	78	17
	Pb	208	-0.000	ug/L	0.000	524	562	561	2
[	Bi	209		ug/L			248344	254478	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 K REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, February 08, 2013 12:48:38
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	247008 ✓	0
	As	75	151.094	ug/L	1.547	1	200	218512	0
	As-1	75	154.690	ug/L	1.612	1	7304	226039	0
	Se	82	0.180	ug/L	0.034	18	-6	21	24
	Se	78	2.179	ug/L	0.182	8	7429	8007	0
	Cl	37		mg/L			2274202	2461664	0
	Y	89		ug/L			250297	251335	0
	Kr	83		ug/L			145	178	5
[>	In	115		ug/L			260330	258581 ✓	1
	Ag	107	0.012	ug/L	0.001	10	29	135	7
	Cd	111	0.043	ug/L	0.002	4	125	217	3
	Cd	114	0.021	ug/L	0.002	7	25	129	7
	Sb	121	0.559	ug/L	0.007	1	19	4175	0
	Sb	123	0.560	ug/L	0.022	3	18	3163	3
[>	Tb	159		ug/L			303244	289469 ✓	0
	Tl	205	0.003	ug/L	0.001	28	42	104	17
	Pb	208	0.771	ug/L	0.003	0	562	21764	0
	Bi	209		ug/L			248344	238976	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC79 L REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, February 08, 2013 12:53:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	241764 ✓	0
	As	75	138.795	ug/L	1.305	0	200	196488	1
	As-1	75	142.218	ug/L	1.413	0	7304	203970	1
	Se	82	0.108	ug/L	0.024	22	-6	10	35
[	Se	78	2.449	ug/L	0.321	13	7429	7935	1
	Cl	37		mg/L			2274202	2403190	0
	Y	89		ug/L			250297	245198	1
	Kr	83		ug/L			145	178	4
[>	In	115		ug/L			260330	255699 ✓	0
	Ag	107	0.039	ug/L	0.006	14	29	358	13
	Cd	111	0.068	ug/L	0.003	4	125	269	1
	Cd	114	0.062	ug/L	0.007	11	25	331	10
	Sb	121	3.808	ug/L	0.025	0	19	28041	0
[	Sb	123	3.798	ug/L	0.040	1	18	21093	1
[>	Tb	159		ug/L			303244	285673 ✓	1
	Tl	205	0.002	ug/L	0.000	23	42	79	11
	Pb	208	2.602	ug/L	0.022	0	562	71228	0
[	Bi	209		ug/L			248344	241846	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 12:58:20
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	252422 ✓	0
	As	75	4.362	ug/L	0.027	0	200	6640	0
	As-1	75	4.826	ug/L	0.047	0	7304	14219	0
	Se	82	0.147	ug/L	0.037	25	-6	17	33
[	Se	78	2.028	ug/L	0.119	5	7429	8126	0
	Cl	37		mg/L			2274202	2425296	0
	Y	89		ug/L			250297	350192	0
	Kr	83		ug/L			145	209	1
[>	In	115		ug/L			260330	265014 ✓	1
	Ag	107	0.055	ug/L	0.004	7	29	510	8
	Cd	111	0.182	ug/L	0.006	3	125	535	3
	Cd	114	0.067	ug/L	0.004	5	25	369	4
	Sb	121	0.022	ug/L	0.002	9	19	188	7
[	Sb	123	0.019	ug/L	0.003	17	18	127	13
[>	Tb	159		ug/L			303244	302823 ✓	0
	Tl	205	0.050	ug/L	0.001	2	42	1160	2
	Pb	208	9.093	ug/L	0.129	1	562	262468	1
[	Bi	209		ug/L			248344	254505	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 13:03:11
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	250918 ✓	0
|	As	75	10.172	ug/L	0.070	0	200	15127	0
|	As-1	75	10.697	ug/L	0.097	0	7304	22575	0
|	Se	82	0.271	ug/L	0.036	13	-6	36	16
L	Se	78	1.986	ug/L	0.278	13	7429	8062	1
	Cl	37		mg/L			2274202	2419259	0
	Y	89		ug/L			250297	388240	0
	Kr	83		ug/L			145	215	3
[>	In	115		ug/L			260330	262026 ✓	0
|	Ag	107	0.085	ug/L	0.001	1	29	757	0
|	Cd	111	0.263	ug/L	0.028	10	125	709	8
|	Cd	114	0.096	ug/L	0.006	5	25	513	6
|	Sb	121	0.026	ug/L	0.002	7	19	213	6
L	Sb	123	0.023	ug/L	0.005	21	18	148	18
[>	Tb	159		ug/L			303244	302480 ✓	0
|	Tl	205	0.082	ug/L	0.002	2	42	1867	2
|	Pb	208	21.278	ug/L	0.076	0	562	612704	0
L	Bi	209		ug/L			248344	247720	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 13:08:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	255037 ✓	1
	As	75	25.478	ug/L	0.418	1	200	38208	0
	As-1	75	26.264	ug/L	0.468	1	7304	45692	0
	Se	82	0.057	ug/L	0.009	16	-6	2	52
	Se	78	1.339	ug/L	0.273	20	7429	7947	0
	Cl	37		mg/L			2274202	2479090	0
	Y	89		ug/L			250297	298039	0
	Kr	83		ug/L			145	190	1
>	In	115		ug/L			260330	263615 ✓	1
	Ag	107	0.066	ug/L	0.001	2	29	598	3
	Cd	111	0.321	ug/L	0.027	8	125	843	7
	Cd	114	0.210	ug/L	0.007	3	25	1103	4
	Sb	121	0.046	ug/L	0.002	5	19	367	5
	Sb	123	0.048	ug/L	0.004	7	18	291	5
>	Tb	159		ug/L			303244	294307 ✓	0
	Tl	205	0.023	ug/L	0.001	4	42	537	5
	Pb	208	17.634	ug/L	0.105	0	562	494155	0
	Bi	209		ug/L			248344	252340	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 13:12:51
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	253489 ✓	0
	As	75	24.928	ug/L	0.137	0	200	37165	0
	As-1	75	25.674	ug/L	0.157	0	7304	44563	0
	Se	82	0.068	ug/L	0.046	67	-6	4	159
	Se	78	1.210	ug/L	0.111	9	7429	7851	0
	Cl	37		mg/L			2274202	2455888	0
	Y	89		ug/L			250297	295354	0
	Kr	83		ug/L			145	184	5
>	In	115		ug/L			260330	263423 ✓	0
	Ag	107	0.070	ug/L	0.003	4	29	637	3
	Cd	111	0.297	ug/L	0.015	5	125	788	4
	Cd	114	0.173	ug/L	0.009	4	25	914	4
	Sb	121	0.048	ug/L	0.004	7	19	383	7
	Sb	123	0.044	ug/L	0.003	7	18	268	7
>	Tb	159		ug/L			303244	298279 ✓	1
	Tl	205	0.023	ug/L	0.001	4	42	537	5
	Pb	208	16.990	ug/L	0.178	1	562	482517	0
	Bi	209		ug/L			248344	252406	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 13:17:41
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	249300 ✓	0
	As	75	50.509	ug/L	0.464	0	200	73854	0
	As-1	75	50.329	ug/L	0.351	0	7304	79049	0
	Se	82	74.716	ug/L	0.691	0	-6	11795	0
	Se	78	76.187	ug/L	0.553	0	7429	35615	0
	Cl	37		mg/L			2274202	2461782	0
	Y	89		ug/L			250297	287280	0
	Kr	83		ug/L			145	190	1
>	In	115		ug/L			260330	254956 ✓	1
	Ag	107	23.627	ug/L	0.612	2	29	197244	1
	Cd	111	24.734	ug/L	0.350	1	125	53518	0
	Cd	114	24.348	ug/L	0.269	1	25	120799	0
	Sb	121	0.049	ug/L	0.014	28	19	376	25
	Sb	123	0.045	ug/L	0.004	7	18	266	6
>	Tb	159		ug/L			303244	291468 ✓	0
	Tl	205	23.903	ug/L	0.115	0	42	511029	0
	Pb	208	42.503	ug/L	0.119	0	562	1178808	0
	Bi	209		ug/L			248344	245211	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~WC78 APOST SWN~~ ZZZZZZ
Sample Dil Factor: 20 ZA 2/8/13
Comments:
Sample Date/Time: Friday, February 08, 2013 13:22:29
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Ge	72		ug/L			254717	249060	0
|	As	75	51.566	ug/L	0.428	0	200	75324	0
|	As-1	75	51.143	ug/L	0.335	0	7304	80134	0
|	Se	82	81.066	ug/L	1.040	1	-6	12785	0
⌊	Se	78	81.945	ug/L	0.701	0	7429	37720	0
	Cl	37		mg/L			2274202	2459753	0
	Y	89		ug/L			250297	288283	1
	Kr	83		ug/L			145	179	4
⌈>	In	115		ug/L			260330	256918	0
|	Ag	107	25.250	ug/L	0.262	1	29	212435	0
|	Cd	111	24.947	ug/L	0.173	0	125	54397	0
|	Cd	114	24.577	ug/L	0.350	1	25	122884	1
|	Sb	121	0.067	ug/L	0.002	2	19	514	3
⌊	Sb	123	0.064	ug/L	0.003	5	18	375	5
⌈>	Tb	159		ug/L			303244	291764	0
|	Tl	205	24.982	ug/L	0.665	2	42	534605	2
|	Pb	208	43.484	ug/L	0.653	1	562	1207195	1
⌊	Bi	209		ug/L			248344	247944	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 13:27:18
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	246142 ✓	0
	As	75	27.040	ug/L	0.168	0	200	39127	0
	As-1	75	26.417	ug/L	0.261	0	7304	44319	0
	Se	82	81.714	ug/L	0.759	0	-6	12736	0
	Se	78	83.853	ug/L	0.679	0	7429	37978	0
	Cl	37		mg/L			2274202	2459933	0
	Y	89		ug/L			250297	240384	1
	Kr	83		ug/L			145	180	0
>	In	115		ug/L			260330	253000 ✓	1
	Ag	107	25.791	ug/L	0.102	0	29	213690	1
	Cd	111	25.024	ug/L	0.324	1	125	53730	1
	Cd	114	24.923	ug/L	0.716	2	25	122686	1
	Sb	121	0.017	ug/L	0.002	10	19	144	7
	Sb	123	0.019	ug/L	0.003	15	18	121	14
>	Tb	159		ug/L			303244	289814 ✓	1
	Tl	205	24.580	ug/L	0.367	1	42	522441	0
	Pb	208	27.119	ug/L	0.601	2	562	747902	0
	Bi	209		ug/L			248344	241446	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 13:32:06
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Ge**	**72**		ug/L			254717	241400 ✓	0
	As	**75**	**49.343**	ug/L	0.380	0	200	69867	0
	As-1	**75**	**49.953**	ug/L	0.426	0	7304	76022	0
	Se	**82**	**48.777**	ug/L	0.646	1	-6	7453	0
	Se	**78**	**51.228**	ug/L	0.925	1	7429	25494	0
	Cl	**37**		mg/L			2274202	2414272	0
	Y	**89**		ug/L			250297	238441	0
	Kr	**83**		ug/L			145	169	5
>	**In**	**115**		ug/L			260330	248775 ✓	0
	Ag	**107**	**49.794**	ug/L	0.118	0	29	405654	0
	Cd	**111**	**49.292**	ug/L	0.342	0	125	103958	0
	Cd	**114**	**49.109**	ug/L	0.264	0	25	237734	0
	Sb	**121**	**49.692**	ug/L	0.366	0	19	355755	0
	Sb	**123**	**49.274**	ug/L	0.240	0	18	265994	0
>	**Tb**	**159**		ug/L			303244	281050 ✓	1
	Tl	**205**	**47.842**	ug/L	0.548	1	42	986168	0
	Pb	**208**	**51.260**	ug/L	0.553	1	562	1370684	0
	Bi	**209**		ug/L			248344	233807	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 13:37:16
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	239879 ✓	0
	As	75	0.101	ug/L	0.029	28	200	331	11
	As-1	75	0.576	ug/L	0.047	8	7304	7669	0
	Se	82	0.063	ug/L	0.078	123	-6	3	332
	Se	78	2.114	ug/L	0.159	7	7429	7753	0
	Cl	37		mg/L			2274202	2412957	0
	Y	89		ug/L			250297	239452	0
	Kr	83		ug/L			145	170	0
>	In	115		ug/L			260330	247533 ✓	1
	Ag	107	0.005	ug/L	0.001	16	29	65	7
	Cd	111	0.007	ug/L	0.008	116	125	134	13
	Cd	114	-0.001	ug/L	0.000	5	25	18	0
	Sb	121	0.018	ug/L	0.003	18	19	147	15
	Sb	123	0.020	ug/L	0.005	23	18	126	19
>	Tb	159		ug/L			303244	281354 ✓	0
	Tl	205	0.005	ug/L	0.001	15	42	140	11
	Pb	208	0.006	ug/L	0.001	10	562	670	2
	Bi	209		ug/L			248344	237955	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 13:41:48
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	250824	0
	As	75	11.640	ug/L	0.130	1	200	17276	0
	As-1	75	12.123	ug/L	0.163	1	7304	24617	0
	Se	82	0.046	ug/L	0.042	92	-6	1	670
	Se	78	1.331	ug/L	0.270	20	7429	7814	0
	Cl	37		mg/L			2274202	2355517	0
	Y	89		ug/L			250297	373494	1
	Kr	83		ug/L			145	196	2
>	In	115		ug/L			260330	259680	0
	Ag	107	0.246	ug/L	0.011	4	29	2122	4
	Cd	111	0.371	ug/L	0.016	4	125	941	3
	Cd	114	0.206	ug/L	0.004	1	25	1067	1
	Sb	121	0.083	ug/L	0.002	2	19	642	2
	Sb	123	0.082	ug/L	0.004	5	18	479	5
>	Tb	159		ug/L			303244	303216	0
	Tl	205	u 0.072	ug/L	0.001	1	42	1638	0
	Pb	208	71.832	ug/L	0.383	0	562	2072219	1
	Bi	209		ug/L			248344	249082	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 13:46:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	245647	0
	As	75	4.932	ug/L	0.050	1	200	7281	1
	As-1	75	5.261	ug/L	0.027	0	7304	14449	0
	Se	82	0.044	ug/L	0.057	128	-6	0	1170
	Se	78	1.253	ug/L	0.057	4	7429	7624	0
	Cl	37		mg/L			2274202	2361671	0
	Y	89		ug/L			250297	339402	0
	Kr	83		ug/L			145	189	1
>	In	115		ug/L			260330	255471	0
	Ag	107	0.054	ug/L	0.002	3	29	480	3
	Cd	111	0.248	ug/L	0.037	14	125	659	11
	Cd	114	0.077	ug/L	0.002	2	25	408	3
	Sb	121	0.027	ug/L	0.001	4	19	220	3
	Sb	123	0.027	ug/L	0.002	5	18	167	5
>	Tb	159		ug/L			303244	294490	0
	Tl	205	0.051	ug/L	0.001	2	42	1145	3
	Pb	208	6.863	ug/L	0.062	0	562	192757	0
	Bi	209		ug/L			248344	246088	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 13:51:22
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	249448	0
	As	75	116.517	ug/L	0.386	0	200	170222	0
	As-1	75	119.103	ug/L	0.377	0	7304	177409	0
	Se	82	-0.022	ug/L	0.165	740	-6	-9	267
	Se	78	0.880	ug/L	0.135	15	7429	7603	0
	Cl	37		mg/L			2274202	2386197	0
	Y	89		ug/L			250297	311042	2
	Kr	83		ug/L			145	184	8
>	In	115		ug/L			260330	258384	0
	Ag	107	0.055	ug/L	0.004	7	29	495	7
	Cd	111	0.280	ug/L	0.005	1	125	736	1
	Cd	114	0.192	ug/L	0.012	6	25	991	6
	Sb	121	0.031	ug/L	0.003	11	19	247	10
	Sb	123	0.031	ug/L	0.001	2	18	191	2
>	Tb	159		ug/L			303244	297272	2
	Tl	205	0.025	ug/L	0.000	1	42	595	3
	Pb	208	16.419	ug/L	0.230	1	562	464703	0
	Bi	209		ug/L			248344	246895	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: WC78 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, February 08, 2013 13:56:10
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	250149 ✓	1
	As	75	76.437	ug/L	0.604	0	200	112045	0
	As-1	75	78.188	ug/L	0.633	0	7304	119250	0
	Se	82	0.130	ug/L	0.055	42	-6	14	60
	Se	78	1.125	ug/L	0.206	18	7429	7715	0
	Cl	37		mg/L			2274202	2373300	0
	Y	89		ug/L			250297	321747	1
	Kr	83		ug/L			145	197	0
>	In	115		ug/L			260330	260452 ✓	0
	Ag	107	0.344	ug/L	0.001	0	29	2962	0
	Cd	111	1.113	ug/L	0.015	1	125	2579	1
	Cd	114	0.984	ug/L	0.011	1	25	5012	0
	Sb	121	0.236	ug/L	0.011	4	19	1791	4
	Sb	123	0.244	ug/L	0.005	1	18	1396	2
>	Tb	159		ug/L			303244	297201 ✓	1
	Tl	205	0.045	ug/L	0.002	4	42	1011	3
	Pb	208	216.567	ug/L	4.314	1	562	6121243	0
	Bi	209		ug/L			248344	249623	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 14:01:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Ge	72		ug/L			254717	243315 ✓	1
	As	75	49.872	ug/L	0.649	1	200	71170	0
	As-1	75	50.435	ug/L	0.582	1	7304	77295	0
	Se	82	49.664	ug/L	1.123	2	-6	7648	1
	Se	78	52.013	ug/L	0.878	1	7429	25980	0
	Cl	37		mg/L			2274202	2358886	0
	Y	89		ug/L			250297	241738	1
	Kr	83		ug/L			145	177	0
>	In	115		ug/L			260330	252982 ✓	0
	Ag	107	50.272	ug/L	0.600	1	29	416459	0
	Cd	111	49.580	ug/L	0.616	1	125	106333	0
	Cd	114	49.117	ug/L	0.583	1	25	241786	0
	Sb	121	49.687	ug/L	0.416	0	19	361739	0
	Sb	123	49.187	ug/L	0.590	1	18	270010	0
>	Tb	159		ug/L			303244	286659 ✓	0
	Tl	205	47.761	ug/L	0.304	0	42	1004214	0
	Pb	208	50.346	ug/L	0.361	0	562	1373177	0
	Bi	209		ug/L			248344	238188	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, February 08, 2013 14:06:11
Number of Replicates: 3
Method File: C:\Elandata\Method\2008GFA7.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\020813.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Ge	72		ug/L			254717	244839 ✓	0
|	As	75	0.074	ug/L	0.018	24	200	299	8
|	As-1	75	0.539	ug/L	0.060	11	7304	7777	0
|	Se	82	0.018	ug/L	0.026	144	-6	-3	121
L	Se	78	1.988	ug/L	0.228	11	7429	7867	0
	Cl	37		mg/L			2274202	2401358	0
	Y	89		ug/L			250297	244000	1
	Kr	83		ug/L			145	167	3
[>	In	115		ug/L			260330	255588 ✓	0
|	Ag	107	0.004	ug/L	0.001	24	29	63	14
|	Cd	111	0.001	ug/L	0.004	322	125	125	6
|	Cd	114	-0.002	ug/L	0.001	52	25	17	25
|	Sb	121	0.017	ug/L	0.005	28	19	144	26
L	Sb	123	0.018	ug/L	0.003	14	18	119	13
[>	Tb	159		ug/L			303244	284800 ✓	1
|	Tl	205	0.004	ug/L	0.001	14	42	129	11
|	Pb	208	0.008	ug/L	0.001	15	562	734	5
L	Bi	209		ug/L			248344	239699	1

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA (CVA)

Analysis Date: 02-07-13

	Analyst NB 02-07-13	Peer Gd 2-8-13	Comment
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
ICV/CCV	✓	✓	1st SMM calib: low ICV
ICB/CCB	✓	✓	
RSD's & SD's	✓	✓	
Internal Standards	—	—	
Carry-over	—	—	
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	CAF-WC72
Method Blanks	✓	✓	
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
	✓	✓	CAF-WC72

Mercury Analysis Log

Analyst: NB
Instrument: CETAC

Date: 02-07-13
Page: 2 of 5

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments	
WC76	ADUP	TWM	1x	0.01	No RPD: undetected.	✓
"	ASPK			1.06	%R=106	✓
"	B					
"	C					
CCV				3.81	%R=95	✓
CCB				0.01		✓
WC76	D					
"	E					
"	F					
"	G					
"	H					
"	I					
"	J					
CCV				3.83	%R=96	✓
CCB				-0.01		✓
CCV				3.84	%R=96	✓
CCB				-0.00		✓
WC87	MB			-0.01		✓
"	MBSPK			1.94	%R=97	✓
"	A			0.07		
"	ADUP			0.07	No RPD: undetected.	✓
"	ASPK			1.10	%R=110	✓
CCV				3.83	%R=96	✓
CCB				0.00		✓
STD	0.0	SMM				
"	0.1					
"	0.5					
"	1.0					
"	2.0					
"	5.0					

2/12/13

Chemical/Reagent ID:
10% $SnCl_2$: MP2437

14% $NH_2OH/NaCl$: MP2398

Standard ID:
Standard: 3012-3 (TWM)
3012-4 (SMM)

ICV/CCV: 59-6

Mercury Analysis Log

Analyst: NB
Instrument: CETAC

Date: 02-07-13
Page: 3 of 5

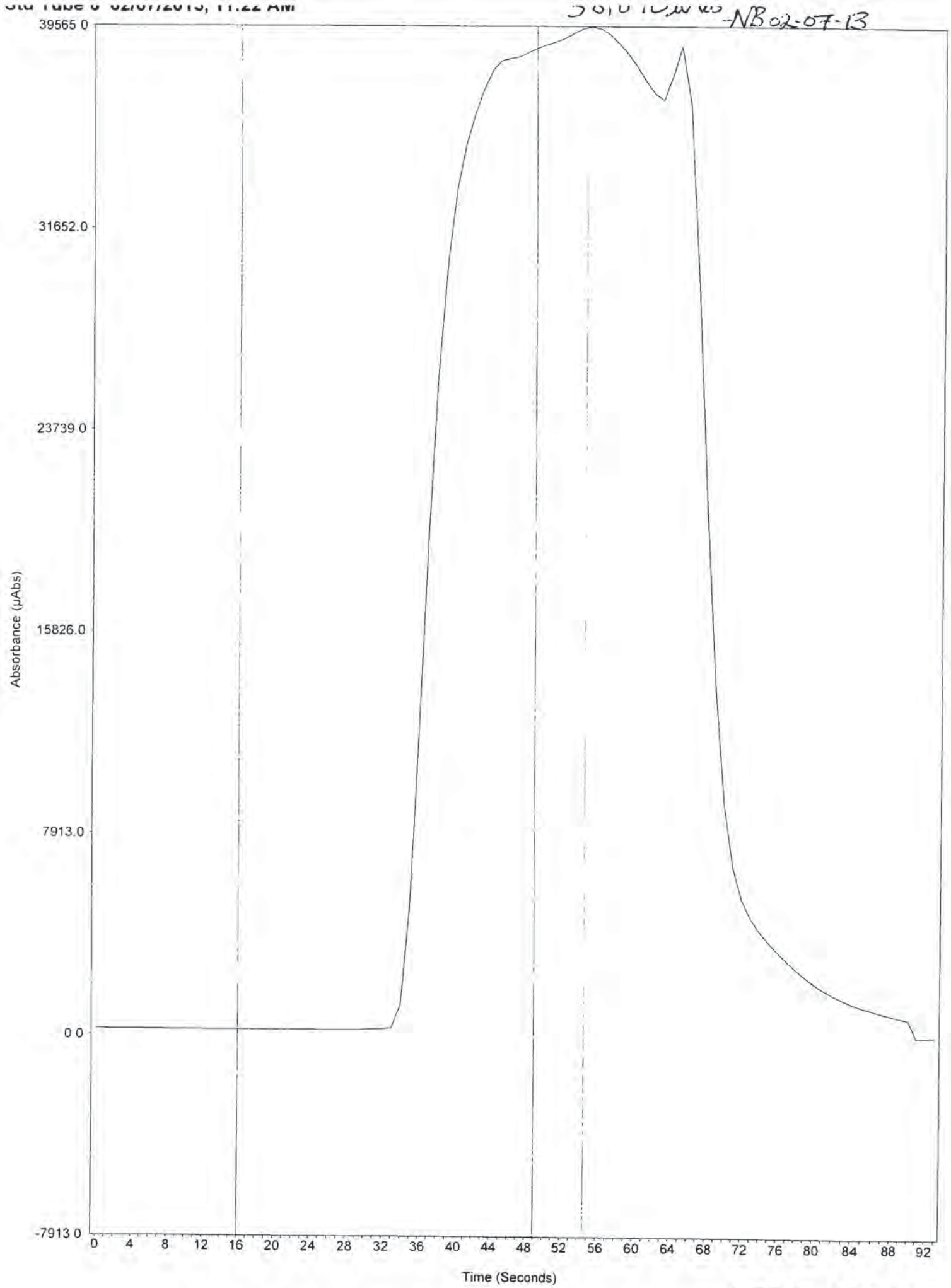
ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 10.0	SMM	1x		
ICV			6.76	%R=85 Low X
ICV			6.86	%R=86 Low X
STD 0.0				Switch to Std. 3012-5
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			7.92	Begin CLP. %R=99 ✓
ICB			-0.05	✓
CCV1			3.85	%R=96 ✓
CCB1			-0.03	✓
CRA			0.07	✓
WC78 MB1			-0.02	✓
" MB1SPK			1.96	%R=98 ✓
" A			0.11	
" ADUP			0.14	✓
" ASPK			1.13	%R=102 ✓
" B				
" C				
" D				
" E				
CCV2			3.83	%R=96 ✓
CCB2			-0.04	✓
WC78 F				
" G				
CCV3			3.82	%R=96 ✓
CCB3			-0.04	End CLP. ✓

Chemical/Reagent ID:
10% $SnCl_2$: MP2437

14% $NH_2OH/NaCl$: MP2398

Standard ID:
Standard: 3012-4
3012-5

ICV/CCV: 59-6


Std Tube 6 02/07/2013, 11:22 AM
-NB 02-07-13
39565 0
31652.0
23739 0
15826.0
7913.0
0 0
-7913 0
Absorbance (µAbs)
0 4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80 84 88 92
Time (Seconds)

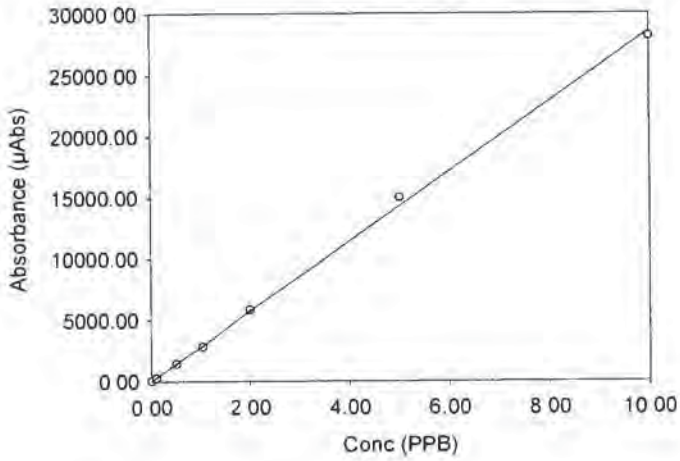
WC70 : 00191

CETAC Hg Analysis Report - 13020700.DB - Thursday, February 07, 2013, 6:18:14 PM

Analyst
Date Started Thursday, February 07, 2013, 16:22 03
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	07-Feb-2013, 16:22	0.00	13.90	35 50	1 00	
Standard #1	07-Feb-2013, 16:23	0.10	1.44	268 00	1.00	
Standard #2	07-Feb-2013, 16:25	0.50	0 20	1440 00	1 00	
Standard #3	07-Feb-2013, 16.26	1.00	0.24	2820.00	1.00	
Standard #4	07-Feb-2013, 16:28	2.00	0 66	5840.00	1 00	
Standard #5	07-Feb-2013, 16:30	5 00	0 66	15000.00	1.00	
Standard #6	07-Feb-2013, 16:31	10.00	0.61	28200.00	1 00	

Calibration Data



Int.	0 000
Slope	2857.426
Correlation	0 99945

SMM
(Std. 3012-5)

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	07-Feb-2013, 16.36	7.92	1.14	22600 00	1 00	—— Begin CLP
ICB	07-Feb-2013, 16.37	-0 05	3.62	-153 00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	07-Feb-2013, 16:39	3 85	0.46	11000 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	07-Feb-2013, 16.41	-0.03	2 23	-82.30	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	07-Feb-2013, 16.42	0.07	1.52	204 00	1 00	
WC78 MB1 SMM	07-Feb-2013, 16:44	-0 02	19.10	-57 20	1.00	
WC78 MB1SPK SMM	07-Feb-2013, 16:46	1.96	0.97	5600.00	1.00	
WC78 A SMM	07-Feb-2013, 16.47	0.11	0 70	317.00	1.00	
WC78 ADUP SMM	07-Feb-2013, 16.49	0.14	3 34	404.00	1.00	
WC78 ASPK SMM	07-Feb-2013, 16:50	1 13	0 37	3210.00	1.00	
WC78 B SMM	07-Feb-2013, 16:52	0.10	2.95	278 00	1.00	
WC78 C SMM	07-Feb-2013, 16.54	0.16	0.75	453.00	1 00	
WC78 D SMM	07-Feb-2013, 16:55	0 22	0.55	634 00	1.00	
WC78 E SMM	07-Feb-2013, 16:57	0.07	1.47	189.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	07-Feb-2013, 16:58	3.83	0.29	11000 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	07-Feb-2013, 17:00	-0.04	13.30	-117 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WC78 F SMM	07-Feb-2013, 17:02	0 03	2.78	96.50	1 00	
WC78 G SMM	07-Feb-2013, 17:03	0.37	0.51	1060.00	1.00	

CETAC Hg Analysis Report - 13020700.DB - Thursday, February 07, 2013, 6:18:14 PM

Analyst
Date Started Thursday, February 07, 2013, 17:05:30
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	07-Feb-2013, 17:05	3.82	0 53	10900 00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	07-Feb-2013, 17:07	-0 04	3.12	-102 00	1 00	End CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WC72 MB SMM	07-Feb-2013, 17:09	-0 01	23.50	-29 10	1 00	
WC72 MBSPK SMM	07-Feb-2013, 17:10	1.90	0.42	5440 00	1 00	
WC72 A SMM	07-Feb-2013, 17.12	2.95	0.32	8420.00	1.00	
WC72 B SMM	07-Feb-2013, 17:13	0.51	0.60	1450.00	1.00	
WC72 C SMM	07-Feb-2013, 17:15	0.65	1.02	1860.00	1.00	
WC72 D SMM	07-Feb-2013, 17:17	3.93	0.58	11200.00	1.00	
WC72 E SMM	07-Feb-2013, 17.18	16.00	0.49	45800.00	1.00	O — High
WC72 F SMM	07-Feb-2013, 17:21	8.68	0.45	24800 00	1.00	
WC72 FDUP SMM	07-Feb-2013, 17:23	11.50	0.56	33000 00	1 00	O — High
WC72 FSPK SMM	07-Feb-2013, 17:25	10 90	0.37	31000.00	1 00	O — High

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	07-Feb-2013, 17.27	3.90	0.31	11100 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	07-Feb-2013, 17:29	-0 04	3.07	-119 00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WC72 G SMM	07-Feb-2013, 17 30	3 19	0.44	9120 00	1.00	
WC72 H SMM	07-Feb-2013, 17 33	7 62	0.52	21800.00	1.00	
WC72 I SMM	07-Feb-2013, 17:34	1.21	2.52	3450 00	1 00	
WC72 J SMM	07-Feb-2013, 17:36	4.68	0.62	13400.00	1.00	
WC72 K SMM	07-Feb-2013, 17:37	3.49	0.67	9960.00	1 00	
WC77 MB SMM	07-Feb-2013, 17:39	-0.03	9.83	-89 70	1.00	
WC77 MBSPK SMM	07-Feb-2013, 17.41	1 92	0.61	5480.00	1 00	
WC77 A SMM	07-Feb-2013, 17.42	0 30	0.22	868.00	1.00	
WC77 B SMM	07-Feb-2013, 17:44	0.11	0 51	314.00	1.00	
WC77 C SMM	07-Feb-2013, 17:46	0.21	0 29	607.00	1 00	

2-8-13

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	07-Feb-2013, 17:47	3.86	0.44	11000 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	07-Feb-2013, 17:49	-0.03	3 75	-87.20	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WC72 E SMM	07-Feb-2013, 17:54	8.08	0.50	23100.00	2.00	
WC72 F SMM	07-Feb-2013, 17:55	4.29	0.74	12300.00	2.00	
WC72 FDUP SMM	07-Feb-2013, 17:57	5.74	0.57	16400 00	2 00	RPD High
WC72 FSPK SMM	07-Feb-2013, 17:58	5 40	0 73	15400.00	2.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	07-Feb-2013, 18:00	3 81	0 83	10900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	07-Feb-2013, 18:02	-0.04	1.99	-125 00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
WC72 F SMM	07-Feb-2013, 18:09	4.37	0.87	12500 00	2.00	
WC72 FDUP SMM	07-Feb-2013, 18:11	6 12	0.17	17500 00	2.00	RPD High
WC72 FSPK SMM	07-Feb-2013, 18:12	5 54	0 39	15800.00	2.00	

Analyst	
Date Created:	Thursday, July 13, 2000
Worksheet	ARI 10ppb CALIB
Comment	
Sip Duration (Sec.):	30
Rinse Duration (Sec.):	60
Read Delay:	49
Integration Time/Replicate:	1.40
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	10
Baseline Point 1 End Time:	16
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	
Baseline Point 2 End Time:	
Gas Flow (ml/min):	180
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	5
Calibration Standard #1 Conc.:	0.10 PPB
Calibration Standard #2 Conc.:	0.50 PPB
Calibration Standard #3 Conc.:	1.00 PPB
Calibration Standard #4 Conc.:	2.00 PPB
Calibration Standard #5 Conc.:	5.00 PPB
Calibration Standard #6 Conc.:	10.00 PPB
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs. > 1500, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 80% .. 120%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -100 . 100,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Prep Code: SMM
Analyst: DM
Bath Temp: 95°C
Start Time: 0943
Instrument: CETAC
Date: 2-07-13
End Time: 1013

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	50.0	0.0	DM x 3
STD1	3012-4	0.01	↓	0.1	2-7-13 x 2
STD2	↓	0.05	↓	0.5	2
STD3	↓	0.10	↓	1.0	2
STD4	↓	0.20	↓	2.0	2
STD5	↓	0.50	↓	5.0	2
STD6	↓	1.00	↓	10.0	2
CRA	↓	0.01	↓	0.1	1
ICB/CCB	—	0.00	↓	0.0	3
ICV/LCS	59-6	0.08	↓	8.0	2
CCV	↓	0.04	50.0	4.0	3

Chemical/Reagent ID:

HNO_3: I8022 H_2SO_4: I7677 HCl: —

5% $K_2S_2O_8$: MP2418 5% $KMnO_4$: MP2425

Prep Code: SMM
Analyst: NB
Bath Temp: 91°C
Start Time: 1509
Instrument: CETAC
Date: 02-07-13
End Time: 1539

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	50.0	0.0	3
STD1	3012-5	0.01	↓	0.1	2
STD2	↓	0.05	↓	0.5	2
STD3	↓	0.10	↓	1.0	2
STD4	↓	0.20	↓	2.0	2
STD5	↓	0.50	↓	5.0	2
STD6	↓	1.00	↓	10.0	2
CRA	↓	0.01	↓	0.1	1
ICB/CCB	—	0.00	↓	0.0	3
ICV/LCS	59-6	0.08	↓	8.0	2
CCV	↓	0.04	50.0	4.0	3

Chemical/Reagent ID:

HNO_3: I8022 H_2SO_4: I7677 HCl: —

5% $K_2S_2O_8$: MP2418 5% $KMnO_4$: MP2425

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: Smm
Analyst: DM
Bath Temp: 95°C
Start Time: 1443
Matrix: Soil
Date: 2-07-13
End Time: 1513

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
WC78 A	1	—	0.226	50.0	2/17 1	Y	
" ADUP	1	—	0.229		1		
" ASPK	1	—	0.228		1		
" B	1	—	0.230		1		
" C	1	—	0.235		1		
" D	1	—	0.295		1		
" E	1	—	0.206		1		
" F	1	—	0.299		1		
" G	1	—	0.254		1		
" MB1	—	—	—		1		
" MB1SPK	—	—	—	50.0	1	Y	

2-7-13 DM

Chemical/Reagent ID:

HNO_3: I8022
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2418
5% $KMnO_4$: MP2425
Digest Tube Lot: +2 MF06LKK01
DM 2-7-13

WC78 : 00196

General Chemistry Raw Data
Analyst Notes and Raw Data

ARI Job ID: WC78

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 2/8/2013
ANALYST: KE/RR

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: N / A

Batch drying time

record times as mm/dd/yy hh:mm

2/8/2013 11:00 date/time in oven

2/9/2013 10:45 date/time out

elapsed hrs = 23.7

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02			
	Date & Time		2/8/13 7:14 KE	2/9/13 11:00									
Cal Wt (g)	10.0000		10.0000	10.0000									
	record weights to 4 places		*Cal OK!*	*Cal OK!*									

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
Blank		0.0000	1.0806	1.0805			0.00							
WC69 A2		7.4022	1.0783	3.3949			2.32	36.6%						
WC69 A2 dup		7.3522	1.1054	3.3907			2.29	36.6%						
							RPD =	0.13%				RPD =	NA	
WC69 A2 trp		7.2016	1.1090	3.3381			2.23	36.6%						
							RSD =	0.07%				RSD =	NA	
WC69 B2		7.5308	1.1186	4.2471			3.13	48.8%						
WC69 C2		6.8926	1.0991	5.4449			4.35	75.0%						
WC83 A2		6.2669	1.0730	2.6561			1.58	30.5%						
WC83 B2		6.5853	1.0831	2.9173			1.83	33.3%						
WC83 C2		8.8442	1.0911	4.1798			3.09	39.8%						
WC78 A1		6.2646	1.0900	2.0599			0.97	18.7%						
WC78 B1		7.7889	1.0756	3.2646			2.19	32.6%						
WC78 B1 dup		7.3407	1.0645	3.4097			2.35	37.4%						
							RPD =	13.60%				RPD =	NA	
WC78 B1 trp		8.2807	1.0612	3.7217			2.66	36.9%						
							RSD =	7.34%				RSD =	NA	
WC78 C2		9.0891	1.0409	5.5388			4.50	55.9%						
WC78 D2		9.3088	1.0467	7.7101			6.66	80.7%						
WC78 E2		8.1160	1.0769	6.2670			5.19	73.7%						
WC78 F2		8.5277	1.0777	4.8867			3.81	51.1%						
WC78 G2		7.8644	1.0798	4.7287			3.65	53.8%						

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET DATE: 2/8/2013

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))* ANALYST: KE/RR

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: N / A

Batch drying time		*TS (%) calculated as:*	*TVS (mg/kg dry wt) calculated as:*
record times as mm/dd/yy hh:mm		*Final dry wt (g) = (Dry Wt - Tare Wt)*	*Final ash wt (g) = (min ash wt - tare wt)*
2/8/2013 11:00	date/time in oven	*TS = (Final Dry Wt)/ (grams Sample-Tare)*	*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
2/9/2013 10:45	date/time out		*if ash wt > dry wt, "Chk for Err"*
elapsed hrs =	23.7		*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02			
	Date & Time		2/8/13 7:14 KE	2/9/13 11:00									
Cal Wt (g)	10.0000		10.0000	10.0000									
	record weights to 4 places		*Cal OK!*	*Cal OK!*									

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
WD02 A1		6.0578	1.0941	5.7053			4.61	92.9%						
WD02 A1 dup		6.2565	1.0962	5.8473			4.75	92.1%						
							RPD =	0.90%				RPD =	NA	
WD02 B1		6.1448	1.1073	5.8149			4.71	93.5%						
WD02 C1		7.6873	1.1014	7.0895			5.99	90.9%						

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

Analyst: (W) /KL Date: 2-8-13 (T 2-8-13 (W))

Time in Oven: 11:00 Time Out of Oven: 10:45 Oven ID: 12 Balance ID: 1123230597

Elapsed Time (> 12 Hrs):

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Cal Weight ID	CV-02	CV-02	CV-02	CV-02	CV-02	[redacted]	CV-02	CV-02	CV-02
Date & Time:	2-8-13 10:10	2-8-13 7:14	2/8/13 11:00						
Cal Weight (10.0000):	10.0000 (W)	10.0000 (W)	10.0000						

Sample ID	Dish #	Sample	Tare	Dry Weight 104°C 1	Dry Weight 104°C 2	Dry Weight 104°C 3	Dry Weight grams	Ash Weight 550°C 1	Ash Weight 550°C 2	Ash Weight 550°C 3
BLANK	1	Ø	1.0806	1.0805						
WC69 A2	2	7.4022	1.0783	3.3949						
A2	3	7.3522	1.1054	3.3907						
A2	4	7.2016	1.1090	3.3381						
B2	5	7.5308	1.1186	4.2471						
C2	6	6.8926	1.0991	5.4449						
WC83 A2	7	6.2669	1.0730	2.6561						
B2	8	~~65~~ (2)	1.0831	2.9173						
C2	9	8.8442	1.0911	4.1798						
WC78 (1) A1	10	6.2646	1.0900	2.0599						
(3) B1	11	7.7889	1.0756	3.2646						
(4) B1	12	7.3407	1.0645	3.4097						
(5) B1	13	8.2807	1.0612	3.7217						
C1	14	9.0891	1.0409	5.5388						
D1	15	9.3088	1.0467	7.7101						
E1	16	8.1160	1.0769	6.2670						
F1	17	8.5277	1.0777	4.8867						
G1	18	7.8644	1.0798	4.7287						
WD02 A1	19	6.0578	1.0941	5.7053						
A1	20	6.2565	1.0962	5.8473						
B1	21	6.1448	1.1073	5.8149						
C1	22	7.6873	~~1.09~~ 1.1014	7.0895						

(2) 6.5853 - 2-8-13 (W) (3) - B' (4) - B' DP (5) - B' + D - 2-8-13 (W)

6053F

Revision 002
12/28/09

w
2-12-13

TOC Solids Prep Log

acid purging to remove IC and drying at 70°C for TOC analysis
General notes regarding prep method and samples (identify the acid used)

DATE: 2/8/2013
ANALYST: KE 11:18

HCL 10% ID:
HCL ID:

Balance ID: Mettler Toledo (XS205 DU) SN 123230597

make no entry to shaded cells, they are calculated

Sample ID ARI #	Sample ID Client	IC Test + / -	Gravimetric Data (grams) Tare Wt.	Wet wt.	70°C dry wt	% Solids	*Sample description & notes (homogeneity and exclusions)*
Blank			13.1737		13.1736	-0.1 mg	
WC69 A2		-	13.0571	18.6384	15.2258	38.86%	
WC69 A2 dup		-	13.1442	19.8903	15.7310	38.36%	RPD = 1.32%
WC69 A2 trip		-	13.0895	18.8174	15.2851	38.33%	RSD = 0.78%
WC69 B2		-	13.1702	20.3516	16.7316	49.59%	
WC69 C2		-	13.0767	21.6234	19.5931	76.24%	
WC83 A2		-	13.0907	19.6474	15.2457	32.87%	
WC83 B2		-	13.1521	20.4251	15.7163	35.26%	
WC83 C2		++-	13.0803	19.3888	14.5201	22.82%	
WC78 A1		+-	13.1016	19.2614	14.5175	22.99%	
WC78 B1		-	13.0777	21.1612	16.6419	44.09%	
WC78 B1 dup		-	13.1317	20.6796	16.2136	40.83%	RPD = 7.68%
WC78 B1 trip		-	13.0966	22.8759	17.1755	41.71%	RSD = 4.00%
WC78 C1		-	13.0821	19.6272	16.6545	54.58%	
WC78 D1		+-	13.0533	22.0200	20.2215	79.94%	
WC78 E1		-	13.1707	20.5391	18.6601	74.50%	
WC78 F1		-	13.1863	22.0594	17.9619	53.82%	
WC78 G1		-	13.1004	21.8835	17.9727	55.47%	
WC32 D1	NO ACID		13.1065	21.5490	17.9823	57.75%	
WC32 G1	NO ACID		13.1900	19.1159	16.2865	52.25%	
WC32 B1		++-	13.1962	19.8436	16.0184	42.46%	
WC32 B1 dup		++-	13.1202	20.1595	16.0226	41.23%	RPD = 2.93%
WC32 B1 trip		++-	13.1578	19.7338	15.7780	39.84%	RSD = 3.17%

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(1) 2-8-13 (2)

TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst (W) 11:18 Date 2-8-13

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.1737	Ø	13.1736		
WC69 A2		–	13.0571	18.6384	15.2258		Sediment
dA2		–	13.1442	19.8903	15.7310		↓
++A2		–	13.0895	18.8174	15.2851		↓
B2		–	13.1702	20.3516	16.7316		Sediment + Resin/wood
C2		–	13.0767	21.6234	19.5931		Sandy Sediment
WC83 A2		–	13.0907	19.6474	15.2457		Smelly Sediment + Rh
B2		–	13.1521	20.4251	15.7163		Sediment + Rock
C2		++–	13.0803	19.3888	14.5201		Wood + Sediment
WC78 A1		+–	13.1016	~~21.1612~~	19.2614	14.5175	Black Very wet Sed + Le
B1		–	13.0777	~~20.6796~~	21.1612	16.6419	
dB1		–	13.1317	~~22.8759~~	20.6796	16.2136	↓
++B1		–	13.0966	~~22.8755~~	17.1755		Truck Rocks
C1		–	13.0821	19.6272	16.6545		↓
D1		+–	13.0533	22.0200	20.2215		Sandy Sediment + Rocks
E1		–	13.1707	20.5391	18.6601		Small Rocks + Roots
F1		–	13.1863	22.0594	17.9619		Roots + Sand
G1		–	13.1004	21.8835	17.9727		Sandy Sed + Rocks
WC32 D1	No Acid	~~(2)~~	~~13.0899~~	~~20.6732~~	21.5490	17.9823	
~~E1~~	~~3 drops acid~~	~~(3)~~	~~13.1471~~	~~21.0678~~	20.8563		~~Rerun twice 2-12-13 (2)~~
G1		~~(4)~~	~~13.0644~~	~~21.6219~~	19.1159	16.2865	
B1		++ (5)	~~13.0208~~	~~20.5904~~	19.8436	~~16.0185~~	~~16.0184~~ 16.0184
dB1		++ (6)	~~13.0627~~	~~21.3755~~	20.1595	~~16.0126~~	~~15.9376~~ 16.0226
++B1		++ (7)	~~13.1344~~	~~21.2200~~	19.7338	15.7780	
~~WC33 G1~~	~~No Acid~~		~~13.0589~~	~~19.5809~~	19.1910		~~Rerun 2 Times 2-12-13 (2)~~
				2-8-13 (W)			

(2) 13.10.65 2-8-13 (W) (5) 13.1962
(1) (3) ~~13.1394~~ (6) 13.1202
(4) 13.1900 (7) 13.1578

WC78 00202

TOC, Solids Data Analysis

Instrument: Apollo 1		DATE:	2/12/2013
Mode: NPOC	*Inlet:* Boat	ANALYST:	KE 6:32
Spike Std = 2,500 *ppm C*		Balance ID:	

Calibration Data

Cal Curve ID:	**1/14/2013**			*Conc:*	5,000 *ppm*
Calibration Curve Standard:	**00130-01**			*Curve Date:*	**01/14/03**
CalFact:	***1.044E+05***	*intercept:*	**302437**	*r2 :*	**0.99651**
Curve Range (ppm)	200	*to*	2,500		
Curve Range (µgC):	**8**	*to*	**100**	*40 µL injections of designated standard*	

Verification Standard	Source:	***ERA# 0409-12-01***		*Conc:*	**5,000** *ppm*
dilution :	10	*mL to*	50		**1,000** *ppm*
Standard Reference Material	Source:	***NIST 8704***		*Conc:*	**33,510** *ppm*
	Source:	***NIST 1941B***		*Conc:*	**29,900** *ppm*

Silica Blanks

Replicate determinations						Mean	RSD	condition
25.5	23.0	24.6				24.4	5.2%	OK

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			comments
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	
~~ICV~~				~~1.00~~		~~40.0~~	~~885~~	~~885~~	~~88.50%~~
ICV				1.00		40.0	989	989	98.90%
Blank				1.00		40.0	-21.60	-22	Blank OK
NIST 1941B				1.00		1.7	33115	33,115	110.75%
Silica Blanks 1				1.00		77.1	25.47	25	Low Scale
Silica Blanks 2				1.00		76.9	22.99	23	Low Scale
Silica Blanks 3				1.00		81.1	24.63	25	Low Scale
WC69 A2				1.00		1.1	54196	54,196	Range OK!
WC69 A2 dup				1.00		1.0	63506	63,506	RPD=15.6%
WC69 A2 trp				1.00		1.0	52392	52,392	RSD=10.5%
WC69 A2 ms				1.00	20	0.8	102491	102,491	Range OK!
Spike =	*0.05*	*mg C to*	*0.5*	*mg sample*	*62,500*	*ppm*		*77%*	
WC69 B2				1.00		1.1	29160	29,160	Range OK!
WC69 C2				1.00		0.8	12417	12,417	Range OK!
~~CCV~~				~~1.00~~		~~40.0~~	~~1122~~	~~1,122~~	~~112.20%~~
CCV				1.00		40.0	1068	1,068	106.80%
Blank				1.00		40.0	-58.59	-59	Blank OK

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments
WC26 A2				1.00		0.7	29716	29,716	Range OK!
WC26 A2 dup				1.00		0.7	30463	30,463	RPD=2.5%
WC26 A2 trp				1.00		0.8	25393	25,393	RSD=9.6%
WC26 A2 ms				1.00	10	0.7	61821	61,821	Range OK!
Spike =	*0.025*	*mg C to*	*0.7*	*mg sample*	*35,714*	*ppm*		*90%*	
WC26 B2				1.00		1.0	5776	5,776	Low Scale
WC26 C2				1.00		0.8	25029	25,029	Range OK!
WC26 D2				1.00		0.8	39078	39,078	Range OK!
WC26 E2				1.00		1.3	16631	16,631	Range OK!
WC26 F2				1.00		1.1	29195	29,195	Range OK!
WC26 G2	11.9	118.8	89.98%	9.98		1.5	10929	108,887	Range OK!
CCV				1.00		40.0	1071	1,071	107.10%
Blank				1.00		40.0	-41.55	-42	Blank OK
WC26 H2	13.9	137.1	89.86%	9.86		2.4	7411	72,881	Range OK!
WC26 I 2				1.00		0.7	75783	75,783	Range OK!
WC43 A3				1.00		1.2	13049	13,049	Range OK!
WC43 B3				1.00		1.8	7699	7,699	Range OK!
WC43 C3				1.00		1.2	49016	49,016	Range OK!
WC43 D3				1.00		2.0	5367	5,367	Range OK!
WC43 E3				1.00		1.4	29724	29,724	Range OK!
WC83 A2				1.00		1.1	46488	46,488	Range OK!
WC83 B2				1.00		1.1	50797	50,797	Range OK!
WC83 C2	11.4	111.9	89.81%	9.82		1.8	15984	156,861	Range OK!
CCV				1.00		40.0	1005	1,005	100.50%
Blank				1.00		40.0	-59.34	-59	Blank OK
WC78 A1	12.1	120.4	89.95%	9.95		1.3	13065	129,984	Range OK!
NIST 1941B				1.00		1.7	26904	26,904	89.96%
CCV				1.00		40.0	1062	1,062	106.20%
Blank				1.00		40.0	-65.49	-65	Blank OK

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① 2-12-13 (W)

TOC Solids Sample Run Log
Apollo 9000

Page 1 of 2

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler	
Standards:	Source	Conc (ppm)	Analyst:	(K)
Calibration:	ARI - 00128-03	5000	Date:	2-12-13
Verification:	ERA - 0409-1207	5000 to 1000 for CVS	Time:	6:32
SRM:	NBS - (1941b) or 8704	Method: PSEP 1986-MOD	Balance ID	B146454145
Sample Sequence:				

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
ICW			40			
ICW			40			
ICB			40			
NBS 1941 B			1.7			
SB 1			77.1			
2			76.9			
3			81.1			
WC69 A2			1.1			
DPA2			1.0			
LPA2			1.0			
MS A2			0.8	2500	20	
B2			1.1			
C2			0.8			
CCW			40/40			
CCB			40			
WC26 A2			0.7			
DP A2			0.7			
LP A2			0.8			
MS A2			0.7	2500	10	
B2			1.0			
C2			0.8			
D2			0.8			
E2			1.3			
F2			1.1			
G2	11.9	118.8	1.5			
CCW			40			
CCB			40			
WC26 H2	13.9	137.1	2.4			
I2			0.7			
WC43 A3			1.2			
B3			1.8			
C3			1.2			

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(KD) 2-12-13 (1)

TOC Solids Sample Run Log
Apollo 9000

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Set-Up Parameters MODE: NPOC			INLET: Boat Sampler		
Standards:	Source	Conc (ppm)		Analyst:	(KD)
Calibration:	ARI – 00 128-03	5000		Date:	2-12-13
Verification:	ERA – 0409-1201	5000 to 1000 for CVS		Time:	6:32
SRM:	NBS – 1941b or 8704	Method: PSEP 1986-MOD		Balance ID	B146454145
Sample Sequence:					

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
WC13 D3			2.0			
↓ E2			1.4			
WC83 A2			1.1			
↓ B2	11.4	111.9	(1) ~~2.8~~ 1.1			
↓ C2	~~12.1~~ (1)	~~120.4~~ (1)	1.8			
CCV			40			
CCB			40			
WC78 A1	12.1	120.4	1.8			
NBS 1941 B			1.7			
CCV			40			
CCB			40			

2-12-13 (KD)

WC78 : 88285

Detailed Analysis Report Print Date/Time: 2013/02/12 15:32:34

2-12-13

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02120554
Timestamp: 2013/02/12 05:57
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	884.6809	35.3872	3995281	10.476	11.471	105

Last Message: Out of Calibration

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02120617
Timestamp: 2013/02/12 06:20
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	988.5929	39.5437	4429032	10.532	11.528	119

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02120647
Timestamp: 2013/02/12 06:49
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-21.5965	-0.8639	212289	10.831	11.828	61

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02120745
Timestamp: 2013/02/12 07:50
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	33114.8867	56.2953	6177148	14.073	15.073	252

Sample ID: Silica Blanks 1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02120920
Timestamp: 2013/02/12 09:22
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	25.4665	1.9635	204898	12.925	13.918	59

Sample ID: Silica Blanks 2
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02120931
Timestamp: 2013/02/12 09:34
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	22.9944	1.7683	184528	12.605	13.596	61

Sample ID: Silica Blanks 3
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02120952
Timestamp: 2013/02/12 09:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

1	24.6334	1.9978	208478	12.194	13.185	59

Sample ID: WC69 A2
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121009
Timestamp: 2013/02/12 10:16
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	54195.8320	59.6154	6221181	11.998	12.995	147

Sample ID: WC69 A2 DI
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121027
Timestamp: 2013/02/12 10:31
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	63506.3828	63.5064	6627224	11.899	12.898	183

Sample ID: WC69 A2 JK
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121051
Timestamp: 2013/02/12 10:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	52391.9258	52.3919	5467372	11.761	12.757	141

Sample ID: WC69 A2 MS
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121058
Timestamp: 2013/02/12 11:02
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	102491.4219	81.9931	8556414	11.823	12.820	148

Sample ID: WC69 B2
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121133
Timestamp: 2013/02/12 11:36
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29159.6797	32.0756	3347262	11.708	12.708	119

Sample ID: WC69 B2
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121140
Timestamp: 2013/02/12 11:43
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12416.6318	9.9333	1036593	11.673	12.671	115

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121151
Timestamp: 2013/02/12 11:55
Sample Type: Cal. Verification

2-12-13

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1121.6495	44.8660	4984438	11.609	12.608	144

Last Message: Out of Calibration

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121157
Timestamp: 2013/02/12 12:00
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1067.7644	42.7106	4759510	11.733	12.731	117

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121200
Timestamp: 2013/02/12 12:04
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-58.5886	-2.3435	57876	11.801	11.803	120

Last Message: Low Sample Detected

Sample ID: WC26 A2
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121208
Timestamp: 2013/02/12 12:12
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29715.5801	20.8009	2170684	11.840	12.836	96

Sample ID: WC26 A2 DP
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121217
Timestamp: 2013/02/12 12:20
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30462.9688	21.3241	2225279	11.833	12.831	101

Sample ID: WC26 A2 TRIP
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121230
Timestamp: 2013/02/12 12:33
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	25393.2246	20.3146	2119933	11.924	12.924	100

Sample ID: WC26 A2 MS
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121237
Timestamp: 2013/02/12 12:40
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	61820.6406	43.2744	4515915	12.165	13.161	110

Sample ID: WC26 B2
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121247
Timestamp: 2013/02/12 12:50
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5775.8110	5.7758	602736	12.244	13.243	75

Sample ID: WC26 C2
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121251
Timestamp: 2013/02/12 12:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	25028.7266	20.0230	2089503	12.421	13.420	107

Sample ID: WC26 D2
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121303
Timestamp: 2013/02/12 13:08
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	39077.7266	31.2622	3262373	13.589	14.587	142

Sample ID: WC26 E2
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121311
Timestamp: 2013/02/12 13:14
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16631.2148	21.6206	2256221	14.605	15.602	124

Sample ID: WC26 F2
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121327
Timestamp: 2013/02/12 13:31
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29194.7539	32.1142	3351288	16.333	17.331	124

Sample ID: WC26 G2
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121334
Timestamp: 2013/02/12 13:37
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10928.6709	16.3930	1710696	16.753	17.753	86

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121339
Timestamp: 2013/02/12 13:42
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1070.8662	42.8346	4772457	16.809	17.808	119

