May 2011 Area Air and Surface Dust Monitoring Report

General Services Administration

Bannister Road

Kansas City, Jackson County, Missouri

January 13, 2012

Terracon Project No. 02107144

Prepared for:

General Services Administration

Kansas City, Missouri

Prepared by:

Terracon Consultants, Inc.

Lenexa, Kansas

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Terracon

General Services Administration
Heartland Region
1500 East Bannister Rd (6PME)
Kansas City, MO 64131

Attn: Mr. Kevin D. Phillips, Computer Integrated Facilities Manager
Phone: (816) 926-1140
Email: Kevin.phillips@gsa.gov

Re: May 2011 Area Air and Dust Monitoring Report
Bannister Federal Complex
1500 East Bannister Road
Kansas City, Missouri 64131
Terracon Project Number: 02107144

Dear Mr. Phillips:

Terracon Consultants, Inc. (Terracon) is pleased to submit this report summarizing area air monitoring and surface dust sampling for beryllium, uranium and yttrium at the General Services Administration (GSA) Federal Complex located at 1500 East Bannister Road, Kansas City, Missouri. Terracon personnel conducted the area monitoring and dust sampling on May 23, 24 and 25, 2011. Services were performed in general accordance with Terracon's proposal (Proposal Number P02100887) dated September 23, 2010 and with Tetra Tech EM Inc.'s Final Work Plan and Quality Assurance Project Plan for Site Investigation and Limited Removal Action Activities dated September 1, 2010 and the subsequent addendum dated November November 24, 2010.

We appreciate the opportunity to be of service and provide this information as part of the ongoing evaluation work at the Bannister Complex. If you have any questions regarding this report, please call us at 913-492-7777.

Sincerely,
Terracon Consultants, Inc.

Wil King, P.G.
Senior Project Geologist

Gary A. Ganson, CIH, CSP
Senior Consultant

for:
Cindy A. Baldwin, CIH, LIH
Senior Industrial Hygienist

Copies to: Addressee (2)

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MAY 2011 AREA AIR AND DUST MONITORING REPORT
BANNISTER FEDERAL COMPLEX
1500 EAST BANNISTER ROAD
KANSAS CITY, MISSOURI 64131

TERRACON PROJECT NUMBER: 02107144
January 13, 2012

1.0 PROJECT OVERVIEW

1.1 Introduction

This report presents the results of air and dust sampling conducted at the General Services Administration (GSA) Bannister Federal Complex (BFC) located at 1500 East Bannister Road, Kansas City, Missouri on May 23, 24 and 25, 2011. Terracon Consultants, Inc. (Terracon) conducted area air monitoring and surface dust sampling in accordance with the Tetra Tech EM, Inc. (TetraTech) developed Work Plan and Quality Assurance Project Plan for Site Investigation and limited Removal Action Activities (Work Plan/QAPP), dated September 1, 2010, addendum dated November 24, 2010, and addendum dated June 3, 2011.

This report relects comments discussed in the United States Environmental Protection Agency (EPA) Memorandum Letter dated October 18, 2011.

1.2 Site Location and History

The BFC is a 300-acre federal complex, bordered on the north by a wooded bluff and Legacy Park, on the east by the Blue River and Blue River Road, on the south by Bannister Road and Indian Creek, and on the west by Troost Avenue. The original BFC was established in 1942 to build aircraft engines for the U.S. Navy. After World War II, manufacture of aircraft engines continued on the west side of the BFC until the 1960s, while manufacture of non-nuclear components of nuclear weapons began at the east side of the BFC in 1949 as explained in the May 2008 Site Preliminary Assessment (PA) and Site Inspection Report performed by SCS Engineers (SCS). Currently, more than half of the BFC (generally the eastern portion of the BFC) is managed by the U.S. Department of Energy (DOE) as the Kansas City Plant (KCP), while the remaining portion of the BFC is managed by GSA and is used primarily as warehouse and office space.