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121344
Timestamp: 2013/02/12 13:47
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning	Ending	Integration

				Baseline	Baseline	Time
1	-41.5540	-1.6622	128982	16.927	17.925	66

Sample ID: WC26 H2
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02121351
Timestamp: 2013/02/12 13:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7410.5171	17.7852	1855983	16.502	17.500	94

Sample ID: WC26 I2
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02121355
Timestamp: 2013/02/12 13:59
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	75782.6328	53.0478	5535821	16.412	17.410	130

Sample ID: WC43 A3
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02121403
Timestamp: 2013/02/12 14:05
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	13049.4580	15.6593	1634135	15.952	16.950	91

Sample ID: WC43 B3
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02121407
Timestamp: 2013/02/12 14:12
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7698.6309	13.8575	1446106	15.631	16.630	87

Sample ID: WC43 C3
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02121414
Timestamp: 2013/02/12 14:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	49016.0625	58.8193	6138100	15.196	16.195	152

Sample ID: WC43 D3
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02121421
Timestamp: 2013/02/12 14:24
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5367.0757	10.7342	1120165	14.843	15.835	97

Sample ID: WC43 E3
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02121427
Timestamp: 2013/02/12 14:31
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

1	29724.3223	32.6968	3412078	14.580	15.578	113

Sample ID: WC83 A2
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121434
Timestamp: 2013/02/12 14:37
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	46487.5547	65.0826	6791708	14.498	15.496	143

Sample ID: WC83 B2
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121443
Timestamp: 2013/02/12 14:47
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50797.2383	55.8770	5831054	14.564	15.563	142

Sample ID: WC83 C2
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121448
Timestamp: 2013/02/12 14:51
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15984.3496	28.7718	3002491	14.833	15.829	102

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121456
Timestamp: 2013/02/12 14:59
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1004.6124	40.1845	4495900	15.331	16.326	107

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121502
Timestamp: 2013/02/12 15:06
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-59.3409	-2.3736	54736	15.455	15.506	120

Last Message: Low Sample Detected

Sample ID: WC78 A1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121509
Timestamp: 2013/02/12 15:11
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	13065.2637	16.9848	1772457	15.475	16.473	89

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02121514
Timestamp: 2013/02/12 15:19
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning	Ending	Integration

				Baseline	Baseline	Time
1	26904.2012	45.7371	5075348	15.337	16.333	216

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02121520
Timestamp: 2013/02/12 15:24
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1061.6141	42.4646	4733837	15.308	16.306	118

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02121525
Timestamp: 2013/02/12 15:29
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-65.4885	-2.6195	29075	15.204	15.157	120

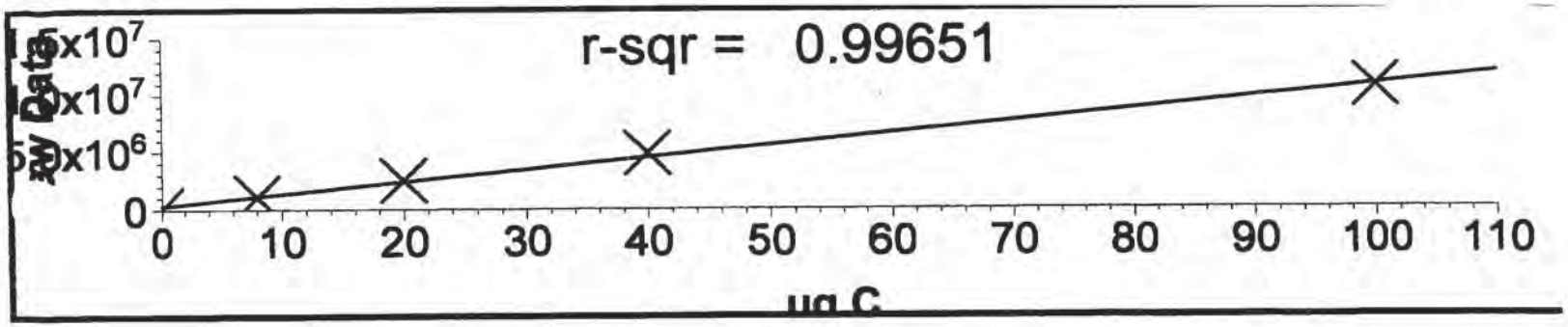
Last Message: Low Sample Detected

Calibration Report Print Date/Time: 2013/01/14 8:30:01

Cal. Curve ID: 01142013 BOAT CAL
Created: 2013/01/14 08:17
Calibration Factor (m): 1.044e+05
Y Intercept (b): 302437
r-squared: 0.99651

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
DI Water	33318	0.000	-2.579	Low Sample De	2013/01/14 06:14
200 ppm	1081664	8.000	7.467		2013/01/14 06:48
500 ppm	2525630	20.000	21.304		2013/01/14 07:16
1000 ppm	4829004	40.000	43.377		2013/01/14 07:39
2500 ppm	10574251	100.000	98.431		2013/01/14 08:14

WC70:00214


r-sqr = 0.99651
x10^7
x10^7
x10^6
0
0
10
20
30
40
50
60
70
80
90
100
110
ug C

Detailed Analysis Report Print Date/Time: 2013/01/14 8:30:55

1-14-13 (M)

Sample ID: DI Water
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140539
Timestamp: 2013/01/14 05:52
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			-14711	26.643	26.301	120

Last Message: Low Sample Detected

Sample ID: DI Water
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140600
Timestamp: 2013/01/14 06:14
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			73700	25.034	26.033	56
2			28393	24.556	24.301	120
3			-2140	24.039	23.717	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 33318 Std Dev: 38159 RSD: 114.53

1-14-13 (M)

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140618
Timestamp: 2013/01/14 06:25
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			844250	23.240	24.238	69
2			1151875	23.093	24.078	73

<<<Statistics>>> Mean: 998062 Std Dev: 217524 RSD: 21.79

1-14-13 (M)

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140628
Timestamp: 2013/01/14 06:37
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1147087	22.512	23.503	73
2			3432	22.098	22.064	99

Last Message: Canceled
<<<Statistics>>> Mean: 575260 Std Dev: 808686 RSD: 140.58

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140638
Timestamp: 2013/01/14 06:48
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1093164	22.200	23.200	71
2			1062241	21.888	22.886	87
3			1089589	21.582	22.582	81

<<<Statistics>>> Mean: 1081665 Std Dev: 16916 RSD: 1.56

Sample ID: 500 ppm
Method: Boat Sampler

Mode: TOC
Filename: 01140655

WCTG:00216

Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Timestamp: 2013/01/14 07:16
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2429789	20.890	21.888	115
2			2571578	20.382	21.379	114
3			2575524	20.198	21.197	110

<<<Statistics>>> Mean: 2525630 Std Dev: 83024 RSD: 3.29

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140718
Timestamp: 2013/01/14 07:39
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			4824518	20.211	21.211	159
2			4665355	20.220	21.220	129
3			4997139	20.091	21.089	120

<<<Statistics>>> Mean: 4829004 Std Dev: 165937 RSD: 3.44

Sample ID: 2500 ppm
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140748
Timestamp: 2013/01/14 08:14
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			9546361	20.661	21.660	190
2			10940150	22.300	23.297	281
3			11236244	23.583	24.581	262

<<<Statistics>>> Mean: 10574252 Std Dev: 902406 RSD: 8.53

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140820
Timestamp: 2013/01/14 08:25
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	996.3702	39.8548	4461496	25.435	26.434	191

Sample ID: ~~ICV/CCV~~ ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140827
Timestamp: 2013/01/14 08:29
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-43.8919	-1.7557	119223	26.411	27.407	63

Last Message: Out of Calibration

WC78:0021T

2-15-13

TOC, Solids Data Analysis

DATE: 2/13/2013

Instrument: Apollo 1 — ANALYST: KE 6:14

Mode: NPOC *Inlet:* Boat

Spike Std = **2,500** *ppm C* — Balance ID:

Calibration Data

Cal Curve ID: **1/14/2013** — *Conc:* 5,000 *ppm*

Calibration Curve Standard: **00130-01** — *Curve Date:* **01/14/03**

CalFact: **1.044E+05** *intercept:* **302437** *r2 :* **0.99651**

Curve Range (ppm) 200 *to* 2,500

Curve Range (µgC): **8** *to* **100** *40 µL injections of designated standard*

Verification Standard

Source: ***ERA# 0409-12-01*** — *Conc:* **5,000** *ppm*

dilution : 10 *mL to* 50 — **1,000** *ppm*

Standard Reference Material

Source: ***NIST 8704*** — *Conc:* **33,510** *ppm*

Source: ***NIST 1941B*** — *Conc:* **29,900** *ppm*

Silica Blanks

Replicate determinations						Mean	RSD	condition

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments
ICV				1.00		40.0	960	960	96.00%
Blank				1.00		40.0	-56.79	-57	Blank OK
NIST 1941B				1.00		1.4	31729	31,729	106.12%
WC78 B1				1.00		1.4	37673	37,673	Range OK!
WC78 B1 dup				1.00		1.5	35765	35,765	RPD=5.2%
WC78 B1 trp				1.00		1.3	33333	33,333	RSD=6.1%
~~WC78 B1 ms~~				~~1.00~~	~~20~~	~~1.0~~	~~74452~~	~~74,452~~	~~Range OK!~~
~~Spike =~~	~~0.05~~	~~mg C to~~	~~1.0~~	~~mg samp=~~	~~50,000~~	~~ppm~~		~~74%~~	~~LATE INJECT~~
WC78 B1 ms				1.00	20	1.0	83872	83,872	Range OK!
Spike =	0.05	mg C to	1.0	mg samp=	50,000	ppm		92%	
WC78 C1				1.00		1.6	40763	40,763	Range OK!
WC78 D1				1.00		1.0	23578	23,578	Range OK!
WC78 E1				1.00		1.1	19052	19,052	Range OK!
WC78 F1				1.00		0.8	44068	44,068	Range OK!

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments
CCV				1.00		40.0	1073	1,073	*107.30%*
Blank				1.00		40.0	-58.58	-59	*Blank OK*
WC78 G1				1.00		0.7	82990	82,990	*Range OK!*
WC40 A1				1.00		1.6	6272	6,272	*Range OK!*
WC40 A1 dup				1.00		1.8	6939	6,939	*RPD=10.1%*
WC40 A1 trp				1.00		1.6	7214	7,214	*RSD=7.1%*
WC40 A1 ms				1.00	10	1.8	21791	21,791	*Range OK!*
Spike =	*0.025*	*mg C to*	*1.8*	*mg samp=*	*13,889*	*ppm*		*112%*	
WC40 B1				1.00		1.9	4043	4,043	*Low Scale*
WC32 A1				1.00		1.2	25374	25,374	*Range OK!*
Samples WC32 C1,D1,E1,F1,G1,& WC33 G1 Had 10% O-Phosphoric Acid added to samples in the boat pryer to combustion. Amount (how many drops) shown after condition of each run.									
WC32 C1				1.00		1.4	34444	34,444	*Range OK!*	**6 Drops Acid**
WC32 D1				1.00		1.8	32029	32,029	*Range OK!*	**8 Drops Acid**
WC32 E1				1.00		2.7	12221	12,221	*Range OK!*	**7 Drops Acid**
CCV				1.00		40.0	1057	1,057	*105.70%*	
Blank				1.00		40.0	-42.67	-43	*Blank OK*	
WC32 F1				1.00		2.1	16168	16,168	*Range OK!*	**6 Drops Acid**
WC32 G1				1.00		1.3	54617	54,617	*Range OK!*	**9 Drops Acid**
WC33 G1				1.00		2.2	18182	18,182	*Range OK!*	**6 Drops Acid**
WC32 H1				1.00		1.0	27892	27,892	*Range OK!*	
~~WC32 B1~~				~~1.00~~		~~1.2~~	~~31049~~	~~31,049~~	~~*Range OK!*~~	
WC32 B1				1.00		1.3	15656	15,656	*Range OK!*	
WC32 B1 dup				1.00		1.3	16256	16,256	*RPD=3.8%*	
WC32 B1 trp				1.00		1.3	19674	19,674	*RSD=12.6%*	
WC32 B1 ms				1.00	20	1.2	49535	49,535	*Range OK!*	
Spike =	*0.05*	*mg C to*	*1.2*	*mg samp=*	*41,667*	*ppm*		*81%*		
~~WD45 C1~~				~~1.00~~		~~2.0~~	~~8893~~	~~8,893~~	~~*Range OK!*~~	~~**1 Drop Acid**~~
NIST 1941B				1.00		1.5	30183	30,183	*100.95%*	
~~CCV~~				~~1.00~~		~~40.0~~	~~825~~	~~825~~	~~*82.50%*~~	
CCV				1.00		40.0	914	914	*91.40%*	
Blank				1.00		40.0	-44.69	-45	*Blank OK*	

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① 2-13-13 (W)

TOC Solids Sample Run Log
Apollo 9000

Page 1 of 2

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler	
Standards:	Source	Conc (ppm)	Analyst:	(W)
Calibration:	ARI – 00128-03	5000	Date:	2-13-13
Verification:	ERA – 0409-1201	5000 to 1000 for CVS	Time:	6:14
SRM:	NBS – 1941b or 8704	Method: PSEP 1986-MOD	Balance ID	B 146454145
Sample Sequence:				

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
ICV			40			
ICB			40			
NBS 1941 B			1.4			
WC78 B'			1.4			
↓ ol B'			1.5			
↓ +P B'			1.3			
↓ MS B'			1.0	2500	20	(Lake indect Rerun)
↓ MS B'			1.0	2500	20	
↓ C'			1.6			
↓ D'			1.0			
↓ E'			1.1			
↓ F'			0.8			
CCV			40			
CCB			40			
WC78 G'			0.7			
WC40 A'			1.6			
↓ ol A'			1.8			
↓ +P A'			1.6			
↓ MS A'			1.8	2500	10	
↓ B'			1.9			
WC32 A'	~~Drops~~	~~Acid~~ ①	1.2			
↓ C'	6-Drops	Acid	1.4			Acidify in Boat
↓ D'	8-Drops	Acid	1.8			↓
↓ E'	7 "	"	2.7			
CCV			40			
CCB			40			
WC32 F'	6 Drops	Acid	2.1			Acidify in Boat
↓ G'	9 "	"	1.3			↓
WC33 G'	6 "	"	2.2			
WC32 H'			1.0			
↓ ① B'			1.2			wrong Sample (70)
↓ B'			1.3			

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TOC Solids Sample Run Log
Apollo 9000

Page 2 of 2

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler	
Standards:	Source	Conc (ppm)	Analyst:	(N)
Calibration:	ARI – 00128-03	5000	Date:	2-13-13
Verification:	ERA – 0409-12-01	5000 to 1000 for CVS	Time:	6:14
SRM:	NBS – 1941b or 8704	Method: PSEP 1986-MOD	Balance ID	B 14645145
Sample Sequence:				

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
WC32 MB'			1.3			
MB'			1.3			
MS B'			1.2	2500	20	
WD45 C1	1 Drop	Acid	2.0			Acidify in Boat
NBS1941B			1.5			
CCV			40/40			
CCB			40			

2-13-13 (N)

2-13-13 (N)

Detailed Analysis Report Print Date/Time: 2013/02/13 15:35:13

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02130611
Timestamp: 2013/02/13 06:14
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	960.0685	38.4027	4309965	12.530	13.528	109

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02130638
Timestamp: 2013/02/13 06:40
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-56.7868	-2.2715	65397	12.469	13.464	49

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02130703
Timestamp: 2013/02/13 07:08
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31729.2383	44.4209	4937995	12.454	13.450	198

Sample ID: WC78 B1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02130721
Timestamp: 2013/02/13 07:30
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	37672.8906	52.7420	5503909	13.014	14.012	138

Sample ID: WC78 B1 DP
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02130732
Timestamp: 2013/02/13 07:36
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	35764.5195	53.6468	5598323	13.052	14.049	137

Sample ID: WC78 B1 TRIP
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02130744
Timestamp: 2013/02/13 07:47
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	33332.8086	43.3327	4521989	13.033	14.032	129

Sample ID: WC78 B1 MS
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 02130804
Timestamp: 2013/02/13 08:08
Sample Type: Sample

2-13-13 (N)

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	74451.9531	74.4520	7769452	13.466	14.461	138

Sample ID: WC78 B1 MS
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02130814
Timestamp: 2013/02/13 08:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	83871.7656	83.8718	8752458	13.477	14.476	156

Sample ID: WC78 C1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02130826
Timestamp: 2013/02/13 08:37
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	40762.7539	65.2204	6806091	13.356	14.356	146

Sample ID: WC78 D1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02130844
Timestamp: 2013/02/13 08:47
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	23577.9570	23.5780	2460483	13.270	14.267	106

Sample ID: WC78 E1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02130850
Timestamp: 2013/02/13 08:53
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19051.5176	20.9567	2186938	13.189	14.183	98

Sample ID: WC78 F1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02130857
Timestamp: 2013/02/13 09:02
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	44067.5156	35.2540	3678941	13.145	14.143	117

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02130904
Timestamp: 2013/02/13 09:07
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1072.8595	42.9144	4780778	13.240	14.238	120

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02130915
Timestamp: 2013/02/13 09:17
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-58.5766	-2.3431	57926	13.395	14.395	49

Sample ID: WC78 G1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02130932
Timestamp: 2013/02/13 09:35
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	82990.3984	58.0933	6062338	13.672	14.670	142

Sample ID: WC40 A1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131000
Timestamp: 2013/02/13 10:04
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6271.6396	10.0346	1047166	14.139	15.137	88

Sample ID: WC40 A1 DUP
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131010
Timestamp: 2013/02/13 10:13
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6939.2451	12.4906	1303464	14.559	15.553	91

Sample ID: WC40 A1 TRIP
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131022
Timestamp: 2013/02/13 10:25
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7214.1694	11.5427	1204538	15.101	16.094	101

Sample ID: WC40 A1 MS
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131028
Timestamp: 2013/02/13 10:30
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21790.5645	39.2230	4093127	15.653	16.653	96

Sample ID: WC40 B1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131040
Timestamp: 2013/02/13 10:44
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4042.9663	7.6816	801619	15.452	16.449	74

Sample ID: WC32 A1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131047
Timestamp: 2013/02/13 10:50
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	25373.9023	30.4487	3177480	15.299	16.298	105

Sample ID: WC32 C1 Acid in Boat
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131129
Timestamp: 2013/02/13 11:35
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	34444.1523	48.2218	5032199	13.761	17.028	300

Last Message: Max Integration Time Reached

Sample ID: WC32 D1 Acid in Boat
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131141
Timestamp: 2013/02/13 11:55
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	32029.1777	57.6525	6016343	13.450	16.582	300

Last Message: Max Integration Time Reached

Sample ID: WC32 E1 Acid in Boat
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131202
Timestamp: 2013/02/13 12:09
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12221.3711	32.9977	3443483	13.174	17.007	300

Last Message: Max Integration Time Reached

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131222
Timestamp: 2013/02/13 12:29
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1057.3726	42.2949	4716132	13.280	14.278	119

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131235
Timestamp: 2013/02/13 12:39
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-42.6681	-1.7067	124332	13.442	14.440	52

Sample ID: WC32 F1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131246
Timestamp: 2013/02/13 12:53
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16168.4316	33.9537	3543247	13.381	17.760	300

Last Message: Max Integration Time Reached

Sample ID: WC32 G1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131306
Timestamp: 2013/02/13 13:24
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	54616.7188	71.0017	7409403	14.189	23.106	301

Last Message: Max Integration Time Reached

Sample ID: WC33 G1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131332
Timestamp: 2013/02/13 13:39
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18182.1074	40.0006	4174276	17.193	26.459	300

Last Message: Max Integration Time Reached

Sample ID: WC32 H1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131345
Timestamp: 2013/02/13 13:48
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	27891.8672	27.8919	2910663	20.237	21.237	122

Sample ID: WC32 B1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Late injection 2-13-13

Mode: TOC
Filename: 02131352
Timestamp: 2013/02/13 13:55
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31048.6133	37.2583	3888103	20.309	21.309	130

Sample ID: WC32 B1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131358
Timestamp: 2013/02/13 14:01
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15655.7998	20.3525	2123894	20.585	21.584	108

Sample ID: WC32 B1 DUP
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131403
Timestamp: 2013/02/13 14:06
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	16255.9834	21.1328	2205316	20.743	21.740	103

Sample ID: WC32 B1 ~~DUP~~
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131416
Timestamp: 2013/02/13 14:22
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19673.8574	25.5760	2668991	20.553	21.551	116

Sample ID: WC32 B1 MS
Mode: TOC

Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Filename: 02131424
Timestamp: 2013/02/13 14:29
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	49535.0703	59.4421	6203093	20.392	21.392	191

Sample ID: WD45 C1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131433
Timestamp: 2013/02/13 14:35
Sample Type: Sample

Cancelled 2-13-13 (N)

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	176.6949	7.0678	737562	20.386	21.377	78

Sample ID: WD45 C1
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131436
Timestamp: 2013/02/13 14:43
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8892.7910	17.7856	1856019	20.287	23.058	300

Last Message: Max Integration Time Reached

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131504
Timestamp: 2013/02/13 15:09
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30182.7148	45.2741	5027024	18.844	19.842	223

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131513
Timestamp: 2013/02/13 15:16
Sample Type: Cal. Verification

2-13-13 (N)

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	825.1590	33.0064	3746824	18.790	19.789	113

Last Message: Out of Calibration

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131520
Timestamp: 2013/02/13 15:23
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	914.2907	36.5716	4118879	18.109	19.108	114

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 02131526
Timestamp: 2013/02/13 15:27
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-44.6886	-1.7875	115898	17.990	18.984	52

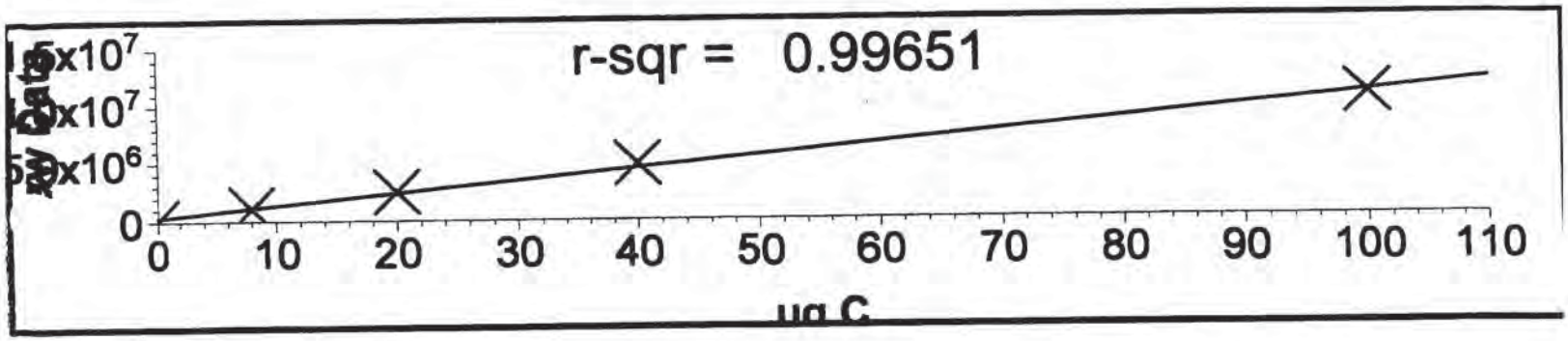
WC70 : 00220

Calibration Report Print Date/Time: 2013/01/14 8:30:01

Cal. Curve ID: 01142013 BOAT CAL
Created: 2013/01/14 08:17
Calibration Factor (m): 1.044e+05
Y Intercept (b): 302437
r-squared: 0.99651

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
DI Water	33318	0.000	-2.579	Low Sample De	2013/01/14 06:14
200 ppm	1081664	8.000	7.467		2013/01/14 06:48
500 ppm	2525630	20.000	21.304		2013/01/14 07:16
1000 ppm	4829004	40.000	43.377		2013/01/14 07:39
2500 ppm	10574251	100.000	98.431		2013/01/14 08:14

WC70 : 00220


r-sqr = 0.99651
x10^7
x10^7
x10^6
0
0
10
20
30
40
50
60
70
80
90
100
110
ug C

Detailed Analysis Report Print Date/Time: 2013/01/14 8:30:55

Sample ID: DI Water
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140539
Timestamp: 2013/01/14 05:52
Sample Type: TOC Standard

1-14-13 (N)

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			-14711	26.643	26.301	120

Last Message: Low Sample Detected

Sample ID: DI Water
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140600
Timestamp: 2013/01/14 06:14
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			73700	25.034	26.033	56
2			28393	24.556	24.301	120
3			-2140	24.039	23.717	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 33318 Std Dev: 38159 RSD: 114.53

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140618
Timestamp: 2013/01/14 06:25
Sample Type: TOC Standard

1-14-13 (N)

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			844250	23.240	24.238	69
2			1151875	23.093	24.078	73

<<<Statistics>>> Mean: 998062 Std Dev: 217524 RSD: 21.79

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140628
Timestamp: 2013/01/14 06:37
Sample Type: TOC Standard

1-14-13 (N)

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1147087	22.512	23.503	73
2			3432	22.098	22.064	99

Last Message: Canceled
<<<Statistics>>> Mean: 575260 Std Dev: 808686 RSD: 140.58

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140638
Timestamp: 2013/01/14 06:48
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1093164	22.200	23.200	71
2			1062241	21.888	22.886	87
3			1089589	21.582	22.582	81

<<<Statistics>>> Mean: 1081665 Std Dev: 16916 RSD: 1.56

Sample ID: 500 ppm
Method: Boat Sampler

Mode: TOC
Filename: 01140655

WC76 : 00231

Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Timestamp: 2013/01/14 07:16
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2429789	20.890	21.888	115
2			2571578	20.382	21.379	114
3			2575524	20.198	21.197	110

<<<Statistics>>> Mean: 2525630 Std Dev: 83024 RSD: 3.29

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140718
Timestamp: 2013/01/14 07:39
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			4824518	20.211	21.211	159
2			4665355	20.220	21.220	129
3			4997139	20.091	21.089	120

<<<Statistics>>> Mean: 4829004 Std Dev: 165937 RSD: 3.44

Sample ID: 2500 ppm
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140748
Timestamp: 2013/01/14 08:14
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			9546361	20.661	21.660	190
2			10940150	22.300	23.297	281
3			11236244	23.583	24.581	262

<<<Statistics>>> Mean: 10574252 Std Dev: 902406 RSD: 8.53

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140820
Timestamp: 2013/01/14 08:25
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	996.3702	39.8548	4461496	25.435	26.434	191

Sample ID: ~~ICV/CCV~~ ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 01142013 BOAT CAL
Operator ID: CDE

Mode: TOC
Filename: 01140827
Timestamp: 2013/01/14 08:29
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-43.8919	-1.7557	119223	26.411	27.407	63

Last Message: Out of Calibration

WC70 00232

Geotechnical Raw Data
Analyst Notes and Raw Data

ARI Job ID: WC78

Sieve/Hydrometer Particle Size Analysis - ASTM D421/422

ARI Job No.: WC78 ARI Sample ID.: A Setup Date: 2·7·2013 Initials: BR
Sample Description: Clay, Organic Fines and wood fibers
Method of size reduction: Quartering [ ] Sample Splitter [ ] Whole Sample [X]

Tare Number	A
Tare Weight (g)	9.81
Tare + Air-Dried Sample Weight (g) (before #10 preparation)	~~59.58~~ 74.55
Hydro Test Sample Weight (g) (not including beaker weight)	56.60
Tare + Oven-Dried #10 Washed (g)	9.89
Tare + Oven-Dried #200 Washed (g) (including plus #10 material)	26.47

Hygroscopic Moisture Content	
Tare Number	A
Tare Weight (g)	1.53
Wet Soil + Tare (g)	8.63
Dry Soil + Tare (g)	7.88

Hydro Beaker: AM Calgon Batch #: 280 Calgon Date: 2·8·2013 Technician: BR
Method of size reduction: Quartering [ ] Sample Splitter [ ] Whole Sample [X]

Hydrometer Analysis

Hydro #: 193121 Technician: BR

2/11/2013				
Time	Δ Time	Test Cylinder	Calgon Blank	Temp (°C)
12:20:00	START			
12:21:00	1	39	6	20.5
12:22:00	2	36	6	20.5
12:25:00	5	31.5	6	20.5
12:35:00	15	26	6	20.5
12:50:00	30	23	6	20.5
13:20:00	60	18	5.5	20.5
16:30:00	250	12.5	5.5	21.0
12:20:00	1440	8.5	5.5	20.5

Sieve Analysis

Sieve Date: 2·14·2013 Sieve Set #: 3 Technician: BR

Sieve Size	Cumulative Weight (g)
Empty Tare	9.84
2"	
1½"	
1"	
3/4"	
1/2"	
3/8"	
#4	9.89
#10	9.91
#20	12.03
#40	15.56
#60	18.21
#100	20.42
#200	23.80
Pan	26.41

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Sieve/Hydrometer Particle Size Analysis - ASTM D421/422

ARI Job No.: WC78 ARI Sample ID.: B Setup Date: 2-7-2013 Initials: RR
Sample Description: Sand Silt & Clay, some small wood
Method of size reduction: Quartering [X] Sample Splitter [ ] Whole Sample [ ]

Tare Number	B
Tare Weight (g)	10.42
Tare + Air-Dried Sample Weight (g) (before #10 preparation)	118.82
Hydro Test Sample Weight (g) (not including beaker weight)	75.26
Tare + Oven-Dried #10 Washed (g)	11.19
Tare + Oven-Dried #200 Washed (g) (including plus #10 material)	19.30

Hygroscopic Moisture Content	
Tare Number	B
Tare Weight (g)	1.55
Wet Soil + Tare (g)	12.74
Dry Soil + Tare (g)	11.67

Hydro Beaker: BC Calgon Batch #: 280 Calgon Date: 2-8-2013 Technician: RR
Method of size reduction: Quartering [X] Sample Splitter [ ] Whole Sample [ ]

Hydrometer Analysis

Hydro #: 193121 Technician: RR
2/11/2013

Time	Δ Time	Test Cylinder	Calgon Blank	Temp (°C)
12:27:00	START			
12:28:00	1	65	6	20.5
12:29:00	2	60	6	20.5
12:32:00	5	55	6	20.5
12:42:00	15	47	6	20.5
12:57:00	30	41	6	20.5
13:27:00	60	36	5.5	20.5
16:37:00	250	24	5.5	21.0
12:27:00	1440	17	5.5	20.5

Sieve Analysis

Sieve Date: 2-14-2013 Sieve Set #: 4 Technician: RR

Sieve Size	Cumulative Weight (g)
Empty Tare	10.42
2"	
1½"	
1"	
3/4"	
1/2"	
3/8"	
#4	10.73
#10	11.02
#20	12.23
#40	13.47
#60	15.45
#100	17.32
#200	19.09
Pan	19.44

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WC78 : 00235

Sieve/Hydrometer Particle Size Analysis - ASTM D421/422

ARI Job No.: WC78 ARI Sample ID.: C Setup Date: 2·7·2013 Initials: BR
Sample Description: Clay, Wood Fibers
Method of size reduction: Quartering [X] Sample Splitter [ ] Whole Sample [ ]

Tare Number	C
Tare Weight (g)	10.21
Tare + Air-Dried Sample Weight (g) (before #10 preparation)	113.54
Hydro Test Sample Weight (g) (not including beaker weight)	61.67
Tare + Oven-Dried #10 Washed (g)	12.57
Tare + Oven-Dried #200 Washed (g) (including plus #10 material)	20.69

Hygroscopic Moisture Content	
Tare Number	C
Tare Weight (g)	1.52
Wet Soil + Tare (g)	14.43
Dry Soil + Tare (g)	14.17

Hydro Beaker: CM Calgon Batch #: 280 Calgon Date: 2·8·2013 Technician: BR
Method of size reduction: Quartering [X] Sample Splitter [ ] Whole Sample [ ]

Hydrometer Analysis

2/11/2013 Hydro #: 193121 Technician: BR

Time	Δ Time	Test Cylinder	Calgon Blank	Temp (°C)
12:34:00	START			
12:35:00	1	58	6	20.5
12:36:00	2	54.5	6	20.5
12:39:00	5	49	6	20.5
12:49:00	15	42.5	6	20.5
13:04:00	30	37.5	6	20.5
13:34:00	60	32.5	5.5	20.5
16:44:00	250	22	5.5	21.0
12:34:00	1440	15.5	5.5	20.5

Sieve Analysis

Sieve Date: 2·14·2013 Sieve Set #: 3 Technician: BR

Sieve Size	Cumulative Weight (g)
Empty Tare	10.23
2"	
1½"	
1"	
3/4"	
1/2"	
3/8"	
#4	10.34
#10	12.19
#20	14.17
#40	16.34
#60	17.99
#100	18.96
#200	20.26
Pan	20.58

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Sieve/Hydrometer Particle Size Analysis - ASTM D421/422

ARI Job No.: WC78 ARI Sample ID.: D Setup Date: 2-7-2013 Initials: BR
Sample Description: Gravel Sand, Wood
Method of size reduction: Quartering [X] Sample Splitter [ ] Whole Sample [ ]

Tare Number	D
Tare Weight (g)	9.99
Tare + Air-Dried Sample Weight (g) (before #10 preparation)	240.25
Hydro Test Sample Weight (g) (not including beaker weight)	100.42
Tare + Oven-Dried #10 Washed (g)	84.84
Tare + Oven-Dried #200 Washed (g) (including plus #10 material)	156.91

Hygroscopic Moisture Content	
Tare Number	D
Tare Weight (g)	1.54
Wet Soil + Tare (g)	21.95
Dry Soil + Tare (g)	21.76

Hydro Beaker: DF Calgon Batch #: 280 Calgon Date: 2-8-2013 Technician: BR
Method of size reduction: Quartering [X] Sample Splitter [ ] Whole Sample [ ]

Hydrometer Analysis

Hydro #: 193121 Technician: BR

2/11/2013				
Time	Δ Time	Test Cylinder	Calgon Blank	Temp (°C)
12:41:00	START			
12:42:00	1	33.5	6	20.5
12:43:00	2	31	6	20.5
12:46:00	5	28	6	20.5
12:56:00	15	23	6	20.5
13:11:00	30	19	6	20.5
13:41:00	60	17	5.5	20.5
16:51:00	250	13	5.5	21.0
12:41:00	1440	10	5.5	20.5

Sieve Analysis

Sieve Date: 2-14-2013 Sieve Set #: 4 Technician: BR

Sieve Size	Cumulative Weight (g)
Empty Tare	10.00
2"	
1½"	
1"	
3/4"	19.43
1/2"	34.59
3/8"	37.88
#4	51.90
#10	84.31
#20	112.30
#40	133.79
#60	145.71
#100	151.88
#200	156.34
Pan	156.92

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WC78 : 00237

Sieve/Hydrometer Particle Size Analysis - ASTM D421/422

ARI Job No.: WC78 ARI Sample ID.: E Setup Date: 2-7-2013 Initials: CR
Sample Description: Gravel Sand Wood
Method of size reduction: Quartering [X] Sample Splitter [ ] Whole Sample [ ]

Tare Number	E
Tare Weight (g)	10.17
Tare + Air-Dried Sample Weight (g) (before #10 preparation)	267.11
Hydro Test Sample Weight (g) (not including beaker weight)	102.35
Tare + Oven-Dried #10 Washed (g)	80.58
Tare + Oven-Dried #200 Washed (g) (including plus #10 material)	162.86

Hygroscopic Moisture Content	
Tare Number	E
Tare Weight (g)	1.54
Wet Soil + Tare (g)	24.03
Dry Soil + Tare (g)	23.89

Hydro Beaker: CE Calgon Batch #: 280 Calgon Date: 2-8-2013 Technician: CR
Method of size reduction: Quartering [X] Sample Splitter [ ] Whole Sample [ ]

Hydrometer Analysis

Hydro #: 193121 Technician: CR

2/11/2013				
Time	Δ Time	Test Cylinder	Calgon Blank	Temp (°C)
12:48:00	START			
12:49:00	1	24.5	6	20.5
12:50:00	2	22.5	6	20.5
12:53:00	5	20.5	6	20.5
13:03:00	15	16	6	20.5
13:18:00	30	15	6	20.5
13:48:00	60	13.5	5.5	20.5
16:58:00	250	10.5	5.5	21.0
12:48:00	1440	8	5.5	20.5

Sieve Analysis

Sieve Date: 2-14-2013 Sieve Set #: 3 Technician: CR

Sieve Size	Cumulative Weight (g)
Empty Tare	10.18
2"	
1½"	
1"	
3/4"	
1/2"	31.16
3/8"	35.85
#4	54.85
#10	79.63
#20	95.73
#40	117.41
#60	138.45
#100	152.46
#200	161.53
Pan	162.64

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Sieve/Hydrometer Particle Size Analysis - ASTM D421/422

ARI Job No.: WC78 ARI Sample ID.: F Setup Date: 2-7-2013 Initials: BR
Sample Description: Gravel, Sand, Wood fibers
Method of size reduction: Quartering [x] Sample Splitter [ ] Whole Sample [ ]

Tare Number	F
Tare Weight (g)	9.88
Tare + Air-Dried Sample Weight (g) (before #10 preparation)	210.94
Hydro Test Sample Weight (g) (not including beaker weight)	☆104.51 108.00
Tare + Oven-Dried #10 Washed (g)	28.59
Tare + Oven-Dried #200 Washed (g) (including plus #10 material)	127.11

Hygroscopic Moisture Content	
Tare Number	F
Tare Weight (g)	1.52
Wet Soil + Tare (g)	26.69
Dry Soil + Tare (g)	26.37

Hydro Beaker: EF Calgon Batch #: 280 Calgon Date: 2-8-2013 Technician: BR
Method of size reduction: Quartering [X] Sample Splitter [ ] Whole Sample [ ]

Hydrometer Analysis

Hydro #: 193121 Technician: BR

2/11/2013				
Time	Δ Time	Test Cylinder	Calgon Blank	Temp (°C)
12:55:00	START			
12:56:00	1	13	6	20.5
12:57:00	2	12.5	6	20.5
13:00:00	5	12	6	20.5
13:10:00	15	9	6	20.5
13:25:00	30	9	6	20.5
13:55:00	60	8.5	5.5	20.5
17:05:00	250	7.5	5.5	21.0
12:55:00	1440	6.5	5.5	20.5

Sieve Analysis

Sieve Date: 2-14-2013 Sieve Set #: 4 Technician: BR

Sieve Size	Cumulative Weight (g)
Empty Tare	9.93
2"	
1½"	
1"	
3/4"	
1/2"	
3/8"	
#4	16.69
#10	26.97
#20	47.85
#40	94.78
#60	120.23
#100	125.45
#200	126.73
Pan	126.90

☆CURVE FITTING WAS APPLIED

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WC78:00239

Sieve/Hydrometer Particle Size Analysis - ASTM D421/422

ARI Job No.: WC78 ARI Sample ID.: G Setup Date: 2-7-2013 Initials: BL
Sample Description: Gravel, Wood, Sand
Method of size reduction: Quartering [X] Sample Splitter [ ] Whole Sample [ ]

Tare Number	G
Tare Weight (g)	10.20
Tare + Air-Dried Sample Weight (g) (before #10 preparation)	175.85
Hydro Test Sample Weight (g) (not including beaker weight)	☆ ~~85.75~~ 87.00 g
Tare + Oven-Dried #10 Washed (g)	83.91
Tare + Oven-Dried #200 Washed (g) (including plus #10 material)	144.70

Hygroscopic Moisture Content	
Tare Number	G
Tare Weight (g)	1.52
Wet Soil + Tare (g)	5.38
Dry Soil + Tare (g)	5.26

Hydro Beaker: AG Calgon Batch #: 280 Calgon Date: 2-8-2013 Technician: BL
Method of size reduction: Quartering [ ] Sample Splitter [ ] Whole Sample [X]

Hydrometer Analysis

Hydro #: 173121 Technician: BL
2/11/2013

Time	Δ Time	Test Cylinder	Calgon Blank	Temp (°C)
13:02:00	START			
13:03:00	1	31	6	20.5
13:04:00	2	28	6	20.5
13:07:00	5	25.5	6	20.5
13:17:00	15	22.5	6	20.5
13:32:00	30	19	6	20.5
14:02:00	60	17	5.5	20.5
17:12:00	250	13	5.5	21.0
13:02:00	1440	10	5.5	20.5

Sieve Analysis

Sieve Date: 2.14.2013 Sieve Set #: 3 Technician: BL

Sieve Size	Cumulative Weight (g)
Empty Tare	10.23
2"	
1½"	
1"	
3/4"	
1/2"	26.56
3/8"	37.71
#4	56.30
#10	82.09
#20	102.76
#40	122.39
#60	134.80
#100	140.37
#200	143.83
Pan	144.61

☆ CURVE FITTING WAS APPLIED

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Sample Number	LLSD06-130204	100 00	100 00	100 00	100 00	100 00	100 00	100 00	100 00	99 91	99 88	95 70	88 73	83 50	79 14	72 47	59 27	50 38	39 52	33 59	24 70	13 83	5 93
		125000	75000	50000	37500	25000	19000	12500	9500	4750	2000	850	425	250	150	75	30 9	20 2	12 1	8 7	6 4	3 2	1 4
Test Temperature	20 5	5"	3"	2"	1 5"	1"	3/4"	1/2"	3/8"	4	10	20	40	80	100	200							
Specific Gravity	2 65																						

Wet Wt & Tare	8 63
Dry Wt & Tare	7 88
Wt Moisture	0 75
Wt Tare	1 53
Dry Soil	6 35
Moisture Content	0 118110236
Air Dry Total Sample	64 74
Oven Dry Total Samp	57 90866197
Air Dry Hydro Sample	56 6
Oven Dry Wt Hydro	50 62112676
Amount Plus #10	0 07
W (14 2) =	50 68239164

Sieve Analysis Portion

Sieve Size	Weight of Soil + Tare	Total Weight of Soil		Percent Retained	Percent Passing
5"	9 84	0 00		0 00	100 00
3"	9 84	0 00		0 00	100 00
2"	9 84	0 00		0 00	100 00
1 5"	9 84	0 00		0 00	100 00
1	9 84	0 00		0 00	100 00
3/4	9 84	0 00		0 00	100 00
1/2	9 84	0 00		0 00	100 00
3/8	9 84	0 00		0 00	100 00
4	9 89	0 05		0 09	99 91
10	9 91	0 07		0 12	99 88
20	12 03	2 12	4 18	4 30	95.70
40	15 56	5 65	11 15	11 27	88 73
60	18 21	8 30	16 38	16 50	83 50
100	20 42	10 51	20 74	20 86	79 14
200	23 8	13 89	27 41	27 53	72 47

Hydrometer Analysis Portion

Time	Hydro Reading	Comp Correct	Percent Finer	"L"	D	K	a
1	39	6	65 20	9 9	42 60113	0 013535	1 001385
2	36	6	59 27	10 4	30 86211	0 013535	1 001385
5	31 5	6	50 38	11 1	20 19934	0 013535	1 001385
15	26	6	39 52	12 0	12 12496	0 013535	1 001385
30	23	6	33 59	12 5	8 747009	0 013535	1 001385
60	18	5 5	24 70	13 3	6 384154	0 013535	1 001385
250	12 5	5 5	13 83	14 2	3 23147	0 013535	1 001385
1440	8 5	5 5	5 93	14 9	1 377072	0 013535	1 001385

C

Sample Number	LLSD07-130204		100 00	100 00	100 00	100 00	100 00	100 00	100 00	100 00	99 68	99 39	97 62	95 81	92 92	90 19	87 60	78 96	71 65	59 95	51 18	44 60	27 05	16 82
			125000	75000	50000	37500	25000	19000	12500	9500	4750	2000	850	425	250	150	75	24 3	16 3	10 2	7 6	5 6	3 0	1 3
Test Temperature		20 5	5"	3"	2"	1 5"	1"	3/4"	1/2"	3/8"	4	10	20	40	60	100	200							
Specific Gravity		2 65																						

Wet Wt & Tare	12 74
Dry Wt & Tare	11 67
Wt Moisture	1 07
Wt Tare	1 55
Dry Soil	10 12
Moisture Content	0 105731225
Air Dry Total Sample	108 4
Oven Dry Total Samp	98 09204647
Air Dry Hydro Sample	75 26
Oven Dry Wt Hydro	66 06355675
Amount Plus #10	0 60
W (14 2) =	68 48244357

Sieve Analysis Portion

Sieve Size	Weight of Soil + Tare	Total Weight of Soil		Percent Retained	Percent Passing
5"	10 42	0 00		0 00	100 00
3"	10 42	0 00		0 00	100 00
2"	10 42	0 00		0 00	100 00
1 5"	10 42	0 00		0 00	100 00
1	10 42	0 00		0 00	100 00
3/4	10 42	0 00		0 00	100 00
1/2	10 42	0 00		0 00	100 00
3/8	10 42	0 00		0 00	100 00
4	10 73	0 31		0 32	99 68
10	11 02	0 60		0 61	99 39
20	12 23	1 21	1 77	2 38	97 62
40	13 47	2 45	3 56	4 19	95 81
60	15 45	4 43	6 47	7 08	92 92
100	17 32	6 30	9 20	9 81	90 19
200	19 09	8 07	11 78	12 40	87 60

Hydrometer Analysis Portion

Time	Hydro Reading	Comp Correct	Percent Finer	"L"	D	K	a
1	65	6	86 27	5 6	32 15784	0 013535	1 001385
2	60	6	78 96	6 5	24 33379	0 013535	1 001385
5	55	6	71 65	7 3	16 33651	0 013535	1 001385
15	47	6	59 95	8 6	10 24575	0 013535	1 001385
30	41	6	51 18	9 6	7 648093	0 013535	1 001385
60	36	5 5	44 60	10 4	5 634625	0 013535	1 001385
250	24	5 5	27 05	12 4	3 010167	0 013535	1 001385
1440	17	5 5	16 82	13 5	1 311136	0 013535	1 001385

D

Sample Number	LLSD03-130204	100 00	100 00	100 00	100 00	100 00	100 00	100 00	100 00	99 89	98 06	94 85	91 33	88 65	87 08	84 97	78 82	69 88	59 32	51 19	43 88	26 81	16 25
		125000	75000	50000	37500	25000	19000	12500	9500	4750	2000	650	425	250	150	75	26 0	17 4	10 7	7 9	5 8	3 0	1 3
Test Temperature	20 5	5"	3"	2"	1 5"	1"	3/4"	1/2"	3/8"	4	10	20	40	60	100	200							
Specific Gravity	2 65																						

Wet Wt & Tare	14 43
Dry Wt & Tare	14 17
Wt Moisture	0 26
Wt Tare	1 52
Dry Soil	12 65
Moisture Content	0 02055336
Air Dry Total Sample	103 33
Oven Dry Total Samp	101 2884663
Air Dry Hydro Sample	61 67
Oven Dry Wt Hydro	60 42800155
Amount Plus #10	1 96
W (14 2) =	61 62039772

Sieve Analysis Portion

Sieve Size	Weight of Soil + Tare	Total Weight of Soil		Percent Retained	Percent Passing
5"	10 23	0 00		0 00	100 00
3"	10 23	0 00		0 00	100 00
2"	10 23	0 00		0 00	100 00
1 5"	10 23	0 00		0 00	100 00
1	10 23	0 00		0 00	100 00
3/4	10 23	0 00		0 00	100 00
1/2	10 23	0 00		0 00	100 00
3/8	10 23	0 00		0 00	100 00
4	10 34	0 11		0 11	99 89
10	12 19	1 96		1 94	98 06
20	14 17	1 98	3 21	5 15	94 85
40	16 34	4 15	6 73	8 67	91 33
60	17 99	5 80	9 41	11 35	88 65
100	18 96	6 77	10 99	12 92	87 08
200	20 26	8 07	13 10	15 03	84 97

Hydrometer Analysis Portion

Time	Hydro Reading	Comp Correct	Percent Finer	"L"	D	K	a
1	58	6	84 50	6 8	35 27496	0 013535	1 001385
2	54 5	6	78 82	7 4	25 97519	0 013535	1 001385
5	49	6	69 88	8 3	17 40446	0 013535	1 001385
15	42 5	6	59 32	9 3	10 67632	0 013535	1 001385
30	37 5	6	51 19	10 2	7 873792	0 013535	1 001385
60	32 5	5 5	43 88	11 0	5 787974	0 013535	1 001385
250	22	5 5	26 81	12 7	3 049808	0 013535	1 001385
1440	15 5	5 5	16 25	13 8	1 323011	0 013535	1 001385

E

Sample Number	LLSD02-130204	100 00	100 00	100 00	100 00	100 00	95 88	89 25	87 82	81 69	67 52	48 53	33 94	25 85	21 66	18 63	16 99	14 95	11 55	8 84	7 82	5 10	3 06
		125000	75000	50000	37500	25000	19000	12500	9500	4750	2000	850	425	250	150	75	32 1	20 7	12 4	9 0	6 4	3 2	1 4
Test Temperature	20 5	5"	3"	2"	1 5"	1"	3/4"	1/2"	3/8"	4	10	20	40	60	100	200							
Specific Gravity	2 65																						

Wet Wt & Tare	21 95
Dry Wt & Tare	21 76
Wt Moisture	0 19
Wt Tare	1 54
Dry Soil	20 22
Moisture Content	0 009396637
Air Dry Total Sample	230 26
Oven Dry Total Samp	228 8082362
Air Dry Hydro Sample	100 42
Oven Dry Wt Hydro	99 48517393
Amount Plus #10	74 31
W (14 2) =	147 3351912

Sieve Analysis Portion

Sieve Size	Weight of Soil + Tare	Total Weight of Soil		Percent Retained	Percent Passing
5	10	0 00		0 00	100 00
3	10	0 00		0 00	100 00
2	10	0 00		0 00	100 00
1 5	10	0 00		0 00	100 00
1	10	0 00		0 00	100 00
3/4	19 43	9 43		4 12	95 88
1/2	34 59	24 59		10 75	89 25
3/8	37 88	27 88		12 18	87 82
4	51 9	41 90		18 31	81 69
10	84 31	74 31		32 48	67 52
20	112 3	27 99	19 00	51 47	48 53
40	133 79	49 48	33 58	66 06	33 94
60	145 71	61 40	41 67	74 15	25 85
100	151 88	67 57	45 86	78 34	21 66
200	156 34	72 03	48 89	81 37	18 63

Hydrometer Analysis Portion

Time	Hydro Reading	Comp Correct	Percent Finer	"L"	D	K	a
1	33 5	6	18 69	10 8	44 49731	0 013535	1 001385
2	31	6	16 99	11 2	32 05527	0 013535	1 001385
5	28	6	14 95	11 7	20 71311	0 013535	1 001385
15	23	6	11 55	12 5	12 37014	0 013535	1 001385
30	19	6	8 84	13 2	8 972954	0 013535	1 001385
60	17	5 5	7 82	13 5	6 42323	0 013535	1 001385
250	13	5 5	5 10	14 2	3 222164	0 013535	1 001385
1440	10	5 5	3 06	14 7	1 365668	0 013535	1 001385

F

Sample Number	LLSD01-130204	100 00	100 00	100 00	100 00	100 00	100 00	91 80	89 96	82 54	72 85	61 32	45 79	30 72	20 69	14 19	11 83	10 40	7 17	6 45	5 74	3 59	1 79
		125000	75000	50000	37500	25000	19000	12500	9500	4750	2000	850	425	250	150	75	34 0	21 8	12 9	9 2	6 6	3 3	1 4
Test Temperature	20 5 5"	3"	2"	1 5"	1"	3/4"	1/2"	3/8"	4	10	20	40	60	100	200								
Specific Gravity	2 65																						

Wet Wt & Tare	24 03
Dry Wt & Tare	23 89
Wt Moisture	0 14
Wt Tare	1 54
Dry Soil	22 35
Moisture Content	0 006263982
Air Dry Total Sample	256 94
Oven Dry Total Samp	255 7728768
Air Dry Hydro Sample	102 35
Oven Dry Wt Hydro	101 7128724
Amount Plus #10	69 45
W (14 2) =	139 6253344

Sieve Analysis Portion

Sieve Size	Weight of Soil + Tare	Total Weight of Soil		Percent Retained	Percent Passing
5	10 18	0 00		0 00	100 00
3	10 18	0 00		0 00	100 00
2	10 18	0 00		0 00	100 00
1 5	10 18	0 00		0 00	100 00
1	10 18	0 00		0 00	100 00
3/4	10 18	0 00		0 00	100 00
1/2	31 16	20 98		8 20	91 80
3/8	35 85	25 67		10 04	89 96
4	54 85	44 67		17 46	82 54
10	79 63	69 45		27 15	72 85
20	95 73	16 10	11 53	38 68	61 32
40	117 41	37 78	27 06	54 21	45 79
60	138 45	58 82	42 13	69 28	30 72
100	152 46	72 83	52 16	79 31	20 69
200	161 53	81 90	58 66	85 81	14 19

Hydrometer Analysis Portion

Time	Hydro Reading	Comp Correct	Percent Finer	"L"	D	K	a
1	24 5	6	13 27	12 3	47 43693	0 013535	1 001385
2	22 5	6	11 83	12 6	33 98764	0 013535	1 001385
5	20 5	6	10 40	12 9	21 77326	0 013535	1 001385
15	16	6	7 17	13 7	12 92414	0 013535	1 001385
30	15	6	6 45	13 8	9 193348	0 013535	1 001385
60	13 5	5 5	5 74	14 1	6 558165	0 013535	1 001385
250	10 5	5 5	3 59	14 6	3 268428	0 013535	1 001385
1440	8	5 5	1 79	15 0	1 380853	0 013535	1 001385

Sample Number	LLSD04-130204	100 00	100 00	100 00	100 00	100 00	100 00	100 00	100 00	96 60	91 43	73 52	33 28	11 46	6 99	5 89	5 58	5 15	2 58	2 58	2 58	1 72	0 86
		125000	75000	50000	37500	25000	19000	12500	9500	4750	2000	850	425	250	150	75	36 1	22 9	13 5	9 5	6 7	3 3	1 4
Test Temperature	20 5	5"	3"	2"	1 5"	1"	3/4"	1/2"	3/8"	4	10	20	40	60	100	200							
Specific Gravity	2 65																						

Wet Wt & Tare	26 69
Dry Wt & Tare	26 37
Wt Moisture	0 32
Wt Tare	1 52
Dry Soil	24 85
Moisture Content	0 012877264
Air Dry Total Sample	201 06
Oven Dry Total Samp	198 7204529
Air Dry Hydro Sample	108
Oven Dry Wt Hydro	106 6269368
Amount Plus #10	17 04
W (14 2) =	116 6275889

Sieve Analysis Portion

Sieve Size	Weight of Soil + Tare	Total Weight of Soil		Percent Retained	Percent Passing
5	9 93	0 00		0 00	100 00
3	9 93	0 00		0 00	100 00
2	9 93	0 00		0 00	100 00
1 5	9 93	0 00		0 00	100 00
1	9 93	0 00		0 00	100 00
3/4	9 93	0 00		0 00	100 00
1/2	9 93	0 00		0 00	100 00
3/8	9 93	0 00		0 00	100 00
4	16 69	6 76		3 40	96 60
10	26 97	17 04		8 57	91 43
20	47 85	20 88	17 90	26 48	73 52
40	94 78	67 81	58 14	66 72	33 28
60	120 23	93 26	79 96	88 54	11 46
100	125 45	98 48	84 44	93 01	6 99
200	128 73	99 76	85 54	94 11	5 89

Hydrometer Analysis Portion

Time	Hydro Reading	Comp Correct	Percent Finer	"L"	D	K	a
1	13	6	6 01	14 2	50 94689	0 013535	1 001385
2	12 5	6	5 58	14 2	36 12893	0 013535	1 001385
5	12	6	5 15	14 3	22 91556	0 013535	1 001385
15	9	6	2 58	14 8	13 45535	0 013535	1 001385
30	9	6	2 58	14 8	9 514371	0 013535	1 001385
60	8 5	5 5	2 58	14 9	6 746248	0 013535	1 001385
250	7 5	5 5	1 72	15 1	3 323095	0 013535	1 001385
1440	6 5	5 5	0 86	15 2	1 392133	0 013535	1 001385

H

Sample Number	LLSD05-130204	100 00	100 00	100 00	100 00	100 00	100 00	89 97	83 11	71 69	55 84	42 15	29 15	20 92	17 23	14 94	14 59	12 94	10 95	8 62	7 63	4 98	2 99
		125000	75000	50000	37500	25000	19000	12500	9500	4750	2000	850	425	250	150	75	32 8	21 1	12 4	9 0	6 4	3 2	1 4
Test Temperature	20 5	5"	3"	2"	1 5"	1"	3/4"	1/2"	3/8"	4	10	20	40	60	100	200							
Specific Gravity	2 65																						

Wet Wt & Tare	5 38
Dry Wt & Tare	5 26
Wt Moisture	0 12
Wt Tare	1 52
Dry Soil	3 74
Moisture Content	0 032085561
Air Dry Total Sample	165 65
Oven Dry Total Samp	162 7342487
Air Dry Hydro Sample	87
Oven Dry Wt Hydro	84 29533679
Amount Plus #10	71 86
W (14 2) =	150 9529762

Sieve Analysis Portion

Sieve Size	Weight of Soil + Tare	Total Weight of Soil		Percent Retained	Percent Passing
5	10 23	0 00		0 00	100 00
3	10 23	0 00		0 00	100 00
2	10 23	0 00		0 00	100 00
1 5	10 23	0 00		0 00	100 00
1	10 23	0 00		0 00	100 00
3/4	10 23	0 00		0 00	100 00
1/2	26 56	16 33		10 03	89 97
3/8	37 71	27 48		16 89	83 11
4	56 3	46 07		28 31	71 69
10	62 09	71 86		44 16	55 84
20	102 76	20 67	13 69	57 85	42 15
40	122 39	40 30	26 70	70 85	29 15
60	134 8	52 71	34 92	79 08	20 92
100	140 37	58 28	38 61	82 77	17 23
200	143 83	61 74	40 90	85 06	14 94

Hydrometer Analysis Portion

Time	Hydro Reading	Comp Correct	Percent Finer	"L"	D	K	a
1	31	6	16 58	11 2	45 33299	0 013535	1 001385
2	28	6	14 59	11 7	32 7503	0 013535	1 001385
5	25 5	6	12 94	12 1	21 07242	0 013535	1 001385
15	22 5	6	10 95	12 6	12 41053	0 013535	1 001385
30	19	6	8 62	13 2	8 972954	0 013535	1 001385
60	17	5 5	7 63	13 5	6 42323	0 013535	1 001385
250	13	5 5	4 98	14 2	3 222164	0 013535	1 001385
1440	10	5 5	2 99	14 7	1 365668	0 013535	1 001385

Calgon Batch #280

2.8.2013 BR

	Tare Weight (g)	Dry + Tare Weight (g)	Calgon Weight (g)
1)	1.5303	2.0227	0.4924
2)	1.5314	2.0221	0.4907
3)	1.5360	2.0274	0.4914
4)	1.5337	2.0252	0.4915
5)	1.5177	2.0092	0.4915

AVERAGE = 0.4915

APPENDIX D
Data Quality Assessment Report for Metals in Sediment

DATA QUALITY ASSESSMENT REPORT

METALS IN SEDIMENT BY METHODS SW6010C/SW200.8/SW7471A

ARI Laboratory SDG	Samples Validated
WC78	LLSD06-130204, LLSD07-130204, LLSD03-130204, LLSD02-130204, LLSD01-130204, LLSD04-130204, LLSD05-130204

PROJECT: EVERETT SMELTER LOWLAND AREA (00504-068-00)

This report documents the results of an Environmental Protection Agency (EPA) level 2b data validation of analytical data from the analyses of sediment samples and the associated laboratory and field quality control (QC) samples. The review included the following:

- Chain of Custody
- Holding Times and Sample Preservation
- Instrument Calibration
- ICP Interference Check Sample
- Method and Calibration Blanks
- Laboratory Control Samples
- Matrix Spikes
- Laboratory Duplicates
- Field Duplicates
- Internal Standards/Tunes

OBJECTIVE

The objective of the data validation was to review laboratory analytical procedures and quality control (QC) results to evaluate whether:

- The samples were analyzed using well-defined and acceptable methods that provide detection limits below applicable regulatory criteria;
- The precision and accuracy of the data are well defined and sufficient to provide defensible data; and
- The quality assurance/quality control (QA/QC) procedures utilized by the laboratory meet acceptable industry practices and standards.