1.3 Services

In accordance with the Work Plan/QAPP, Terracon's services are described below. Services were provided in accordance with Terracon's proposal (Proposal Number P02100887) dated September 30, 2010.

Air and surface sampling was conducted in Buildings 1 and 2 to assess for presence of beryllium, uranium and yttrium. The beryllium and uranium are two materials that have historically been used at the BFC. Air sampling was conducted primarily to evaluate potential health threats posed to building occupants by beryllium and uranium in air, but also to evaluate potential pathways for migration of airborne beryllium and uranium into GSA-controlled building space. Surface sampling was conducted to provide information on possible past releases of beryllium and uranium into GSA-controlled building spaces, evaluate potential pathways for migration of beryllium and uranium into the building environment, and evaluate the need for action to mitigate exposure to settled dust. Air and surface dust sample locations are depicted on Exhibit 1-4 provided in Appendix A.

Yttrium was included in the sample analysis to evaluate the source of beryllium detected in air and dust samples. Based on information provided by the National Nuclear Security Administration (NNSA) in their email to Kevin Santee with GSA dated November 10, 2010, NNSA has historically machined beryllium metal stock that has not contained yttrium, with the possible exception of trace levels. Therefore, it is NNSA's opinion that a high beryllium to yttrium ratio would indicate an anthropogenic source of beryllium.

Indoor and Ambient Air Sampling – Thirteen indoor and five outdoor ambient air sampling locations were selected for collection and laboratory analysis. The air sampling locations were selected to:

- Evaluate airborne concentrations of beryllium and uranium in indoor air and evaluate potential health threats posed to building occupants.
- Evaluate potential migration pathways created by air exchange through perforations in the firewall separating GSA- and DOE-controlled spaces and by DOE-employees entering GSA-managed property.
- Evaluate concentrations of beryllium and uranium in outdoor air entering rooftop air intakes and evaluate the potential migration pathway created by possible re-entrainment of exhausted air from DOE-controlled ventilation systems into the outdoor air intakes of GSA ventilation systems.
- Evaluate background concentrations of beryllium and uranium in outdoor air north and west of the GSA-controlled Buildings 1 and 2.

Samples were collected during a typical workday (a non-holiday weekday) over an approximately 10-hour period starting at approximately 0700 hours and ending at 1700 hours in order to coincide with periods of typical worker activities. Samples were collected as described in the QAPP, Section 4.3 – Sampling Procedures and Requirements, and were analyzed for beryllium and uranium.

Surface Dust Sampling – Eight bulk dust sampling locations were selected for collection and laboratory analysis. The surface dust sampling locations were selected to:

- Assess for presence of beryllium and uranium in settled dust on surfaces near perforations in the firewall separating GSA- and DOE-controlled spaces that could indicate historical releases of airborne beryllium and uranium through the perforations.

- Assess for presence of beryllium and uranium in settled dust on ventilation system surfaces associated with Fan House #3 on Building 2, which formerly received return air from DOE-controlled portions of Building 2.
- Evaluate if actions are necessary to mitigate exposure to settled dust.

1.4 Scope and Report Limitations

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Terracon makes no other warranties, either express or implied, regarding the findings, conclusions or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report.

These services were performed in accordance with the scope of work as agreed upon by GSA , our client, and as reflected in our proposal.

The level of effort and associated tasks completed for this assessment were limited to the scope of services outlined in our September 30, 2010 proposal (Proposal Number P02100887) and in accordance with Contract GS-10F-0256K. Terracon did not attempt to identify every potential exposure or hazard present in the client's operation.

The results, findings, conclusions, and recommendations expressed in this report are based on information reported to Terracon by the client. Many factors such as workload, variations in work material composition, work processes, and weather conditions can affect air monitoring results. The information contained in this report should not be relied upon to represent conditions that existed previously or at a later date. Terracon does not warrant the services of regulatory agencies, laboratories, or other third parties supplying information, which may have been used in the preparation of this report. No warranty, express or implied is made.

This report is prepared for the exclusive use of our client for the specific application to the project discussed and has been prepared in accordance with generally accepted industrial hygiene practices. In the event any changes in nature or location of processes, materials, or other conditions as outlined in this report are observed, the conclusions contained in this report cannot be considered valid unless the changes are reviewed and the conclusions of this report are modified or verified in writing by the industrial hygienist.

2.0 AIR AND DUST MONITORING

2.1 Air Sampling

On May 23 and 24, 2011, Terracon environmental personnel conducted air sampling at the GSA Bannister Federal Complex. Air sampling was performed consistent with procedures described in National Institute for Occupational Safety and Health (NIOSH) Method 7300 – Elements by ICP and EPA Environmental Response Team (ERT) Standard Operating Procedure #2119 – Air Sampling for Metals. Area samples were collected during a typical workday (a non-holiday weekday) over an approximately 10-hour period starting at approximately 0700 hours and ending at 1700 hours. The sampling pumps were operated at approximately 7 liters per minute (Lpm) to allow for collection of approximately 4,000+ liters of air.

Sampling equipment consisted of SKC Leland Legacy pumps and Gast Hi-Voluem Air Sampling Pumps equipped with Tygon® tubing attached to 37-millimeter (mm) cassettes with 0.8-micrometer (µm) mixed cellulose ester (MCE) filters (sampling media). Pumps were placed approximate to predetermined locations, as described in the Work Plan/QAPP. Using aluminum tripods, sampling media was held at an approximate height of 4.5 to 5 feet above grade, to approximate the breathing zone. The pumps were pre- and post-calibrated using a TSI model 4146 primary calibrator that was calibrated to manufacturer specifications on November 17, 2010.

Terracon personnel documented all pertinent information on the field logs, including sample locations, start and stop times and flow rates. Upon completion of the air sampling, the sampling media was detached from the Tygon® tubing, sealed, and submitted to ALS Environmental, Cincinnati, Ohio, under standard chain-of-custody (COC) protocol, for laboratory analysis.

2.2 Dust Sampling

Terracon environmental personnel returned to the site on May 25, 2011 to collected surface dust samples. The surface dust samples were collected with Mine Safety Appliances (MSA) Escort-Elf air sampling pumps equipped with 37-mm, pre-weighed cassettes with 5.0-µm polyvinyl chloride (PVC) filters. The sampling technique, as defined below, was selected to facilitate collection of dust from crevices, irregular surfaces, and hard-to-reach areas that would be difficult to sample using other techniques.

The MSA pumps operate with an electronic laminar flow sensor that provides constant flow control, with +/- 2.5% regulation of flow rate (from 1 to 3 Lpm) and automatic compensation for changes in battery voltage, temperature, altitude, and sample load. Each sampling pump was pre- and post- calibrated using the TSI model 4146 primary calibrator that was calibrated to manufacturer specifications on November 17, 2010.

Sampling procedures as described in ASTM International (ASTM) D7144 (Standard Practice for Collection of Surface Dust by Micro-vacuum Sampling for Subsequent Metals Determination) were followed to collect the bulk surface dust samples. Terracon environmental personnel measured each area by placing a template of 10 x 10 centimeters (cm) and proceeded to vacuum surface dust onto the PVC filter media. The bulk samples were analyzed by the laboratory to provide a result on a mass concentration basis (i.e., mass of metal per unit mass of sample collected), as opposed to a mass of metal per unit of surface area. Upon completion of sampling, the filters were sealed, and submitted to ALS, under standard COC protocol, for laboratory analysis.

Photographic documentation of air and dust sampling activities are provided in Appendix B. Field documentation is provided in Appendix C.

As required by the Work Plan/QAPP, blank sample media and duplicate samples (where appropriate) were collected and submitted to the laboratory for laboratory analysis. The results for the blank samples and duplicates are provided in Appendix D, Tables 1 and 2.