Seven (7) sediment samples were analyzed by one or more of the analytical methods listed in the title of this appendix.

DATA PACKAGE COMPLETENESS

Analytical Resources Incorporated (ARI), located in Tukwila, Washington, analyzed the sediment samples evaluated as part of this data quality assessment. The laboratory provided all required deliverables for the assessment according to the National Functional Guidelines. The laboratory followed adequate corrective action processes and all identified anomalies were discussed in the case narratives.

DATA QUALITY ASSESSMENT SUMMARY

The results for each of the QC elements are summarized below. The data assessment was performed using guidance in the USEPA Contract Laboratory Program *National Functional Guidelines for Inorganic Data Review* (USEPA, 2010).

Chain-of-Custody Documentation

Chain-of-custody (COC) forms were provided with the laboratory analytical reports. There were no anomalies noted on the COC forms; proper COC protocols appear to have been followed for this sampling event.

Holding Times and Sample Preservation

The holding time is defined as the time that elapses between sample collection and sample analysis. The maximum holding time criteria of 6 months (28 days for mercury) is prescribed for the metals analytical methods to help ensure that the analyte concentrations found at the time of analysis reflect the concentration present at the time of sample collection. Established holding times of 6 months (28 days for mercury) were met for all analyses.

Instrument Calibration

The laboratory followed the method requirements for satisfactory instrument calibration. Instrument calibration is necessary in order to ensure that the instrument is capable of producing acceptable quantitative data for the metals on the target analyte list in the QAPP. Initial Calibration Verification (ICV) demonstrates that the instrument is capable of acceptable performance at the beginning of the analytical run. The Continuing Calibration Verification (CCV) demonstrates that the initial calibration is still valid by checking the performance of the instrument on any given day that samples are being analyzed.

Each calibration curve was made up of a blank and at least five calibration standards with all measurements being within the working range of the instrument. The calibration curves were fitted using linear regression and each curve had a correlation coefficient of ≥ 0.995.

The ICV/CCV standards were within 90% to 110% of the true value in all cases.

ICP Interference Check Sample

The Interference Check Sample verifies the analytical instrument's ability to overcome isobaric interferences typical of those found in samples. The laboratory analyzed this QC sample at the proper frequency and location of the analytical run. All solution mixtures were within the control limit of 20% of the true value.

Method Blanks

Method blanks are analyzed to ensure that laboratory procedures and reagents do not introduce measurable concentrations of the analytes of interest. Method blanks were analyzed with each batch of samples, at a frequency of 1 per 20 samples. For all sample batches, method blanks were analyzed at the required frequency. None of the analytes of interest were detected above the reporting limits in any of the method blanks.

Matrix Spikes

Because the actual analyte concentration in an environmental sample is not known, the accuracy of a particular analysis is usually inferred by performing a matrix spike (MS) analysis. One aliquot of sample is analyzed in the normal manner, and then a second aliquot of the sample is spiked with a known amount of analyte concentration and analyzed. From these analyses, a percent recovery (%R) is calculated. In the event that a particular element is out of the recovery value control limits in the matrix spiked sample, the laboratory is required to analyze a "post-spiked" sample in order to further isolate any potential quality control issues with the given element.

Matrix spike analyses should be performed once per analytical batch or every 20 field samples, whichever is more frequent. The recovery criteria for matrix spikes are 75% to 125% for all of the elements in this report.

The frequency requirements were met for all analyses, with the following exceptions:

The %R value for antimony was less than the control limit of 80%. Appropriately, in each case the laboratory properly conducted a post-spiked sample. These post-spiked samples were spiked with a higher concentration of element solution as the matrix spike, however, they do not interact with acid and are never heated in the digestion process. The %R values for each of the post spike samples were within the 75% to 125% control limits.

In the process of determining the appropriate action for this potential outlier, it was also noted that there were no detections of antimony in sediment in this sampling event. Based on professional judgment, the antimony reporting limits were not qualified, as there is no effect on the usefulness of the antimony data for this project.

Laboratory Control Samples (LCS)

A laboratory control sample is essentially a blank sample that is spiked with a known amount of analyte concentration and analyzed. It is to be treated much like a matrix spike, without the possibility for matrix interference. As there is no actual sample matrix in the analysis, the analytical expectations for accuracy and precision are usually more rigorous and qualification would apply to all samples in the batch, instead of the parent sample only.

Laboratory control sample analyses should be performed once per analytical batch or every 20 field samples, whichever is more frequent. The recovery criteria for laboratory control samples are specified in the laboratory documents as are the relative percent difference values. The frequency requirements were met for all analyses, and the %R/RPD values were within the proper control limits.

Laboratory Duplicates

Internal laboratory duplicate analyses are performed to monitor the precision of the analyses. Two separate aliquots of a sample are analyzed as distinct samples in the laboratory, and the RPD between

the two results is calculated. Duplicate analyses should be performed once per analytical batch. If one or more of the samples used has a concentration greater than five times the reporting limit for that sample, the absolute difference is used instead of the RPD.

Laboratory duplicates were analyzed at the proper frequency and the specified acceptance criteria were met in all cases.

Field Duplicates

A field duplicate sample was not collected during this sampling event. Sediment sampling will be performed at locations along the Snohomish River; a field duplicate will be analyzed during this sediment sampling round.

Reporting Limits and Miscellaneous

The reporting limits for the target analytes met the requirements that were prescribed in the QAPP.

Internal Standards/Tunes

The laboratory appropriately added an internal standard into each sample, with the exception of the instrument tune. The intensity of the internal standard response in each sample was monitored and compared to the intensity of the response for that internal standard in the calibration blank. The percent relative intensity (%RI) in the samples were within 60-125% of the response in the calibration blank for the appropriate analytical run.

OVERALL ASSESSMENT

As was determined by this data quality assessement, the laboratory followed the specified analytical methods. Accuracy was acceptable, as demonstrated by the LCS and MS %R values, with the exceptions mentioned above. Precision was acceptable, as demonstrated by the laboratory duplicate RPD values.

All data, as qualified, are acceptable for use.

APPENDIX E
Slug and Drawdown Testing

APPENDIX E
SLUG AND DRAWDOWN TESTING

Slug and drawdown testing were performed on selected wells at the Site between January 29 and 31, 2013. The purpose of the slug and drawdown testing was to use the data, in combination with previously gathered site data (specifically aquifer thickness values), to estimate hydraulic conductivity (*K*) within the shallow and deep aquifers in the vicinity of the tested wells. Average hydraulic conductivity for the deep aquifer was also estimated based on a tidal study that was performed at the Site (see Appendix F).

Slug testing was performed on 18 wells (LLMW-03S, LLMW-03D, LLMW-11S, LLMW-11D, LLMW-12S, LLMW-12D, LLMW-16S, LLMW-16D, LLMW-22S, LLMW-22D, LLMW-27D, EV22A, EV22B, BP-05S, BP-05D, BP05-D2, BP08S and BP-08D). The majority of the wells selected for slug testing were selected because they are located generally downgradient of the former smelter. Several wells were selected that are not located directly downgradient of the former smelter; these wells were selected to provide additional spatial coverage at the Site.

Follow-up short-term drawdown testing was performed on a subset of the 18 wells to collect additional data to use to estimate K. During the drawdown phase, a cone of depression develops and often propagates beyond the radius of influence achieved during slug testing. When the pump is shut off, well recovery is monitored in much the same way as in slug testing. The wells that were selected for drawdown testing included LLMW-11S, LLMW-11D, LLMW-13D, BP-05S, BP-05D and BP-05D2. These wells were selected for drawdown testing because they are located generally downgradient of the former smelter and in the area where a plume of groundwater containing relatively high arsenic concentrations has been observed. (Due to a field error, LLMW-16D was drawn down rather than LLMW-13D).

Field procedures, as well as the procedure for data analysis from the slug and drawdown testing are described below. Plots of the slug and drawdown tests are presented in Figures E-1 through E-26.

Slug Testing

Field Procedures

Each slug test was performed in two stages, a falling head stage followed by a rising head stage. For each test, the water level in the well was measured and recorded at 0.25-second intervals using a decontaminated submerged water-level sensor consisting of a piezoelectric pressure transducer and automated datalogger (transducer/datalogger) programmed to record water pressure (head) above the sensor. The water level was also measured using a decontaminated electronic water level indicator ("e-tape") as a check on the transducer/datalogger.

Prior to slug testing, the pre-test static water level was measured in each well from a surveyed reference mark on top of the well casing. For the falling head stage, a slug (weighted 5-foot length of sealed PVC casing) of known volume was rapidly lowered into the well, causing displacement of the water, which rose rapidly above its initial level. The water level in the well was then monitored until it returned (fell) to the approximate pre-test water level. For the rising-head stage, the slug was rapidly removed from the well, causing the water level to drop below its pre-test static level, and the water level in the well was monitored until it returned (rose) to the approximate pre-test static water level. Well LLMW-11D was

tested twice because the falling head data from the first test appeared suspect (see the data points at less than 5 seconds and greater than 12 seconds on the falling head graph of Figure E-4).

Data Analysis

Both falling head stage and rising-head stage data can be used only in wells where the screened interval is under the water table during all portions of the test. In wells where the screened interval is above the water table, only the rising-head stage data is used, because some of water displaced during the falling head stage portion of the test can drain into the unsaturated zone above the water table. Wells in which the screened interval was above the water table included LLMW-11S, LLMW-12S and LLMW-22S.

The data from all slug tests were downloaded from the transducer/datalogger, processed using spreadsheet software, and then plotted to identify the type of hydraulic response. In moderate to low-permeability soils, the recovery of the water level back to its pre-test static level is typically in the form of a monotonic trend, as shown for example in well LLMW-11S (Figure E-3). This type of hydraulic response has been classified as "over-damped" in the technical literature (Butler 1998). Data from wells exhibiting this type of response were analyzed using the method of Bouwer and Rice (1976).

In higher permeability soils, where recovery is more rapid, the recovery of the water level back to its pre-test static level is typically in the form of decaying oscillations (Neville, 2011), as shown for example in wells LLMW-03D, LLMW-12D and LLMW-22D (Figures E-2, E-7 and E-11). This type of hydraulic response has been classified as "under-damped," and is typically due to high hydraulic conductivity of the aquifer in the vicinity of the well. Data from wells exhibiting this type of response were analyzed using a high-conductivity analytical method developed by Butler and Garnett (2000). The authors developed their analytical method based on the work of Van Der Kamp (1976) and Kipp (1985), refining the method to be applicable to wells that do not penetrate the entire thickness of the aquifer, as is the case in wells tested in this study. The Butler and Garnett (2000) method is widely used in slug test data analysis and can be applied to data from both confined and unconfined aquifers. Slug tests in shallow wells were analyzed assuming unconfined conditions because the shallow aquifer is well documented to be unconfined. Slug tests in deep wells were analyzed assuming confined conditions because several lines of evidence suggested the deep aquifer was confined. (This assumption was further corroborated by the tidal study – see Appendix F).

The hydraulic conductivity (K) values were calculated based on aquifer thickness and the slope of the fitted lines shown on Figures E-1 through E-19. Aquifer thicknesses at each location were based on stratigraphy observed during drilling, as recorded on boring logs.

Drawdown Testing

Field Procedure

Short-duration drawdown testing was performed on six wells (LLMW-11S, LLMW-11D, LLMW-16D, BP-05S, BP-05D and BP-05D2). Similar to the slug test procedure, the water level in each well was measured and recorded at 0.25-second intervals using a decontaminated submerged transducer/datalogger installed in the well. The water level was also measured using a decontaminated e-tape as a check on the transducer/datalogger. The pre-test static water level was measured in each well from a surveyed reference mark on top of the well casing. A decontaminated submersible pump with a pumping capacity of 2 gallons per minute (at 30 feet of lift) was used for each test. The well was

pumped for 30 minutes to allow a cone of depression to develop and propagate beyond the radius of influence achieved during slug testing. Well BP-05S was tested twice because the drawdown portion of the first test was inadvertently ended before the 30-minute drawdown period prescribed by the project Sampling and Analysis Plan (SAP).

Data Analysis

Drawdown data were analyzed using the Cooper-Jacob (1946) analytical method for data collected during the pumping phase, and using the Theis Recovery Method (Theis 1935) for the recovery phase. Plots of the aquifer response to pumping as well as the recovery and the trend lines are presented in Figures E-20 through E-26. Transmissivity (T) is calculated based on the slope of the fitted lines shown on Figures E-20 through E-26. Hydraulic conductivity (K) is calculated based on aquifer thickness and T. (Storativity [S] is often estimated along with T by measuring water levels in adjacent observation wells, however S was not estimated during this study because observation wells were not monitored).

It is necessary to use best professional judgement to select the data points used for the fitted line for T. For example, the drawdown portion of the test typically takes some time to reach a constant drawdown rate (see for example the upper [pumping] graph in BP-05S [Figure E-20]). Furthermore, when pumps were shut off at the end of the drawdown phase, residual water in the discharge tubing above the pump likely flowed back into the well, which is a likely explanation of the data points seen above the fitted line in the early portions of the recovery phase (see for example the lower [recovery] graph in BP-05S, [Figure E-20]). These data were not included in the analyses of T (and hence K).

Data collected from wells that were drawdown tested *and* tidally influenced required correction to compensate for the changing ambient groundwater level over the duration of the test. (The tidal correction was not necessary during slug testing because the slug test time is relatively short compared to water level changes due to tidal influence.) The wells that were observed to be tidally influenced during the tidal study (see Appendix F) that were drawdown tested included LLMW-05D, LLMW-11D and LLMW-16D. A tidal correction, based on the tidal efficiency observed at each well during the tidal study, was applied to the wells that were tidally influenced.

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Bouwer, H. and Rice, R.C. (Bouwer and Rice), 1976. A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells. Water Resources Research, 12(3), 423-428.

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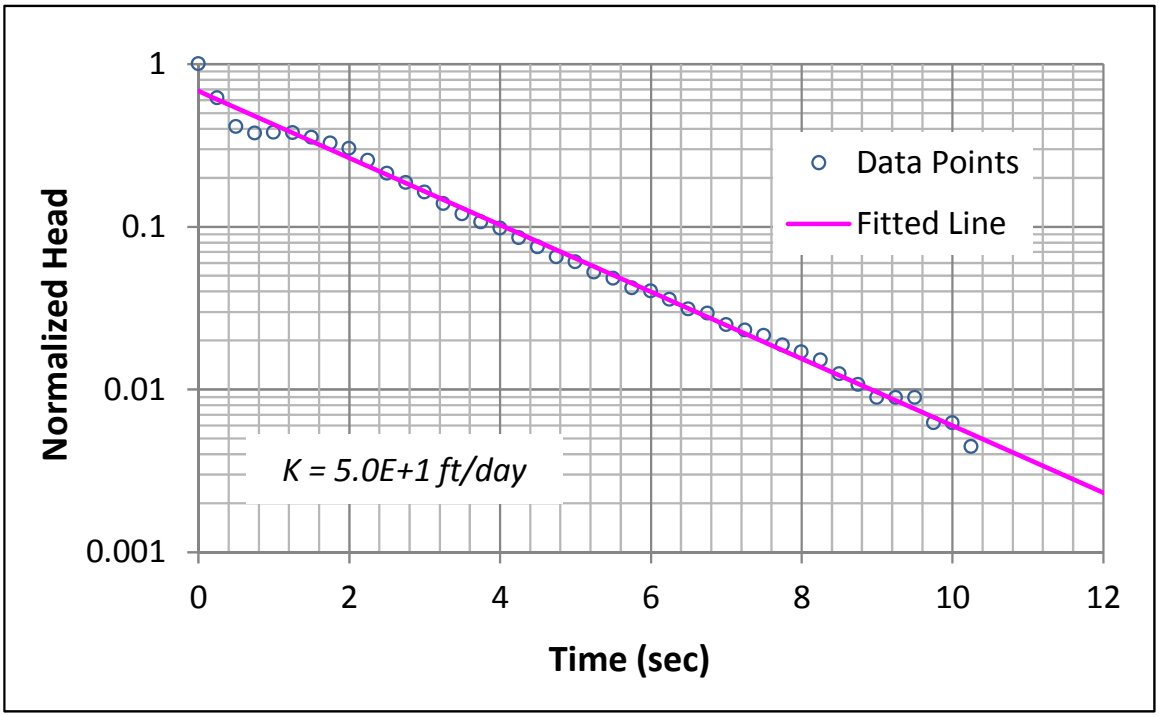

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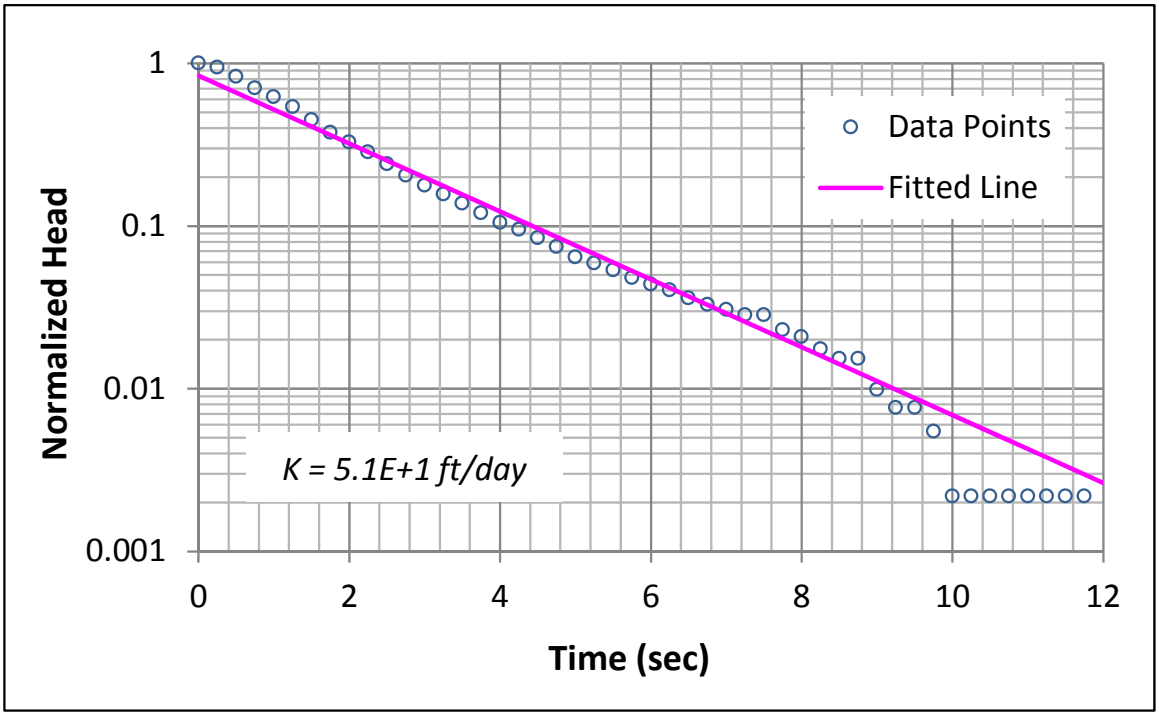
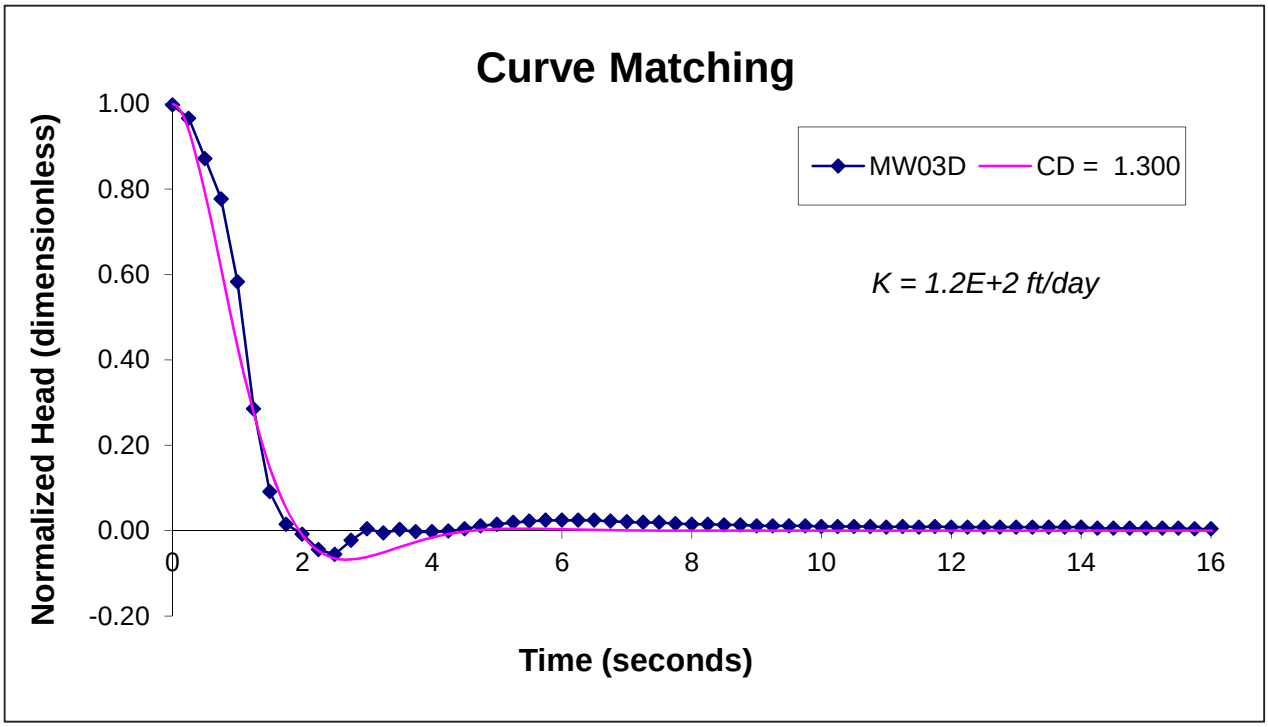


Notes:

1. Slug Test conducted in Monitoring Well MW-03S on 1/30, 2013.
2. Overdamped slug test response analyzed using Bouwer & Rice (1976) method.
3. Formation thickness, B = 12.8 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test, MW-03S	
Everett Smelter – Lowland Area	
GEOENGINEERS	**Figure E-1**

Falling Head



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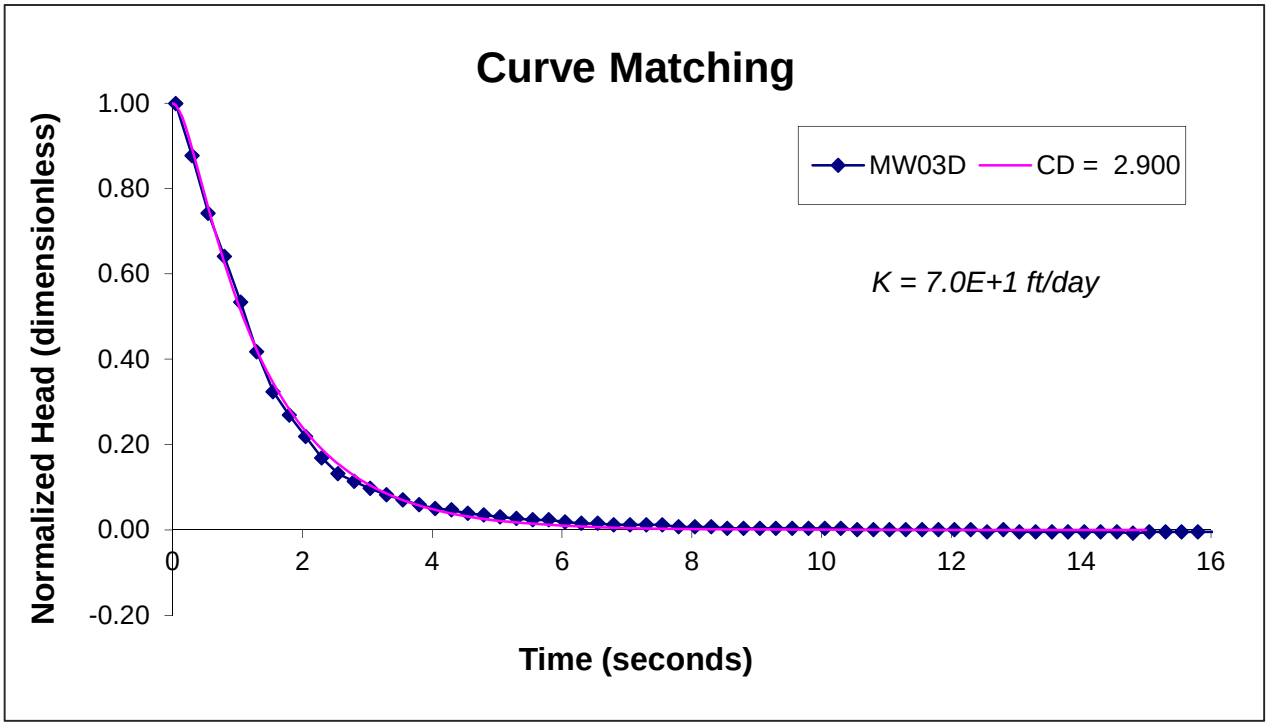

Notes:

1. Slug Test conducted in Monitoring Well MW-03D on 1/30, 2013.
2. Underdamped slug test response analyzed using Butler & Garnett (2000) method for High-K.
3. Formation thickness, B = 30.8 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test, MW-03D	
Everett Smelter – Lowland Area	
GEOENGINEERS	**Figure E-2**

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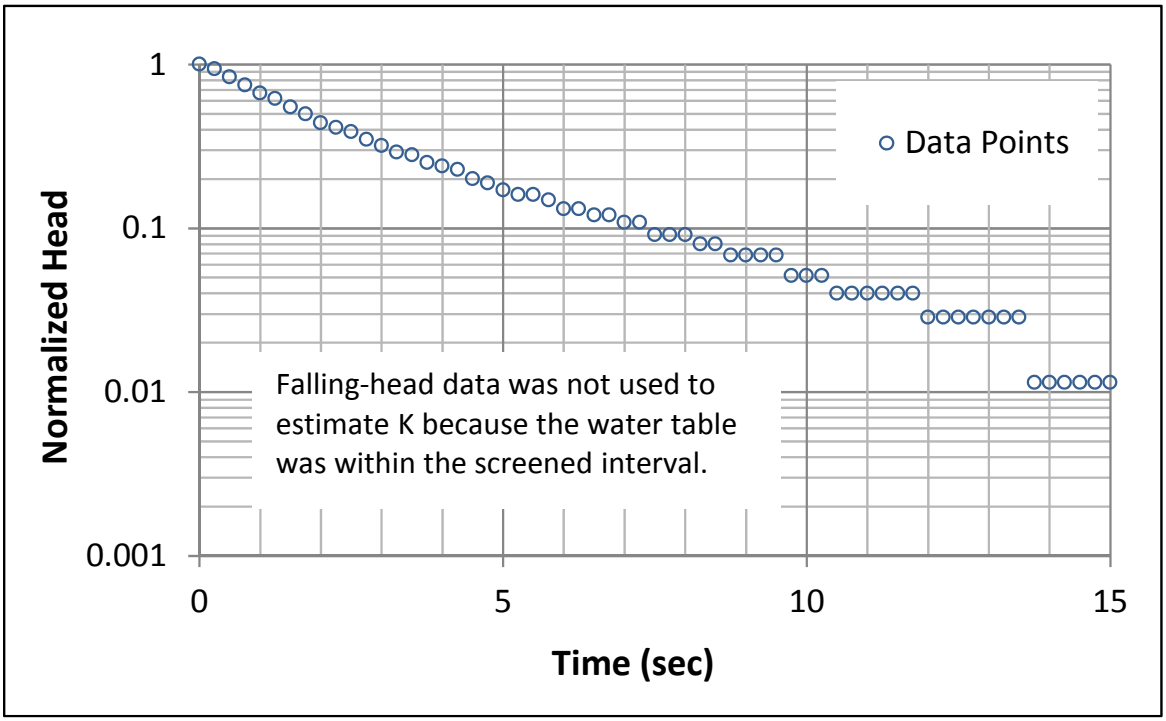

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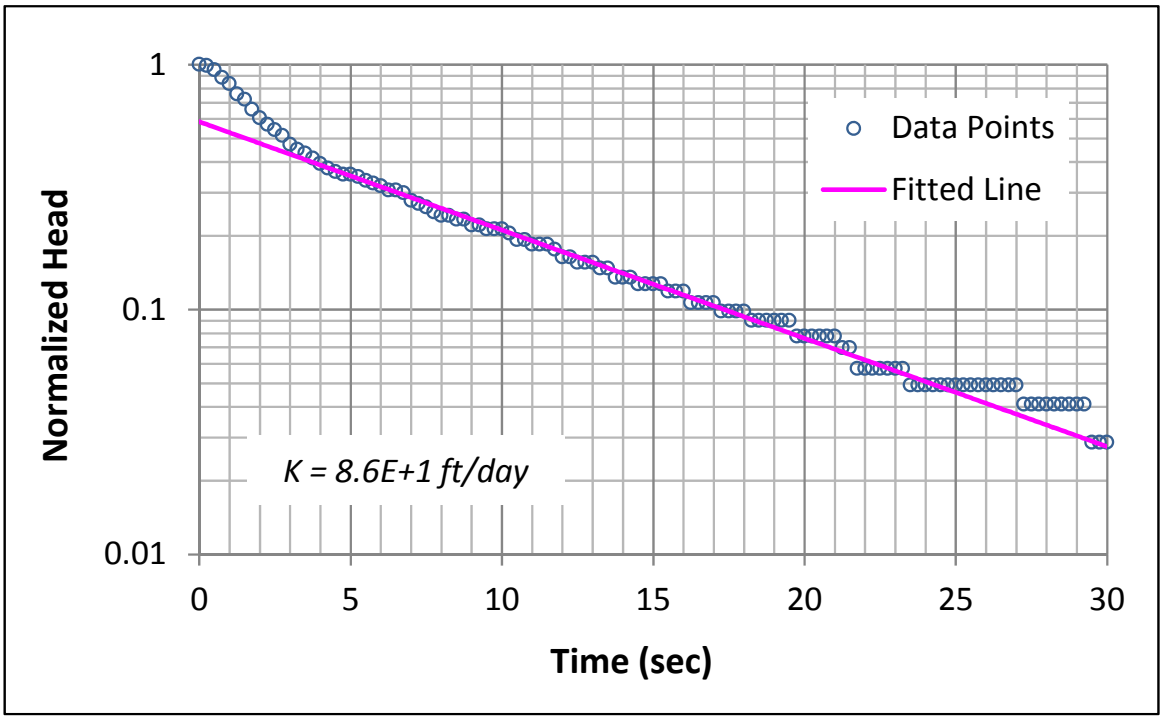

Notes:

1. Slug Test conducted in Monitoring Well MW-11S on 1/31, 2013.
2. Overdamped rising-head slug test response analyzed using Bouwer & Rice (1976) method.
3. Formation thickness, B = 8.5 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test, MW-11S	
Everett Smelter – Lowland Area	
GEOENGINEERS	**Figure E-3**

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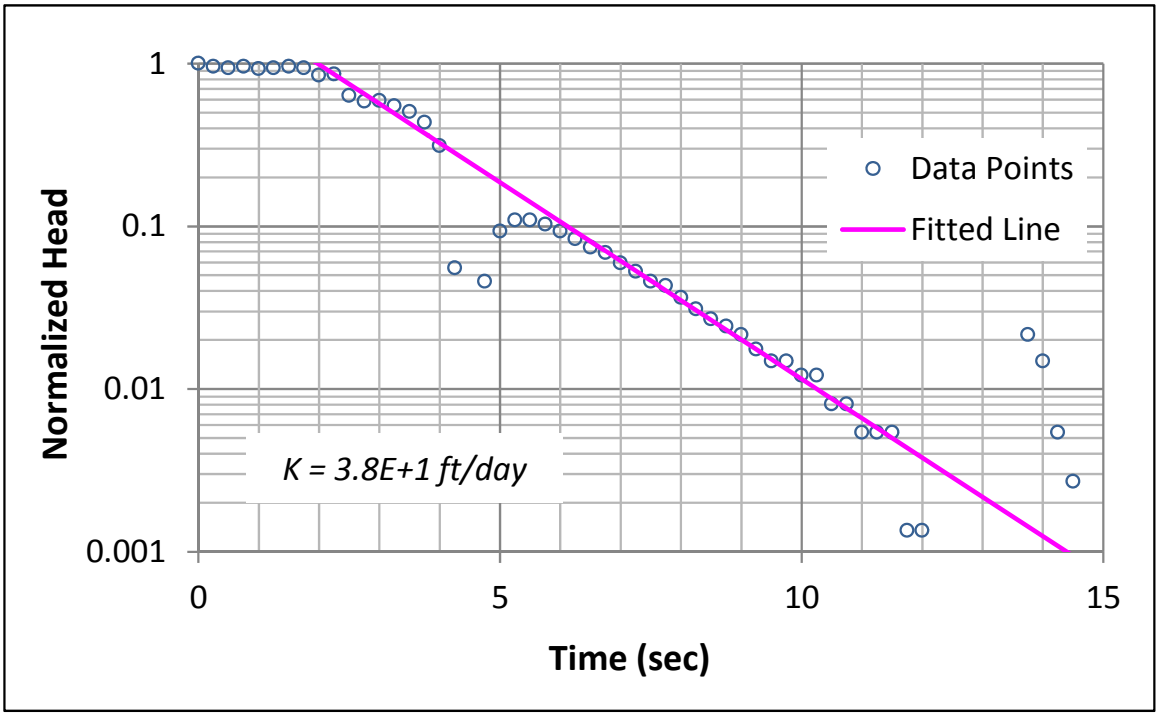

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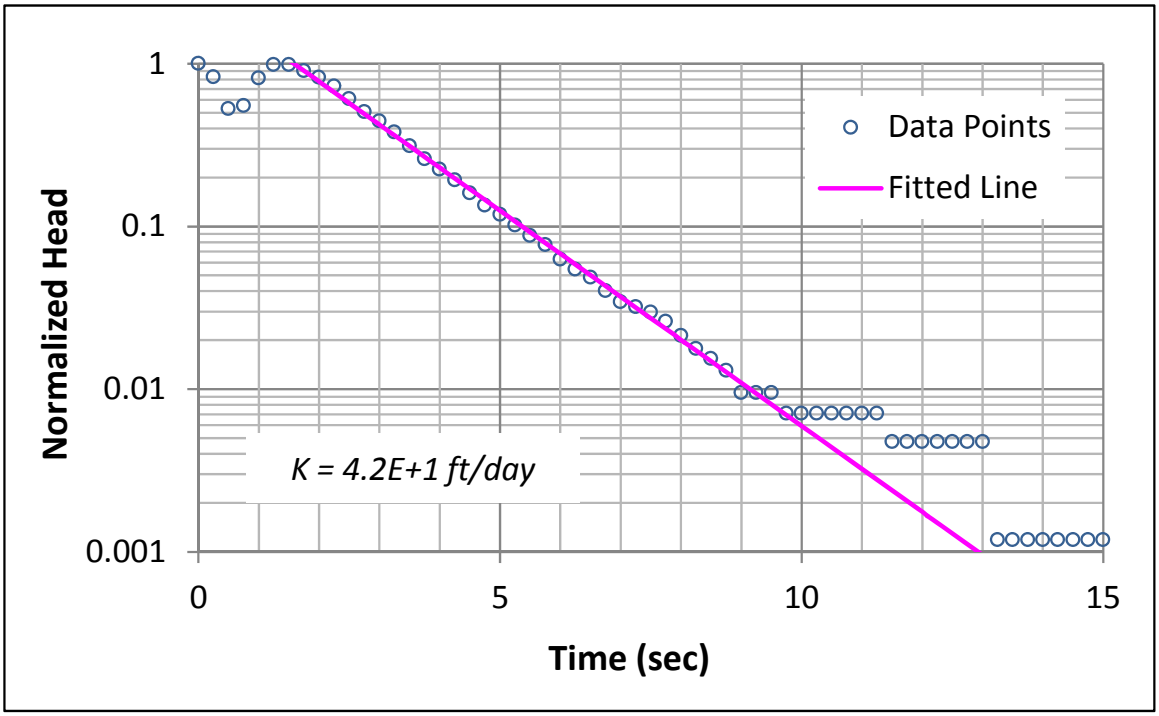
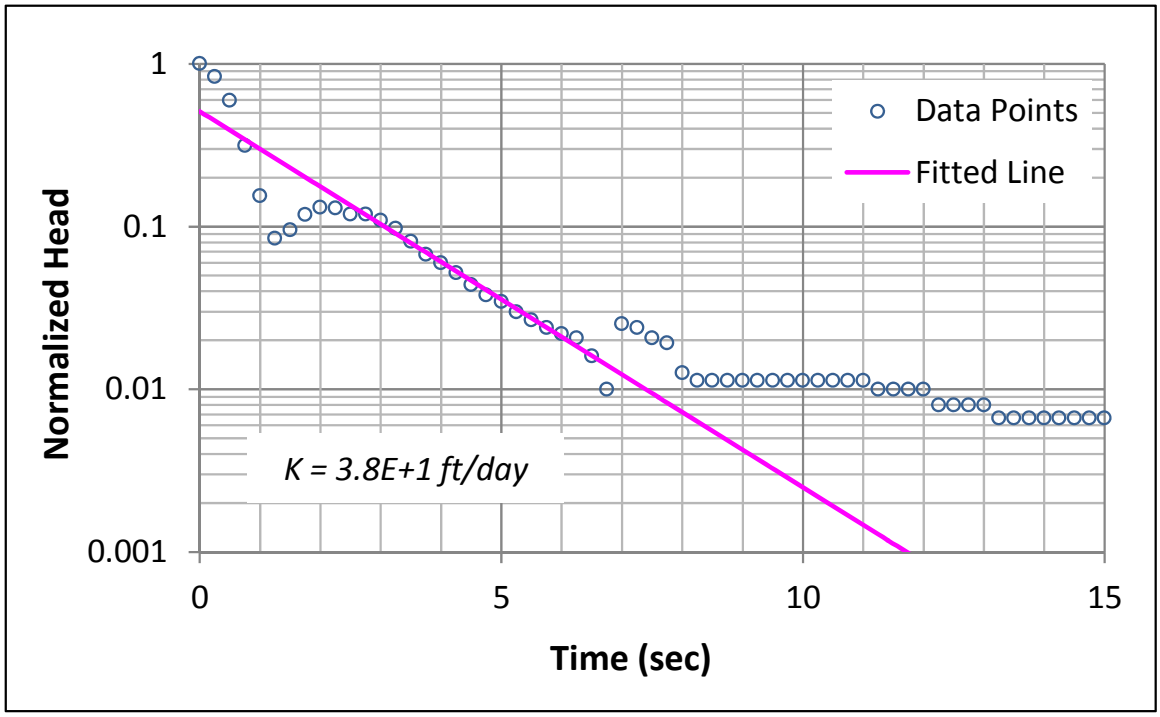


Notes:

1. Slug Test conducted in Monitoring Well MW-11D on 1/29, 2013.
2. Overdamped rising-head slug test response analyzed using Bouwer & Rice (1976) method.
3. Formation thickness, B = 17.7 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test 1, MW-11D	
Everett Smelter – Lowland Area	
GeoEngineers	Figure E-4

Falling Head 2



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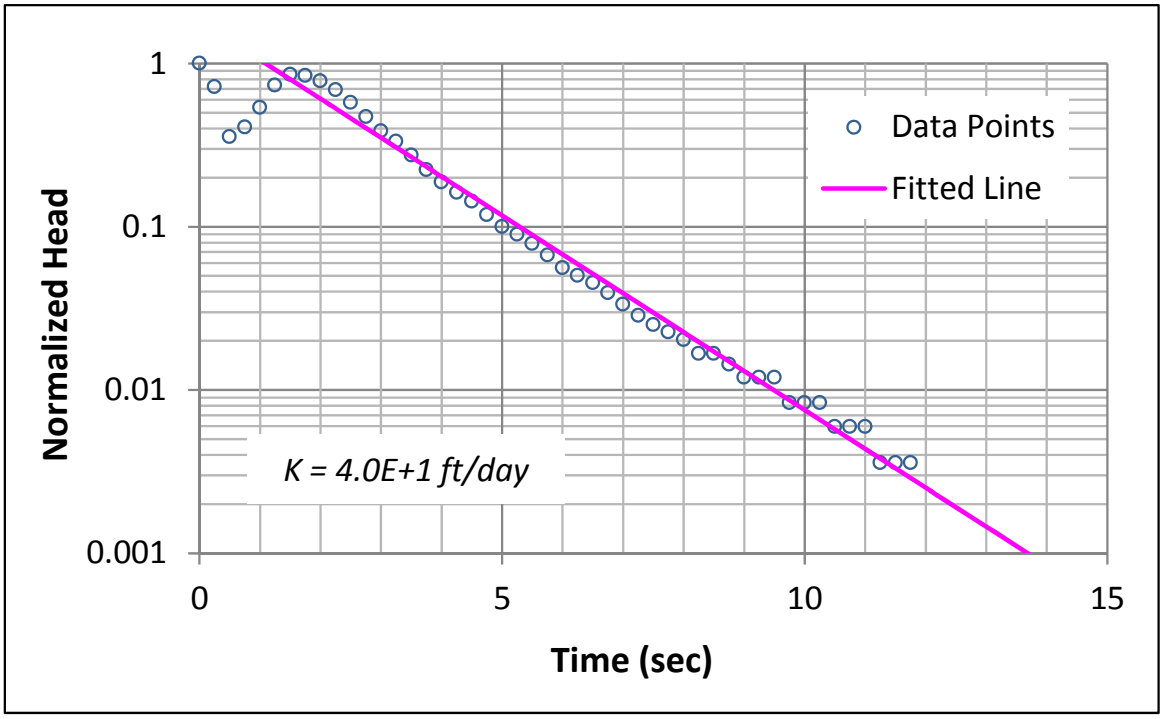

Notes:

1. Slug Test conducted in Monitoring Well MW-11D on 1/31, 2013.
2. Overdamped rising-head slug test response analyzed using Bouwer & Rice (1976) method.
3. Formation thickness, B = 21.1 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test 2, MW-11D	
Everett Smelter – Lowland Area	
GEOENGINEERS	**Figure E-5**

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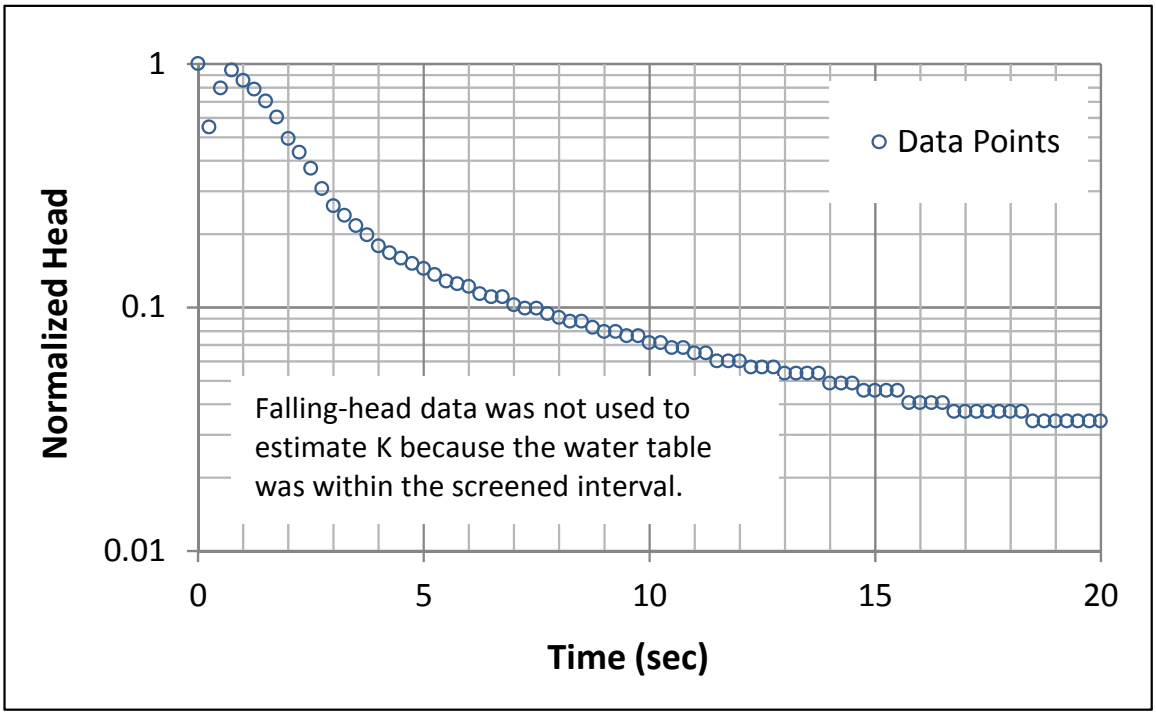

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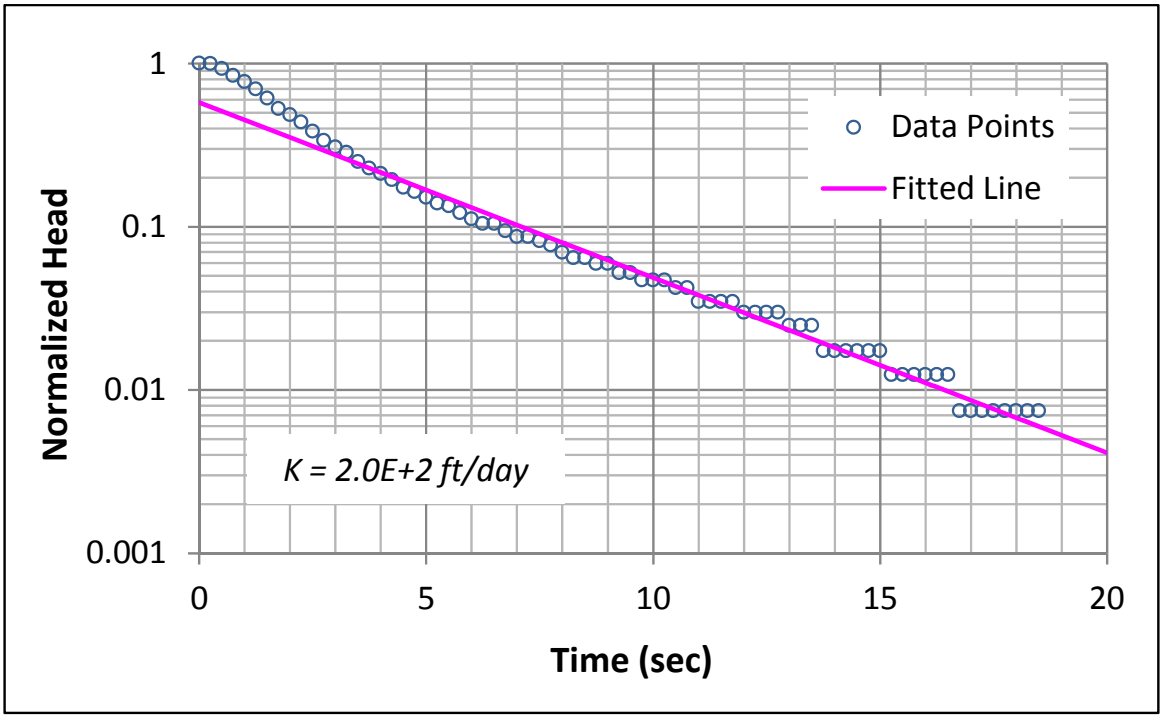
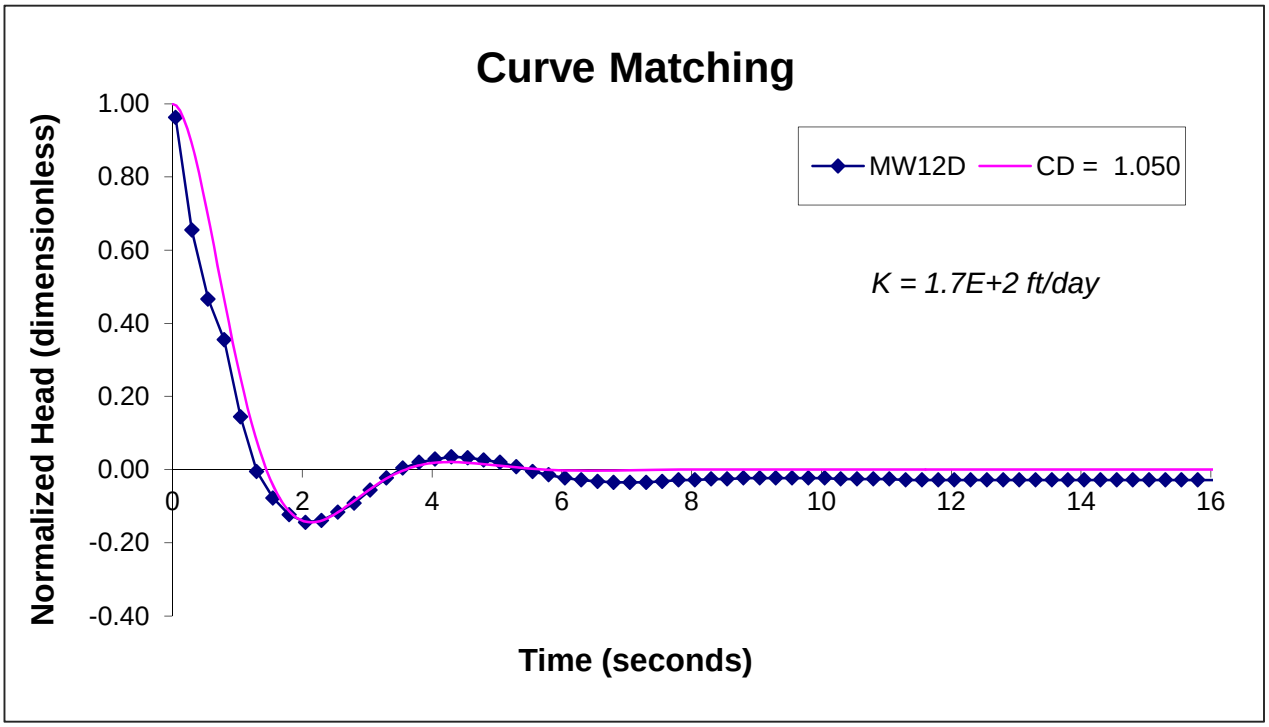


Notes:

1. Slug Test conducted in Monitoring Well MW-12S on 1/30, 2013.
2. Overdamped rising-head slug test response analyzed using Bouwer & Rice (1976) method.
3. Formation thickness, B = 9.4 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test, MW-12S	
Everett Smelter – Lowland Area	
GEOENGINEERS	**Figure E-6**

Falling Head



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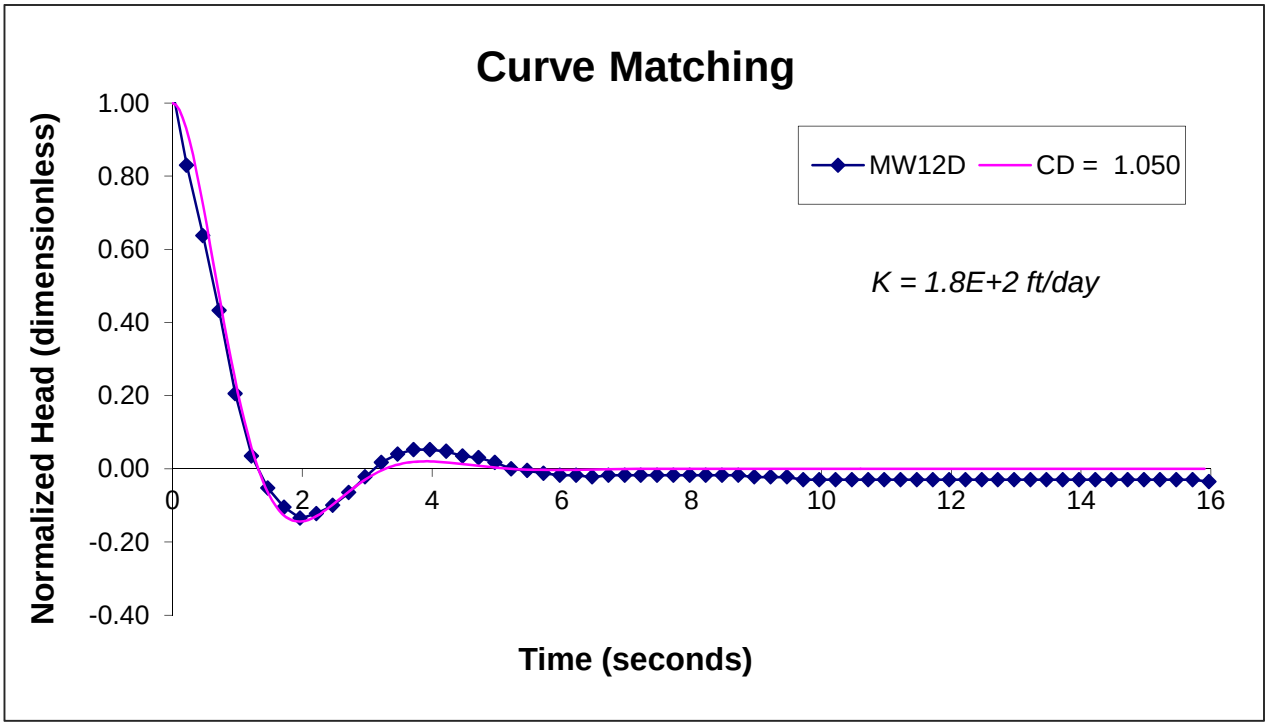

Notes:

1. Slug Test conducted in Monitoring Well MW-12D on 1/30, 2013.
2. Underdamped slug test response analyzed using Butler & Garnett (2000) method for High-K.
3. Formation thickness, B = 25.7 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test, MW-12D	
Everett Smelter – Lowland Area	
GEOENGINEERS	**Figure E-7**

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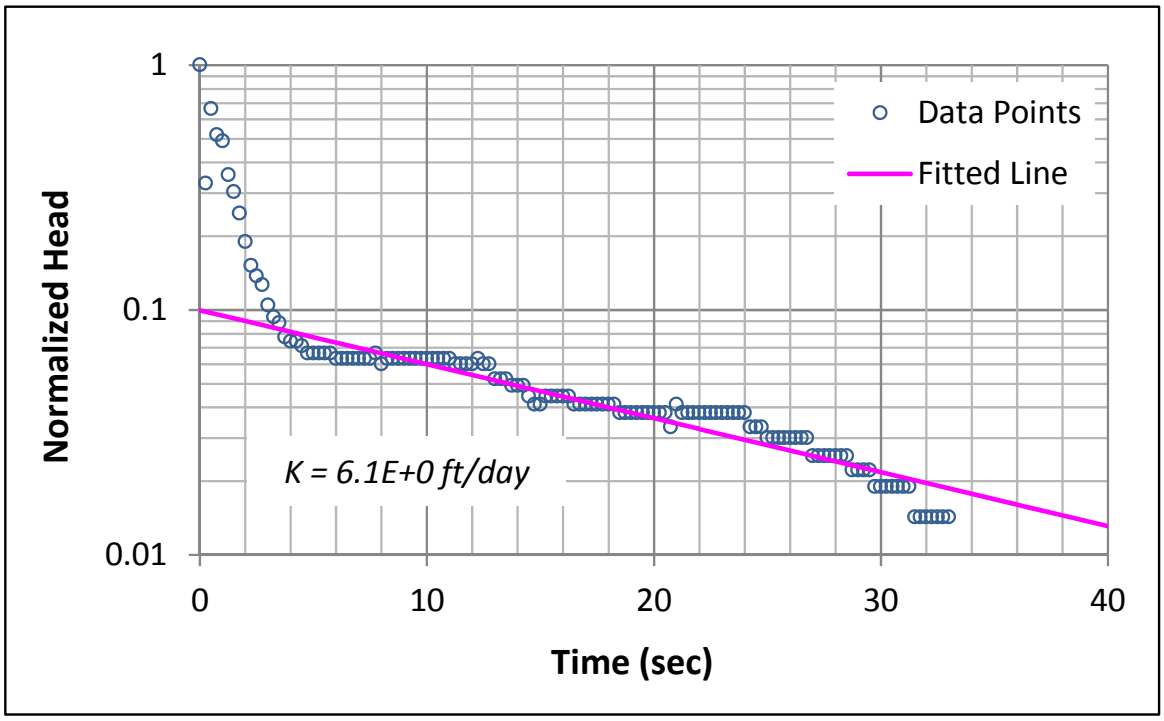