3.0 ANALYTICAL METHODS

3.1 Beryllium, Uranium and Yttrium Analysis

Air samples were submitted for laboratory analysis of beryllium and uranium by Modified NIOSH Method 7300. Dust samples were submitted for laboratory analysis of beryllium and uranium by EPA Method 6010B. Yttrium was additionally analyzed in an attempt to evaluate the source of beryllium detected in air and dust samples.

For beryllium concentrations, there is correlation with yttrium concentrations showing the presence of background concentrations from naturally occurring beryllium. Studies by the DOE (Worker Environment Beryllium Characterization Study, Prepared by National Security Technologies, LLC., Environment, Safety, Health & Quality P.O. Box 98521 Las Vegas, NV 89193-8521 December 2009) document the concentration of naturally occurring beryllium and yttrium.

Building dust typically contains soil from the outside environment; therefore, detections of trace metals that naturally occur in soil (such as Be and Y) are expected to be present in samples of interior building dust. The Be and Y concentrations detected in the Building 1 and 2 bulk dust samples as identified in Table 1 below, are consistent with Be and Y concentrations typically found in Missouri soils.

Table 1
Be and Y Concentrations in Building 1 and 2 Bulk Dust Samples and Missouri Soils.

Sample Location/Study Description	Be [2]	Y [2]
Bulk dust samples collected from GSA Buildings 1 and 2 in May 2011	<0.32[3] – 0.9	ND[3] - 6.1
Missouri soils [1]	<1.0 – 2.5	<10 – 70

Notes:
[1] Typical concentrations in Missouri soils as reported in Elements In North American Soils by James Dragun, Ph.D. and Andrew Chiasson. Hazardous Materials Control Resources Institute.
[2] Concentrations are in milligrams per kilogram
[3] ND = none detected

Based on information provided by the NNSA in their email, dated November 10, 2010, to Kevin Santee with GSA, NNSA has historically machined beryllium metal stock that has not contained yttrium, with the possible exception of trace levels. Therefore, it is NNSA's opinion that a high beryllium to yttrium ratio would indicate an anthropogenic source of beryllium. However, due to the limited beryllium detections in both air and dust samples collected, beryllium to yttrium ratios could not be developed. Analytical laboratory results are provided in Appendix D, Table 2. Laboratory reports are provided in Appendix E.

4.0 ANALYTICAL RESULTS

4.1 Analytical Screening Limits

The EPA Regional Screening Levels (RSLs) for Industrial Use were used as comparison values for the air and dust samples collected. The lowest (most conservative) Industrial RSLs were utilized for comparison to the sample concentrations. Yttrium analysis was performed for source evaluation, not health risk analysis. Therefore, yttrium is not being evaluated for potential health risks and comparison to RSLs has not been performed. EPA RSLs utilized are provided on the tables presented in Appendix D.

The EPA RSLs were developed using risk assessment guidance from the EPA Superfund program. They are risk-based concentrations derived from standardized equations combining exposure information assumptions with EPA toxicity data. RSLs are use for site screening and as initial cleanup goals, if applicable and to help identify areas, contaminants, and conditions that require further federal attention at a particular site.

Project-required reporting limits for total uranium in air and dust samples were selected during development of the Work Plan/QAPP based on the RSLs for industrial air and soil (reporting levels below RSLs). However, the currently published RSL tables do not include a carcinogenic (cancer causing) screening level for uranium. Thus, comparing analytical results to the RSLs alone would not provide a screening of cancer risk associated with uranium's radioactivity. EPA provides risk-based screening levels for radionuclides in their publication, *Radionuclide Toxicity*

and Preliminary Remediation Goals for Superfund tables (EPA 2007) and in risk assessment guidance applicable to radionuclides (EPA 2000, 2001). This information was used by GSA to develop total uranium concentrations (Site Specific RSLs – SRSLs) in air and dust, which are based on the calculation of risk associated with individual uranium isotopes (U-234, U-235, and U-238 – radiological activity) that correspond to an acceptable cancer risk range of 1×10^{-6} to 1×10^{-4} (EPA 1990). Site specific screening levels were developed to address uranium's carcinogenic risk in the *Addendum to the Final Work Plan and Quality Assurance Project Plan for Site Investigation and Limited Removal Action Activities*, dated June 3, 2011. SRSLs that correspond to GSA established acceptable cancer risk range are provided on Tables 1 and 2, Appendix D.

4.1.1 Air Sampling Results

The May 2011 air monitoring results do not indicate concentrations of beryllium or total uranium at concentrations above the laboratory reporting limits when analyzed by NIOSH method 7300 modified and SW6010B. The laboratory reporting limits did not exceed the EPA Industrial RSLs. Laboratory results are provided in Appendix D, Table 1.

The laboratory reporting limits for beryllium did not exceed the carcinogenic or non-carcinogenic RSLs for industrial air. The laboratory reporting limits for uranium did not exceed the non-carcinogenic RSL for industrial air.

In addition, the laboratory reporting limits for uranium, are within the EPA's target cancer risk range of 1×10^{-6} to 1×10^{-4}, which are based on uranium's radiological activity. The laboratory results and comparison to screening levels are provided in Appendix D, Table 1.

4.1.2 Surface Dust Sampling Results

The May 2011 surface dust monitoring results do not indicate concentrations of uranium at concentrations above the laboratory reporting limits. Beryllium was detected in the dust sample collected at location B1F1-F25 at a concentration of 0.9 mg/kg. The identified beryllium concentration does not exceed the EPA carcinogenic and non-carcinogenic Industrial RSLs of 6,900 mg/kg and 2,000 mg/kg, respectively.

The laboratory reporting limits for beryllium do not exceed its industrial soil RSL The laboratory reporting limits for uranium do not exceed its site specific screening level, which is based on non-cancer health effects.

In addition, the laboratory reporting limits for uranium, are within the EPA's target cancer risk range of 1×10^{-6} to 1×10^{-4}, which are based on uranium's radiological activity. The laboratory results and comparison to screening levels are provided in Appendix D, Table 2.

5.0 QUALITY ASSURANCE

Following the QAPP requirements for data validation during sampling, Terracon conducted oversight of all sampling procedures. All calibration equipment used to set pump air flows were current to within one year of being laboratory calibrated. Calibration equipment documentation is included in Appendix C.

5.1 Duplicate Results

5.1.1 Air Sample Duplicate Results

Terracon collected two duplicate air samples at air sampling points B1SB-Q25 and B1SB-R18. The corresponding duplicate samples are identified as Dup 1 and Dup 2, respectively. The reported laboratory values were below the detection limits and therefore the relative percent difference (RPD) values for beryllium, uranium, and yttrium could not be calculated.

5.1.2 Sample Media Blank Results

Terracon submitted three media blank samples for laboratory analysis of beryllium, uranium, and yttrium. Laboratory analysis of media blank samples did not indicate beryllium, uranium, and yttrium at concentrations above the laboratory reporting limits. Tables 1 and 2 in Appendix D provide a summary of media blank laboratory analysis data.

5.1.3 Laboratory Controls

Laboratory data were reported within acceptable ranges for relevant quality control parameters (e.g. laboratory control samples, matrix spikes, etc.) and no results were rejected through the ALS's quality control reviews. Internal laboratory QA/QC packages are provided with the Appendix E analytical reports.

6.0 CONCLUSIONS

6.1 Conclusion

- The May 2011 air monitoring results do not indicate concentrations of beryllium or total uranium at concentrations above the laboratory reporting limits when analyzed by NIOSH method 7300 and SW6010B.

  The laboratory reporting limits for beryllium did not exceed the carcinogenic or non-carcinogenic RSLs for industrial air. The laboratory reporting limits for uranium did not exceed the non-carcinogenic site specific screening level.