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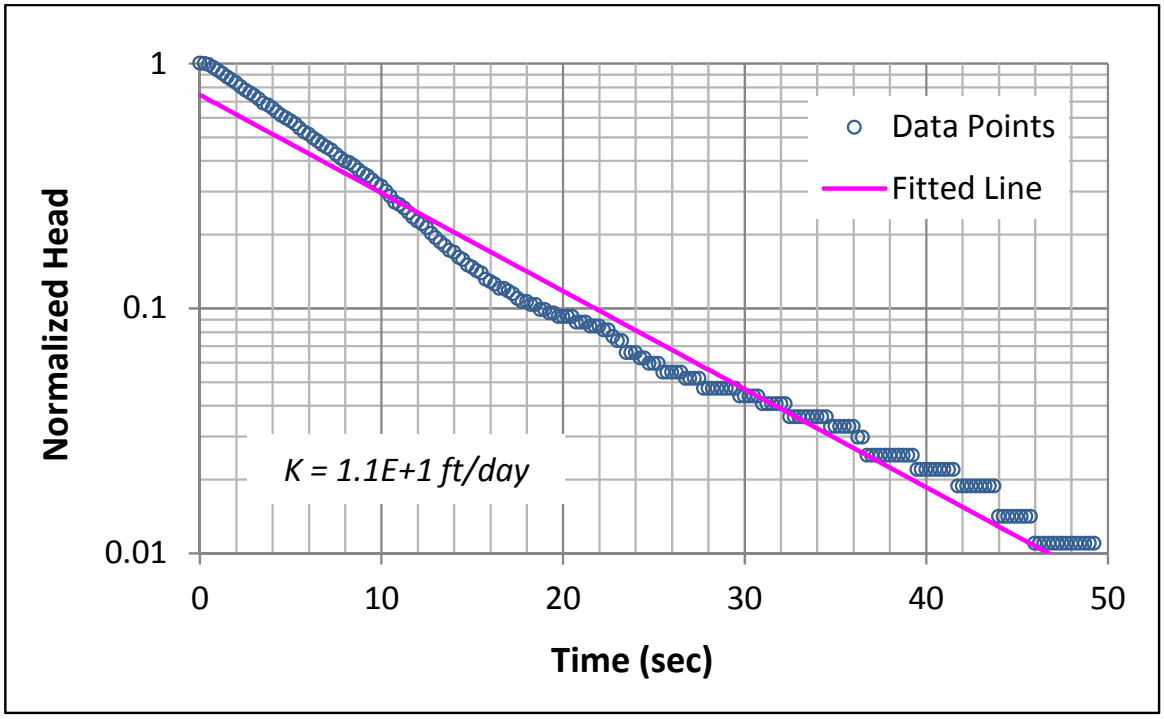
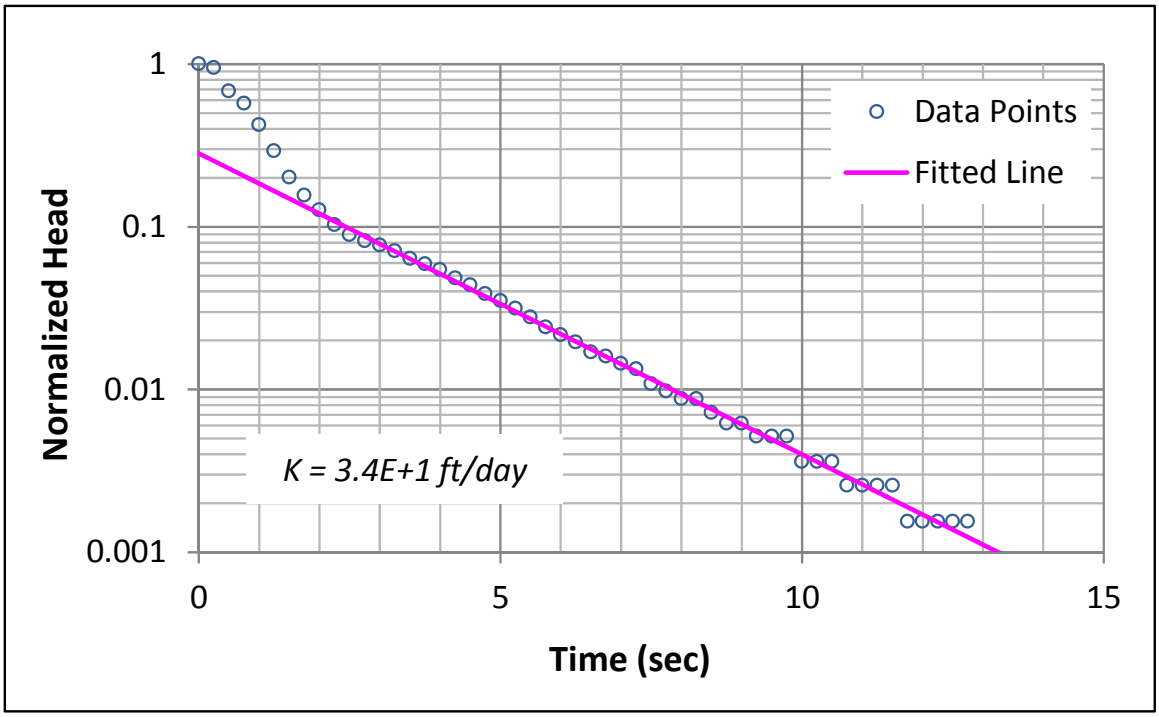


Notes:

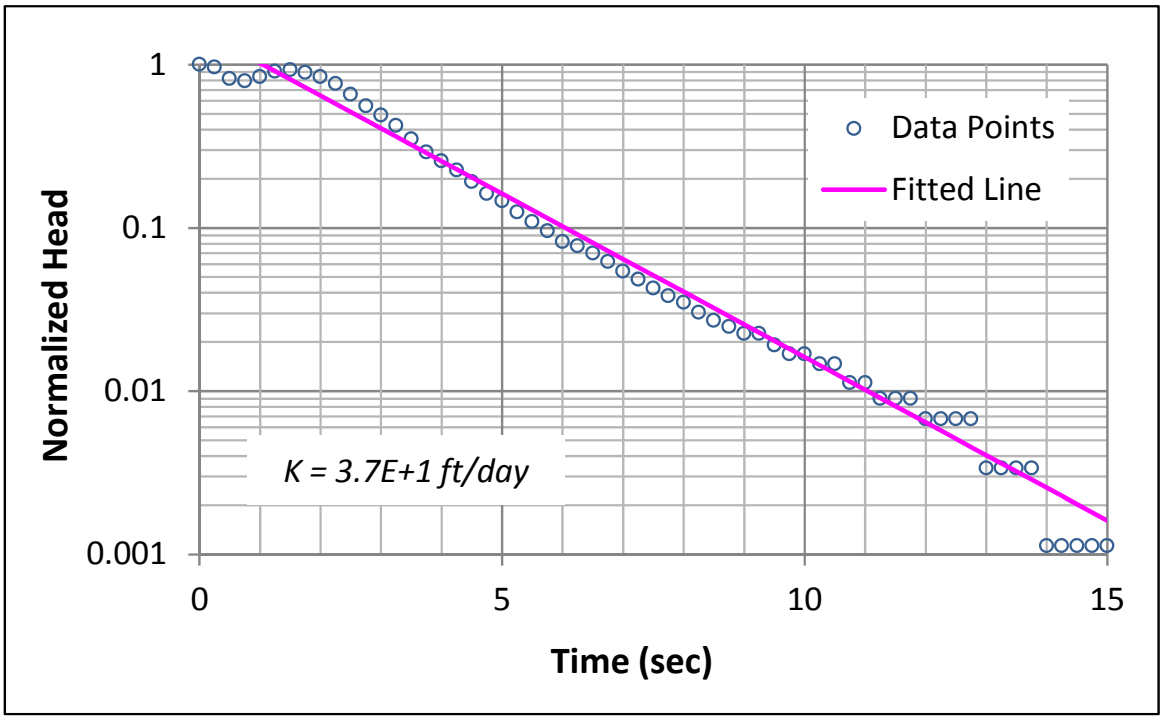
1. Slug Test conducted in Monitoring Well MW-16S on 1/29, 2013.
2. Overdamped rising-head slug test response analyzed using Bouwer & Rice (1976) method.
3. Formation thickness, B = 9.9 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test, MW-16S	
Everett Smelter – Lowland Area	
GEOENGINEERS	**Figure E-8**

Falling Head



Rising Head

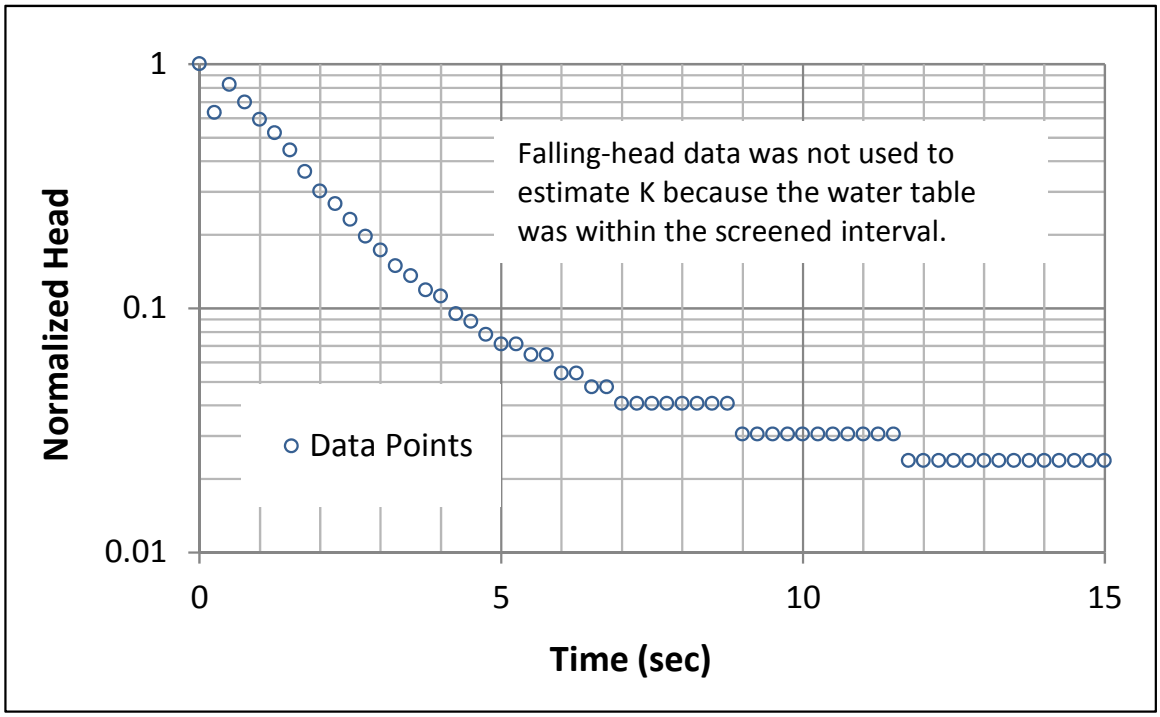


Notes:

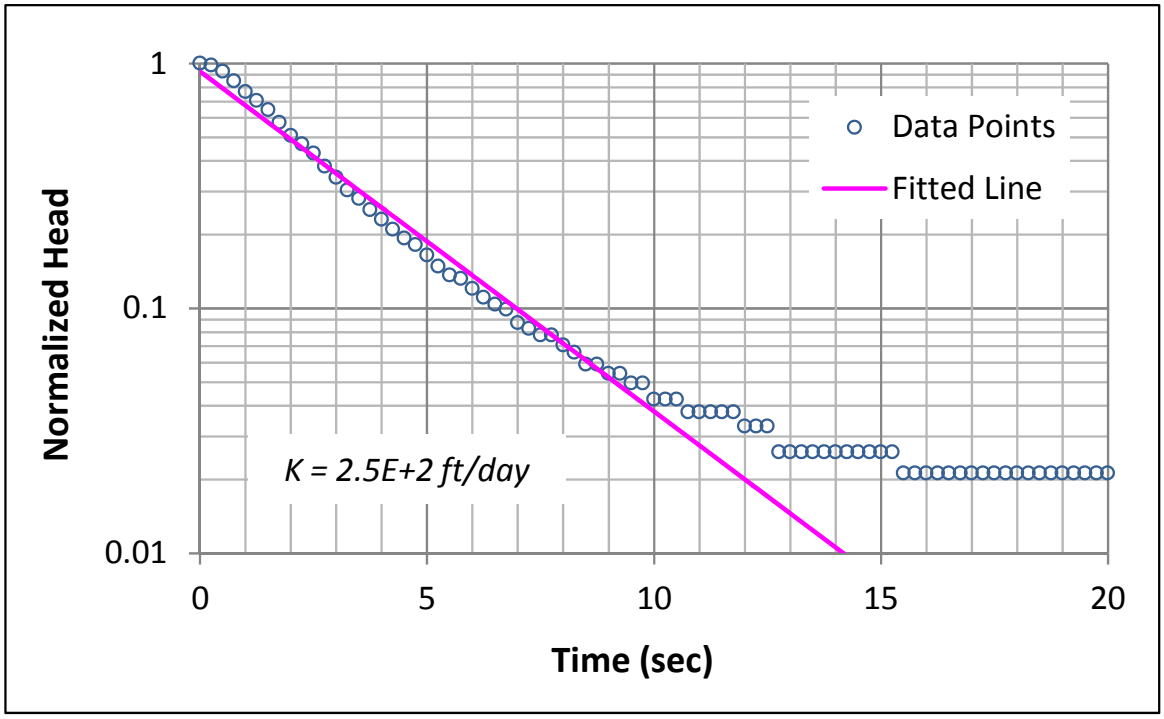
1. Slug Test conducted in Monitoring Well MW-16D on 2/1, 2013.
2. Overdamped rising-head slug test response analyzed using Bouwer & Rice (1976) method.
3. Formation thickness, B = 33.3 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test, MW-16D	
Everett Smelter – Lowland Area	
GEOENGINEERS	**Figure E-9**

Falling Head



Rising Head



Notes:

1. Slug Test conducted in Monitoring Well MW-22S on 1/30, 2013.
2. Overdamped rising-head slug test response analyzed using Bouwer & Rice (1976) method.
3. Formation thickness, B = 8.8 feet used to calculate hydraulic conductivity, K.

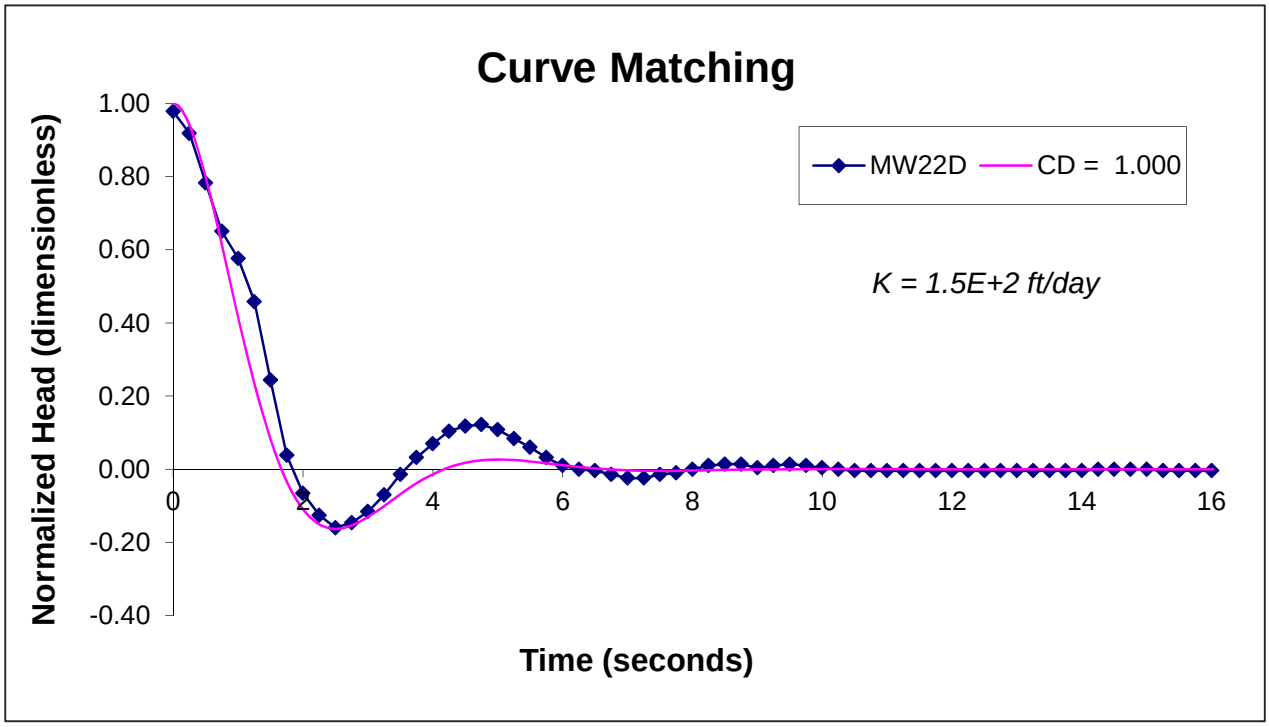
Aquifer Slug Test, MW-22S

Everett Smelter – Lowland Area

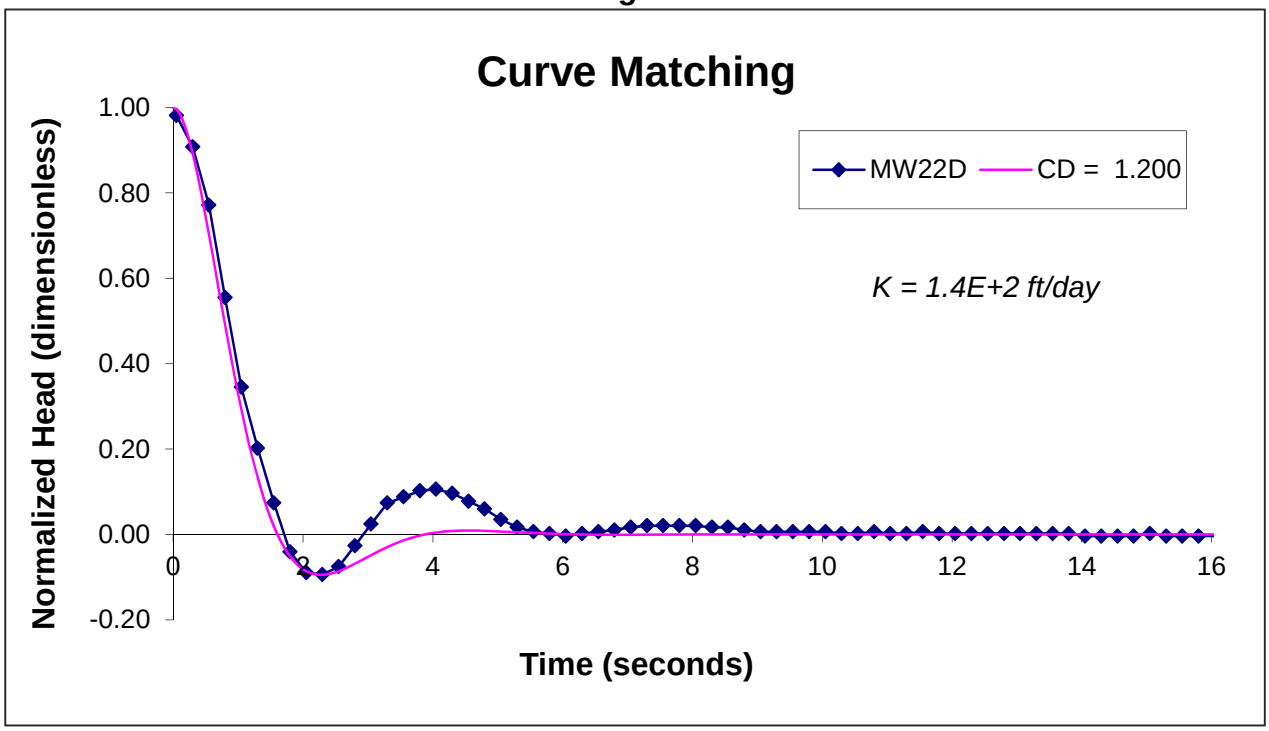
GEOENGINEERS

Figure E-10

Falling Head



Rising Head

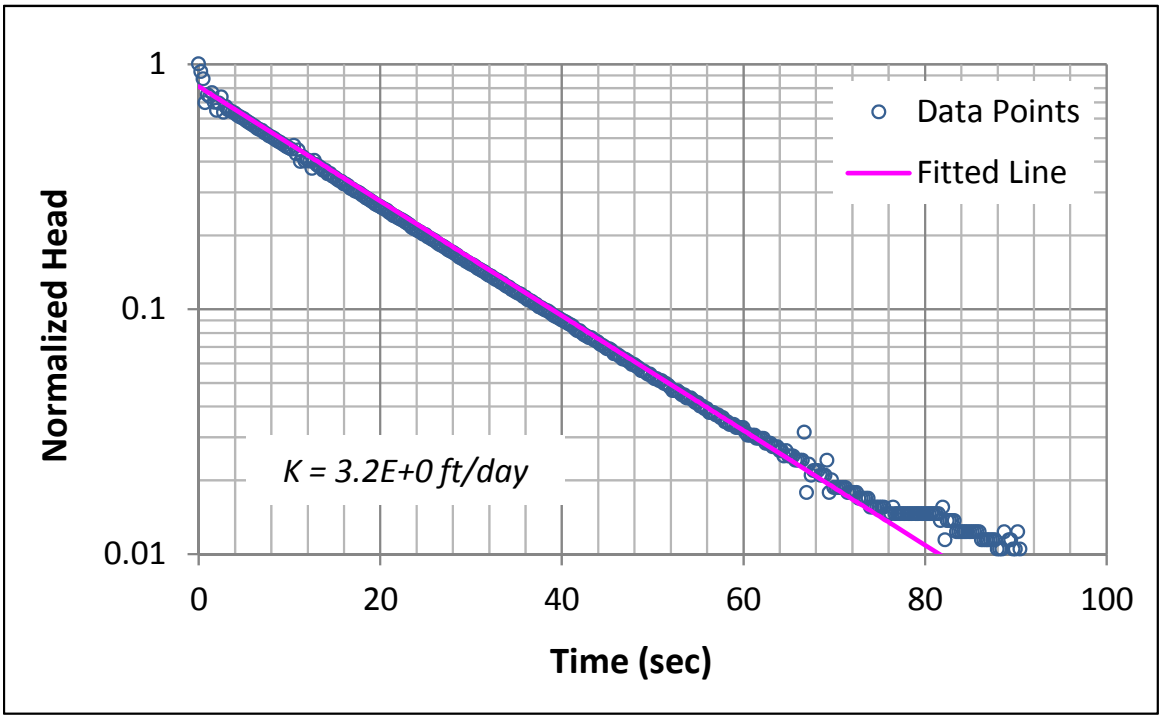


Notes:

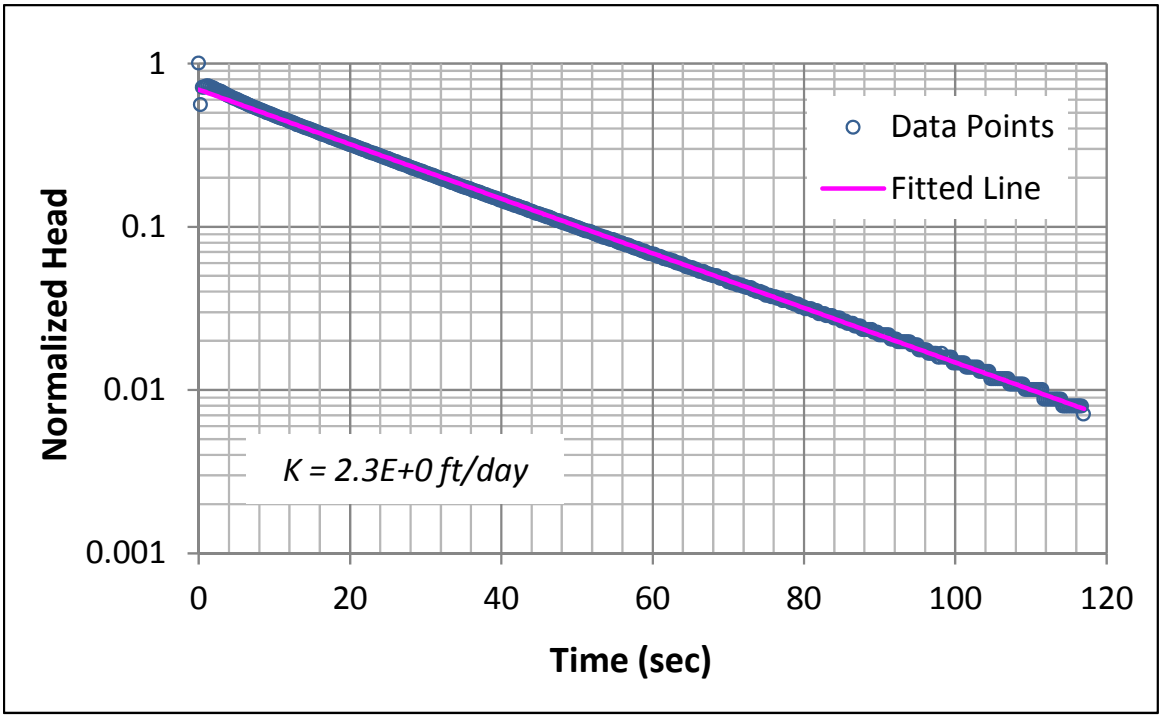
1. Slug Test conducted in Monitoring Well MW-22D on 1/30, 2013.
2. Underdamped slug test response analyzed using Butler & Garnett (2000) method for High-K.
3. Formation thickness, B = 27.1 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test, MW-22D	
Everett Smelter – Lowland Area	
GEOENGINEERS	**Figure E-11**

Falling Head



Rising Head

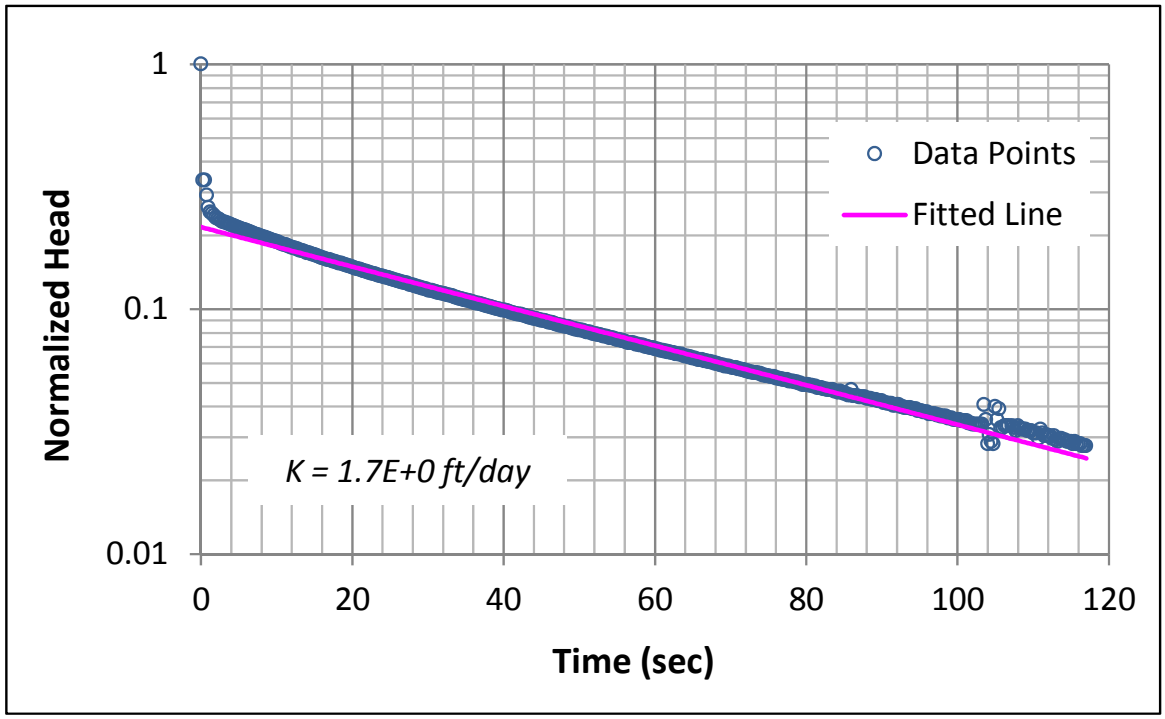


Notes:

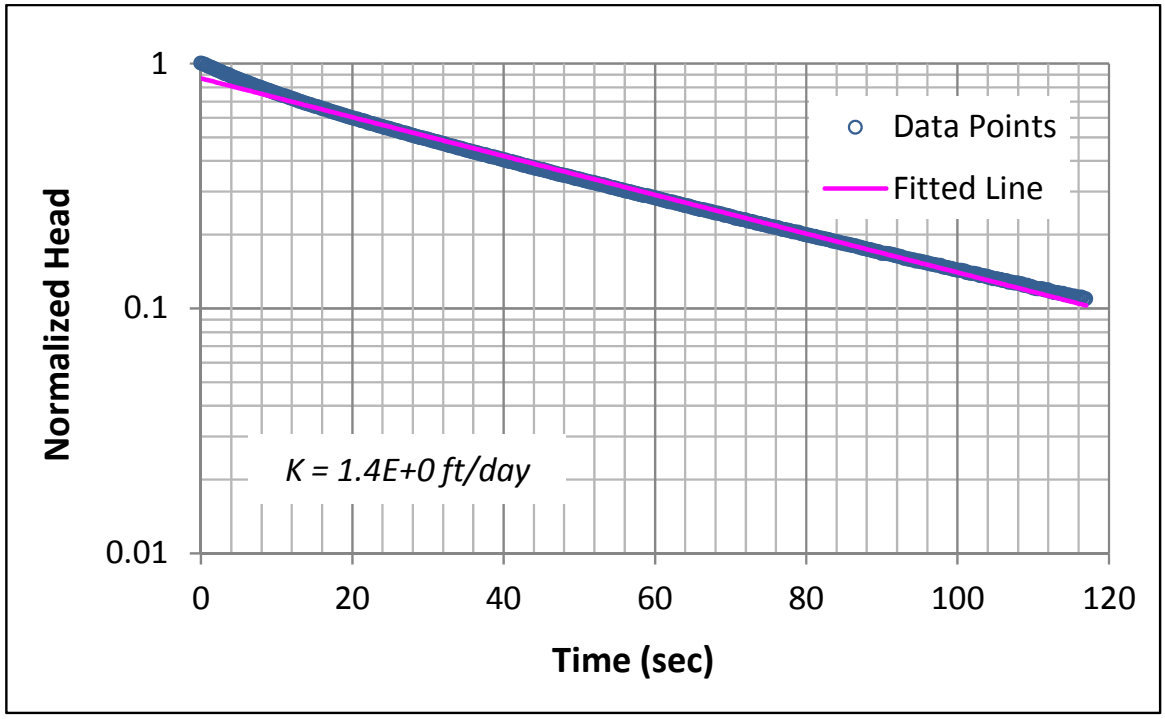
1. Slug Test conducted in Monitoring Well MW-27D on 1/30, 2013.
2. Overdamped rising-head slug test response analyzed using Bouwer & Rice (1976) method.
3. Formation thickness, B = 18.2 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test, MW-27D	
Everett Smelter – Lowland Area	
GEOENGINEERS	**Figure E-12**

Falling Head



Rising Head

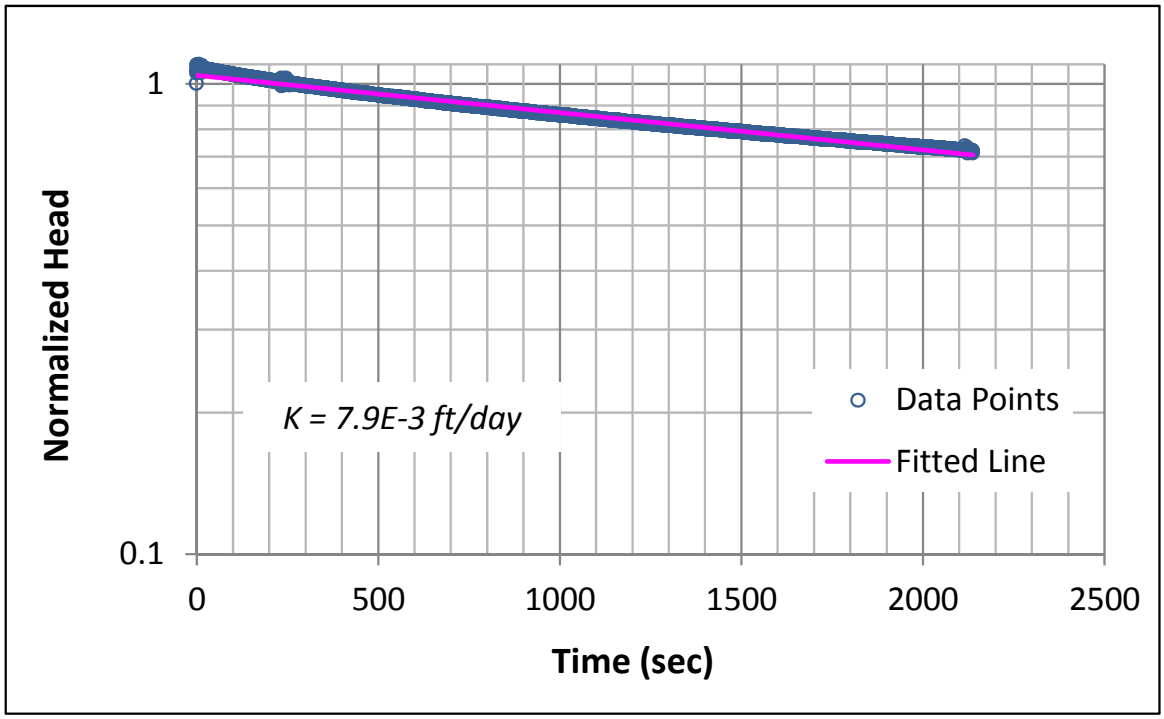


Notes:

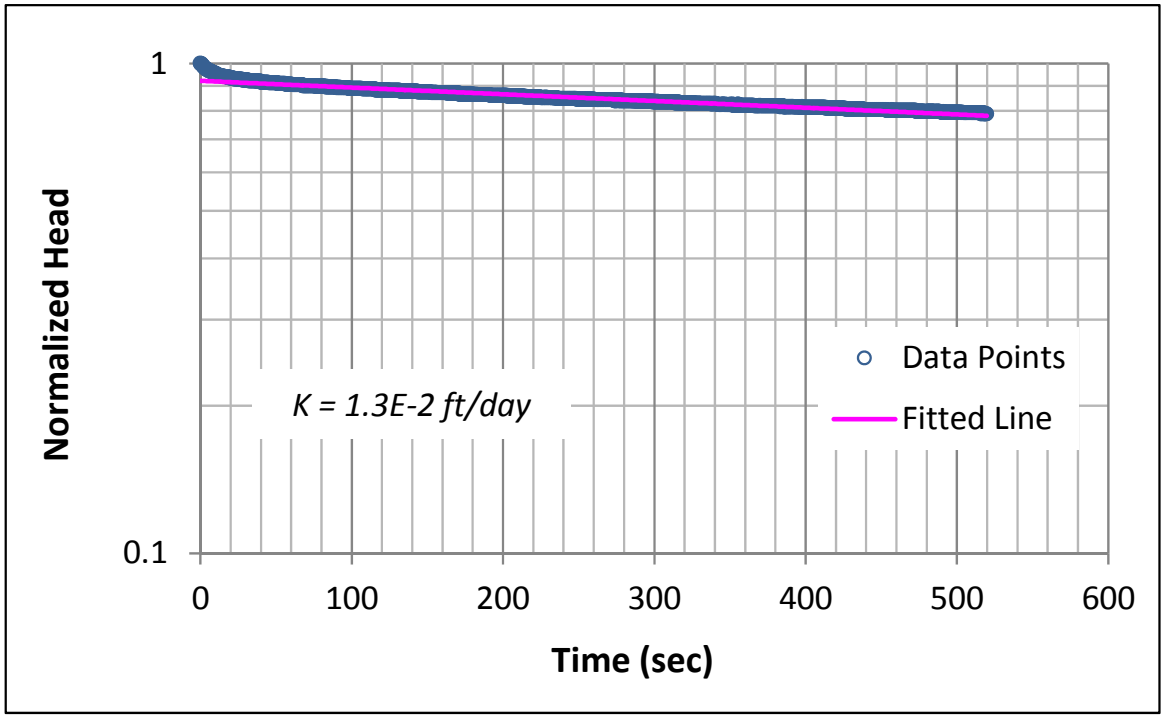
1. Slug Test conducted in Monitoring Well EV-22A on 2/1, 2013.
2. Overdamped rising-head slug test response analyzed using Bouwer & Rice (1976) method.
3. Formation thickness, B = 15.1 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test, EV-22A	
Everett Smelter – Lowland Area	
GEOENGINEERS	**Figure E-13**

Falling Head



Rising Head

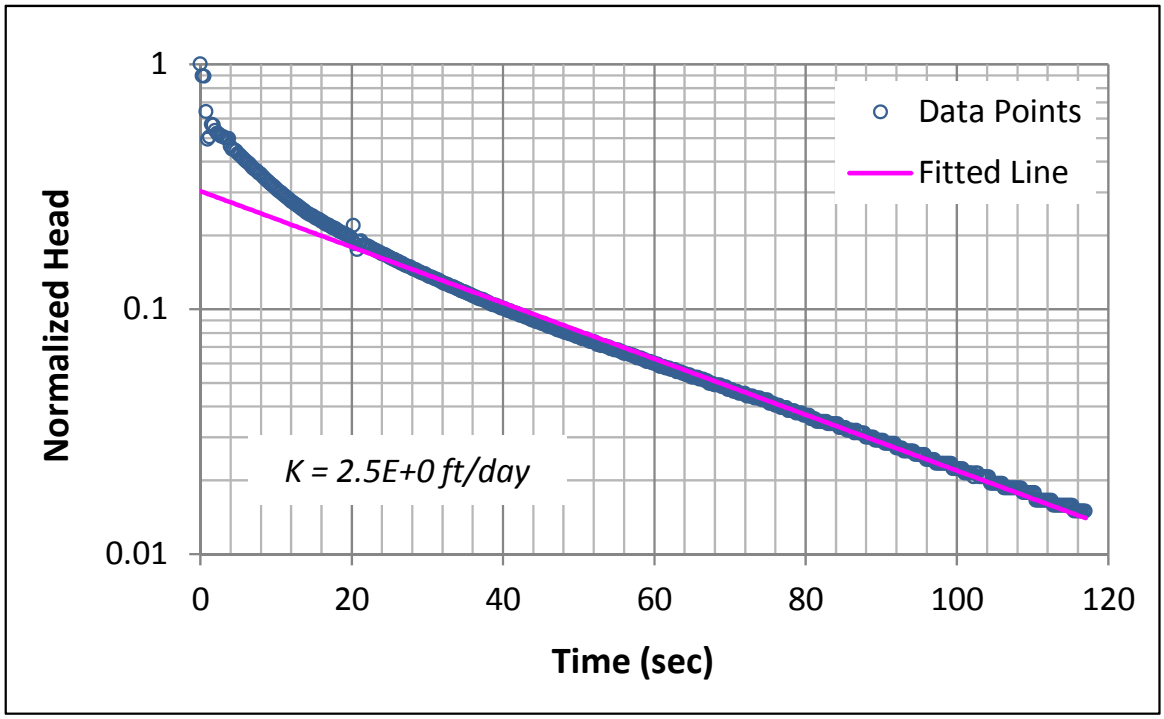


Notes:

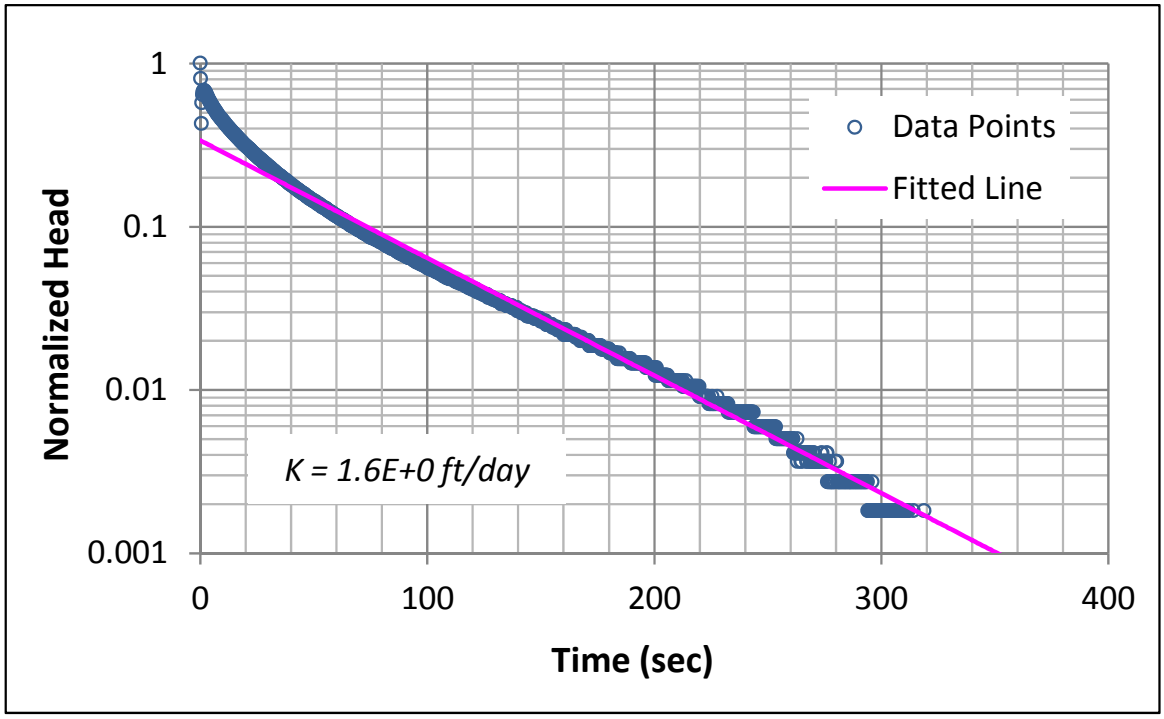
1. Slug Test conducted in Monitoring Well EV-22B on 2/1, 2013.
2. Overdamped rising-head slug test response analyzed using Bouwer & Rice (1976) method.
3. Formation thickness, B = 25.2 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test, EV-22B	
Everett Smelter – Lowland Area	
GEOENGINEERS	**Figure E-14**

Falling Head



Rising Head

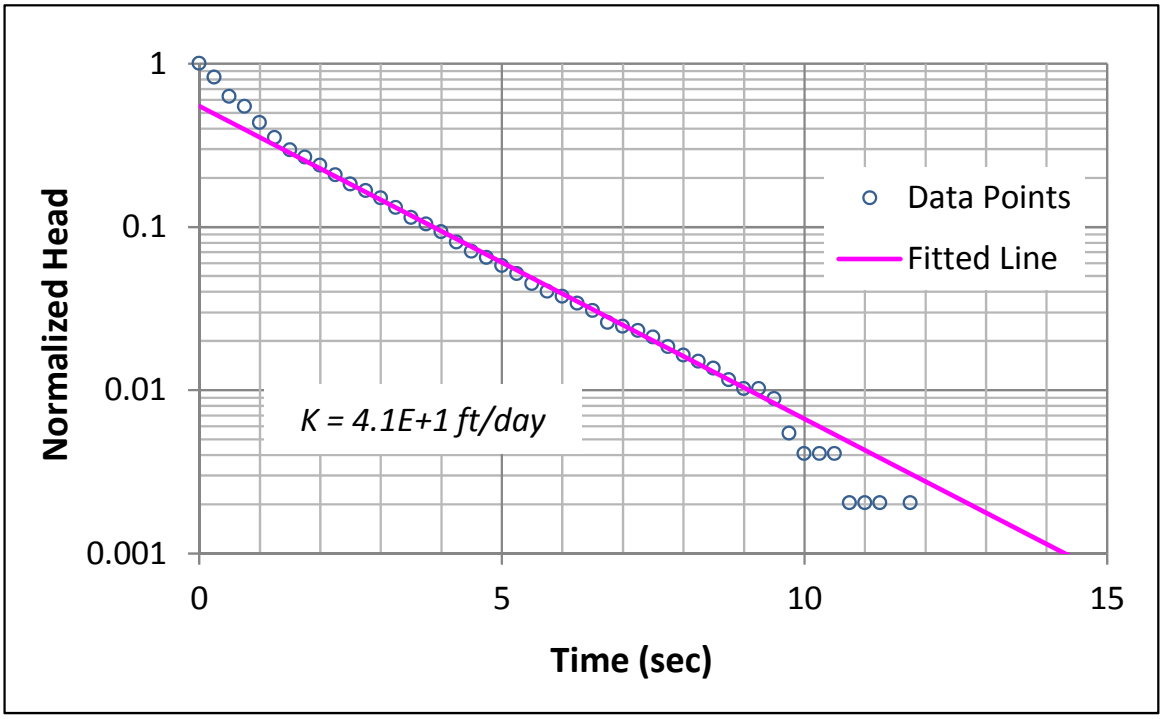


Notes:

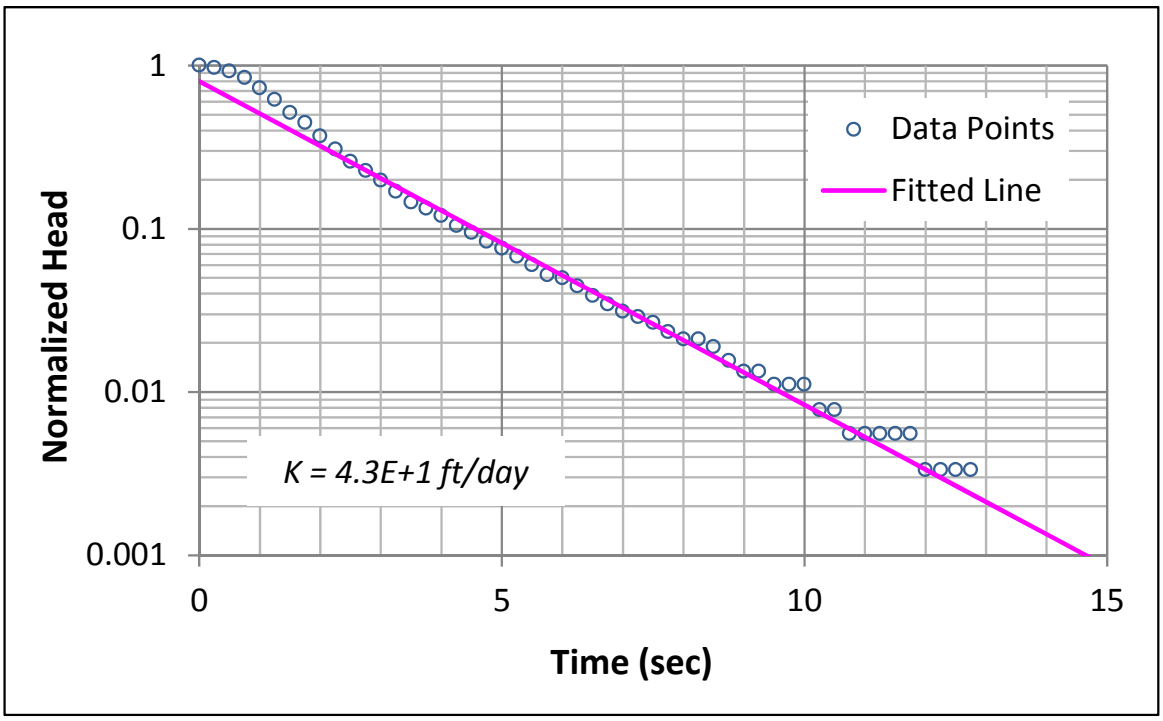
1. Slug Test conducted in Monitoring Well BP-05S on 1/31, 2013.
2. Overdamped rising-head slug test response analyzed using Bouwer & Rice (1976) method.
3. Formation thickness, B = 14.6 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test, BP-05S	
Everett Smelter – Lowland Area	
GEOENGINEERS	**Figure E-15**

Falling Head



Rising Head

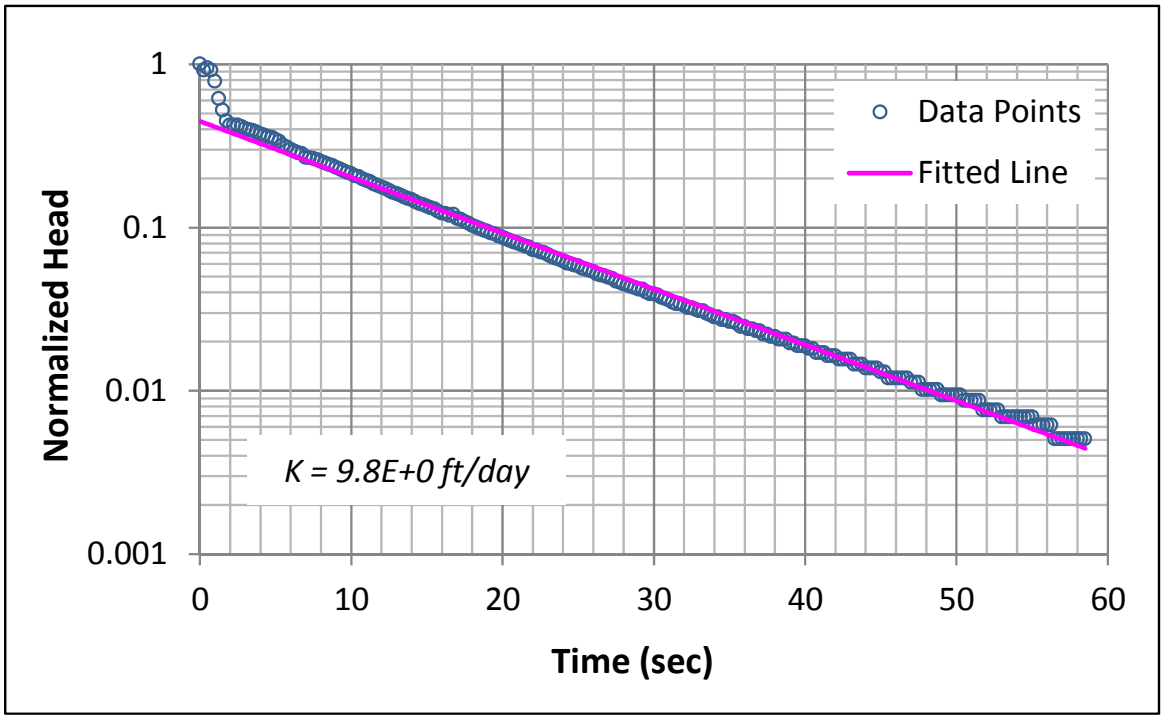


Notes:

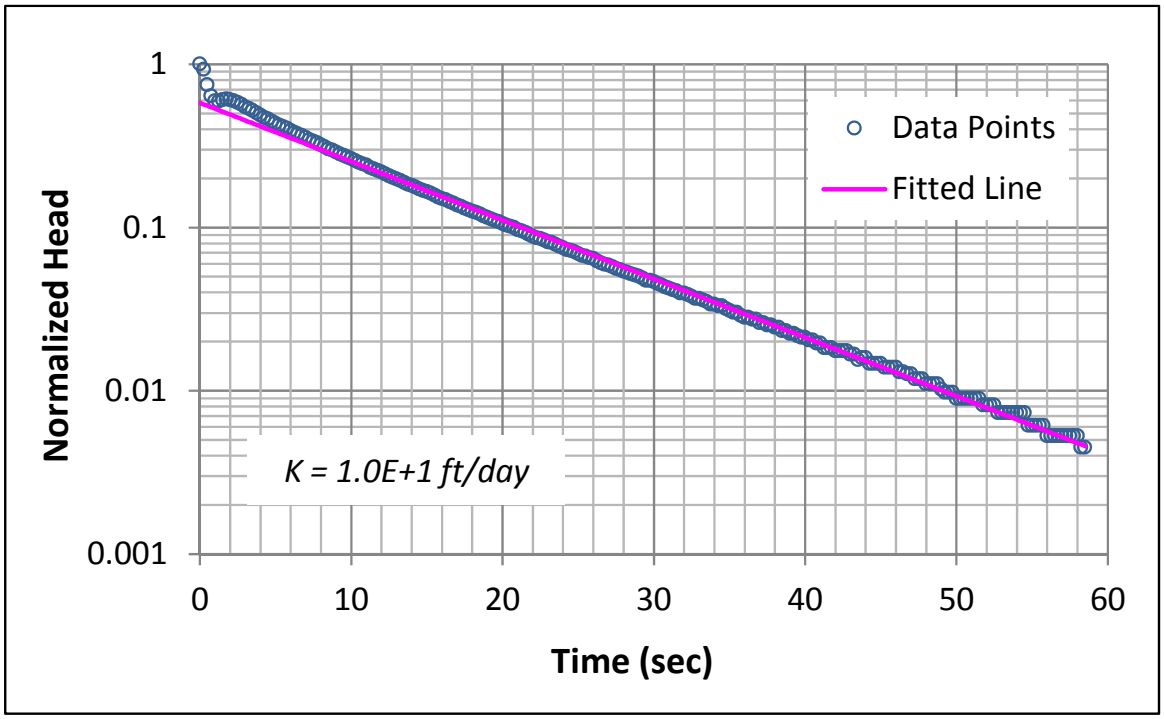
1. Slug Test conducted in Monitoring Well BP-05D on 1/31, 2013.
2. Overdamped rising-head slug test response analyzed using Bouwer & Rice (1976) method.
3. Formation thickness, B = 27.2 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test, BP-05D	
Everett Smelter – Lowland Area	
GEOENGINEERS	**Figure E-16**

Falling Head



Rising Head

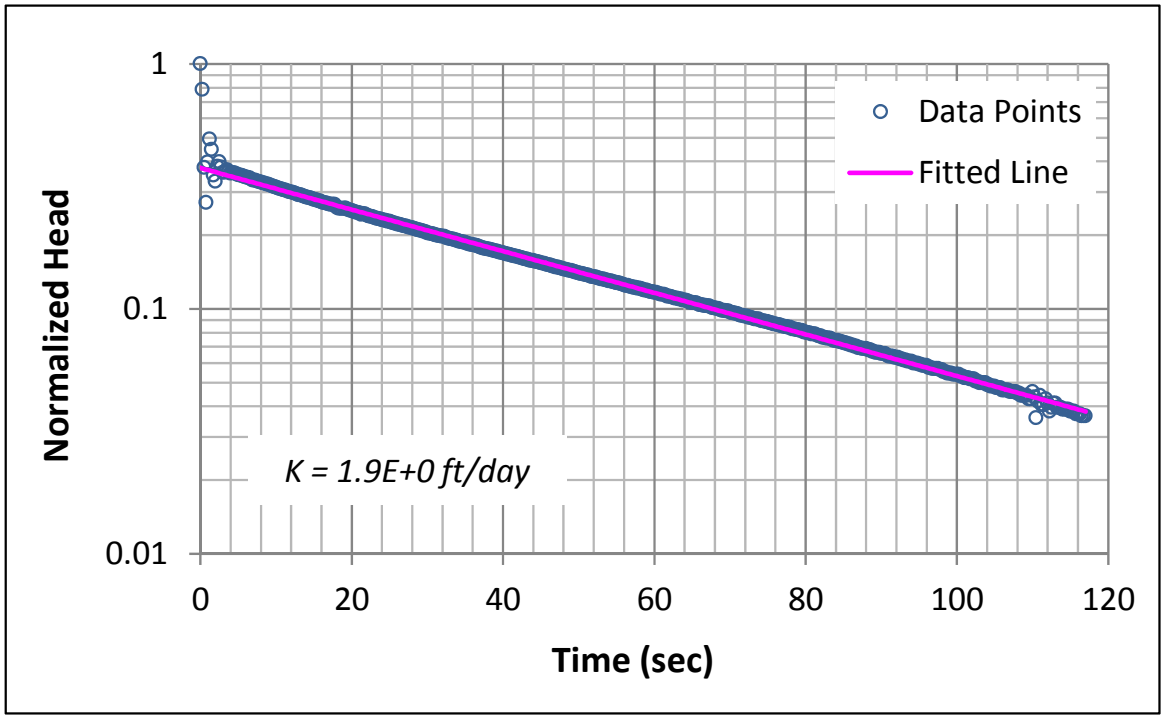


Notes:

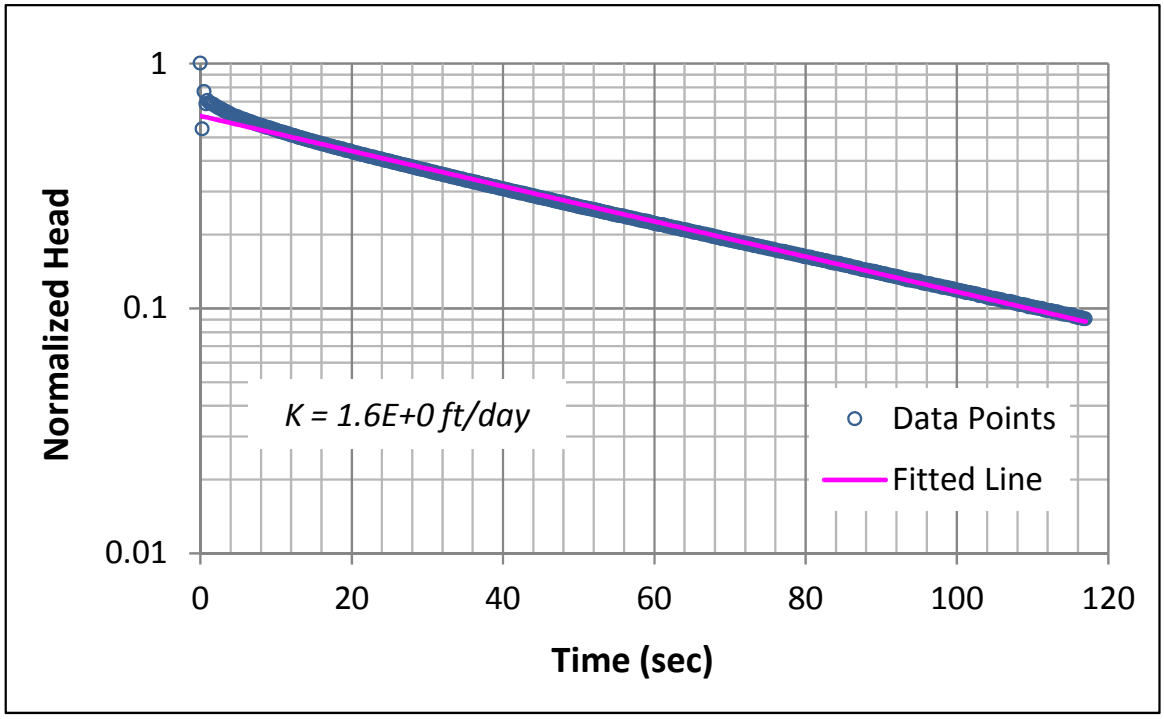
1. Slug Test conducted in Monitoring Well BP-05D2 on 1/31, 2013.
2. Overdamped rising-head slug test response analyzed using Bouwer & Rice (1976) method.
3. Formation thickness, B = 6 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test, BP-05D2	
Everett Smelter – Lowland Area	
GEOENGINEERS	**Figure E-17**

Falling Head



Rising Head

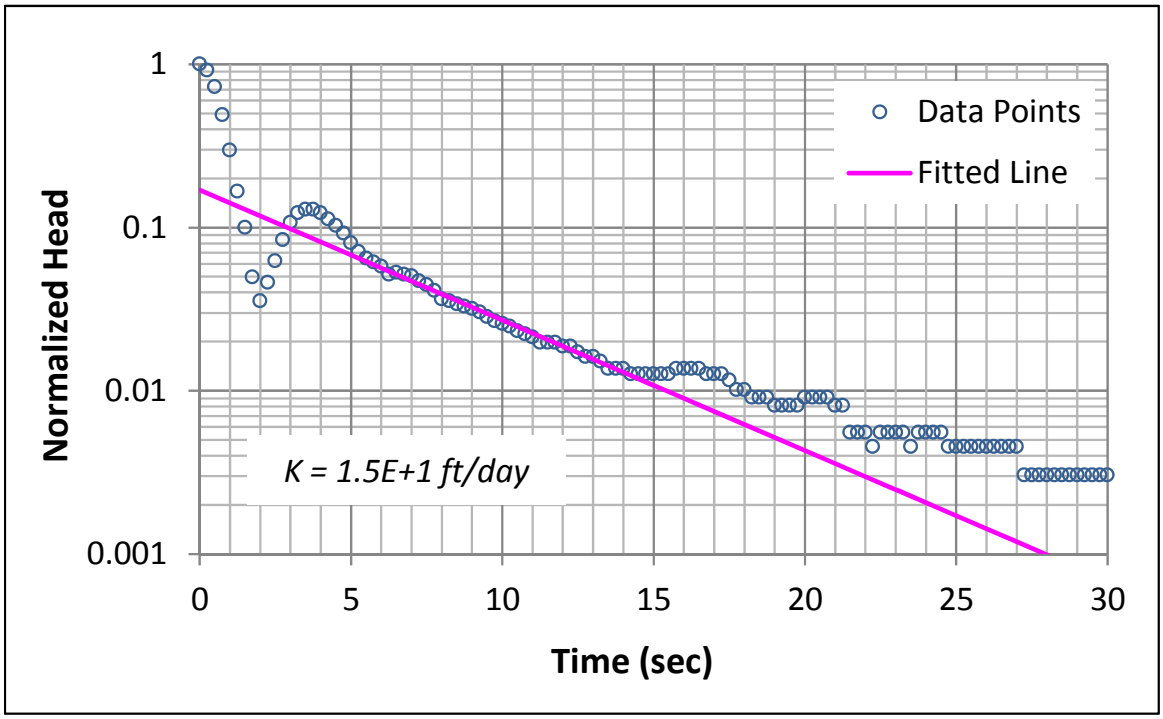


Notes:

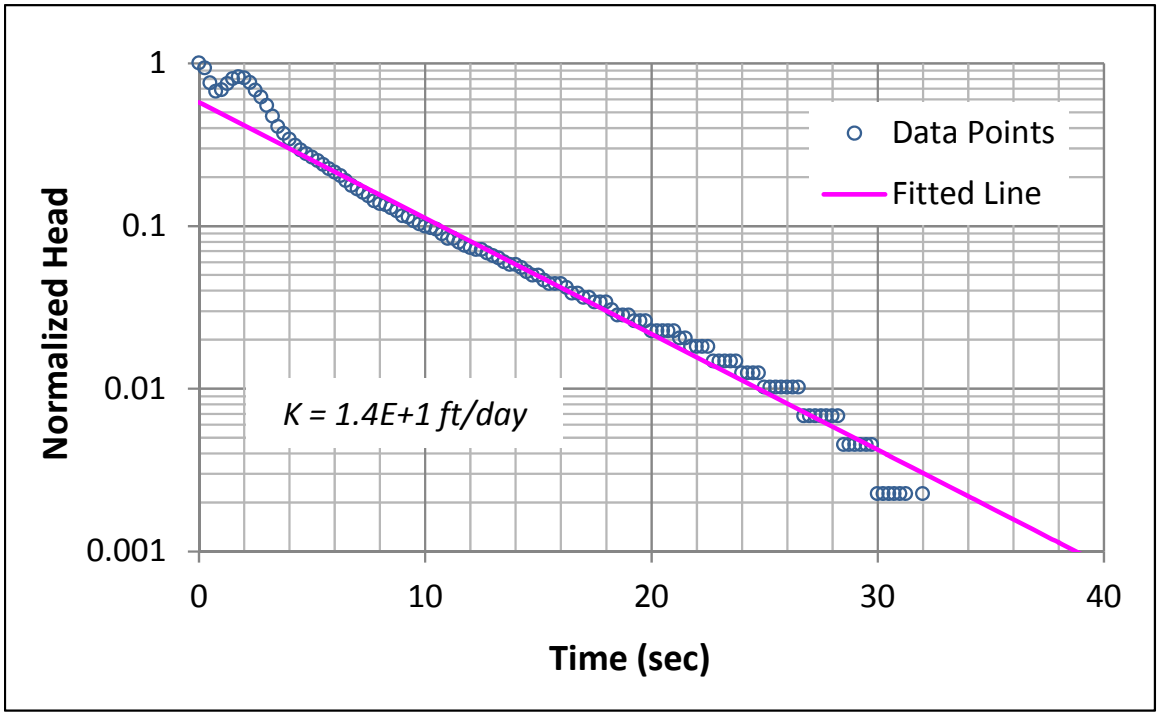
1. Slug Test conducted in Monitoring Well BP-08S on 2/1, 2013.
2. Overdamped rising-head slug test response analyzed using Bouwer & Rice (1976) method.
3. Formation thickness, B = 13.9 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test, BP-08S	
Everett Smelter – Lowland Area	
GEOENGINEERS	**Figure E-18**

Falling Head



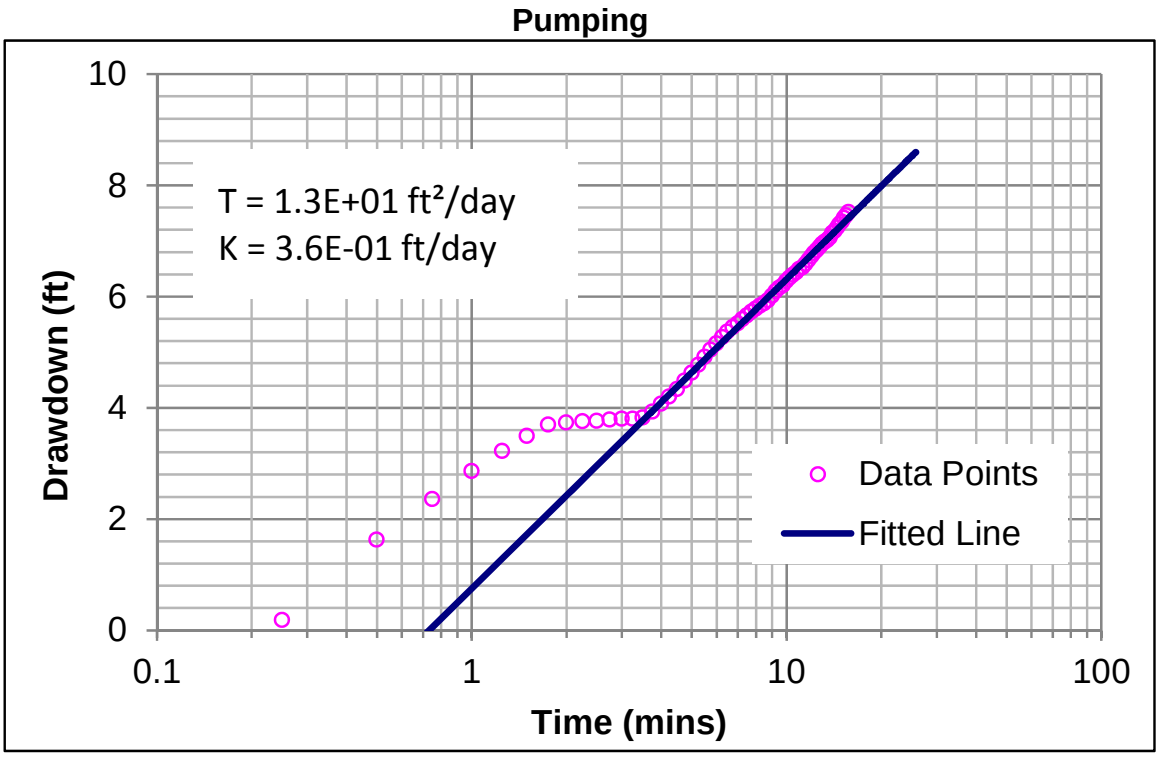
Rising Head

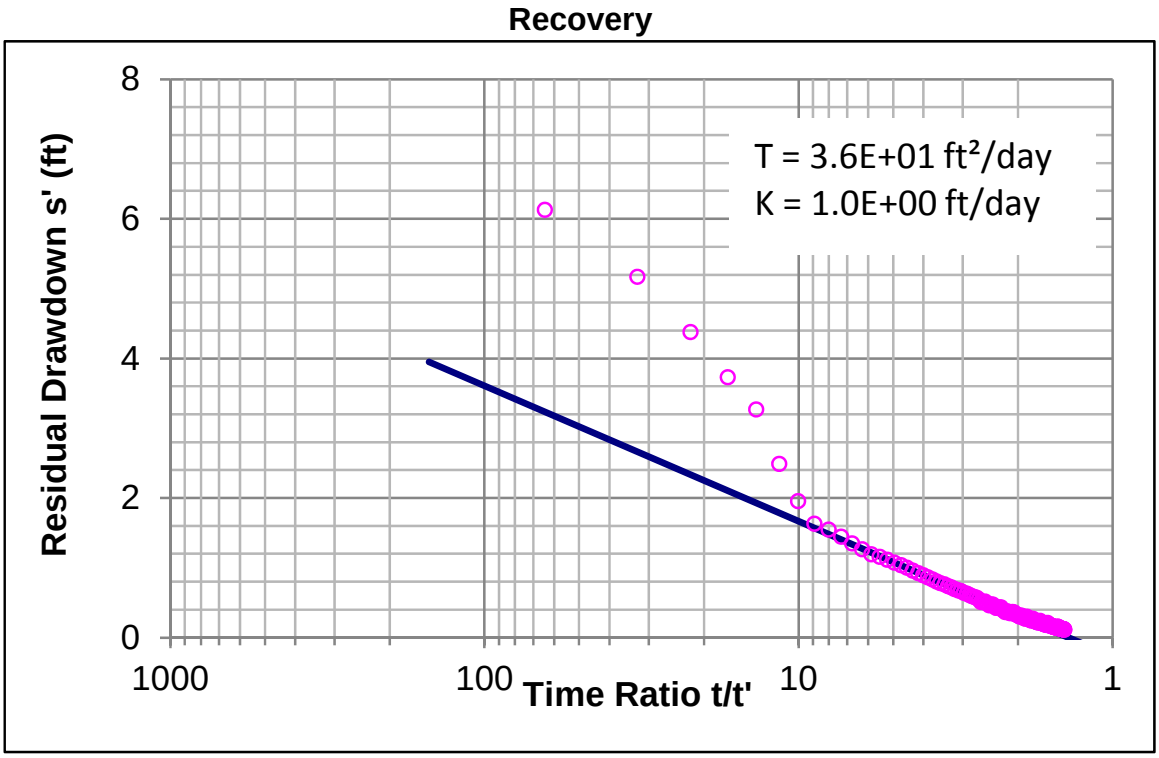


Notes:

1. Slug Test conducted in Monitoring Well BP-08D on 2/1, 2013.
2. Overdamped rising-head slug test response analyzed using Bouwer & Rice (1976) method.
3. Formation thickness, B = 26.4 feet used to calculate hydraulic conductivity, K.

Aquifer Slug Test, BP-08D	
Everett Smelter – Lowland Area	
GEOENGINEERS	**Figure E-19**

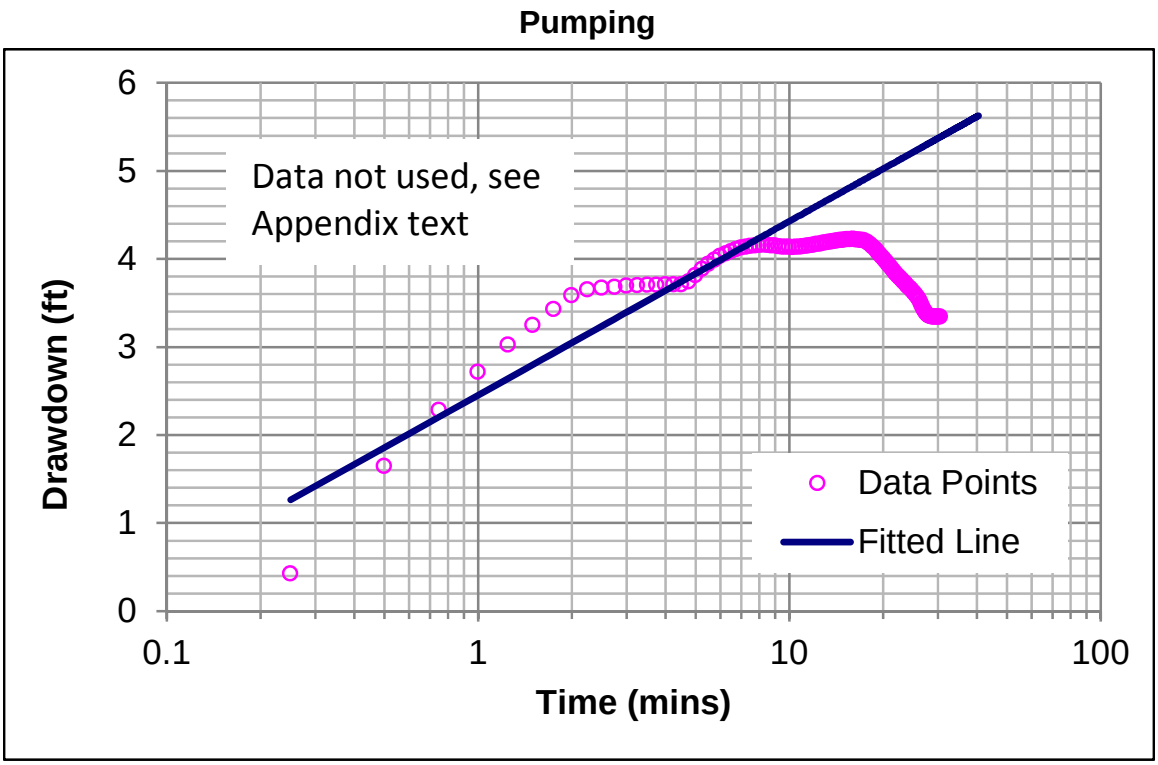


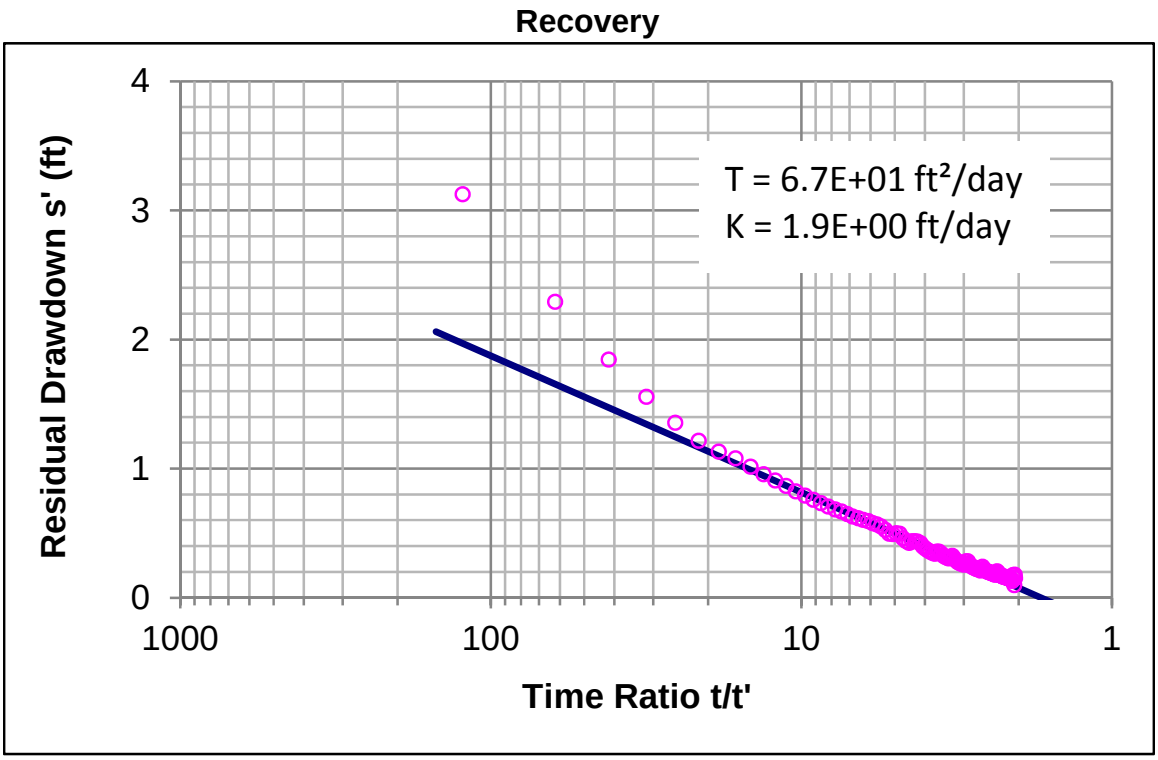


Notes:

1. Pumping test conducted in Monitoring Well BP-05S on 1/31/2013. Pumping rate, Q = 2 gpm.
2. Drawdown data analyzed using the Cooper-Jacob (1946) method.
3. Recovery analyzed by the Theis (1935) Recovery Method.
4. T = Transmissivity, K = Hydraulic Conductivity.
5. Formation thickness, B = 35 feet, used to calculate K.

Aquifer Pumping Test 1 at BP-05S	
Everett Smelter – Lowland Area	
GeoEngineers	Figure E-20



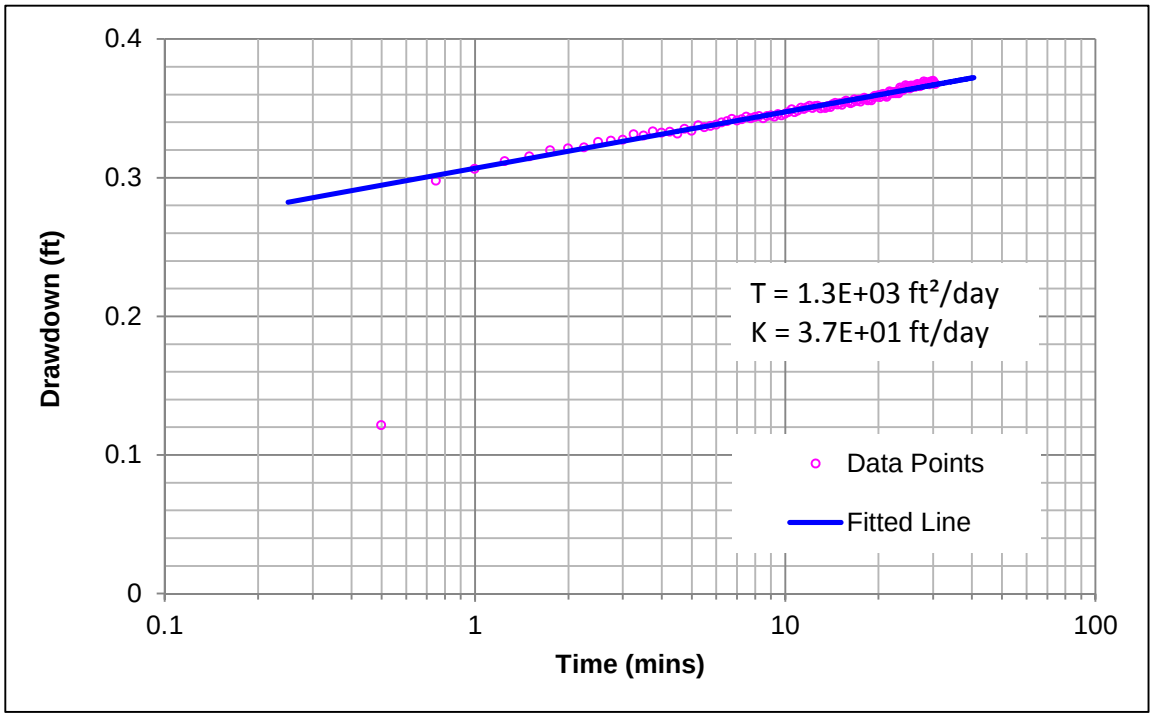


Notes:

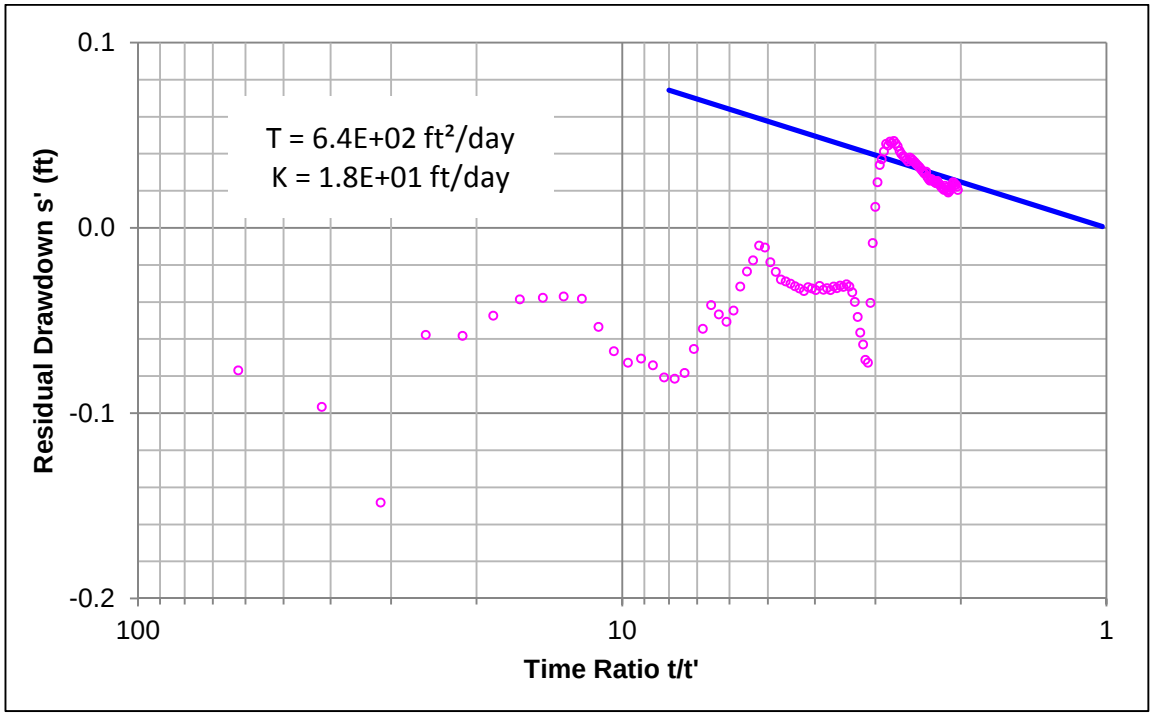
1. Pumping test conducted in Monitoring Well BP-05S on 2/1/2013. Pumping rate, Q = 1.5 gpm.
2. Drawdown data analyzed using the Cooper-Jacob (1946) method.
3. Recovery analyzed by the Theis (1935) Recovery Method.
4. T = Transmissivity, K = Hydraulic Conductivity.
5. Formation thickness, B = 35 feet, used to calculate K.

Aquifer Pumping Test 2 at BP-05S	
Everett Smelter – Lowland Area	
GeoEngineers	Figure E-21

Pumping



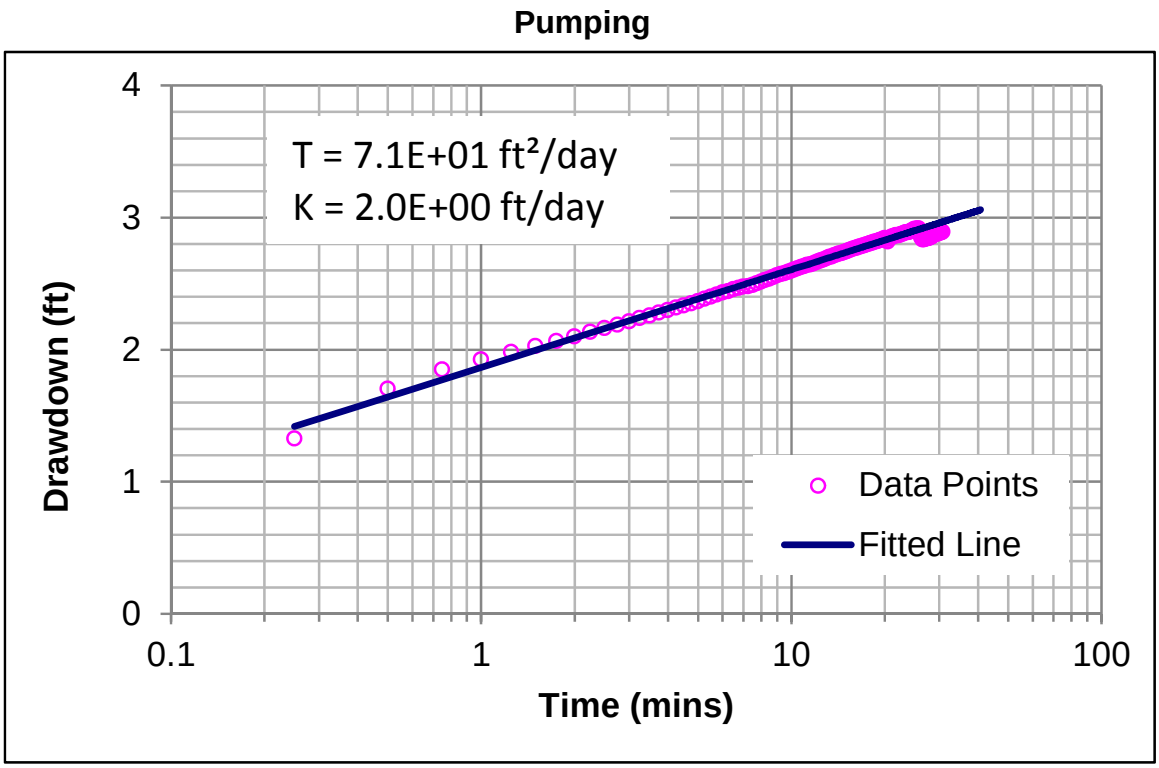
Recovery

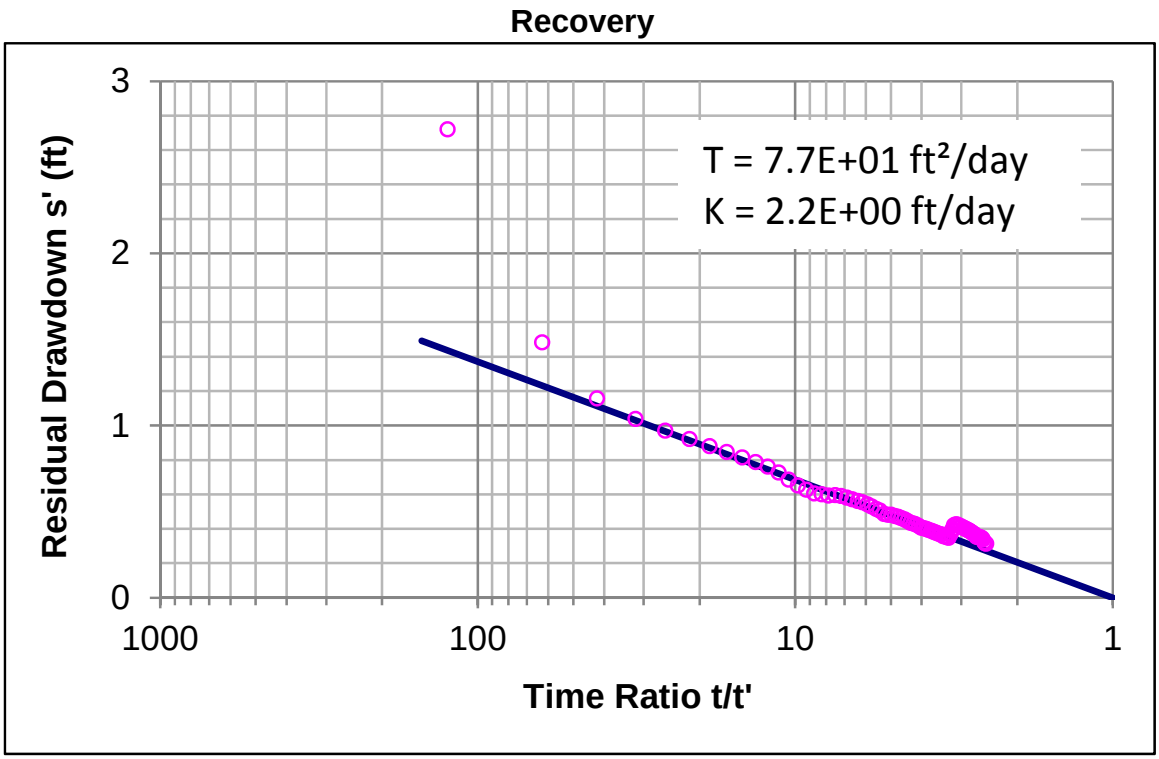


Notes:

1. Pumping test conducted in Monitoring Well BP-05D on 1/31/2013. Pumping rate, Q = 1.5 gpm.
2. Drawdown data analyzed using the Cooper-Jacob (1946) method.
3. Recovery analyzed by the Theis (1935) Recovery Method.
4. T = Transmissivity, K = Hydraulic Conductivity.
5. Formation thickness, B = 35 feet, used to calculate K.

Aquifer Pumping Test at BP-05D	
Everett Smelter – Lowland Area	
GeoEngineers	Figure E-22



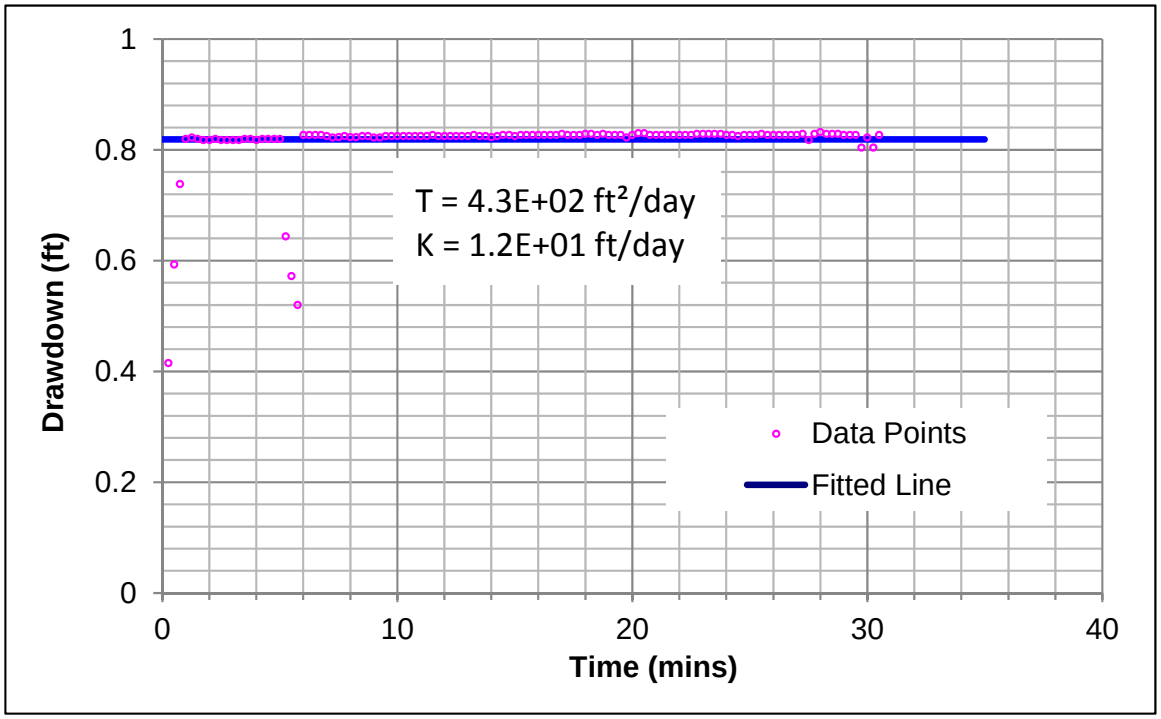


Notes:

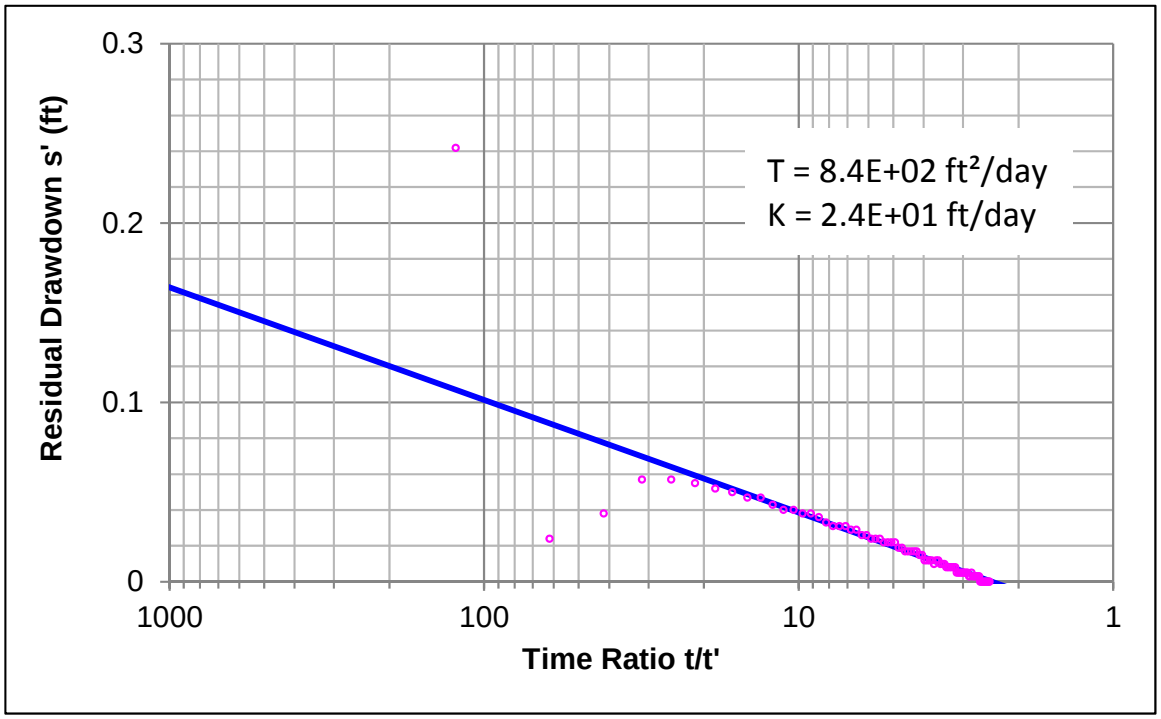
1. Pumping test conducted in Monitoring Well BP-05D2 on 1/31/2013. Pumping rate, Q = 1.5 gpm.
2. Drawdown data analyzed using the Cooper-Jacob (1946) method.
3. Recovery analyzed by the Theis (1935) Recovery Method.
4. T = Transmissivity, K = Hydraulic Conductivity.
5. Formation thickness, B = 35 feet, used to calculate K.

Aquifer Pumping Test at BP-05D2	
Everett Smelter – Lowland Area	
GeoEngineers	Figure E-23

Pumping



Recovery

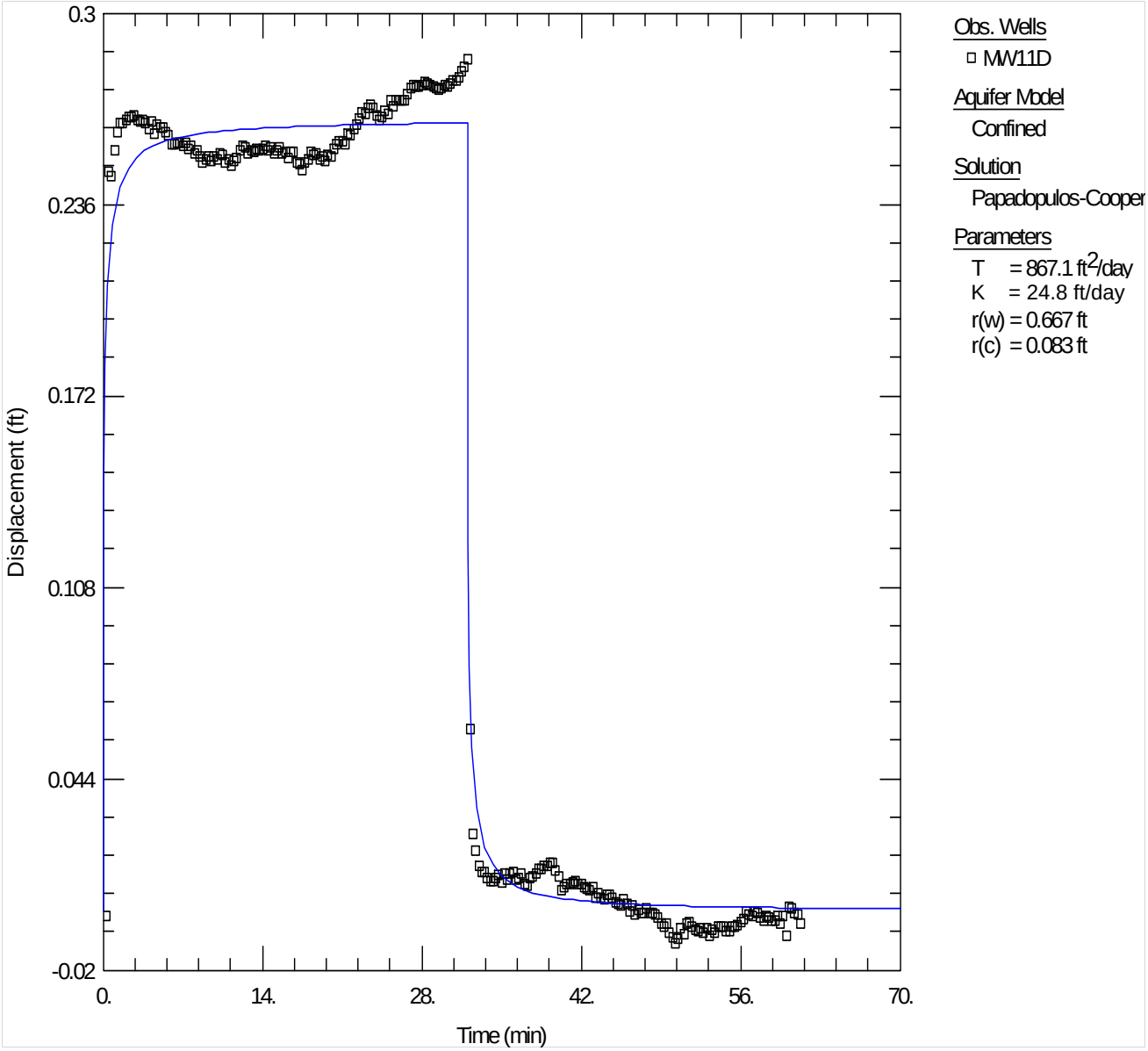


Notes:

1. Pumping test conducted in Monitoring Well MW-11S on 1/31/2013. Pumping rate, Q = 1.5 gpm.
2. Drawdown data analyzed using Logan (1964) method.
3. Recovery analyzed by the Theis (1935) Recovery Method.
4. T = Transmissivity, K = Hydraulic Conductivity.
5. Formation thickness, B = 35 feet, used to calculate K.

Aquifer Pumping Test at MW-11S	
Everett Smelter – Lowland Area	
GeoEngineers	Figure E-24

Pumping and Recovery

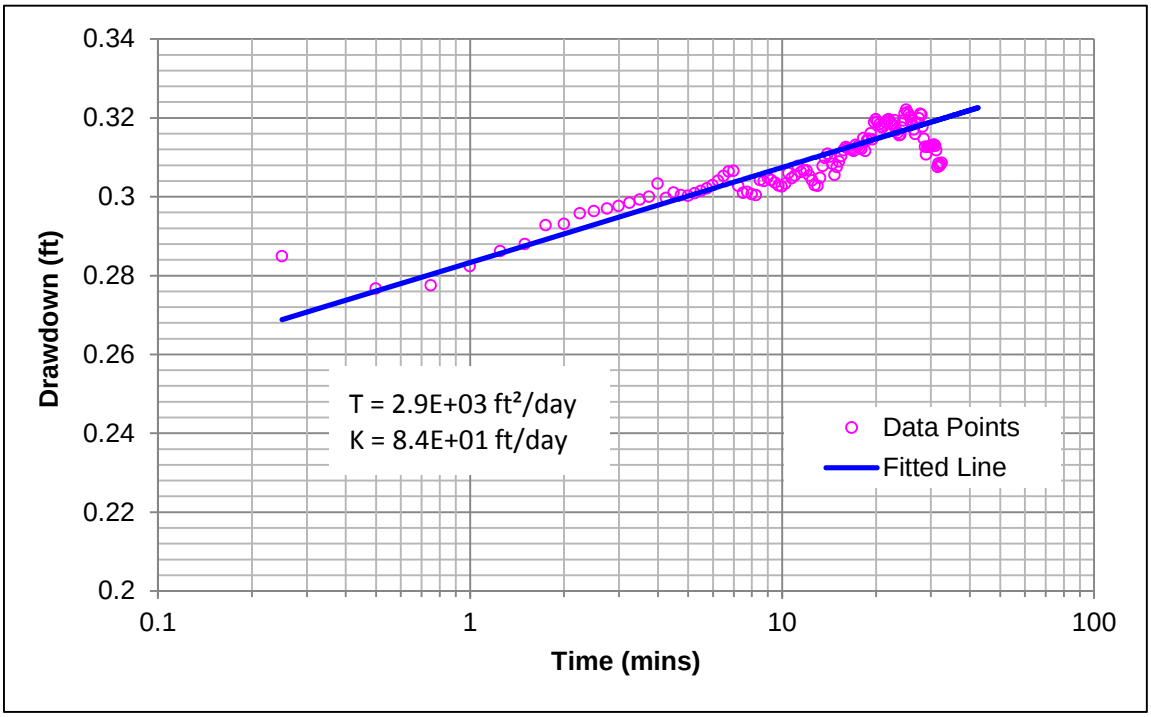


Notes:

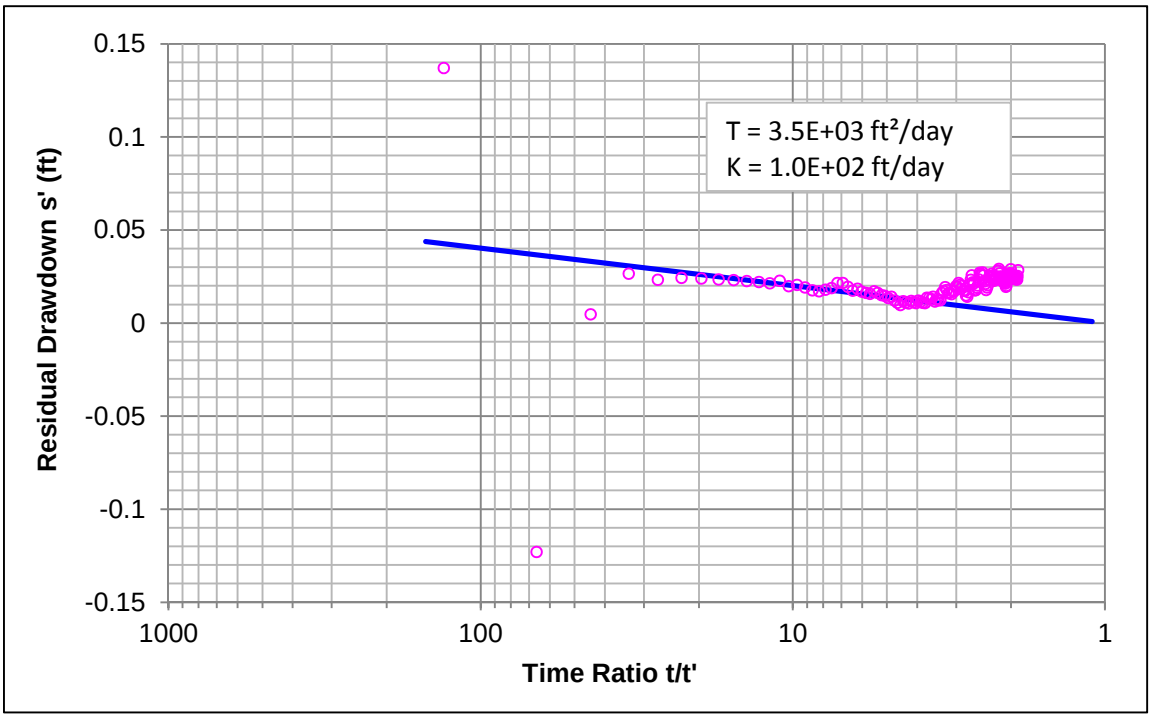
1. Pumping test conducted in Monitoring Well MW-11D on 1/31/2013. Pumping rate, Q = 1.5 gpm.
2. Drawdown data was analyzed with Papadopulos-Cooper (1967) method using AQTESOLV.
3. T = Transmissivity, K = Hydraulic Conductivity.
4. Formation thickness, B = 35 feet, used to calculate K.

Aquifer Pumping Test at MW-11D	
Everett Smelter – Lowland Area	
GeoEngineers	Figure E-25

Pumping



Recovery



Notes:

1. Pumping test conducted in Monitoring Well MW-16D on 2/1/2013. Pumping rate, Q = 2 gpm.
2. Drawdown data analyzed using the Cooper-Jacob (1946) method.
3. Recovery analyzed by the Theis (1935) Recovery Method.
4. T = Transmissivity, K = Hydraulic Conductivity.
5. Formation thickness, B = 35 feet, used to calculate K.

Aquifer Pumping Test at MW-16D	
Everett Smelter – Lowland Area	
GeoEngineers	Figure E-26

APPENDIX F
Tidal Study

APPENDIX F
TIDAL STUDY

Purpose and Objectives

The purpose of the tidal study was to evaluate the influence of Snohomish River water level fluctuations on groundwater conditions at the Everett Smelter Lowland Site to support hydrogeologic conceptual site modeling and evaluation of contaminant fate and transport in groundwater. Water level fluctuations in the Snohomish River in the vicinity of the Site were due to tidal fluctuations of Puget Sound during the tidal study.

The tidal study was conducted to achieve the following objectives:

- To identify and analyze the extent, if any, of tidal response that may reflect such variables as:
  - Aquifer in which wells are completed (i.e., the shallow aquifer versus the deep aquifer).
  - Confined/unconfined conditions (i.e., wells exhibiting unconfined water-table responses versus wells exhibiting confined or leaky-confined aquifer responses).
- To provide a better understanding of measured groundwater levels, groundwater gradients, and their relative degree of variation under tidal influence at the site.
- To estimate values for aquifer apparent hydraulic diffusivity and transmissivity (T). The estimated values were combined with other information to estimate average hydraulic conductivity (K).

The objectives were achieved by performing a tidal study using a selected subset of Lowland monitoring wells as representative indicators of the groundwater response at the Site.

River Level Fluctuations

Puget Sound experiences daily tides that feature complex double highs and lows of uneven magnitude during each full tidal cycle. This pattern is caused by dominant diurnal and semidiurnal lunar/solar cycles that combine to create what is known as a mixed tide (also called a bichromatic tide). This pattern features a continuously changing pattern of primarily high and low tides, with smaller secondary high and low tides mixed in the cycle through each month. The pattern strongly affects the surface water level of the Snohomish River in the vicinity of the Site due to proximity to Puget Sound. A portion of the monthly pattern can be seen in the measured tidal data collected for this study from the water-level sensor installed in the Snohomish River near monitoring well pair LLMW-08S/D (Figure F-1a). (All elevations are relative to NAVD 88).

An additional potential source of River level fluctuation is response to varying precipitation or snowmelt. Records of the surface water level of the Snohomish River at the Monroe, Washington (USGS monitoring station number 12150800) were reviewed to evaluate if this potentially confounding variable needed to be taken into account during the tidal study. During the tidal study, the water level of the Snohomish River at the upgradient station changed by less than 1.5 feet over a one week period, presumably due to factors other than tides (i.e., presumably due to varying precipitation or snowmelt). Given that the fluctuations observed in the Snohomish River adjacent to the Site at the time of the study was on the

order of 12 feet, and that these changes typically took place over periods of hours, it can be assumed that the River level fluctuations at the site were largely attributed to tidal fluctuations of Puget Sound.

Methodology

Aquifers that are hydraulically connected to tidal surface waters typically show a progressively attenuated and delayed tidal response with increasing distance from the shoreline. In order to evaluate tidal-groundwater hydraulic connection at the Site, twelve monitoring wells, oriented perpendicular to the shoreline, were selected to provide a representative hydrogeologic cross section of the portion of the Lowland Area downgradient of the former smelter. The selected wells included BP-05S, BP-05D, LLMW-06S, LLMW-06D, BP-08S, BP-08D, LLMW-11S, LLMW-11D, LLMW-12S, LLMW-12D, LLMW-13S and LLMW-13D. Each of the tidal study wells was equipped with a water-level sensor consisting of a piezoelectric pressure transducer and automated datalogger (transducer/datalogger) programmed to record water pressure (head) above the sensor every minute over a period of eight days from February 5 through 13, 2013.

The following data collection field procedures were followed for the tidal study:

- Prior to installation, the transducer/datalogger was pre-programmed to record pressure head at every minute from 08:00 am on Tuesday, February 5, until 08:00 am on Wednesday, February 13, 2013 (eight days). Programming was performed using one computer only and time-synced to the clock on that computer.
- As a check on the transducer/datalogger, and to account for instrument drift, the water level was measured at the beginning and end of the tidal study using a decontaminated electronic water level indicator ("e-tape"). All measurements were made from a surveyed reference mark on the top of each well casing.
- One transducer/logger was installed as a tidal gauge near well pair LLMW-08S/D to directly measure the river level of the Snohomish River, and one sensor was installed in an on-site cargo container to record the barometric pressure. The cargo container was vented to the atmosphere (i.e., not air tight).
- All materials were decontaminated in general accordance with the project Sampling and Analysis Plan (SAP) dated September 27, 2012.

At the conclusion of the study, all sensors were returned to GeoEngineers for data Processing.

Tidally Influenced Groundwater Levels

The groundwater level data collected in each of the tidal study wells were reduced to NAVD 88 and plotted along with the water level in the Snohomish River for comparison of groundwater elevation and tidal trends during the study period. These comparative plots are shown in the "a" portion of Figures F-2 through F-15 (F-2a through F-15a) over the full period of the tidal study.

The shallow aquifer wells exhibited little to no response to tidal changes as shown in Figures F-8 through F-13. However, all of the deep aquifer wells (BP-05D, BP-08D, LLMW-06D, LLMW-11D, LLMW-12D and LLMW-13D) were observed to be tidally influenced (Figures F-2 through F-7). For each of these wells, the tidal data was examined in more detail to obtain a match with the Snohomish River tide data. This was achieved by applying a double transformation that varies (1) the time lag, which represents the time for

propagation of the tidal effect through the aquifer from the River to the well, and (2) the stage ratio, which shows the relative degree of effect tidal changes in the River had on groundwater at the well during the study period. These values were estimated visually using the following procedure:

- **TIME LAG** was determined by shifting the Date/Time scale (x-axis) of the groundwater record backwards relative to the tidal record from the Snohomish River until the respective peaks and troughs matched. The value of time (in hours and minutes) indicated on the secondary axis represents the time lag or phase shift.
- **STAGE RATIO** was determined by expanding and shifting the elevation scale (y-axis) of the groundwater plot relative to the tidal plot from the Snohomish River, until the respective amplitudes matched. (As the Snohomish River record is truncated below Elevation 0.1 feet, the low tide level was estimated based on the shape of the curve.) The value of stage ratio is calculated as the ratio of secondary axis length (in feet), divided by the primary axis length (12 feet) and expressed as a percentage.

The time lag and stage ratio for each well was determined over a period of two tidal cycles during the study, and the raw data are shown on Figures F-14 through F-26. The data are summarized in Table F-1 below.

TABLE F-1

Monitoring Well	Distance from Shoreline (ft)	Mean Groundwater Elevation (ft; NAVD88)	Time Lag (hours)	Stage Ratio (%)
MW11D	49	6.0	0.6	77
MW06D	361	6.5	1.4	55
MW13D	604	6.1	1.7	54
MW12D	1,013	6.5	2.6	44
BP05D	1,483	7.6	3.4	29
BP08D	1,699	8.4	4.1	30

The wells completed in the deep aquifer that were monitored as part of the Lowland Area study show a marked tidal influence that reflects the mixed tide cycle measured in the Snohomish River (Figures F-2 through F-7), whereas wells completed in the shallow aquifer show only minimal or no tidal influence (Figures F-8 through F-13). Mean groundwater elevations for a selected 72-hour portion of the hourly tide cycle data were calculated using the Serfes (1991) method (Figures F-2 through F-13), which gives the mean of a subset of 25-point moving averages (Y_j) calculated from 48 24-point moving averages (X_i). The mean groundwater elevations calculated for the shallow wells are higher than the mean groundwater elevations for the deep wells, indicating there is a net downward gradient. The results also indicate the shallow aquifer does not appear to be hydraulically connected to the deep aquifer in the locations tested.

Estimation of Hydraulic Parameter

Deep Aquifer Discharge

The time lag and stage ratio data from the tidal study were further analyzed to estimate diffusivity of the deep aquifer (diffusivity for the shallow aquifer could not be estimated because there was no time lag or stage ratio data because the shallow aquifer was not tidally influenced). A method originally developed by

Ferris (1951) was used, whereby time lag and stage ratio is plotted against the horizontal distance between the well and the shoreline (Figure F-14). Both plots (time lag and stage ratio) showed excellent correlation among the data for the deep wells, with strong trends of increasing time lag and decreasing stage ratio with greater distance from the shoreline.

The slopes of the trend lines shown in Figure F-14 are directly proportional to the apparent hydraulic diffusivity of the deep aquifer, with diffusivity being the ratio of transmissivity to storativity (*T/S*):

- Aquifer diffusivity based on time lag: 8.45 x 10^7 gpd/ft
- Aquifer diffusivity based on stage ratio: 7.00x 10^7 gpd/ft

The calculations above are predicated on the validity of the Ferris (1951) method and the presumed dominance of the diurnal tidal effect, with a period of just under 24 hours, representing the main lunar-solar diurnal tide component in the Puget Sound.

In order to calculate the transmissivity for the deep aquifer using the above hydraulic diffusivity values, the following two key assumptions were made:

- The average thickness for the deep aquifer is 35 feet. This value is based on an apparent confining layer observed during drilling of well BP-05D2.
- The deep aquifer storativity is 0.0001. The storativity value of 0.0001 was assumed based on the observed confined-like response of groundwater to tidal changes. This represents groundwater conditions in the deep aquifer that are effectively confined by the overlying aquitard that separates the perched shallow aquifer. It also implicitly assumes that there is no significant leakage occurring through the aquitard. This is consistent with an elastic or pressure response to tidal fluctuations that propagate a substantial distance inland, as was observed during the tidal study.