In addition, the laboratory reporting limits for uranium, are within the EPA's target cancer risk range of 1 x 10^{-6} to 1 x 10^{-4}, which are based on uranium's radiological activity.

- The May 2011 surface dust monitoring results do not indicate concentrations of uranium at concentrations above the laboratory reporting limits. Beryllium was detected in the dust sample collected at location B1F1-F25 at a concentration of 0.9 mg/kg. The identified beryllium concentration does not exceed the EPA carcinogenic and non-carcinogenic Industrial RSLs of 6,900 mg/kg and 2,000 mg/kg, respectively.

  The laboratory reporting limits for beryllium do not exceed its industrial soil RSL. The laboratory reporting limits for uranium do not exceed its industrial air RSL, which is based on non-cancer health effects.

  In addition, the laboratory reporting limits for uranium, are within the EPA's target cancer risk range of 1 x 10^{-6} to 1 x 10^{-4}, which are based on uranium's radiological activity.

- As previously described, building dust typically contains soil from the outside environment, and detections of naturally occurring trace metals such as Be and Y were considered in interpretation of the results. The Be and Y concentrations detected in the Building 1 and 2 bulk dust samples as identified in Table 1, were consistent with Be and Y concentrations typically found in Missouri soils.

- Project-required reporting limits for total uranium in air and dust samples were selected during development of the Work Plan/QAPP based on the RSLs for industrial air and soil (reporting levels below RSLs). However, the currently published RSL tables do not include a carcinogenic (cancer causing) screening level for uranium. Thus, comparing analytical results to the RSLs alone does not provide a screening of cancer risk associated with uranium's radioactivity. EPA provides risk-based screening levels for radionuclides in their publication, *Radionuclide Toxicity and Preliminary Remediation Goals for Superfund* tables (EPA 2007) and in risk assessment guidance applicable to radionuclides (EPA 2000, 2001). This information was used by GSA to develop total uranium concentrations (Site Specific RSLs – SRSLs) in air and dust, which are based on the calculation of risk associated with individual uranium isotopes (U-234, U-235, and U-238 – radiological activity) that correspond to an acceptable cancer risk range of 1 x 10^{-6} to 1 x 10^{-4} (EPA 1990).

- Uranium was not detected (excluding the qualitative isotopic uranium analysis) in the air or dust samples collected during the May 2011 sampling event. Uranium detection limits for May 2011 air and dust samples were below their respective non-cancer screening levels provided in EPA's RSL tables. Comparison of the same detection limits for the May 2011 air and dust samples show that, the typical detection limit for total uranium in dust (approximately 57 milligrams per kilogram [mg/kg]) was less than total uranium concentrations corresponding to an acceptable cancer risk range and the typical detection