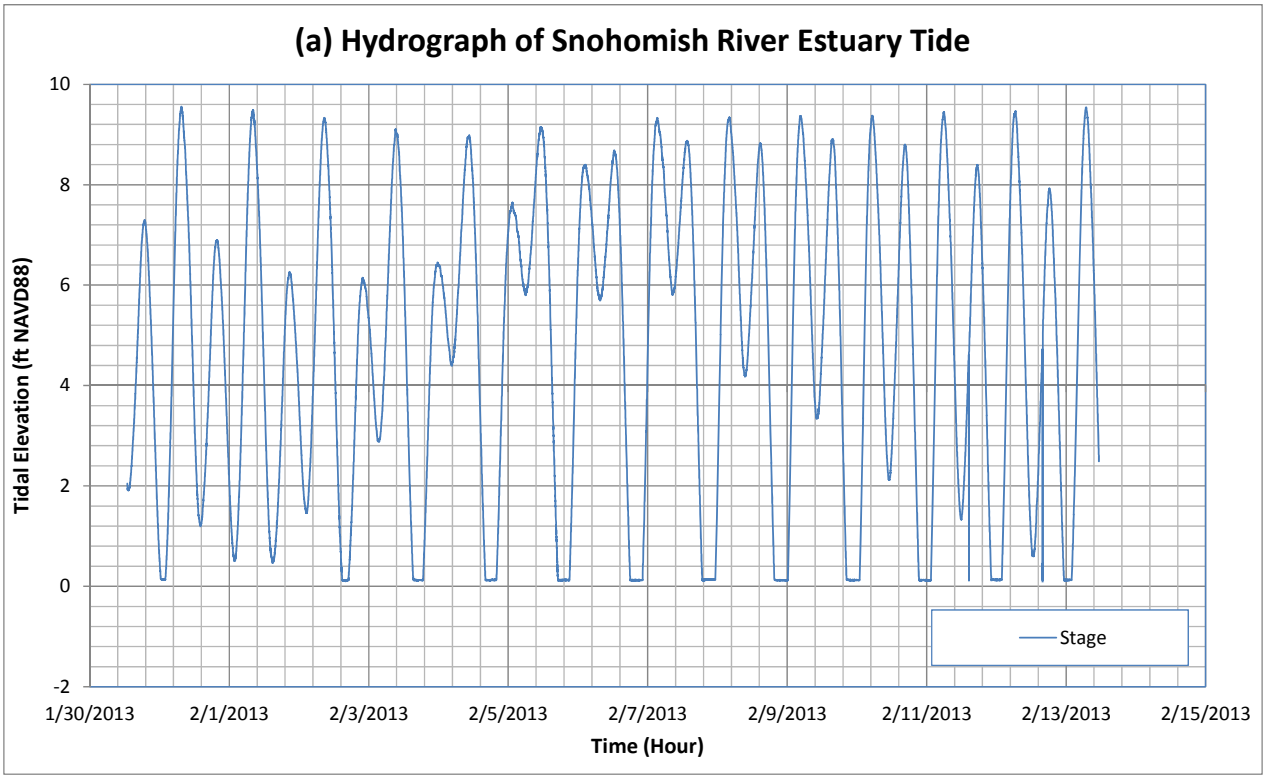
Assuming a small value for the storativity of the deep aquifer, 0.0001, the transmissivity of the aquifer is between 936 and 1,129 ft^2/day (or between 7,000 and 8,450 gpd/ft). Assuming an average thickness of 35 feet for the deep aquifer, the average hydraulic conductivity (K) for the deep aquifer is estimated to be between 27 and 32 ft/day (or between 200 and 241 gpd/ft^2). (Note: these calculations are directly dependent on the assumed values for aquifer storativity and thickness.)

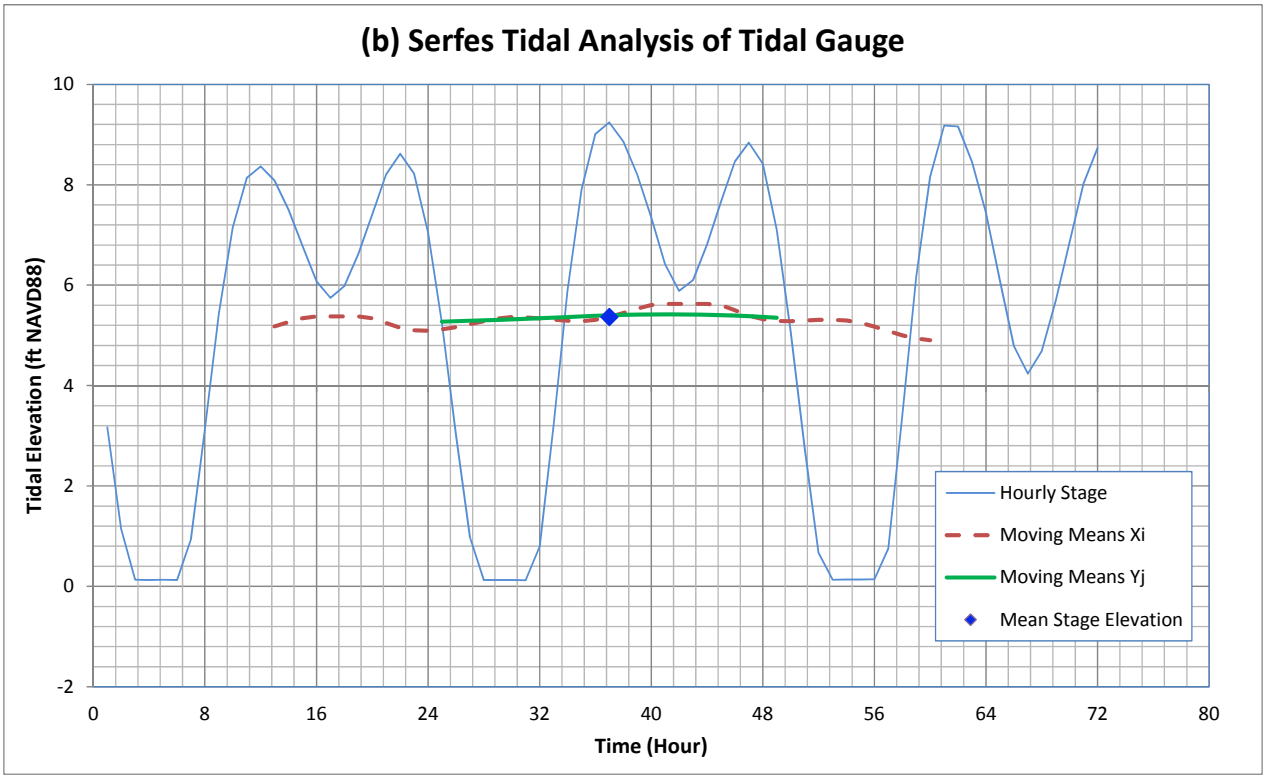
References

Ferris, J.G. (1951). Cyclic Fluctuations of Water Levels as a Basis for Determining Aquifer Transmissibility. International Union of Geodesy and Geophysics, Assoc. Sci. Hydrology Assembly, Publication 33, Brussels V.2:148-155.

Serfes, M.E. (1991). Determining the Mean Hydraulic Gradient of Groundwater affected by Tidal Fluctuations. Ground Water 29 (4): 549-555.

Streltsova, T.D. (1974). Method of additional seepage resistances — Theory and applications. J. Hydr. Div., ASCE, 100(8), 1119–1131.



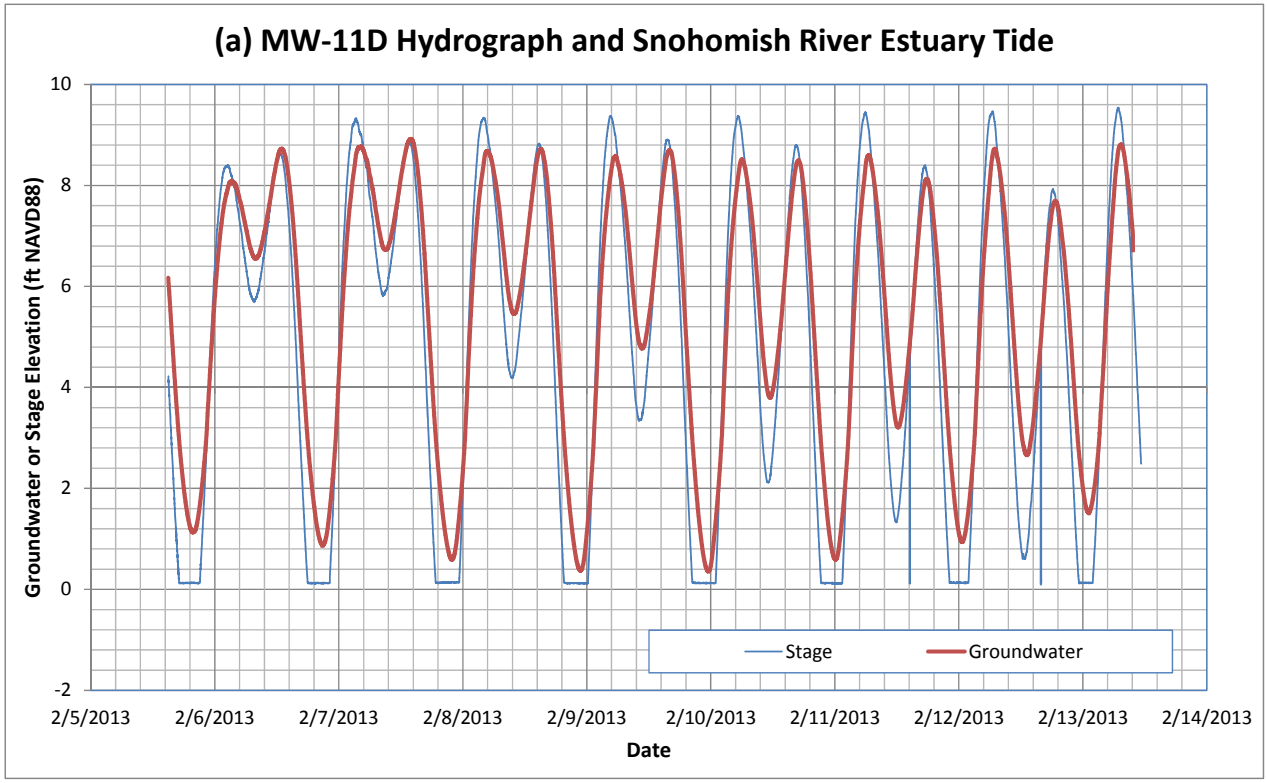


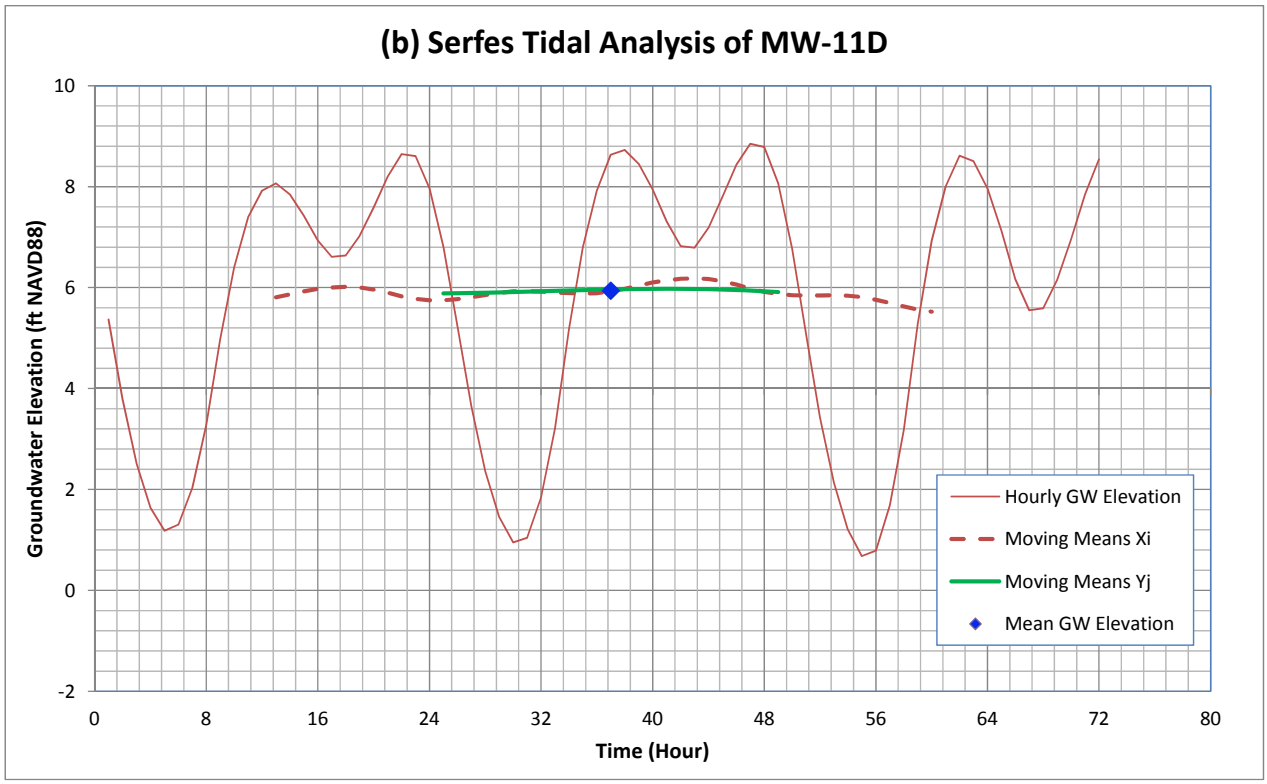
Notes:

1. Method based on Serfes (1991)
2. X_i: 48 means from moving average of 24 hourly tidal elevation
3. Y_j: 25 means from moving average of 24 means over the 48 X_i
4. Time in hours is from 1500 on 2/5/2013

Reference: Technical Analysis > Tidal Study > Everett Mean GW Elev.xlsx

Serfes Tidal Analysis at Tidal Gauge	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-1



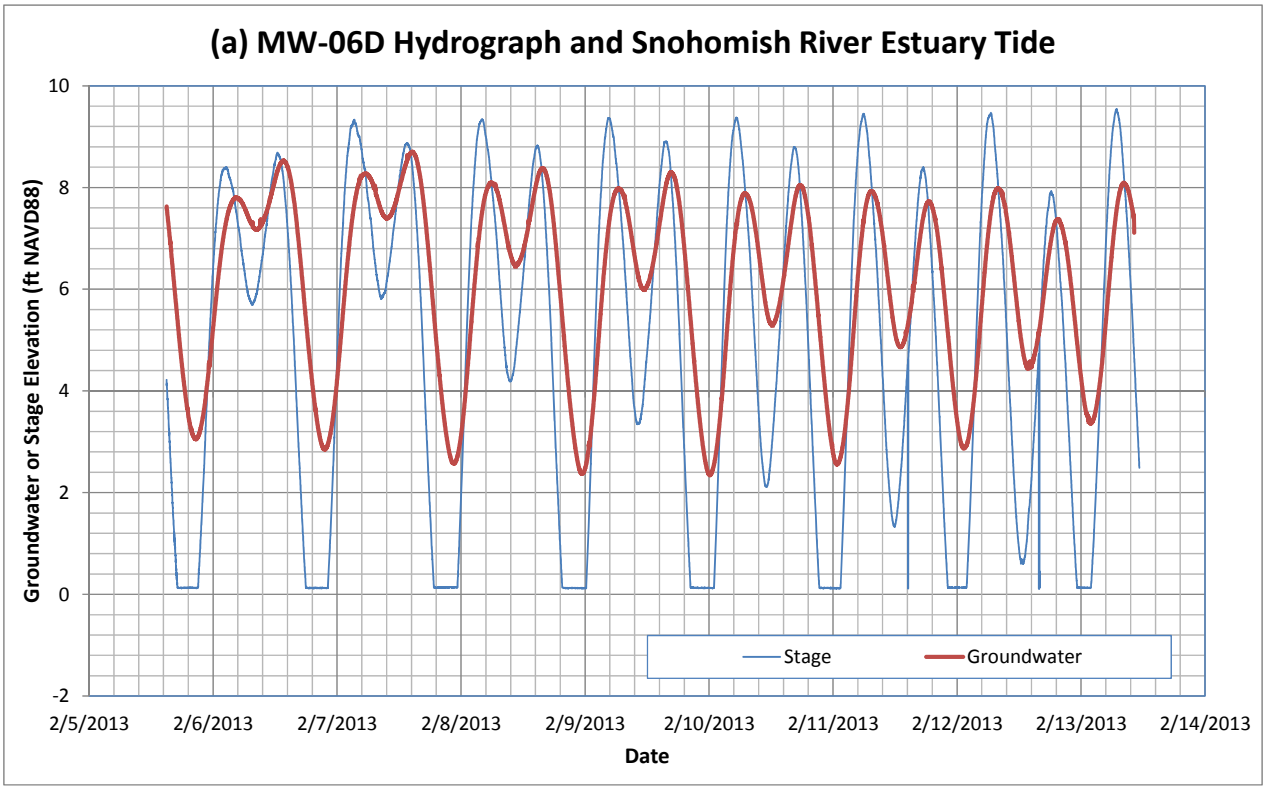


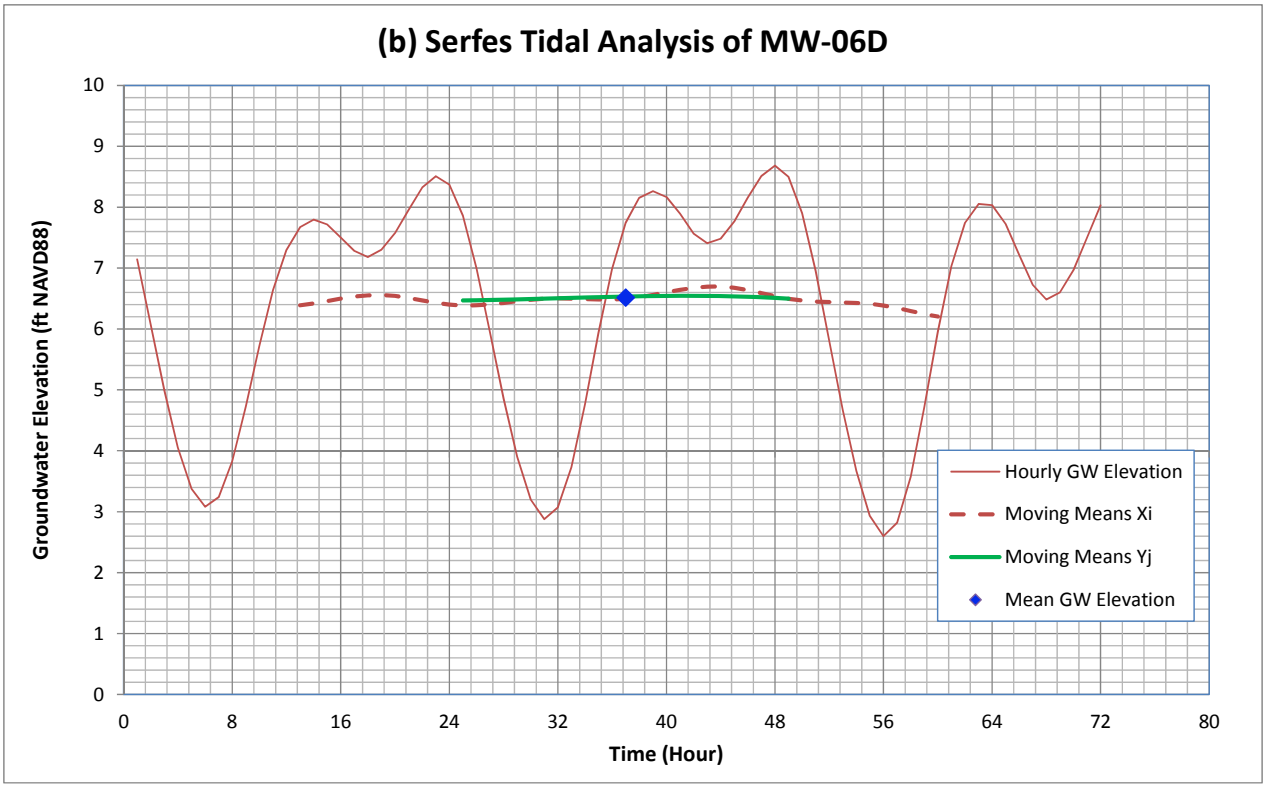
Notes:

1. Method based on Serfes (1991)
2. X_i: 48 means from moving average of 24 hourly GW elevation
3. Y_j: 25 means from moving average of 24 means over the 48 X_i
4. Time in hours is from 1500 on 2/5/2013
5. Distance to Shoreline: 48.8 feet

Reference: Technical Analysis > Tidal Study > Everett Mean GW Elev.xlsx

Serfes Tidal Analysis at MW-11D	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-2



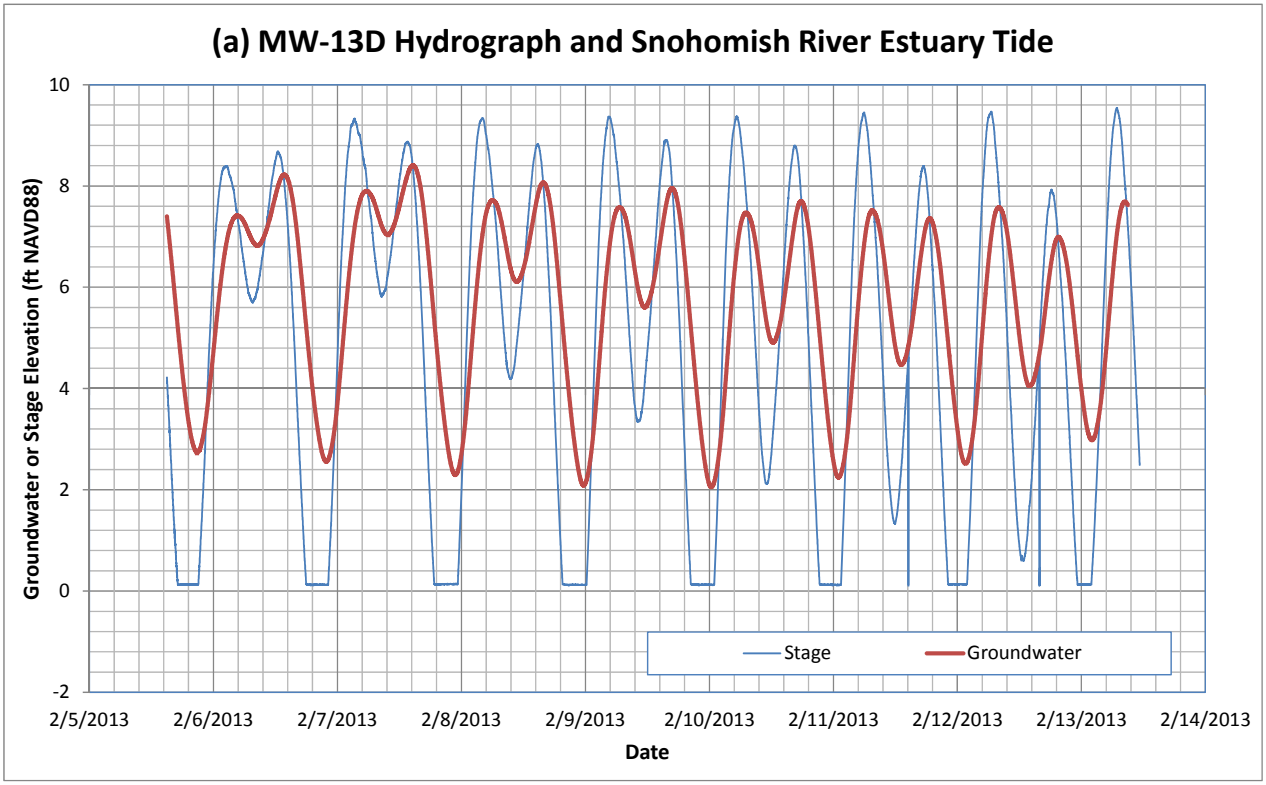


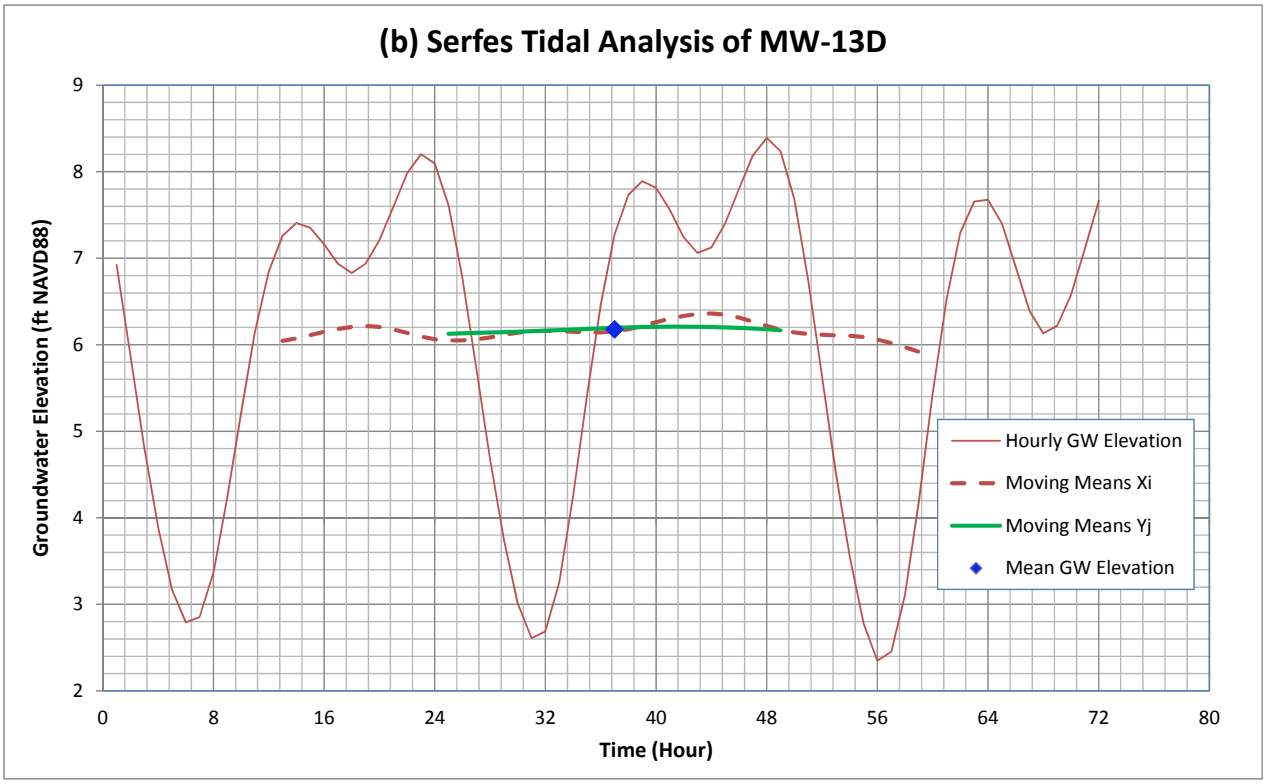
Notes:

1. Method based on Serfes (1991)
2. X_i: 48 means from moving average of 24 hourly GW elevation
3. Y_j: 25 means from moving average of 24 means over the 48 X_i
4. Time in hours is from 1500 on 2/5/2013
5. Distance to Shoreline: 361 feet

Reference: Technical Analysis > Tidal Study > Everett Mean GW Elev.xlsx

Serfes Tidal Analysis at MW-06D	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-3



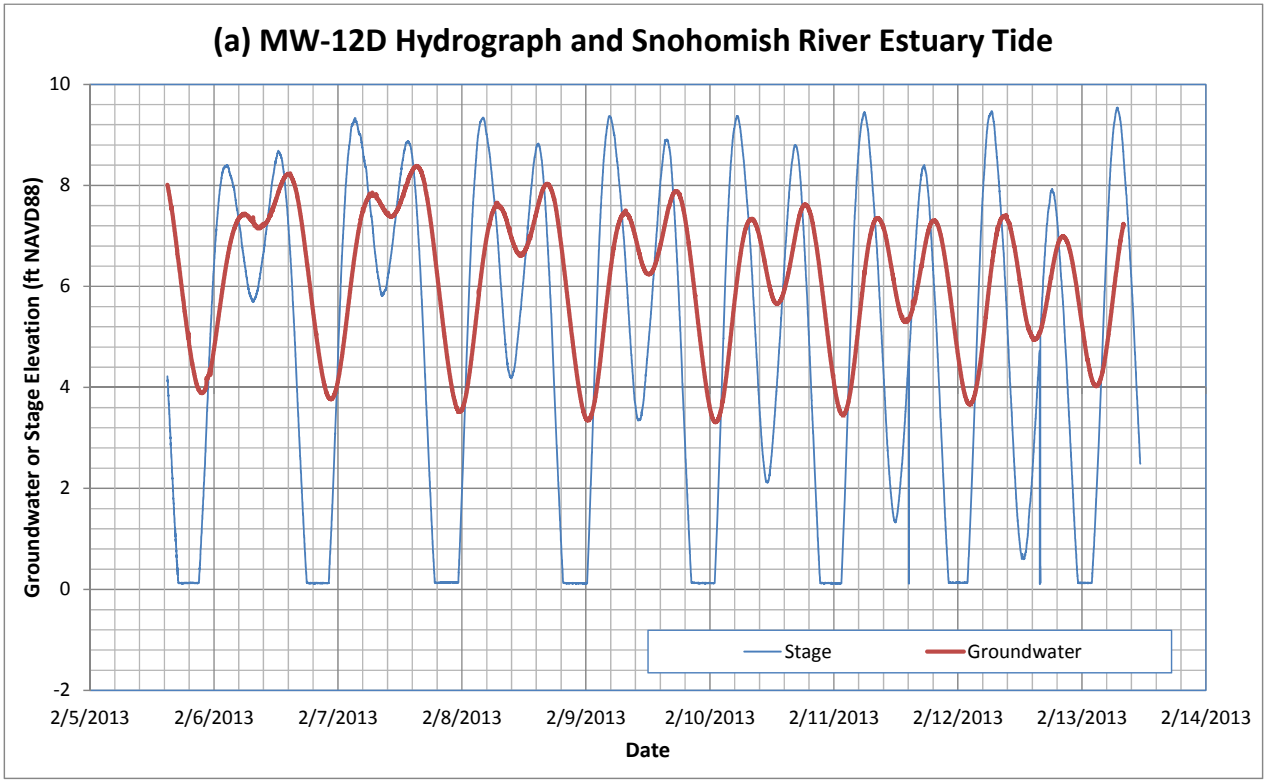


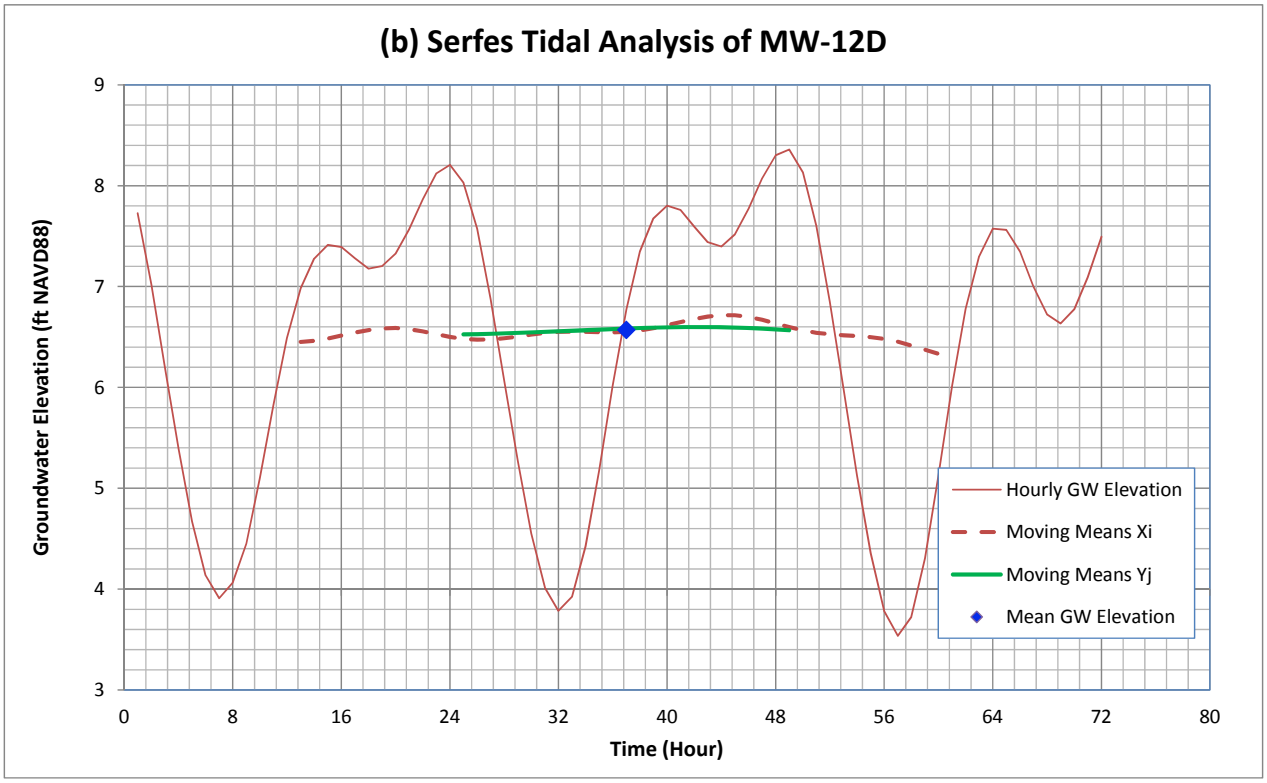
Notes:

1. Method based on Serfes (1991)
2. X_i: 48 means from moving average of 24 hourly GW elevation
3. Y_j: 25 means from moving average of 24 means over the 48 X_i
4. Time in hours is from 1500 on 2/5/2013
5. Distance to Shoreline: 604 feet

Reference: Technical Analysis > Tidal Study > Everett Mean GW Elev.xlsx

Serfes Tidal Analysis at MW-13D	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-4



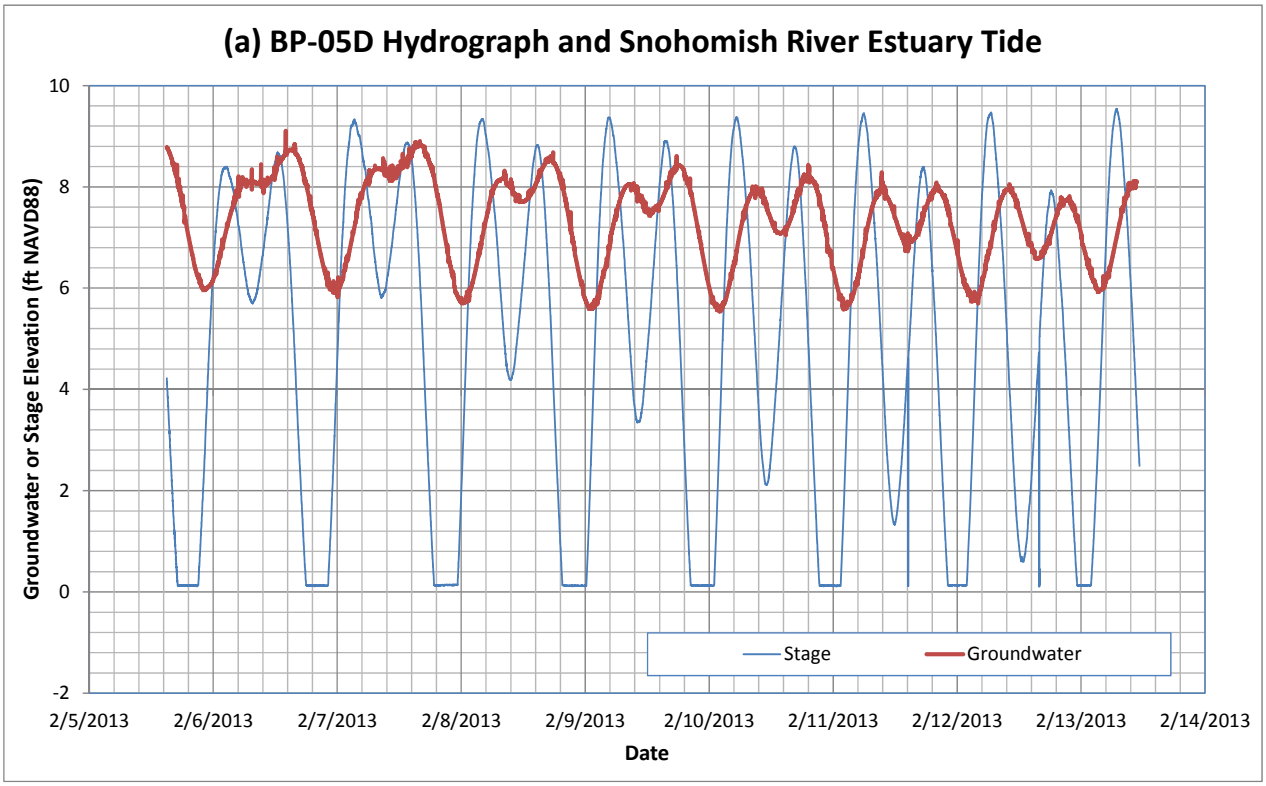


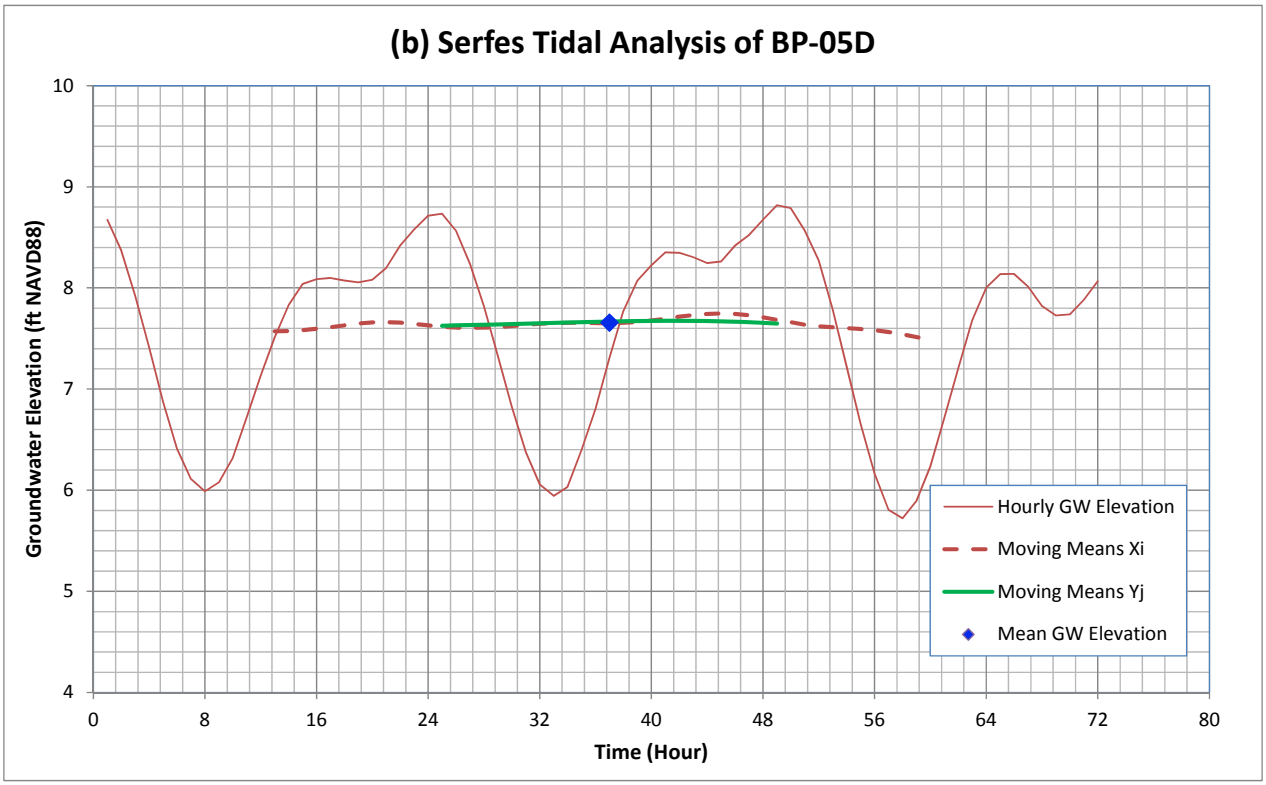
Notes:

1. Method based on Serfes (1991)
2. X_i: 48 means from moving average of 24 hourly GW elevation
3. Y_j: 25 means from moving average of 24 means over the 48 X_i
4. Time in hours is from 1500 on 2/5/2013
5. Distance to Shoreline: 1,013 feet

Reference: Technical Analysis > Tidal Study > Everett Mean GW Elev.xlsx

Serfes Tidal Analysis at MW-12D	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-5





Notes:

1. Method based on Serfes (1991)
2. X_i: 48 means from moving average of 24 hourly GW elevation
3. Y_j: 25 means from moving average of 24 means over the 48 X_i
4. Time in hours is from 1500 on 2/5/2013
5. Distance to Shoreline: 1,483 feet

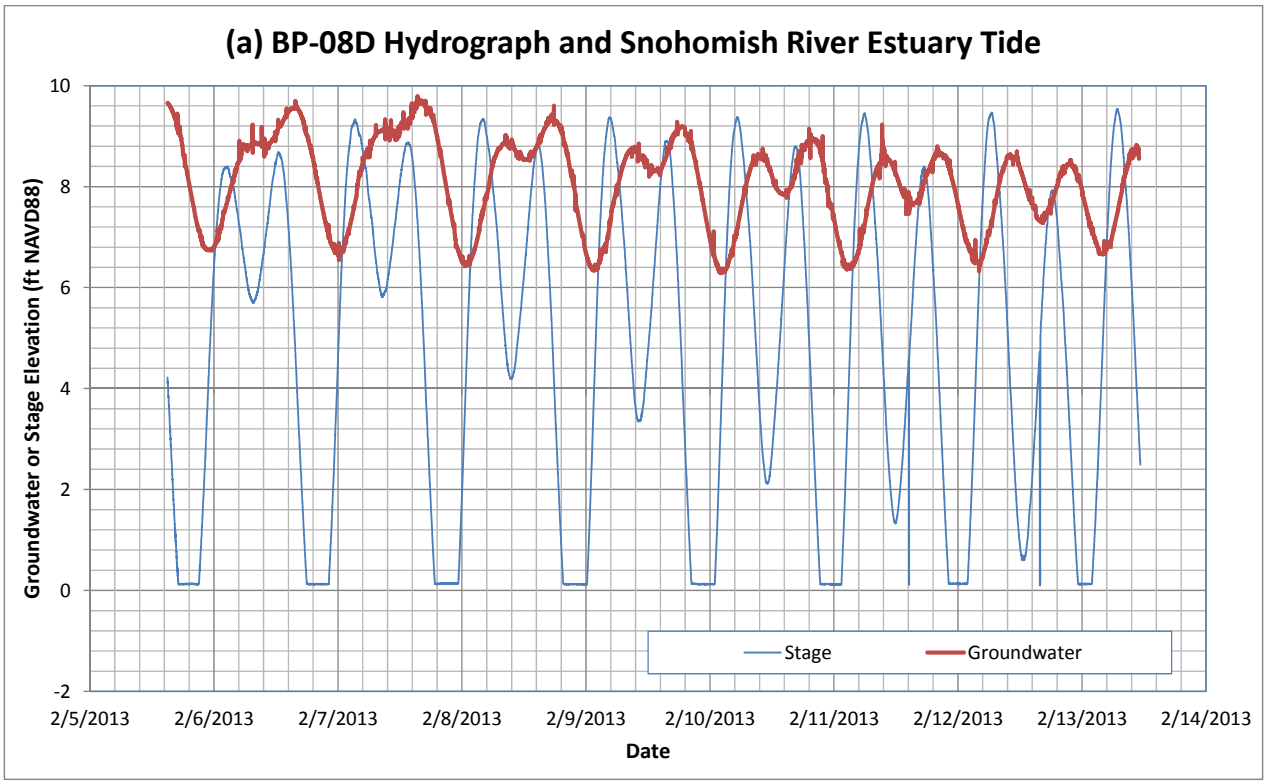
Reference: Technical Analysis > Tidal Study > Everett Mean GW Elev.xlsx

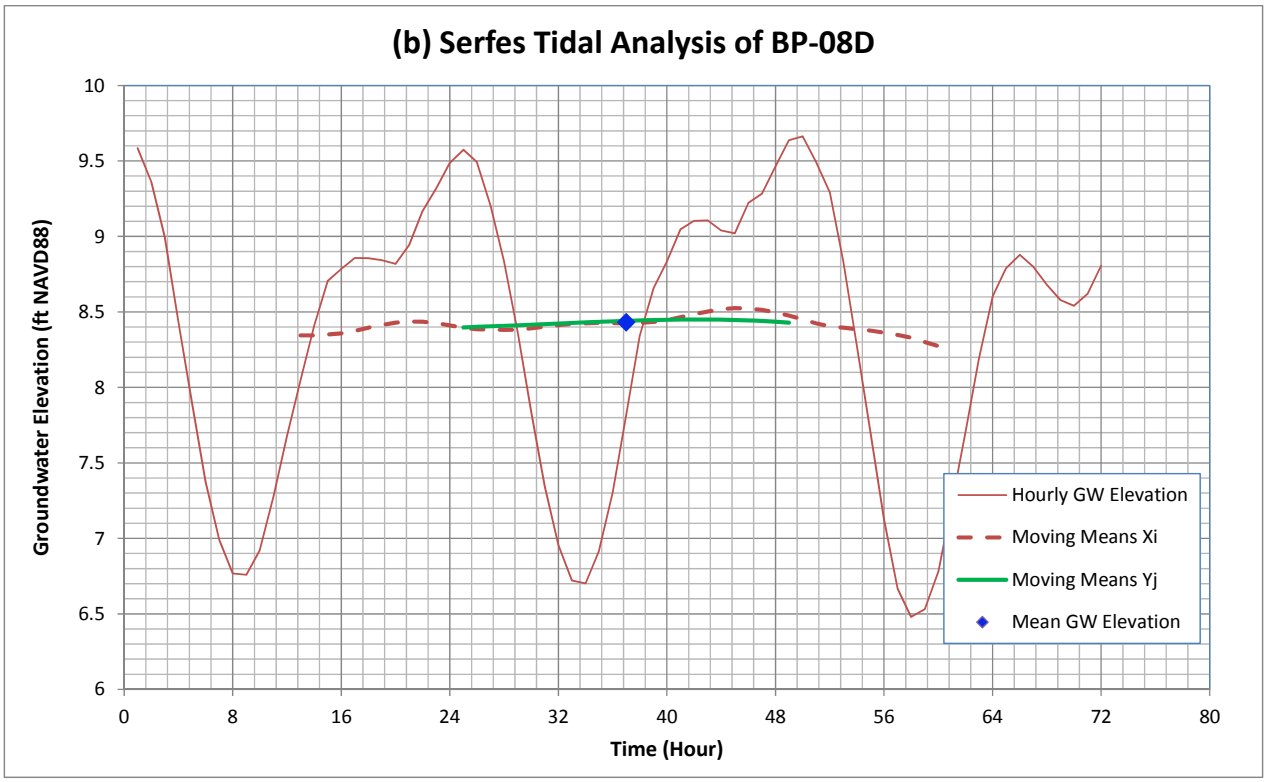
Serfes Tidal Analysis at BP-05D

Everett Smelter – Lowland Area

GeoEngineers

Figure F-6



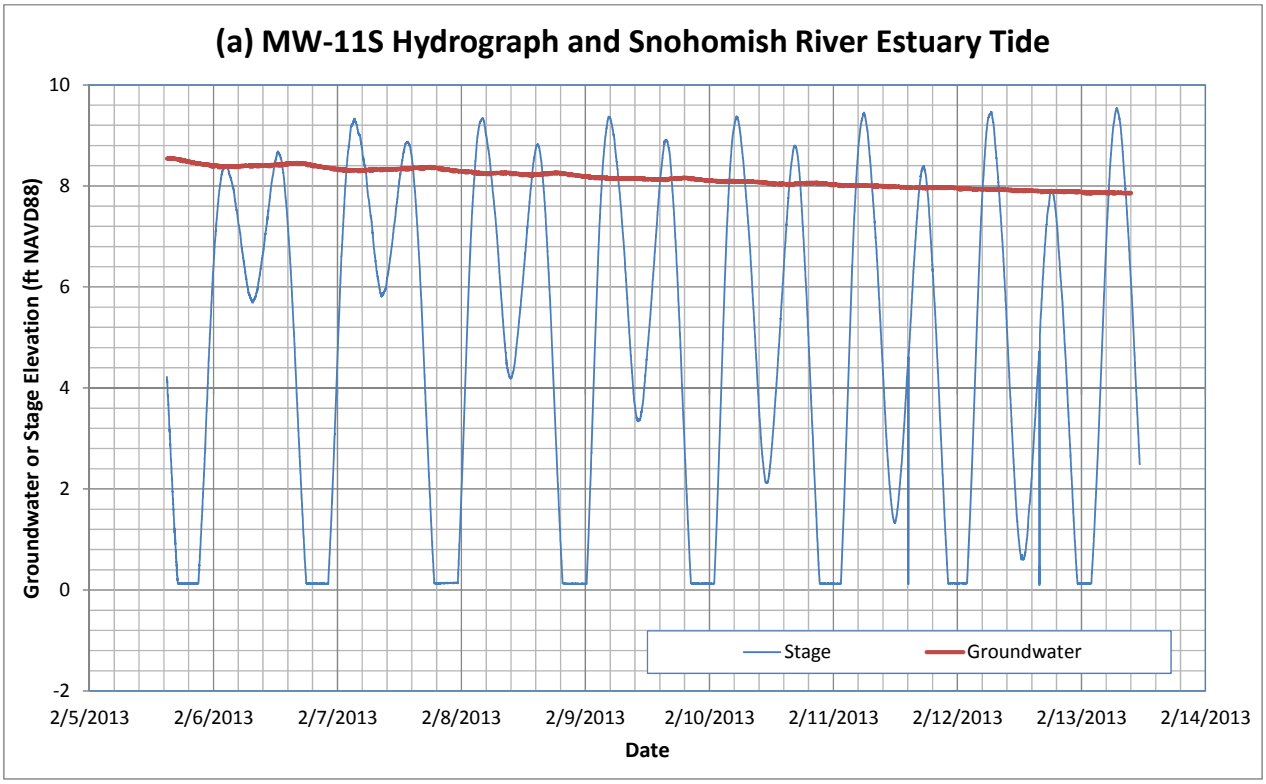


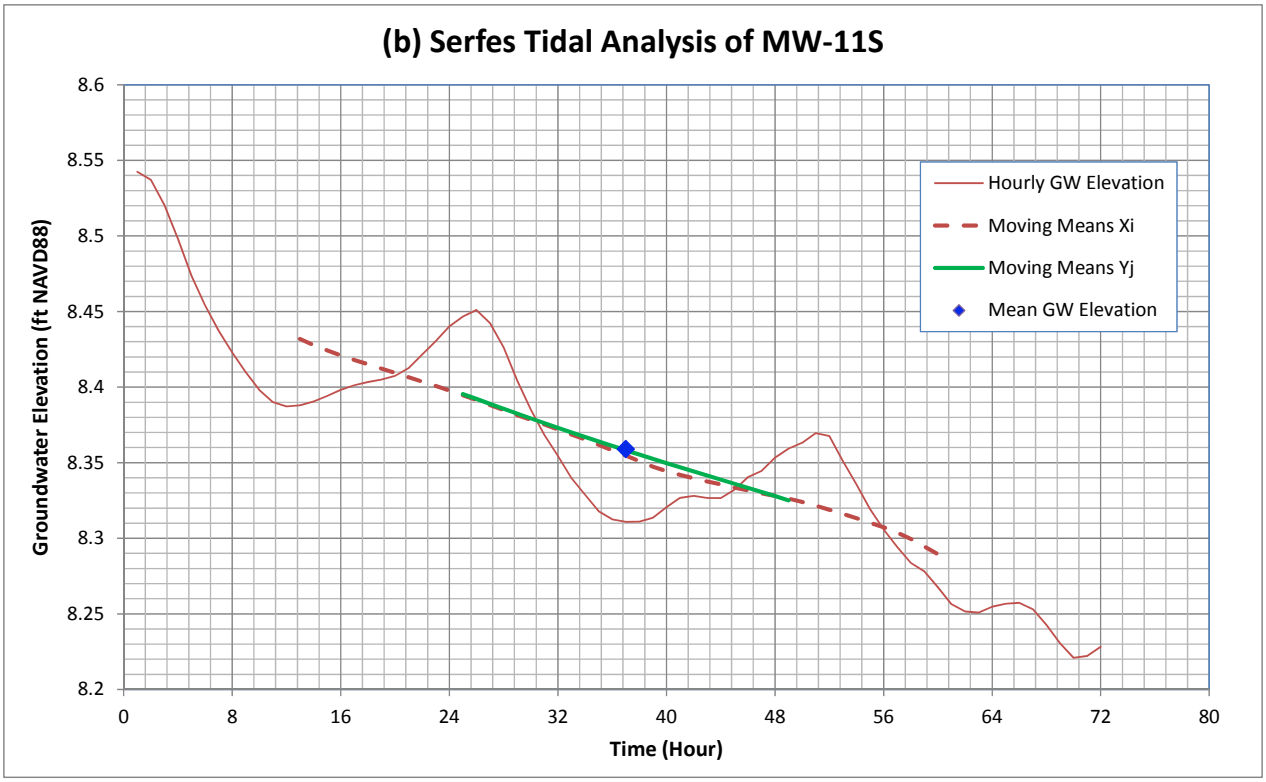
Notes:

1. Method based on Serfes (1991)
2. X_i: 48 means from moving average of 24 hourly GW elevation
3. Y_j: 25 means from moving average of 24 means over the 48 X_i
4. Time in hours is from 1500 on 2/5/2013
5. Distance to Shoreline: 1,699 feet

Reference: Technical Analysis > Tidal Study > Everett Mean GW Elev.xlsx

Serfes Tidal Analysis at BP-08D	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-7



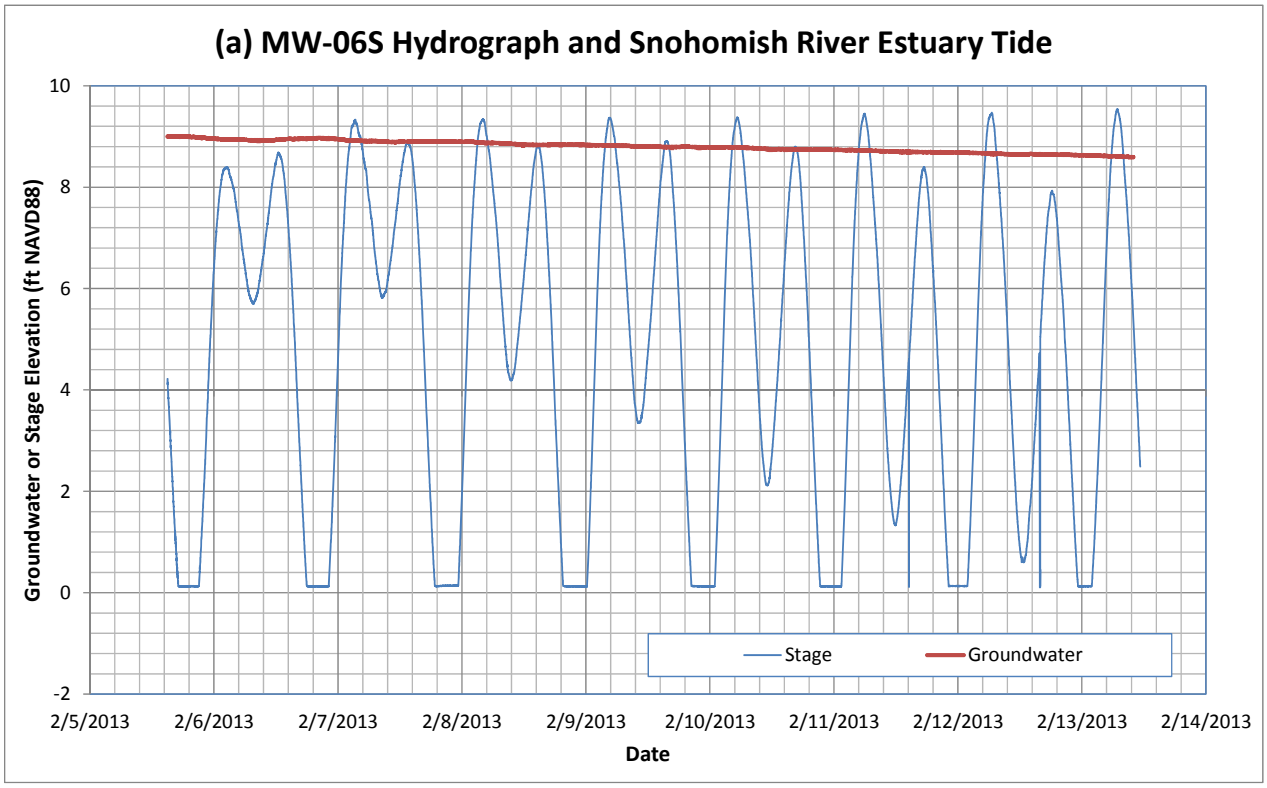


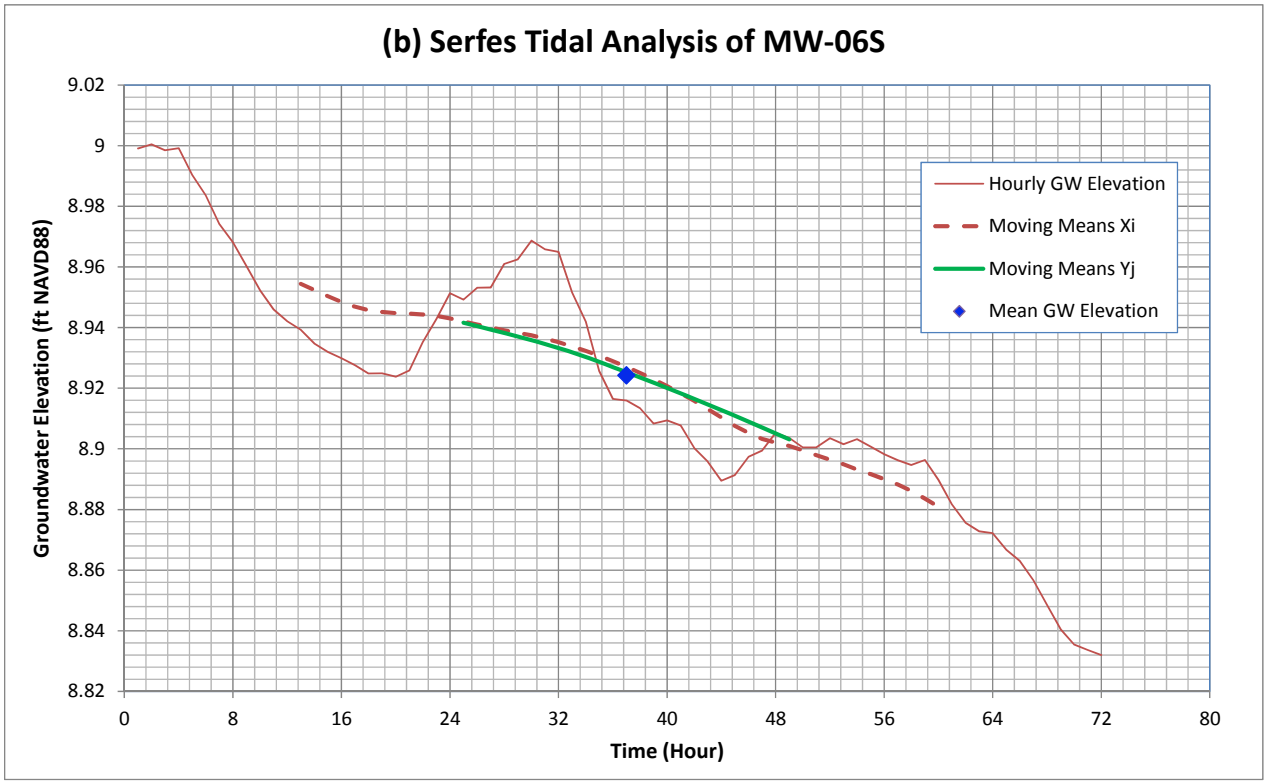
Notes:

1. Method based on Serfes (1991)
2. X_i: 48 means from moving average of 24 hourly GW elevation
3. Y_j: 25 means from moving average of 24 means over the 48 X_i
4. Time in hours is from 1500 on 2/5/2013
5. Distance to Shoreline: 48.3 feet

Reference: Technical Analysis > Tidal Study > Everett Mean GW Elev.xlsx

Serfes Tidal Analysis at MW-11S	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-8





Notes:

1. Method based on Serfes (1991)
2. X_i: 48 means from moving average of 24 hourly GW elevation
3. Y_j: 25 means from moving average of 24 means over the 48 X_i
4. Time in hours is from 1500 on 2/5/2013
5. Distance to Shoreline: 358 feet

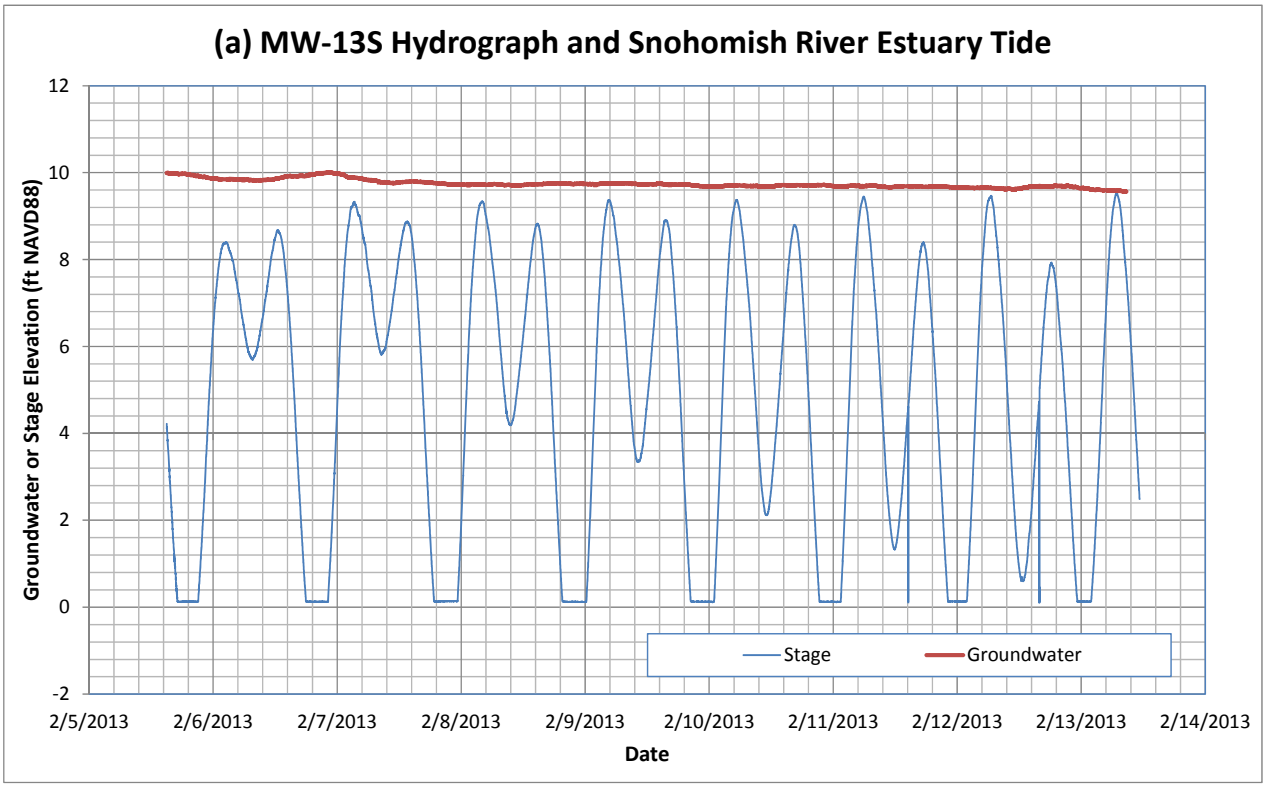
Reference: Technical Analysis > Tidal Study > Everett Mean GW Elev.xlsx

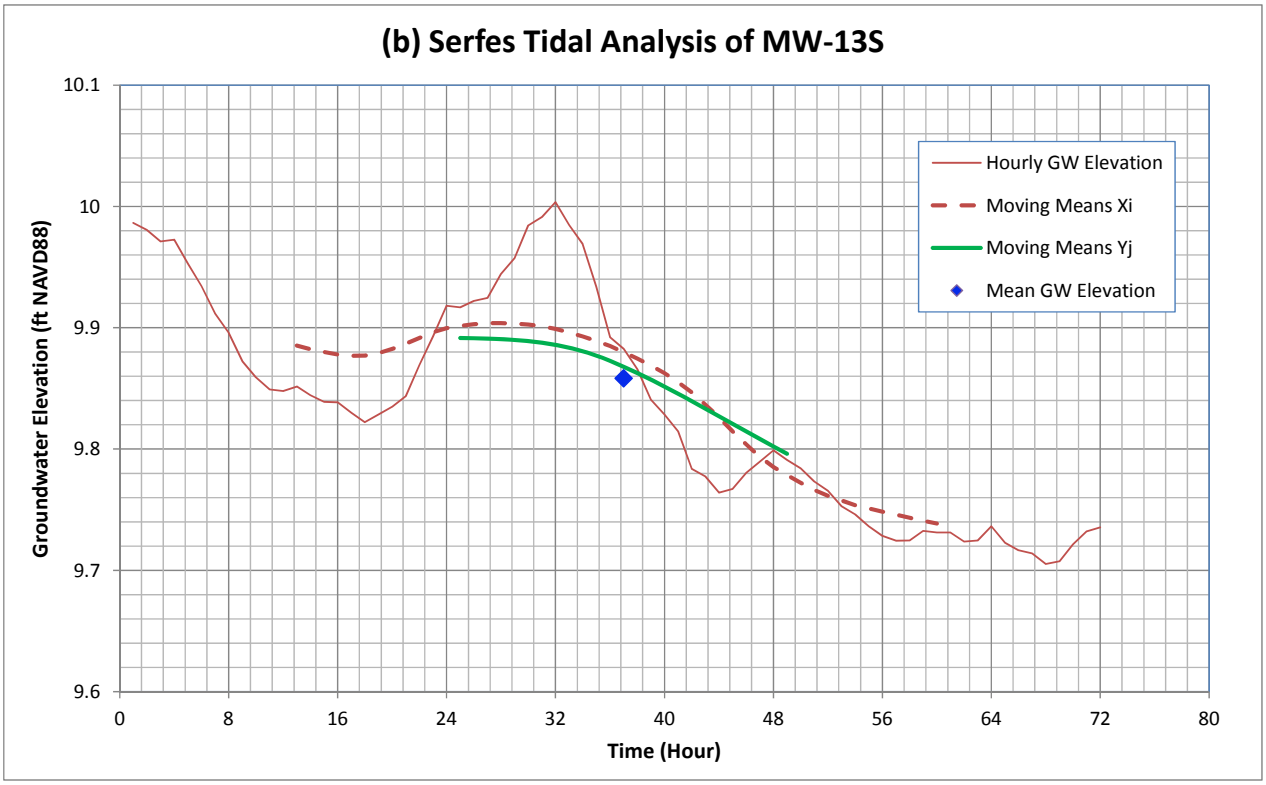
Serfes Tidal Analysis at MW-06S

Everett Smelter – Lowland Area

GeoEngineers

Figure F-9



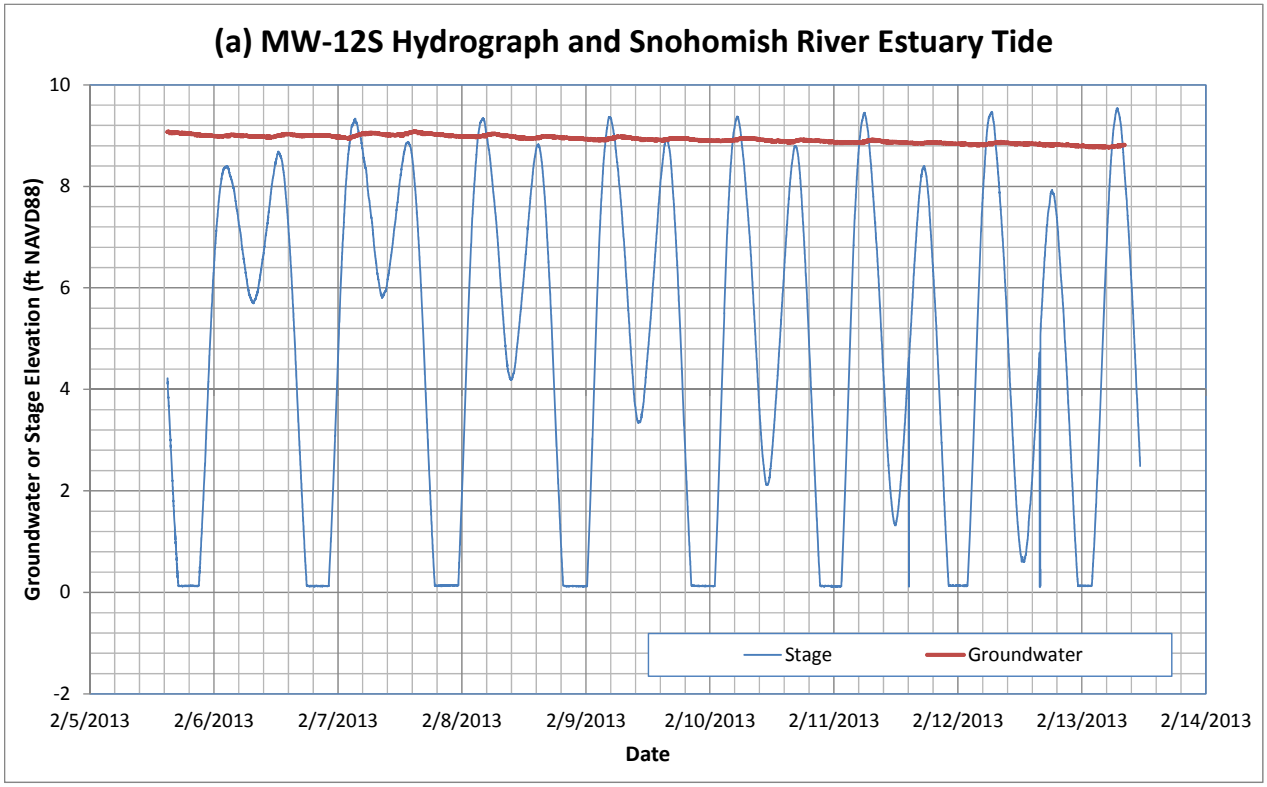


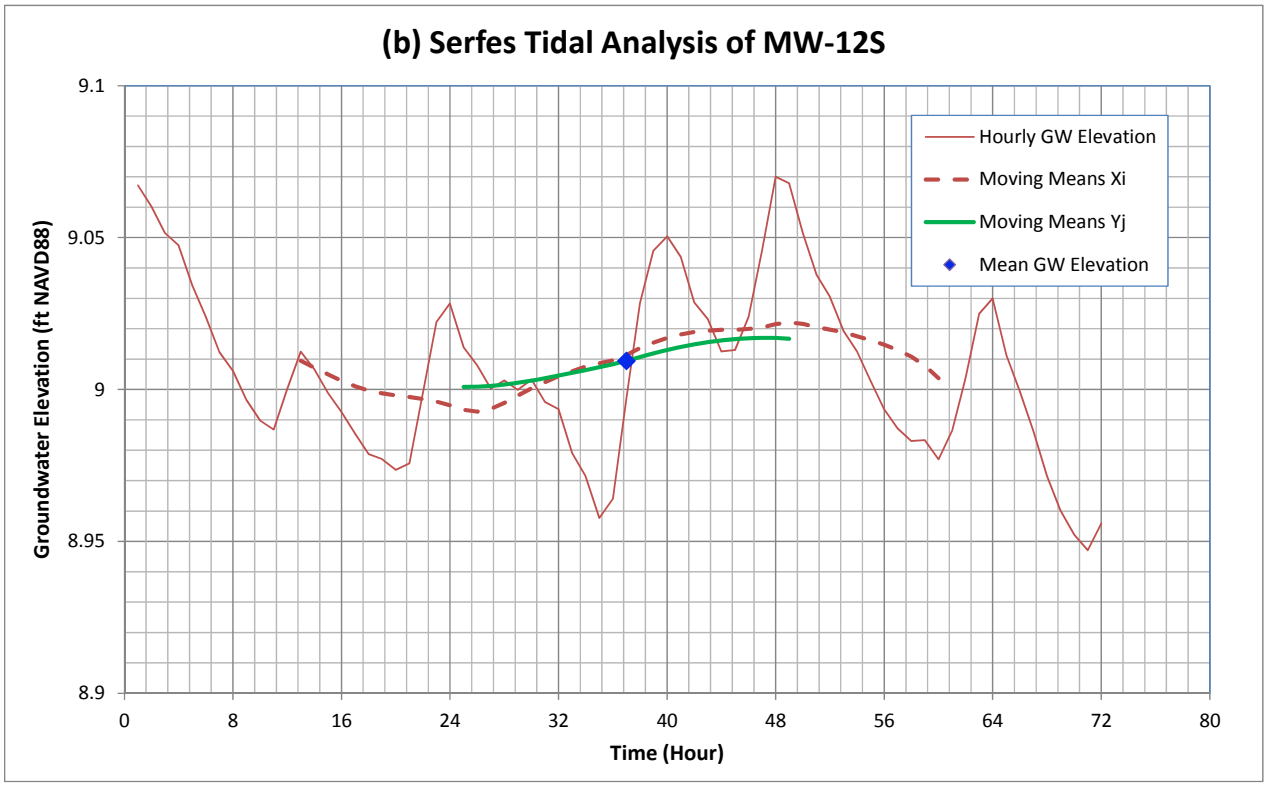
Notes:

1. Method based on Serfes (1991)
2. X_i: 48 means from moving average of 24 hourly GW elevation
3. Y_j: 25 means from moving average of 24 means over the 48 X_i
4. Time in hours is from 1500 on 2/5/2013
5. Distance to Shoreline: 601 feet

Reference: Technical Analysis > Tidal Study > Everett Mean GW Elev.xlsx

Serfes Tidal Analysis at MW-13S	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-10





Notes:

1. Method based on Serfes (1991)
2. X_i: 48 means from moving average of 24 hourly GW elevation
3. Y_j: 25 means from moving average of 24 means over the 48 X_i
4. Time in hours is from 1500 on 2/5/2013
5. Distance to Shoreline: 1,016 feet

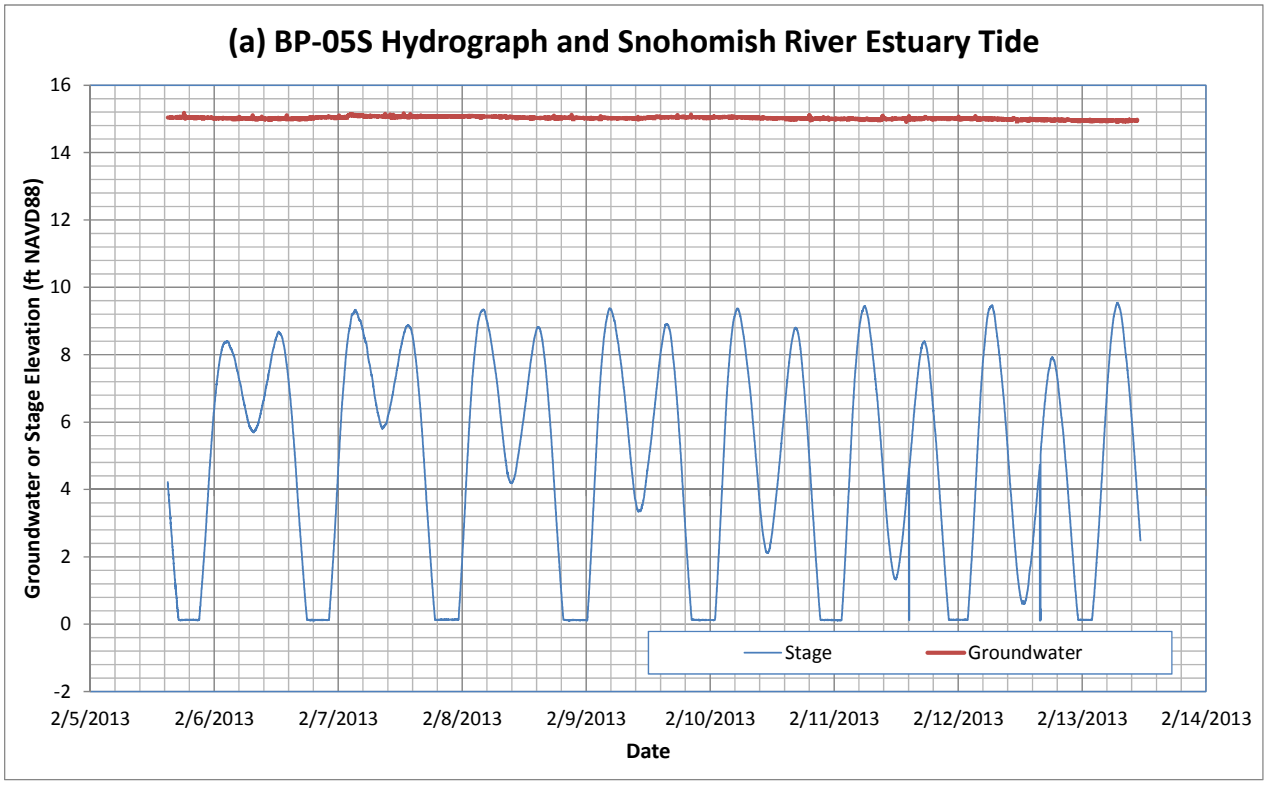
Reference: Technical Analysis > Tidal Study > Everett Mean GW Elev.xlsx

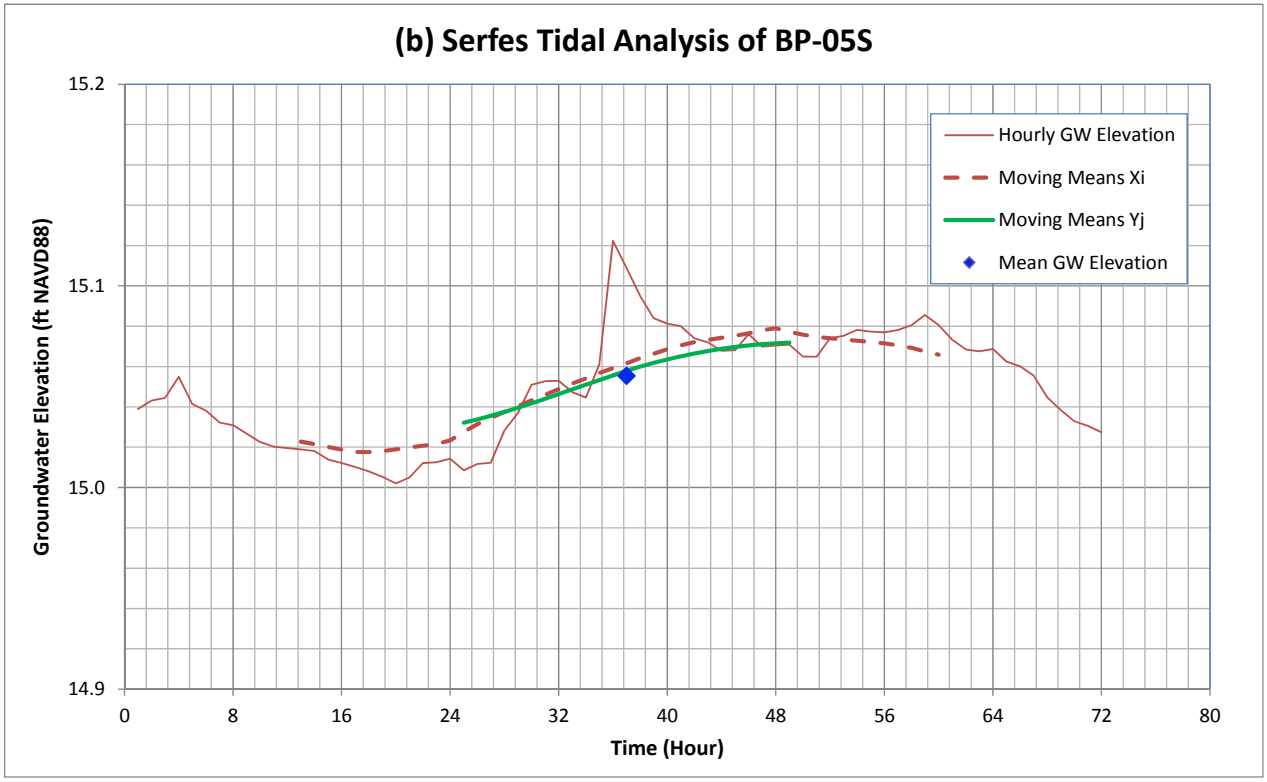
Serfes Tidal Analysis at MW-12S

Everett Smelter – Lowland Area

GeoEngineers

Figure F-11





Notes:

1. Method based on Serfes (1991)
2. X_i: 48 means from moving average of 24 hourly GW elevation
3. Y_j: 25 means from moving average of 24 means over the 48 X_i
4. Time in hours is from 1500 on 2/5/2013
5. Distance to Shoreline: 1,483 feet

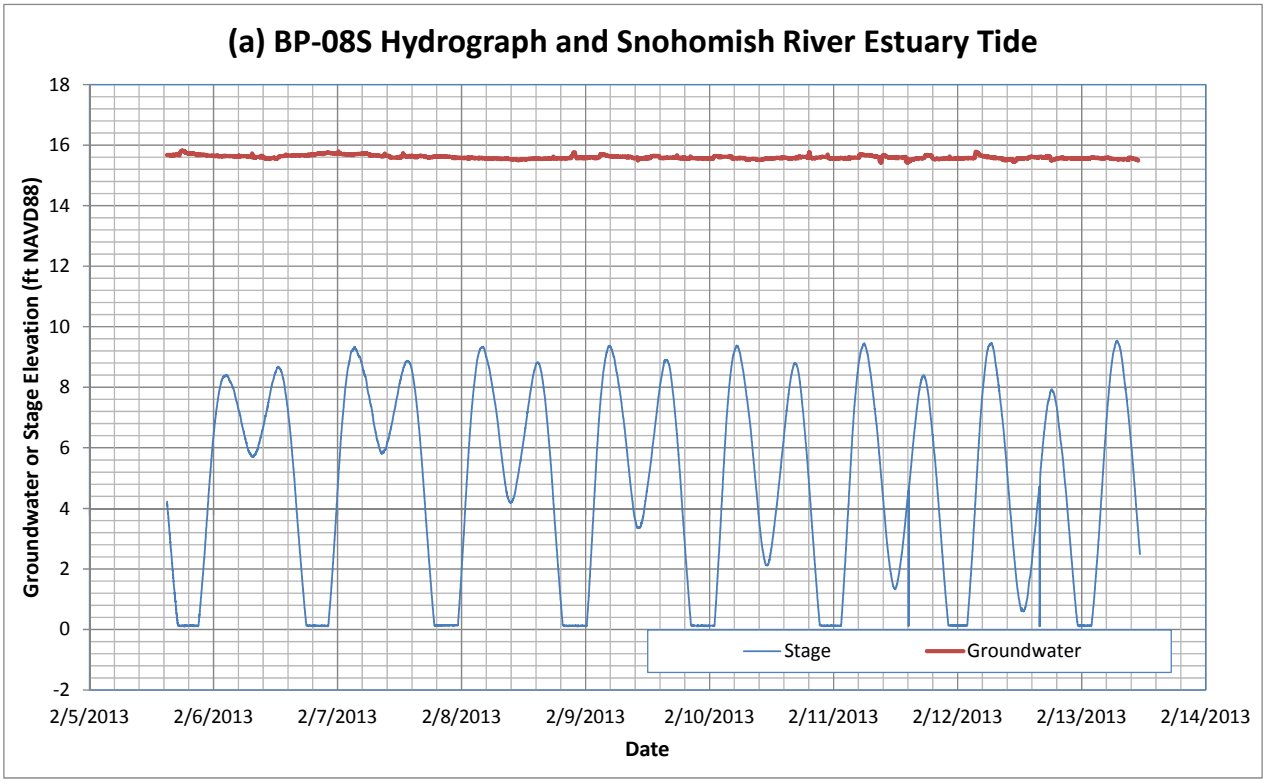
Reference: Technical Analysis > Tidal Study > Everett Mean GW Elev.xlsx

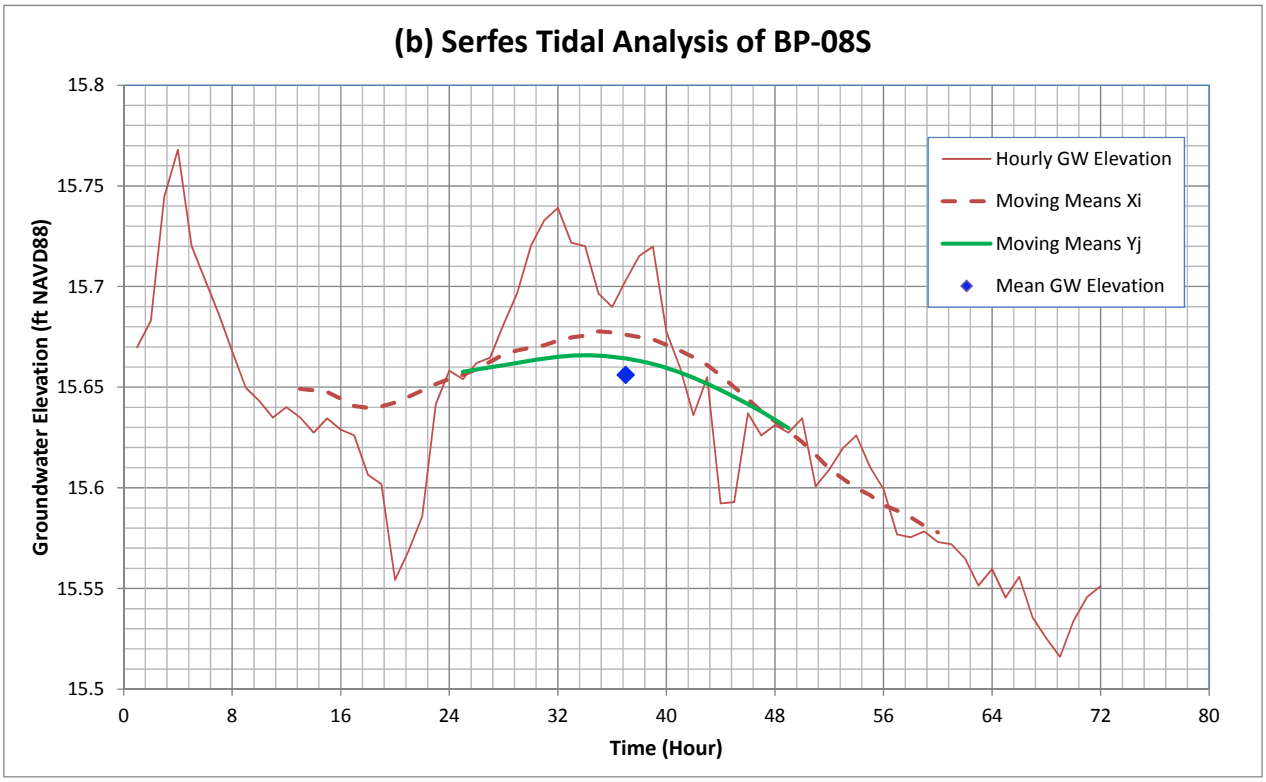
Serfes Tidal Analysis at BP-05S

Everett Smelter – Lowland Area

GeoEngineers

Figure F-12



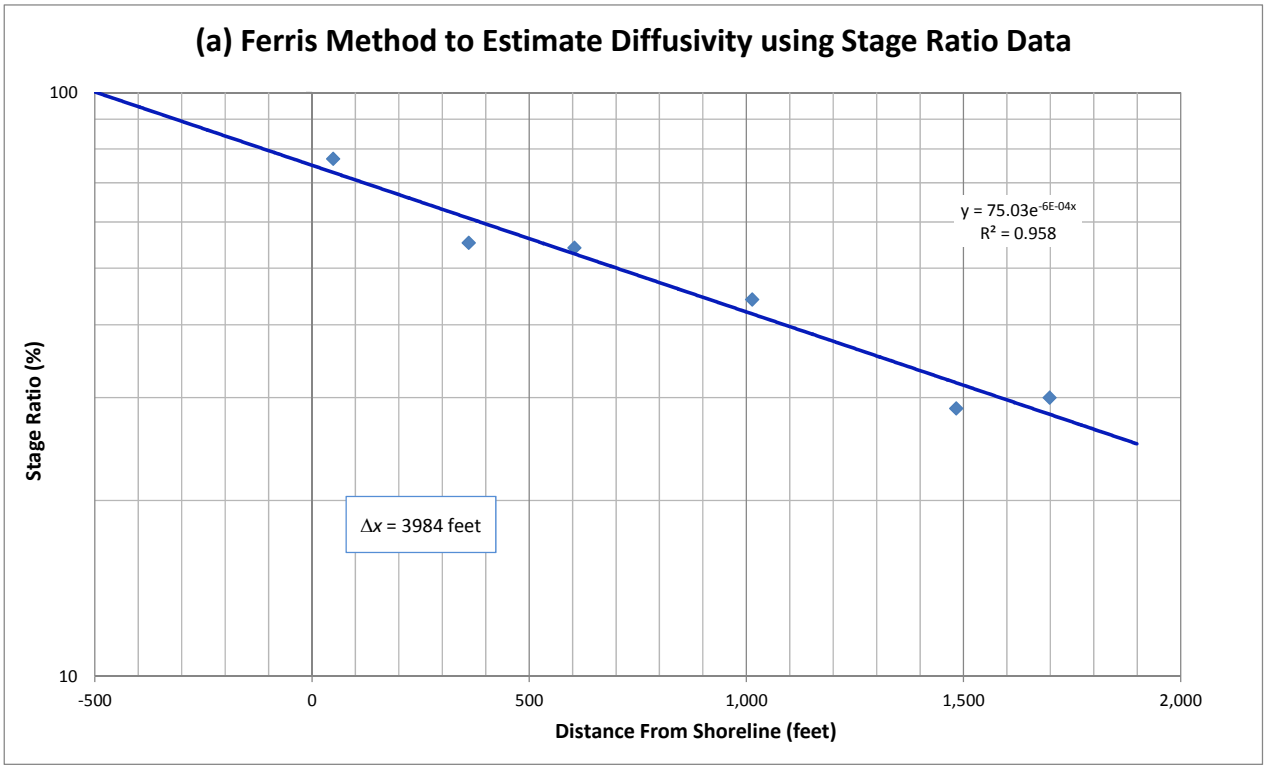


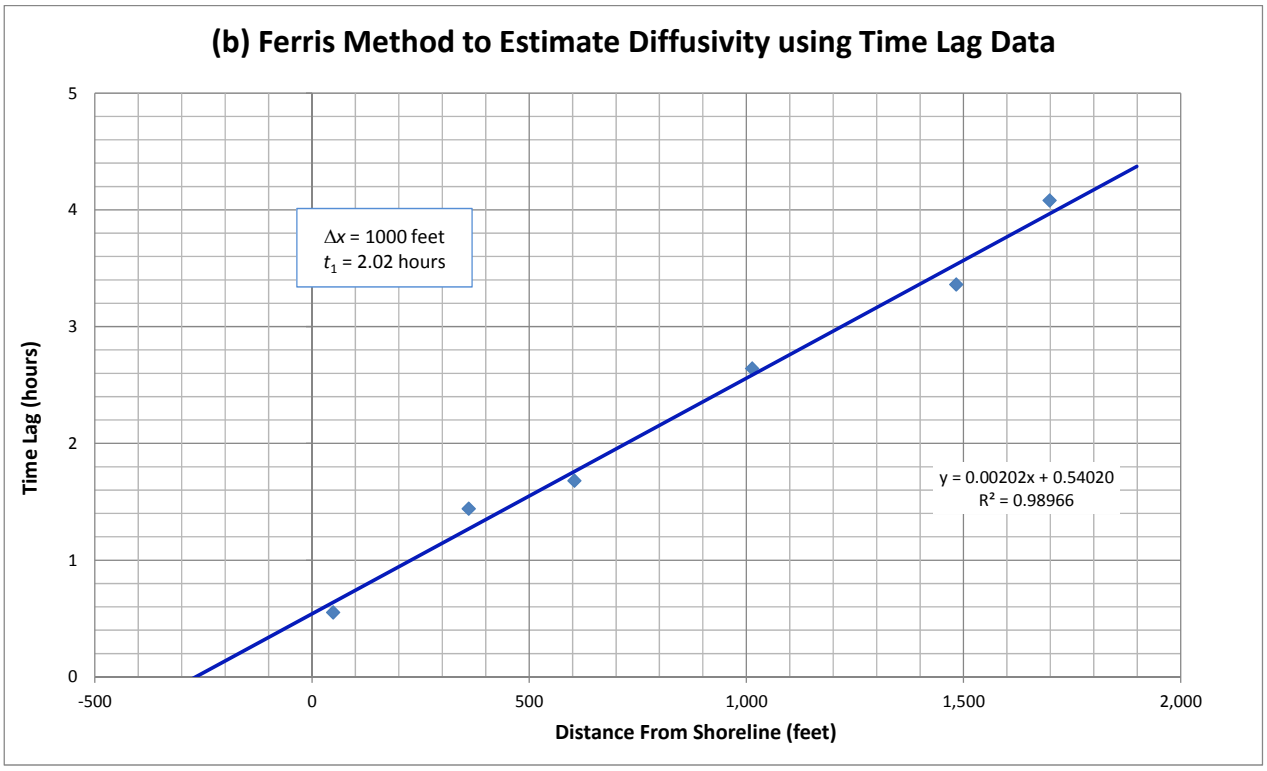
Notes:

1. Method based on Serfes (1991)
2. X_i: 48 means from moving average of 24 hourly GW elevation
3. Y_j: 25 means from moving average of 24 means over the 48 X_i
4. Time in hours is from 1500 on 2/5/2013
5. Distance to Shoreline: 1,699 feet

Reference: Technical Analysis > Tidal Study > Everett Mean GW Elev.xlsx

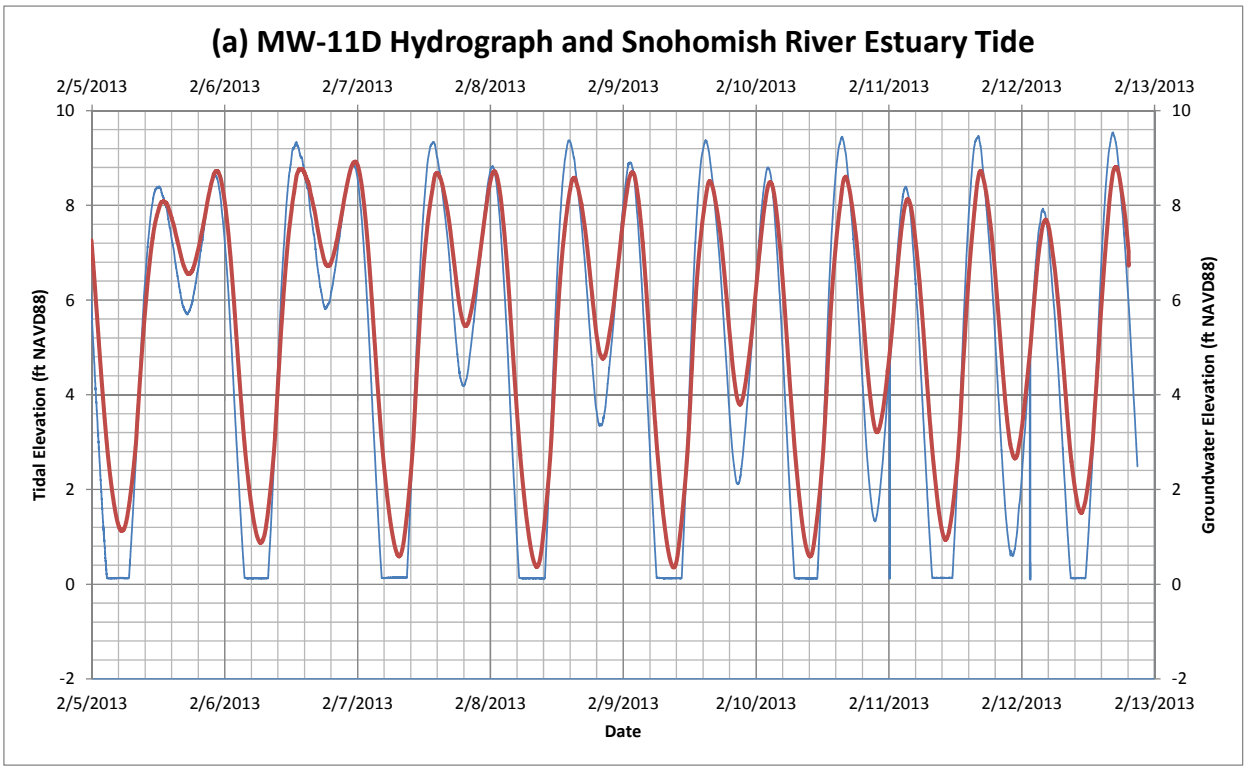
Serfes Tidal Analysis at BP-08S	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-13

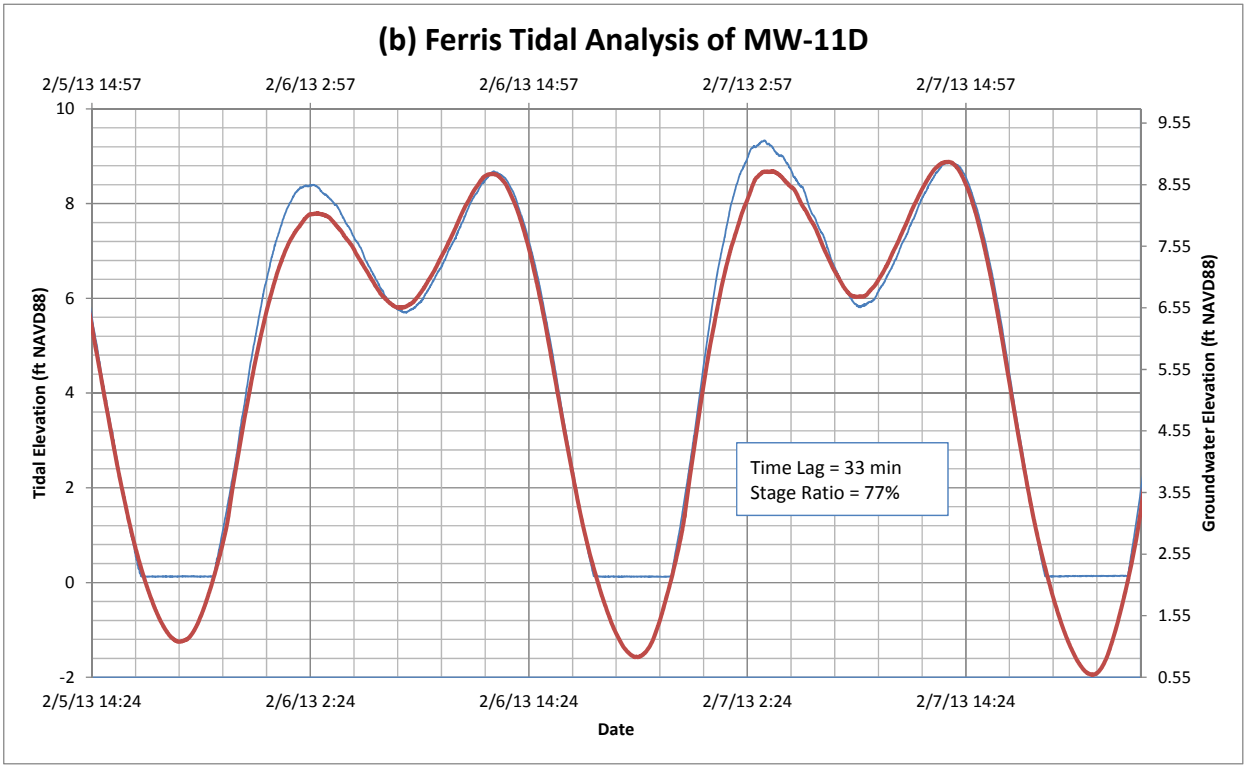




Ferris Tidal Analysis	
Everett Smelter – Lowland Area	
GEOENGINEERS	Figure F-14

Reference: Technical Analysis > Tidal Study > Everett Tidal match.xlsx.



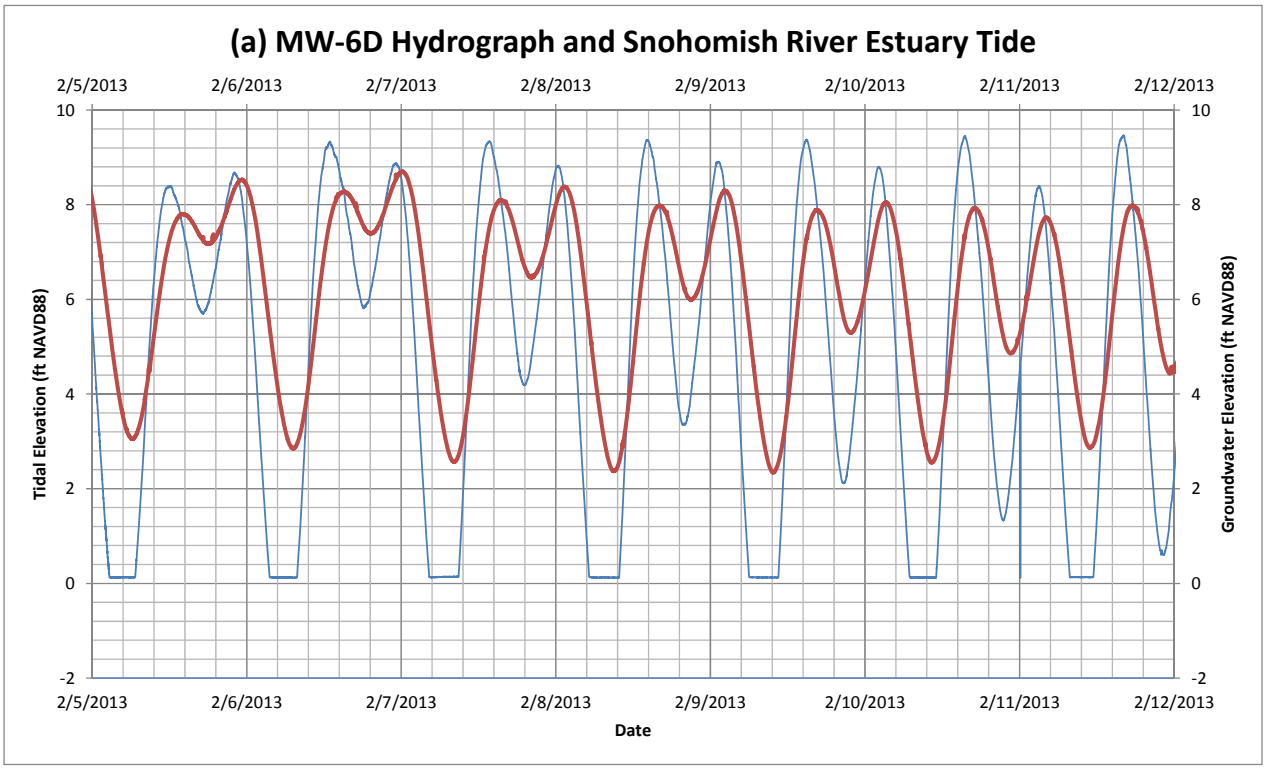


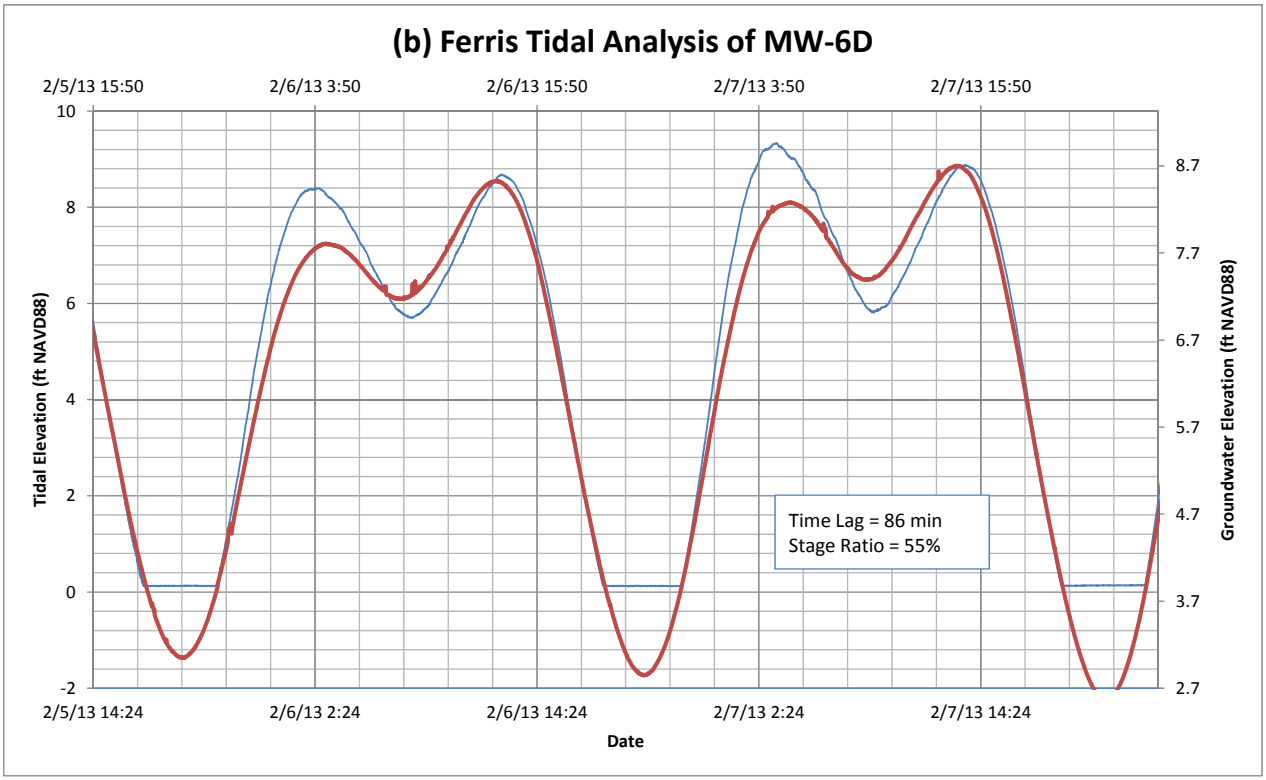
Notes:

1. Distance to Shoreline: 48.8 feet

Reference: Technical Analysis > Tidal Study > Everett Tidal match.xlsx.

Ferris Tidal Analysis at MW-11D	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-15



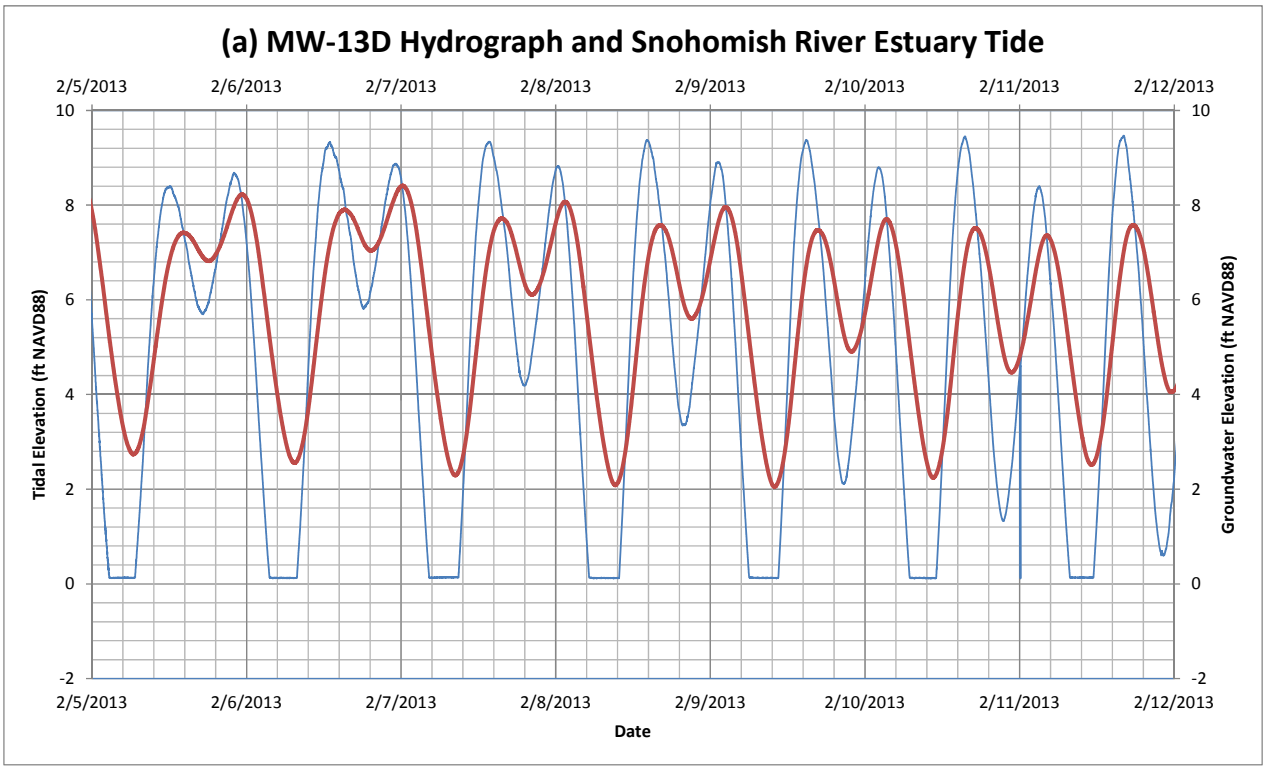


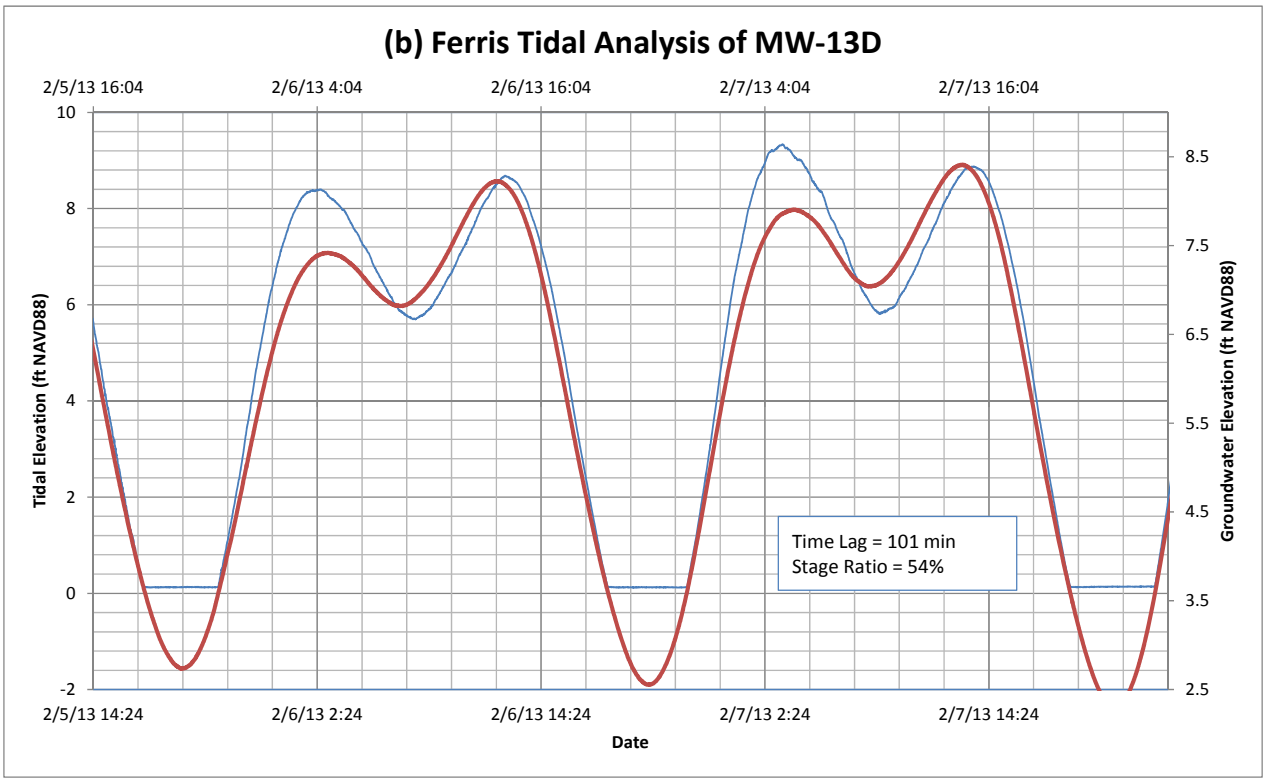
Notes:

1. Distance to Shoreline: 361 feet

Reference: Technical Analysis > Tidal Study > Everett Tidal match.xlsx.

Ferris Tidal Analysis at MW-06D	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-16



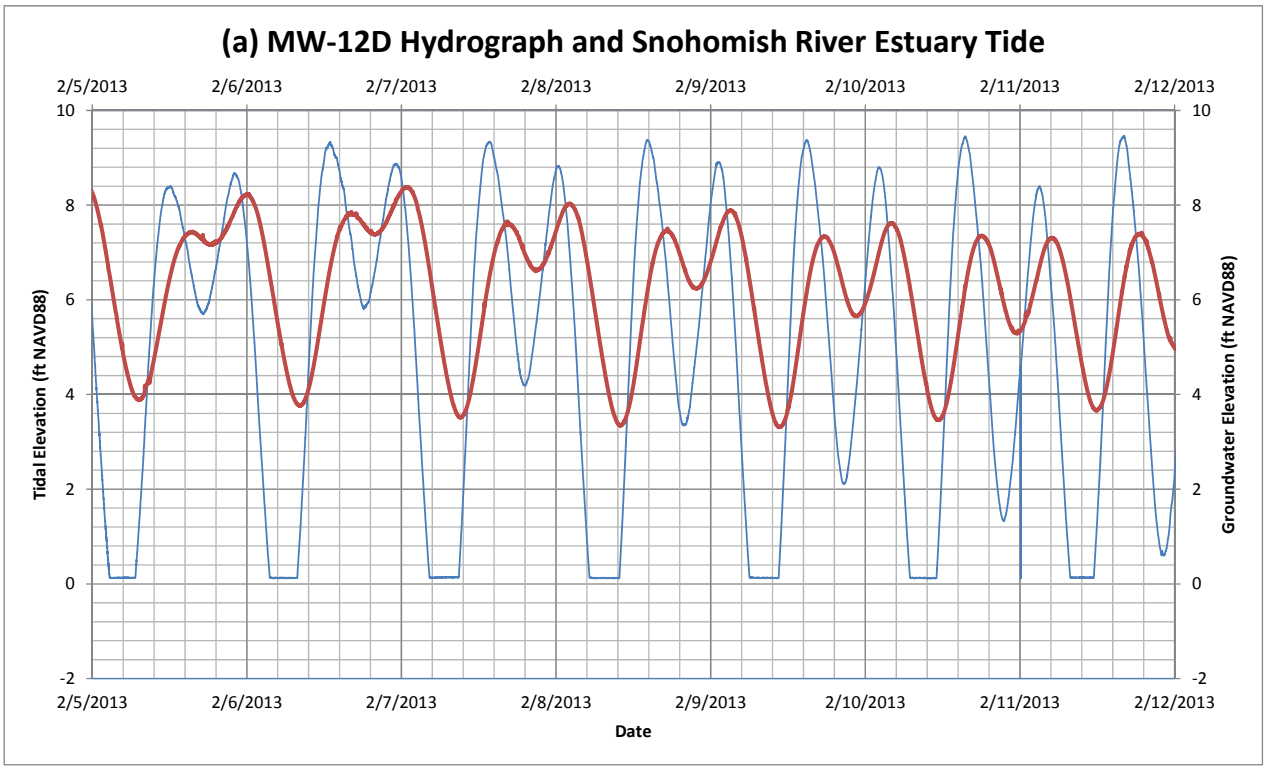


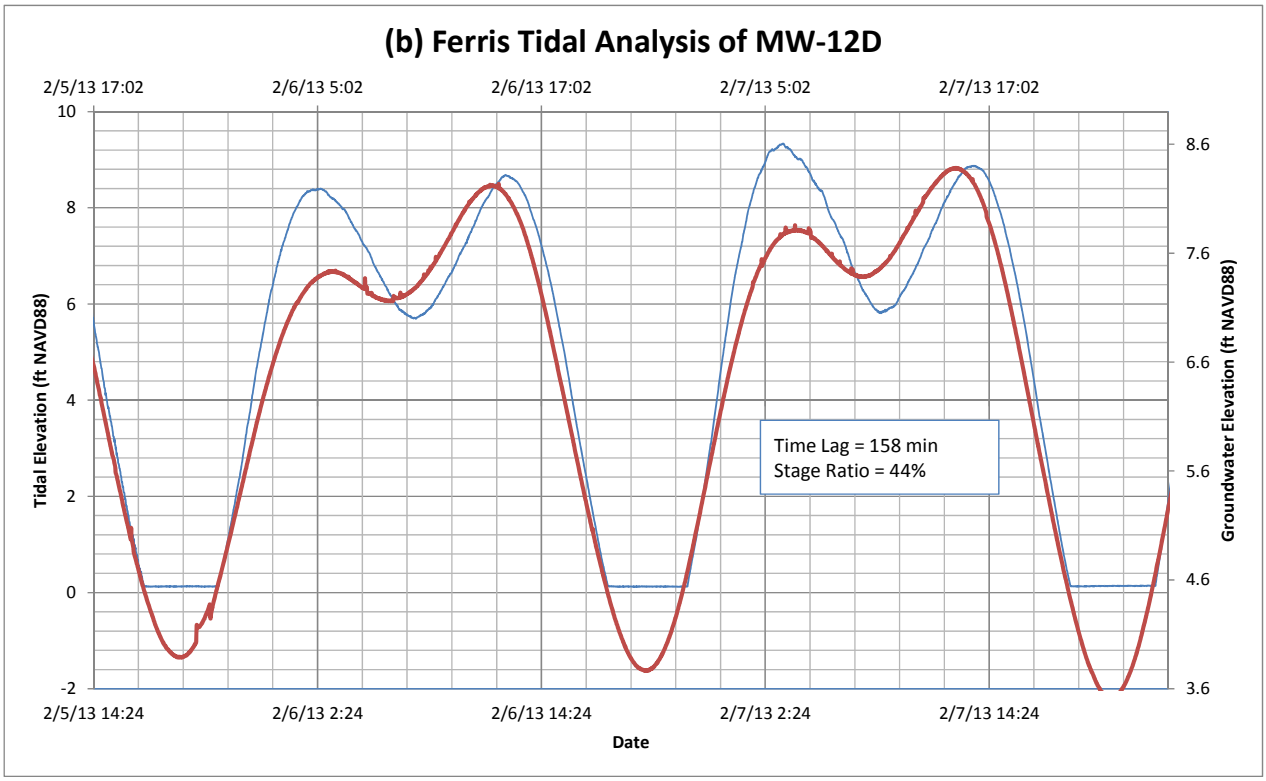
Notes:

1. Distance to Shoreline: 604 feet

Reference: Technical Analysis > Tidal Study > Everett Tidal match.xlsx.

Ferris Tidal Analysis at MW-13D	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-17



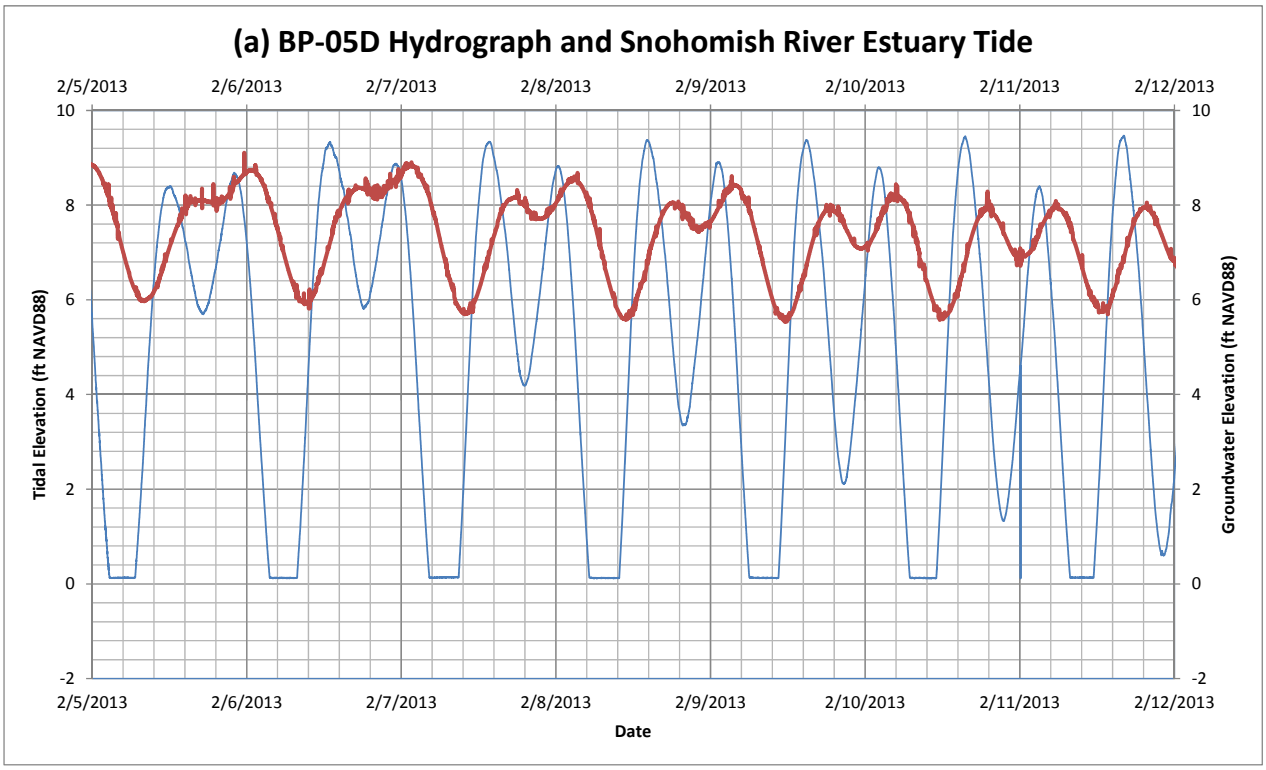


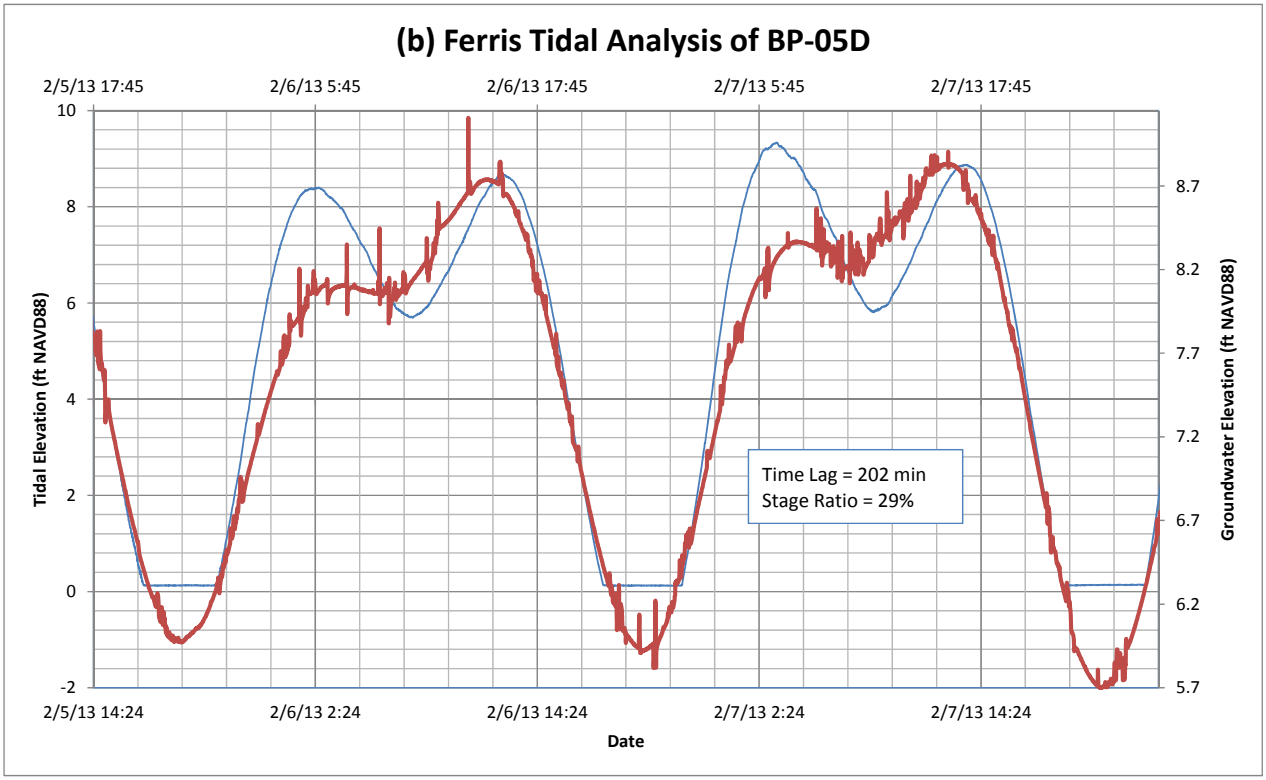
Notes:

1. Distance to Shoreline: 1,013 feet

Reference: Technical Analysis > Tidal Study > Everett Tidal match.xlsx.

Ferris Tidal Analysis at MW-12D	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-18



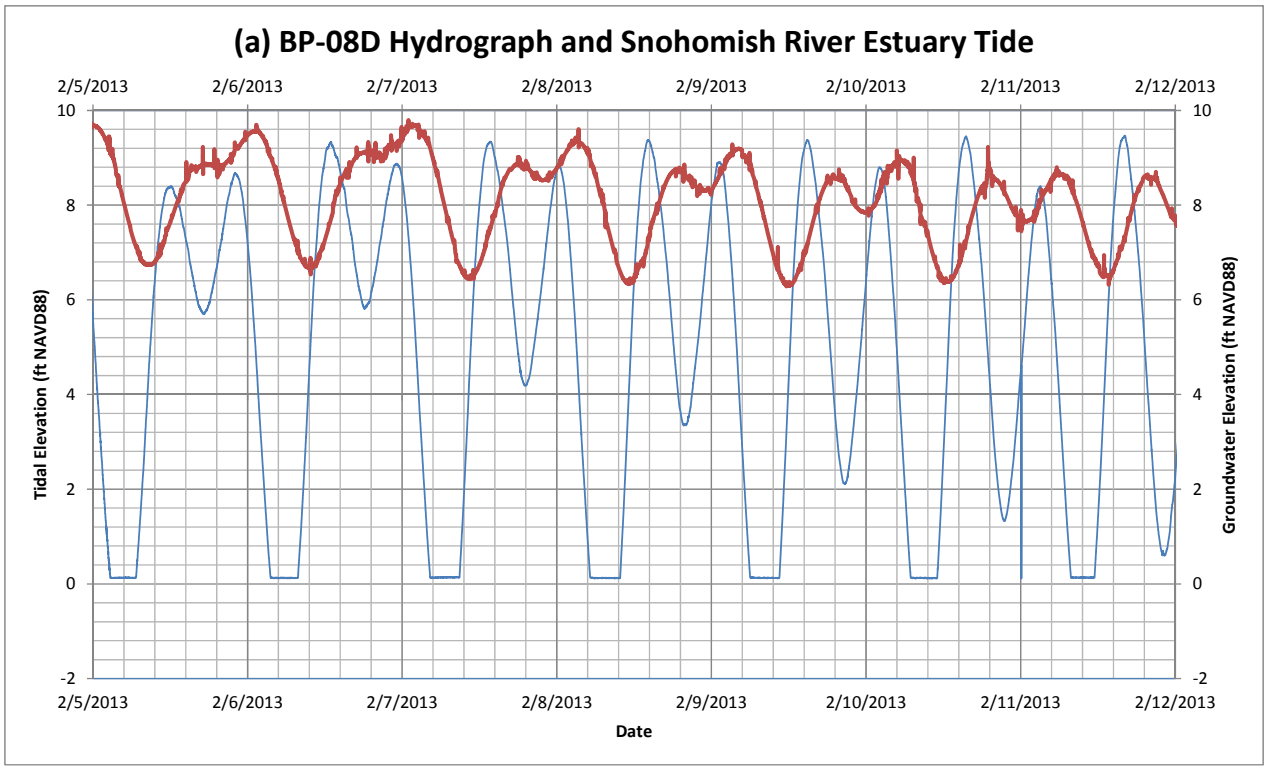


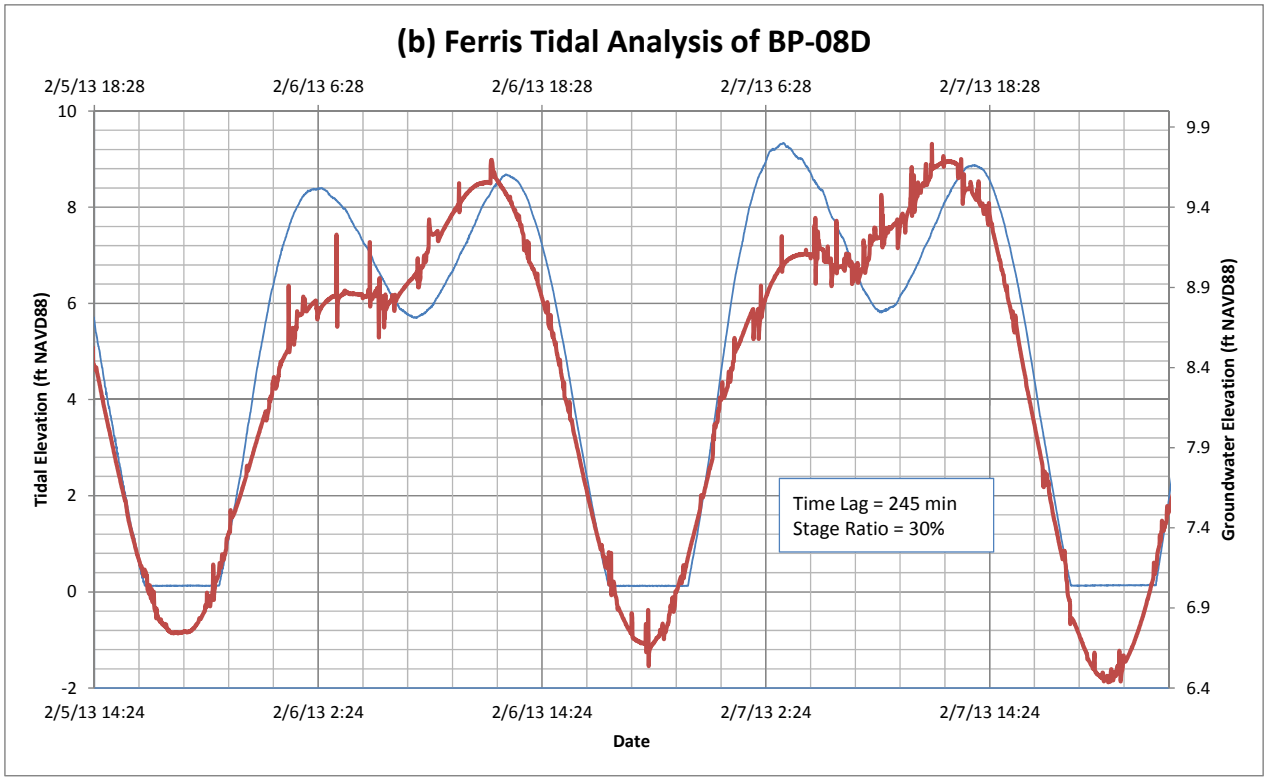
Notes:

1. Distance to Shoreline: 1,483 feet

Reference: Technical Analysis > Tidal Study > Everett Tidal match.xlsx.

Ferris Tidal Analysis at BP-05D	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-19



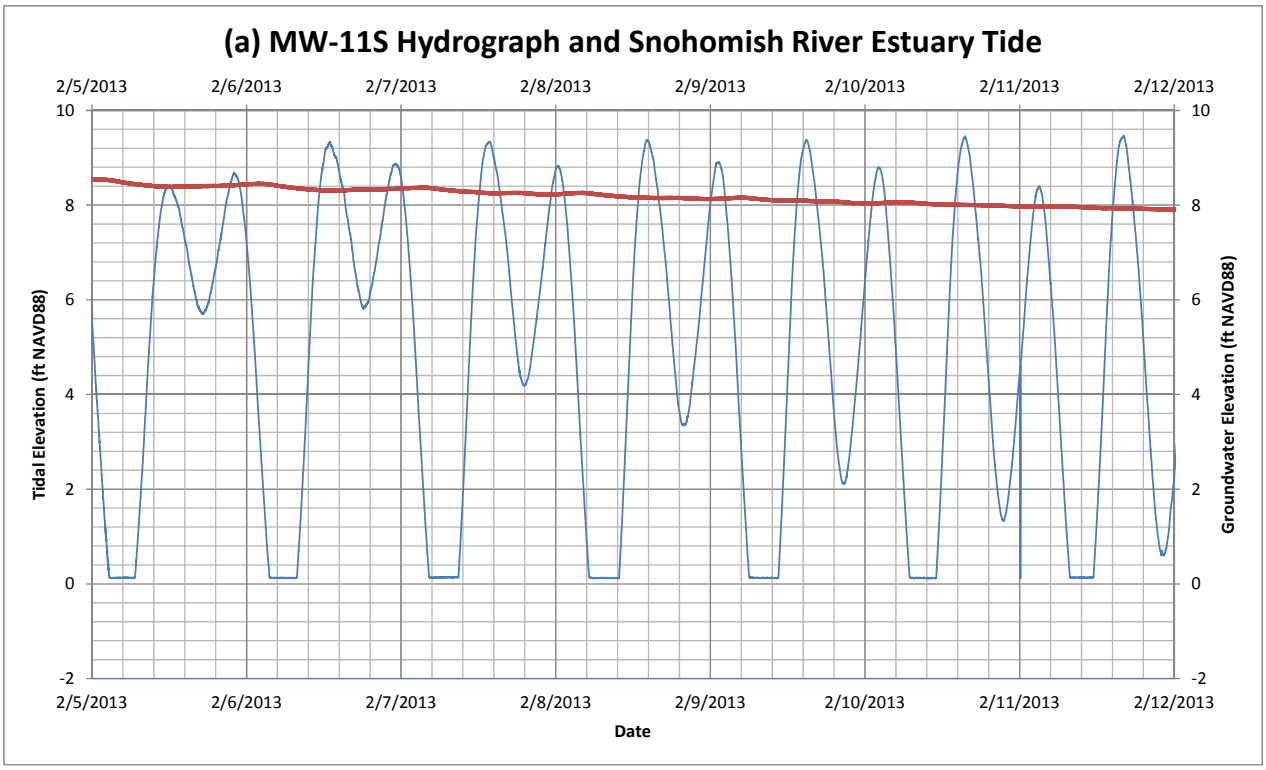


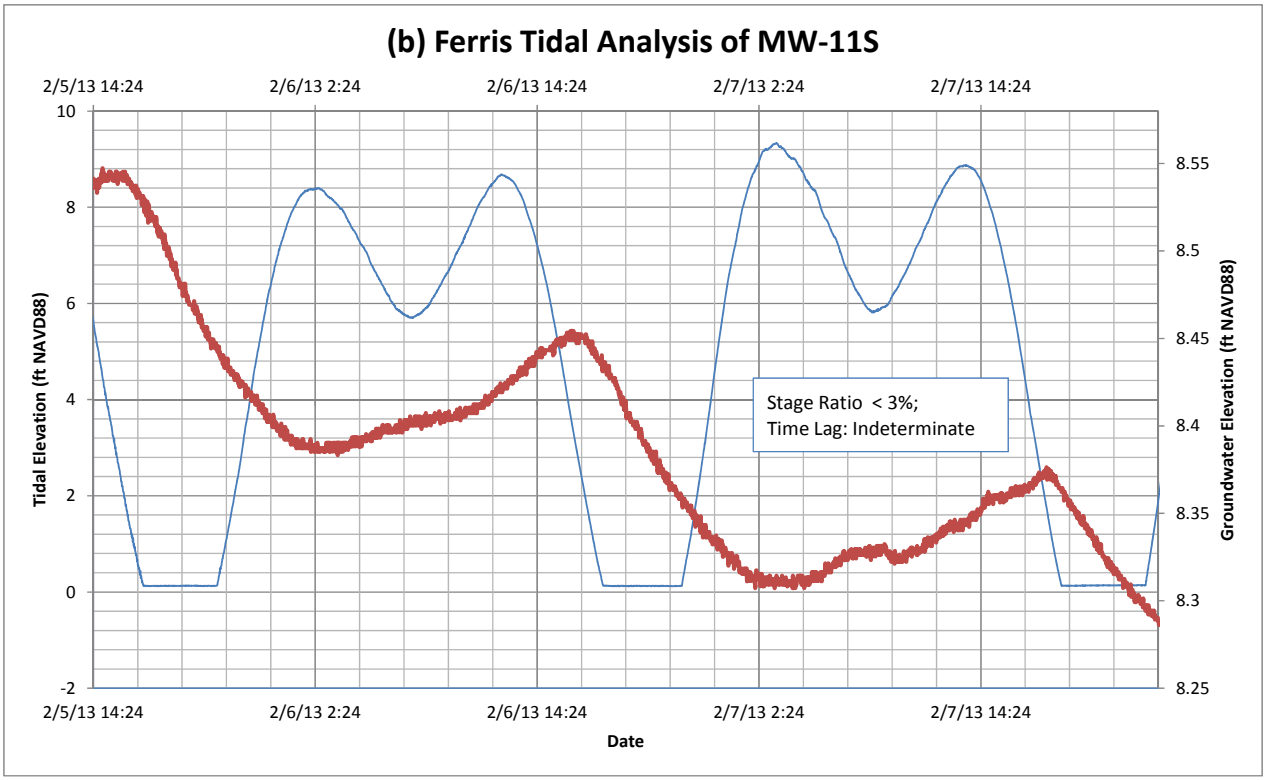
Notes:

1. Distance to Shoreline: 1,699 feet

Reference: Technical Analysis > Tidal Study > Everett Tidal match.xlsx.

Ferris Tidal Analysis at BP-08D	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-20





Notes:

1. Distance to Shoreline: 48.3 feet

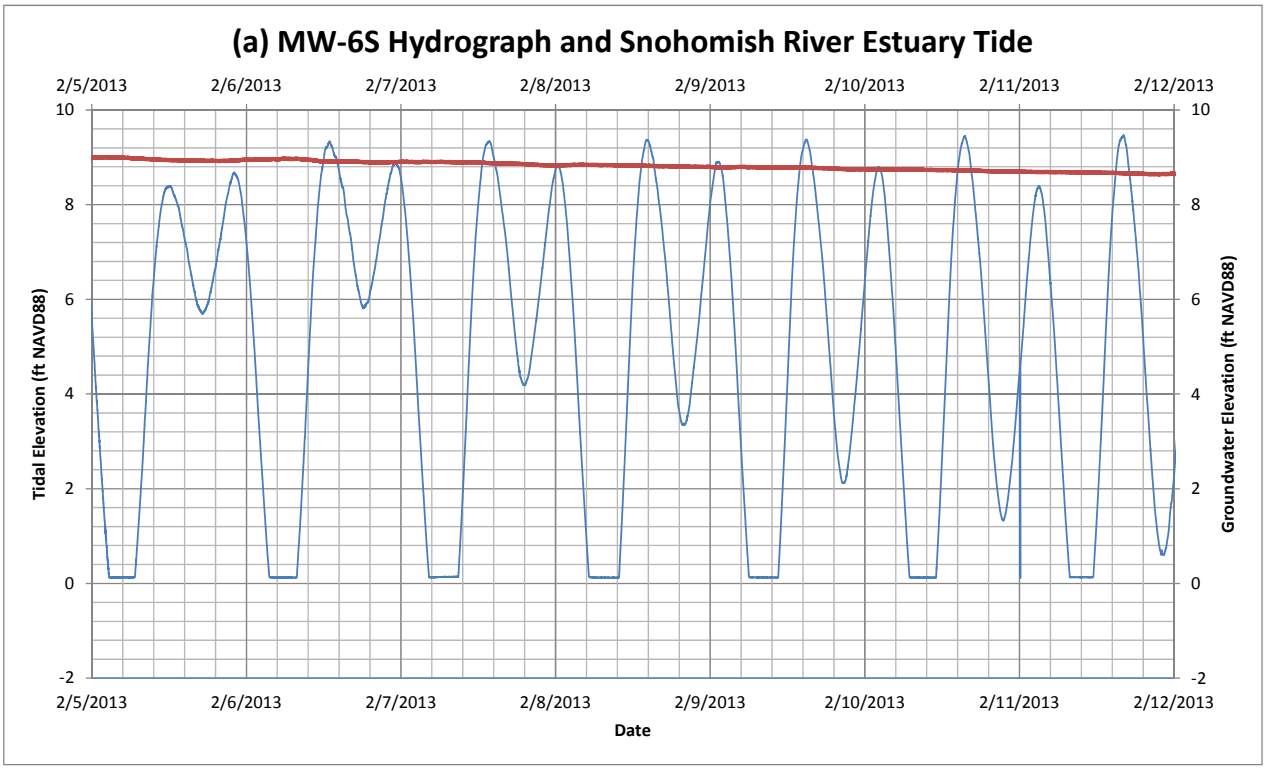
Reference: Technical Analysis > Tidal Study > Everett Tidal match.xlsx.

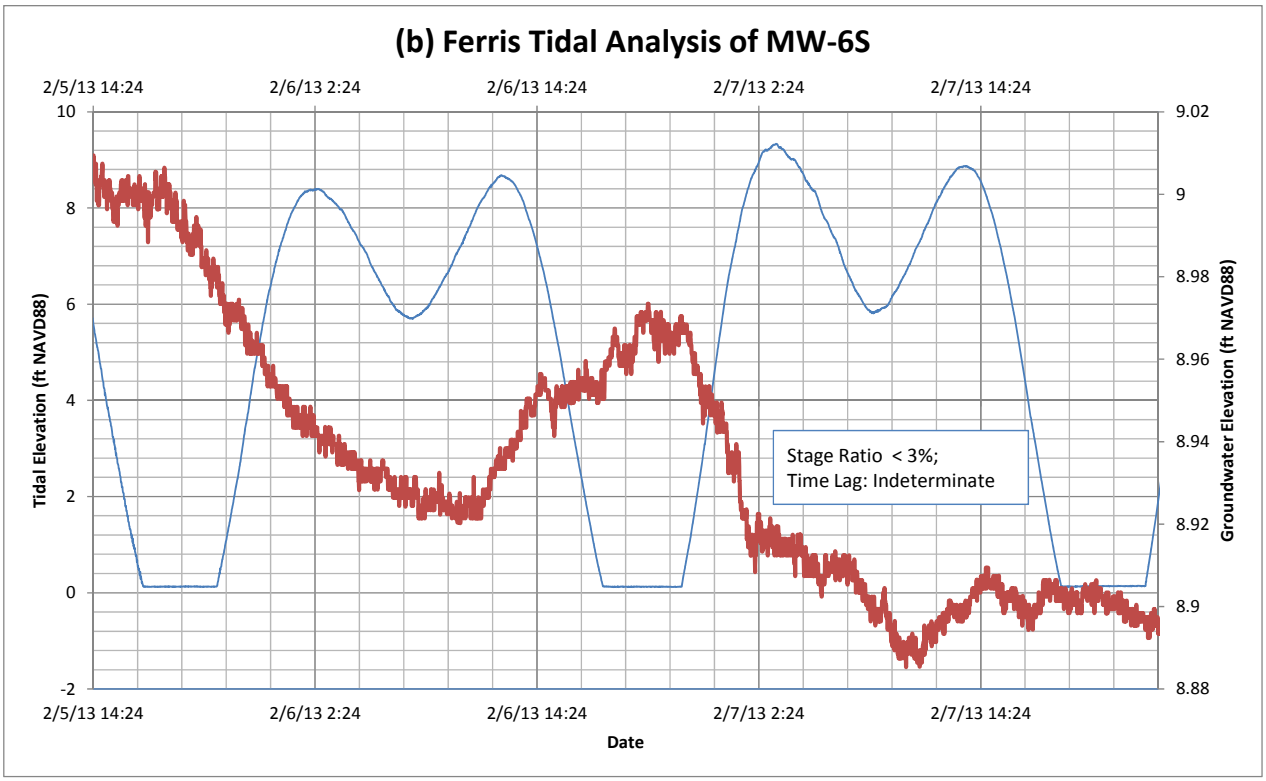
Ferris Tidal Analysis at MW-11S

Everett Smelter – Lowland Area

GeoEngineers

Figure F-21



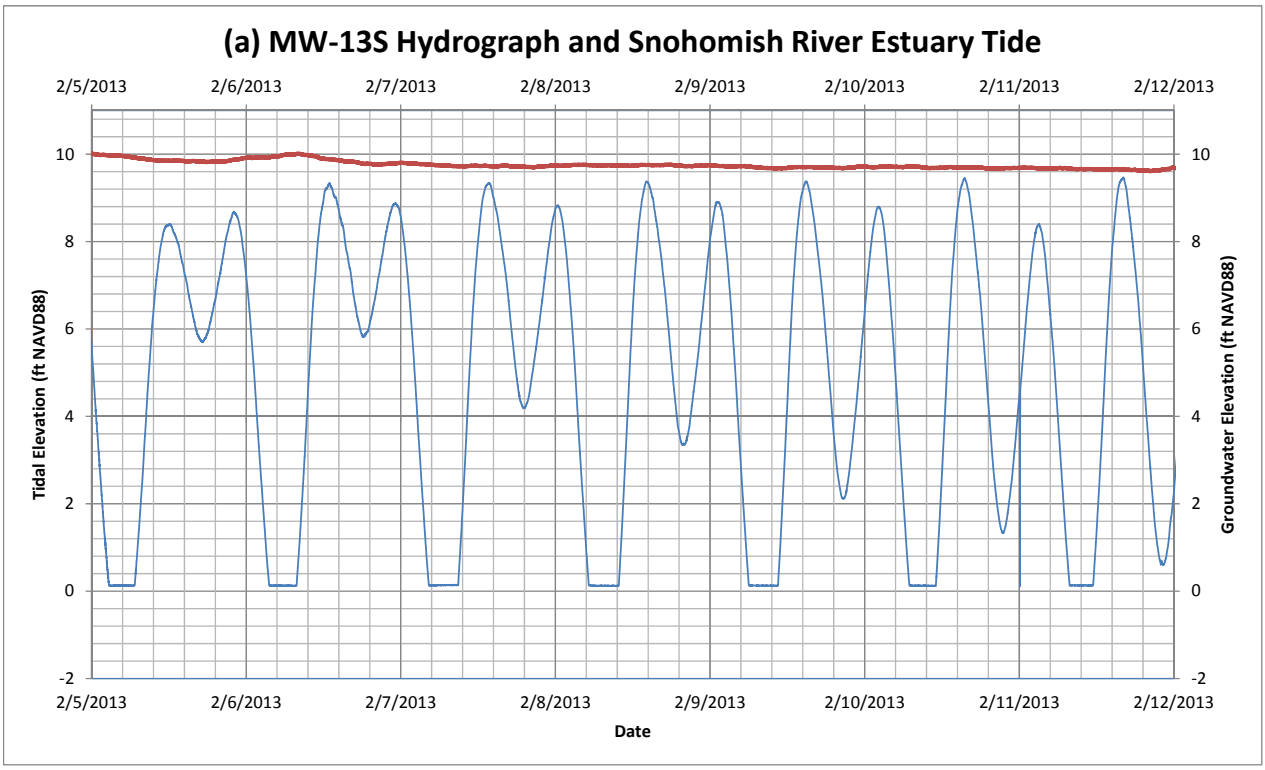


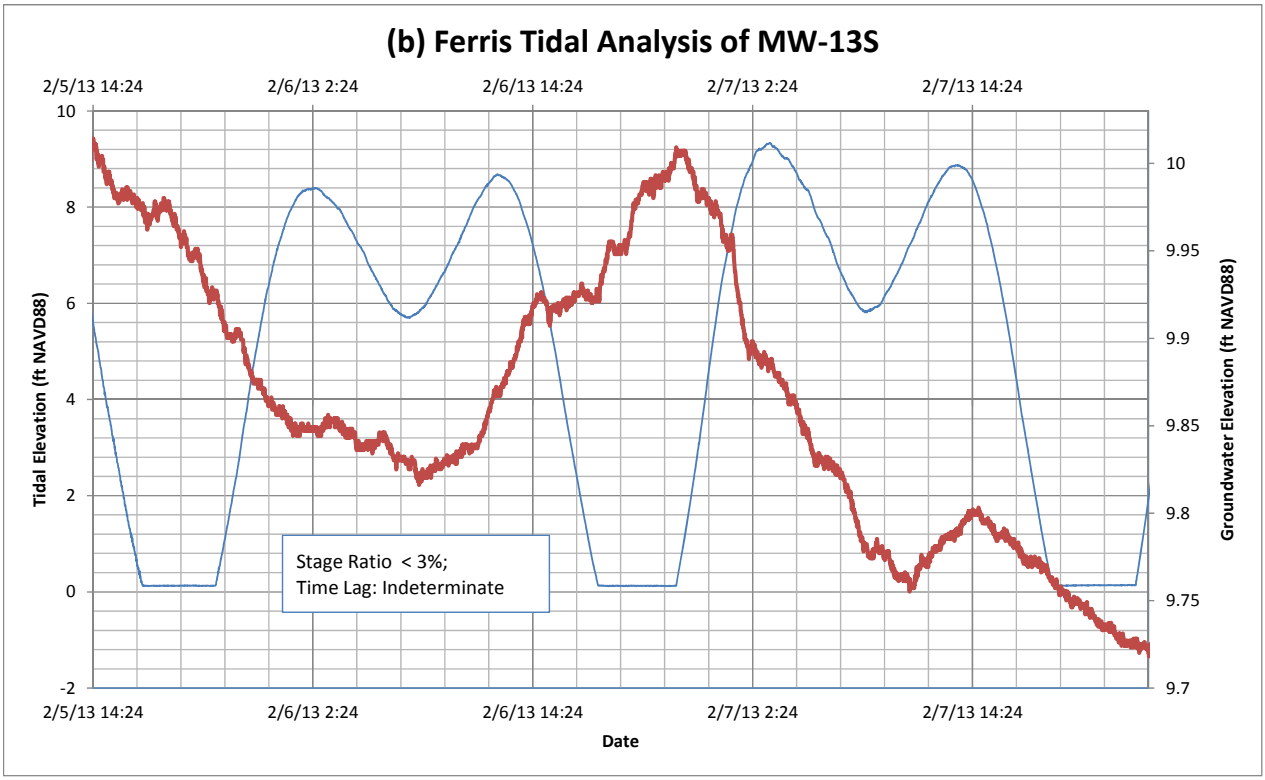
Notes:

1. Distance to Shoreline: 358 feet

Reference: Technical Analysis > Tidal Study > Everett Tidal match.xlsx.

Ferris Tidal Analysis at MW-06S	
Everett Smelter – Lowland Area	
GEOENGINEERS	Figure F-22



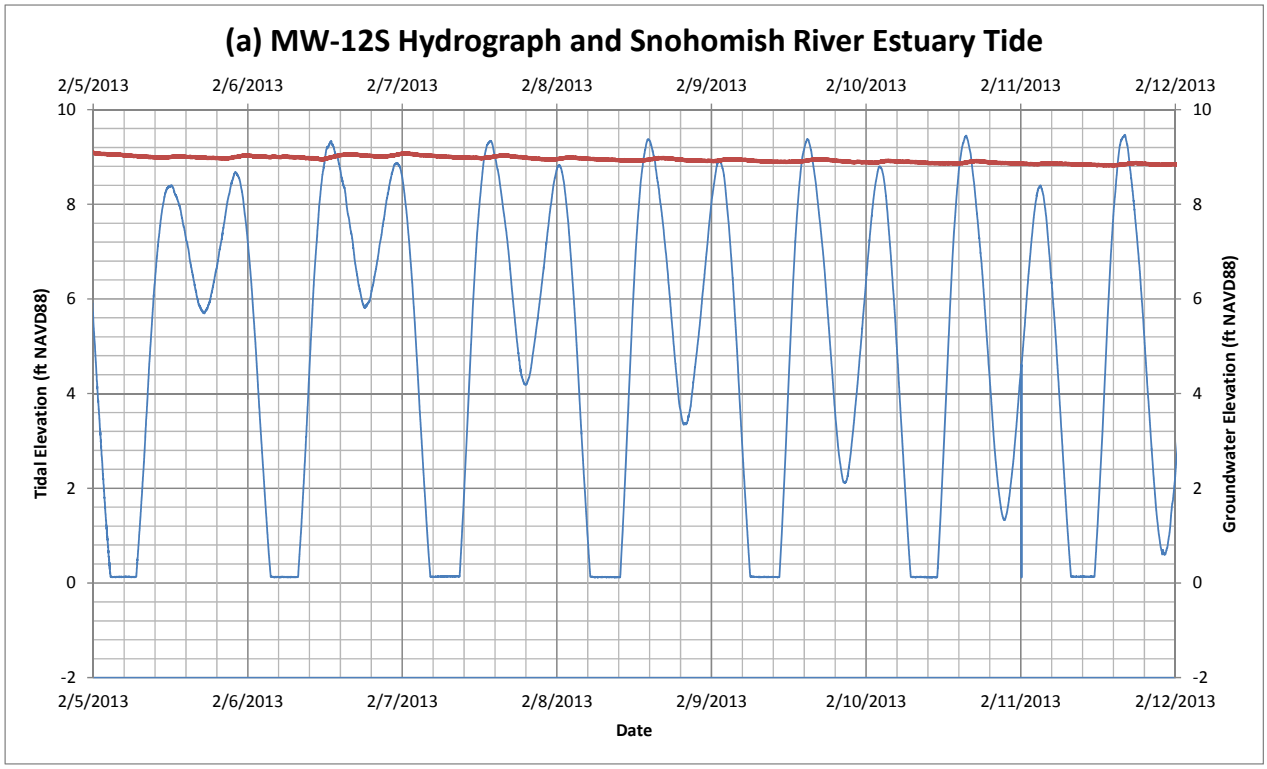


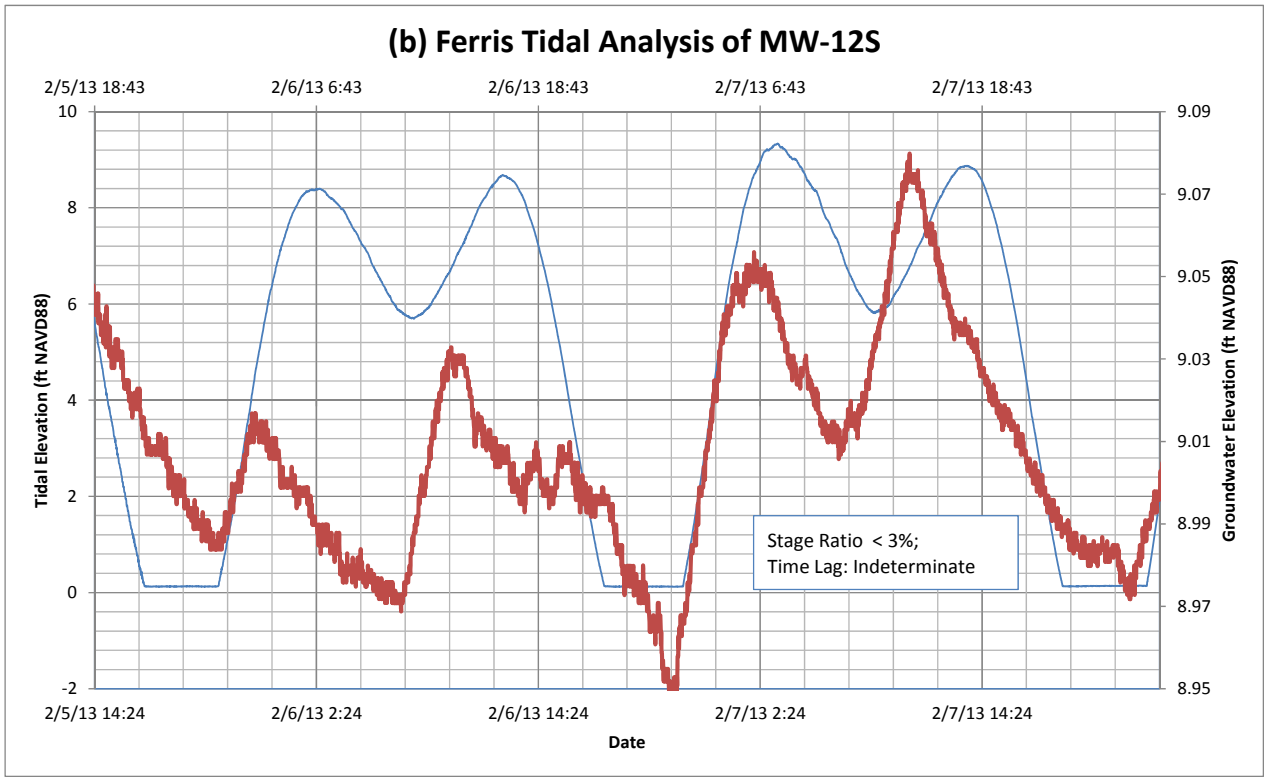
Notes:

1. Distance to Shoreline: 601 feet

Reference: Technical Analysis > Tidal Study > Everett Tidal match.xlsx.

Ferris Tidal Analysis at MW-13S	
Everett Smelter – Lowland Area	
GEOENGINEERS	Figure F-23



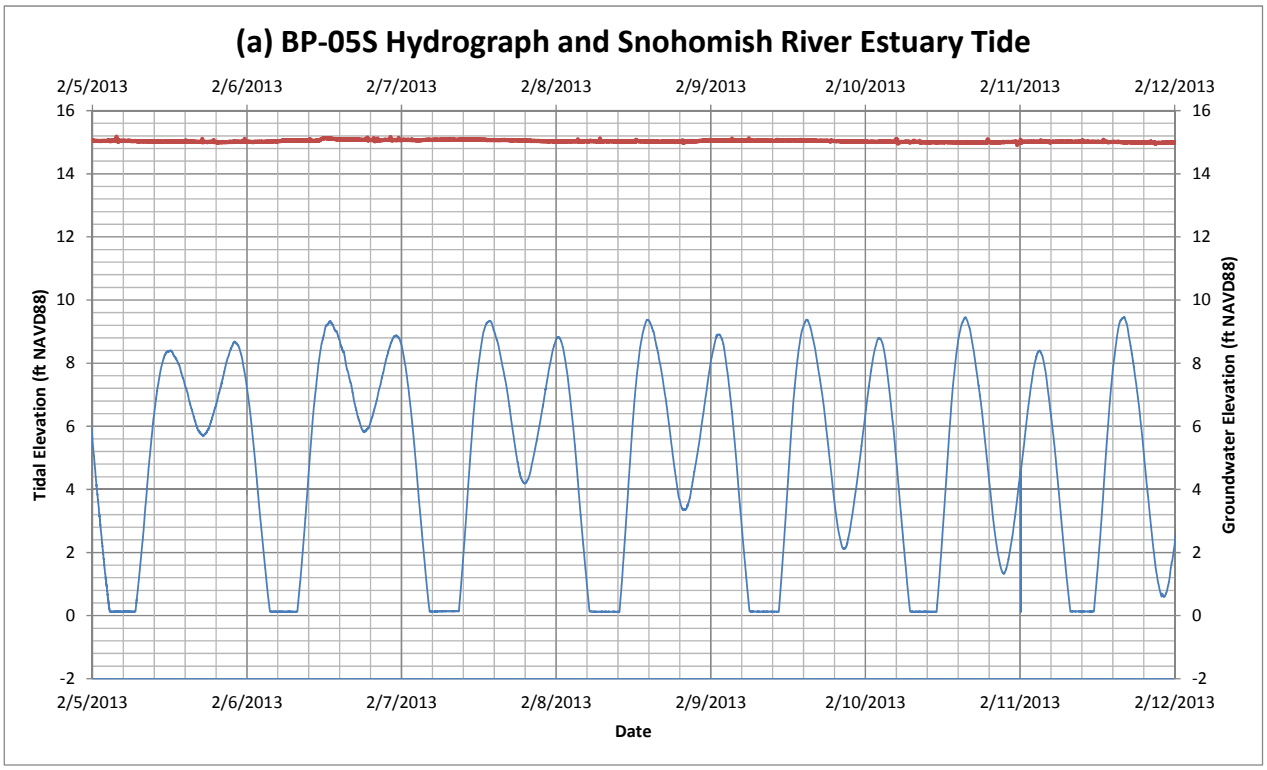


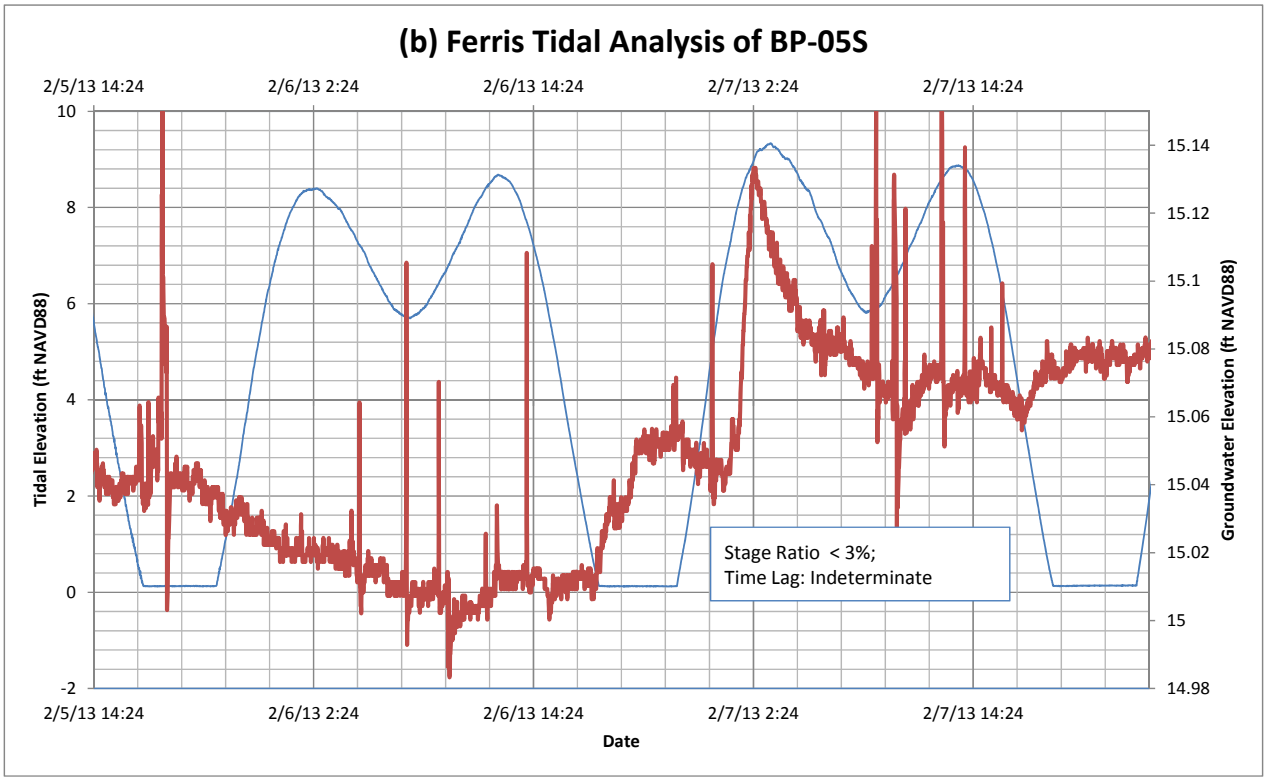
Notes:

1. Distance to Shoreline: 1,016 feet

Reference: Technical Analysis > Tidal Study > Everett Tidal match.xlsx.

Ferris Tidal Analysis at MW-12S	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-24



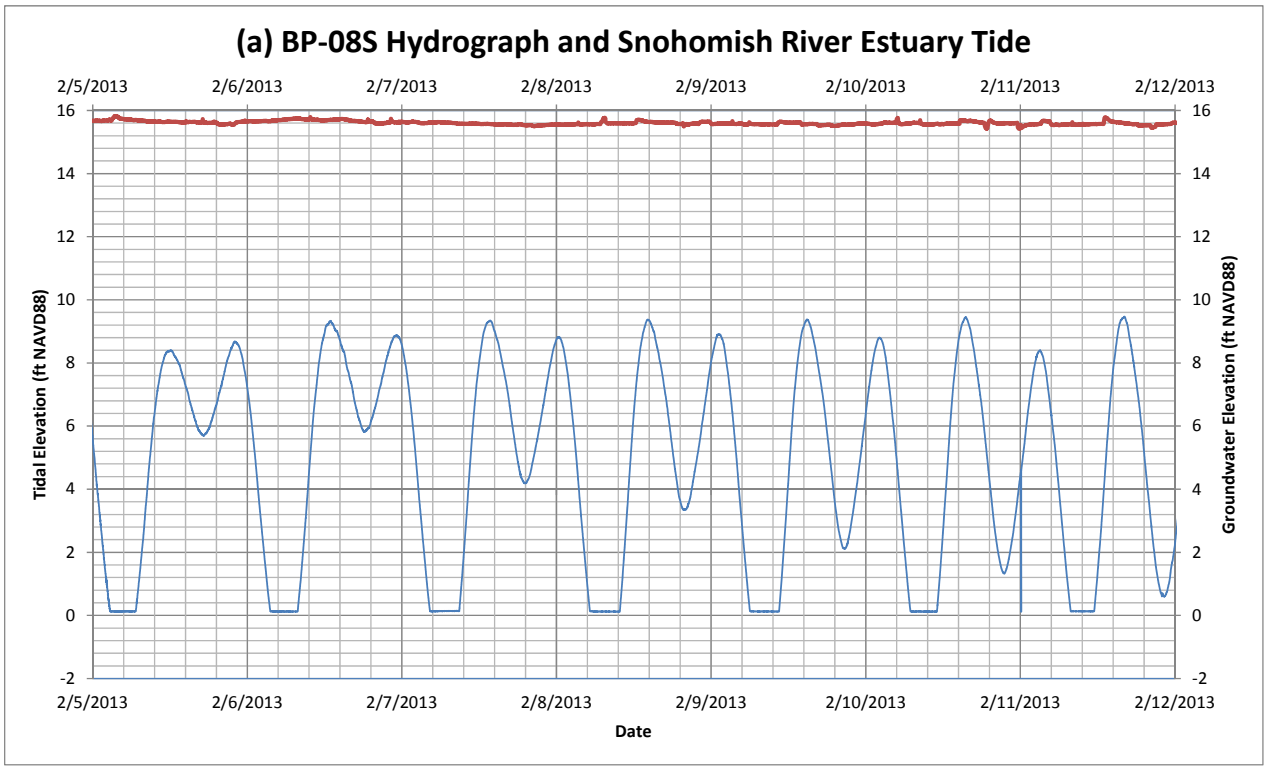


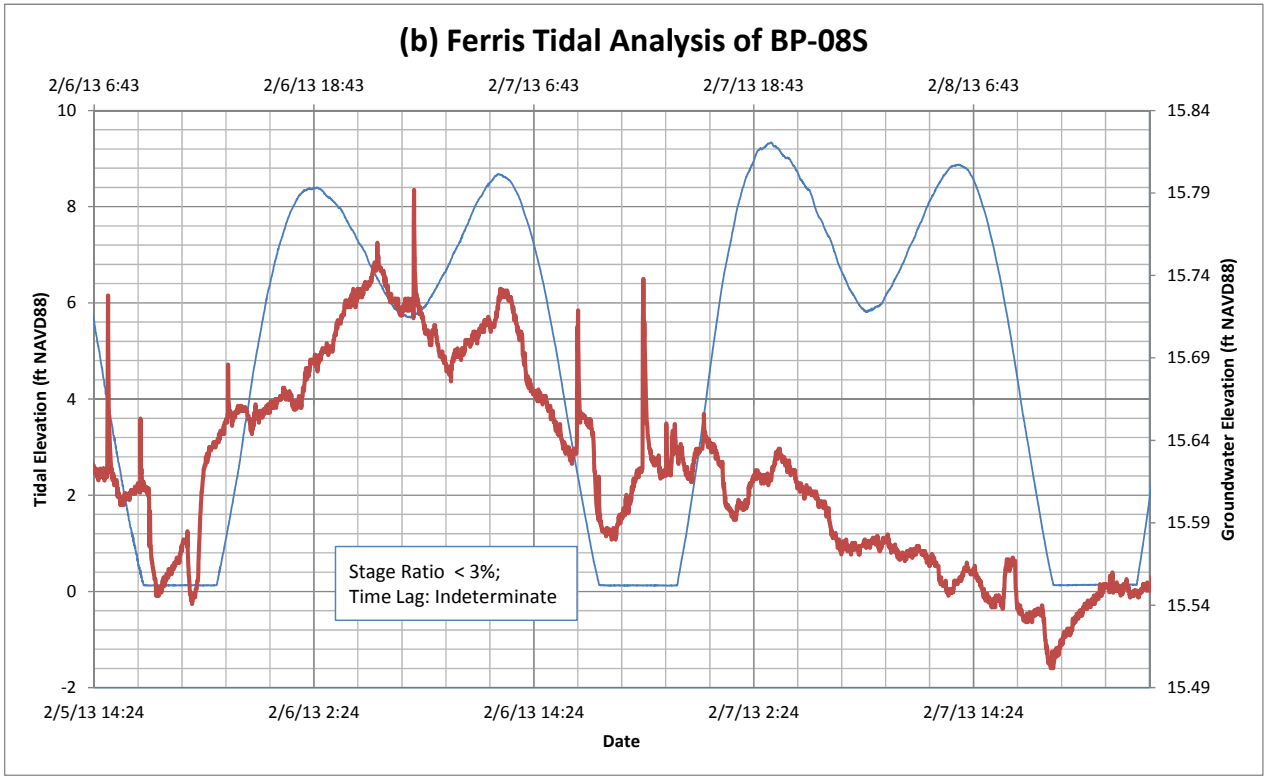
Notes:

1. Distance to Shoreline: 1,483 feet

Reference: Technical Analysis > Tidal Study > Everett Tidal match.xlsx.

Ferris Tidal Analysis at BP-05S	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-25





Notes:

1. Distance to Shoreline: 1,699 feet

Reference: Technical Analysis > Tidal Study > Everett Tidal match.xlsx.

Ferris Tidal Analysis at BP-08S	
Everett Smelter – Lowland Area	
GeoEngineers	Figure F-26

APPENDIX G
Report Limitations and Guidelines for Use

APPENDIX G
REPORT LIMITATIONS AND GUIDELINES FOR USE[2]

This appendix provides information to help you manage your risks with respect to the use of this report.

Environmental Services are Performed for Specific Purposes, Persons and Projects

GeoEngineers has performed this investigation of the Everett Smelter – Lowland Area in general accordance with the scope and limitations of our proposal, dated July 3, 2012. This report has been prepared for the exclusive use of Washington State Department of Ecology, and their authorized agents. This report is not intended for use by others, and the information contained herein is not applicable to other properties.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an ESA study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and property. No one except Washington State Department of Ecology should rely on this environmental report without first conferring with GeoEngineers. Use of this report is not recommended for any purpose or project except the one originally contemplated.

This Environmental Report is Based on a Unique Set of Project-Specific Factors

This report has been prepared for the Everett Smelter – Lowland Area. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, it is important not to rely on this report if it was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

If important changes are made to the project or property after the date of this report, we recommend that GeoEngineers be given the opportunity to review our interpretations and recommendations. Based on that review, we can provide written modifications or confirmation, as appropriate.

2 Developed based on material provided by ASFE, Professional Firms Practicing in the Geosciences; www.asfe.org.

Reliance Conditions for Third Parties

Our report was prepared for the exclusive use of our Client. No other party may rely on the product of our services unless we agree to such reliance in advance and in writing. This is to provide our firm with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the Client and generally accepted environmental practices in this area at the time this report was prepared.

Environmental Regulations are Always Evolving

Some substances may be present in the vicinity of the subject property in quantities or under conditions that may have led, or may lead, to contamination of the subject property, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substances, change or if more stringent environmental standards are developed in the future.

Conditions Can Change

This environmental report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by man-made events such as construction on or adjacent to the subject property, by new releases of hazardous substances, or by natural events such as floods, earthquakes, slope instability or groundwater fluctuations. Please contact GeoEngineers before applying this report for its intended purpose so that GeoEngineers may evaluate whether changed conditions affect the continued applicability of the report.

Most Environmental Findings are Professional Opinions

Our interpretations of site conditions are based on field observations and analytical data from widely spaced sampling locations at the subject property. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an informed opinion about subsurface conditions throughout the property. Actual subsurface conditions may differ, sometimes significantly, from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

Read These Provisions Closely

It is important to recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are less exact than other engineering and natural science disciplines. Without this understanding, there may be expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory “limitations” provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you need to know more about how these “Report Limitations and Guidelines for Use” apply to your project or property.