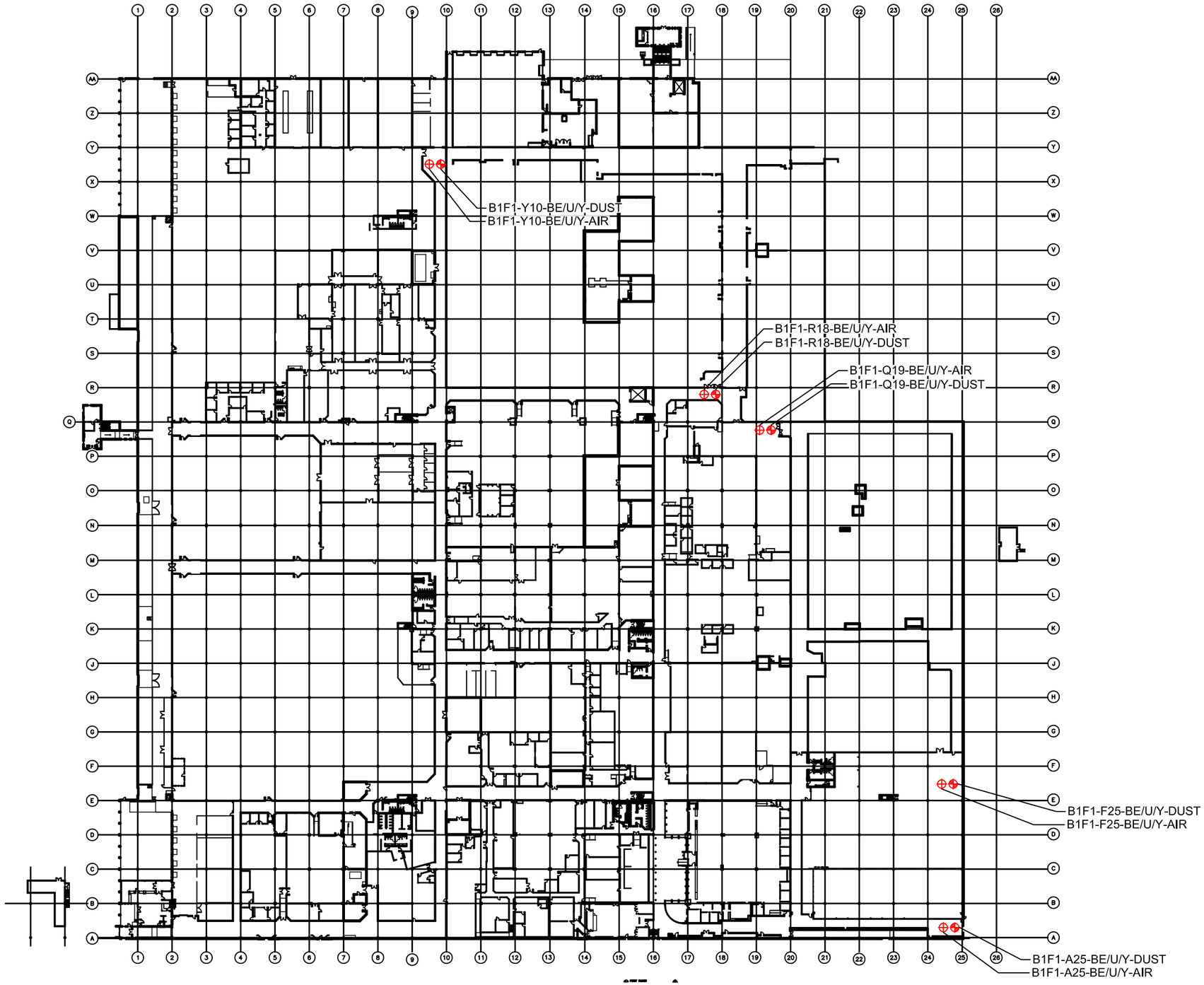
limit for total uranium in air (approximately 7.3 x 10-5 milligrams per cubic meter [mg/m3]) was within the concentration range corresponding to an acceptable cancer risk range.

- Based on data collected during the May 2011 air and surface dust monitoring event, the levels or beryllium and uranium in air and surface dust do not appear to pose unacceptable health risks (cancer risks greater than 1 $x10^{-4}$ or non-cancer hazard index greater than 1) to current building occupants.

- Contaminant migrations may exist through perforations in the firewall separating GSA and DOE controlled spaces and outdoor intakes of GSA ventilation systems. However, based on samples collected during the May 2011 air and surface dust monitoring event, it does not appear that contaminants, if present in the DOE controlled spaces, are migrating to the GSA controlled spaces at concentrations above levels that would pose unacceptable health risks (cancer risks greater than 1 $x10^{-4}$ or non-cancer hazard index greater than 1).

APPENDIX A

Exhibits



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- BERYLLIUM/URANIUM BULK DUST SAMPLE LOCATION
- BERYLLIUM/URANIUM INDOOR AIR SAMPLE LOCATION

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Date:	06/30/11

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Consulting Engineers and Scientists
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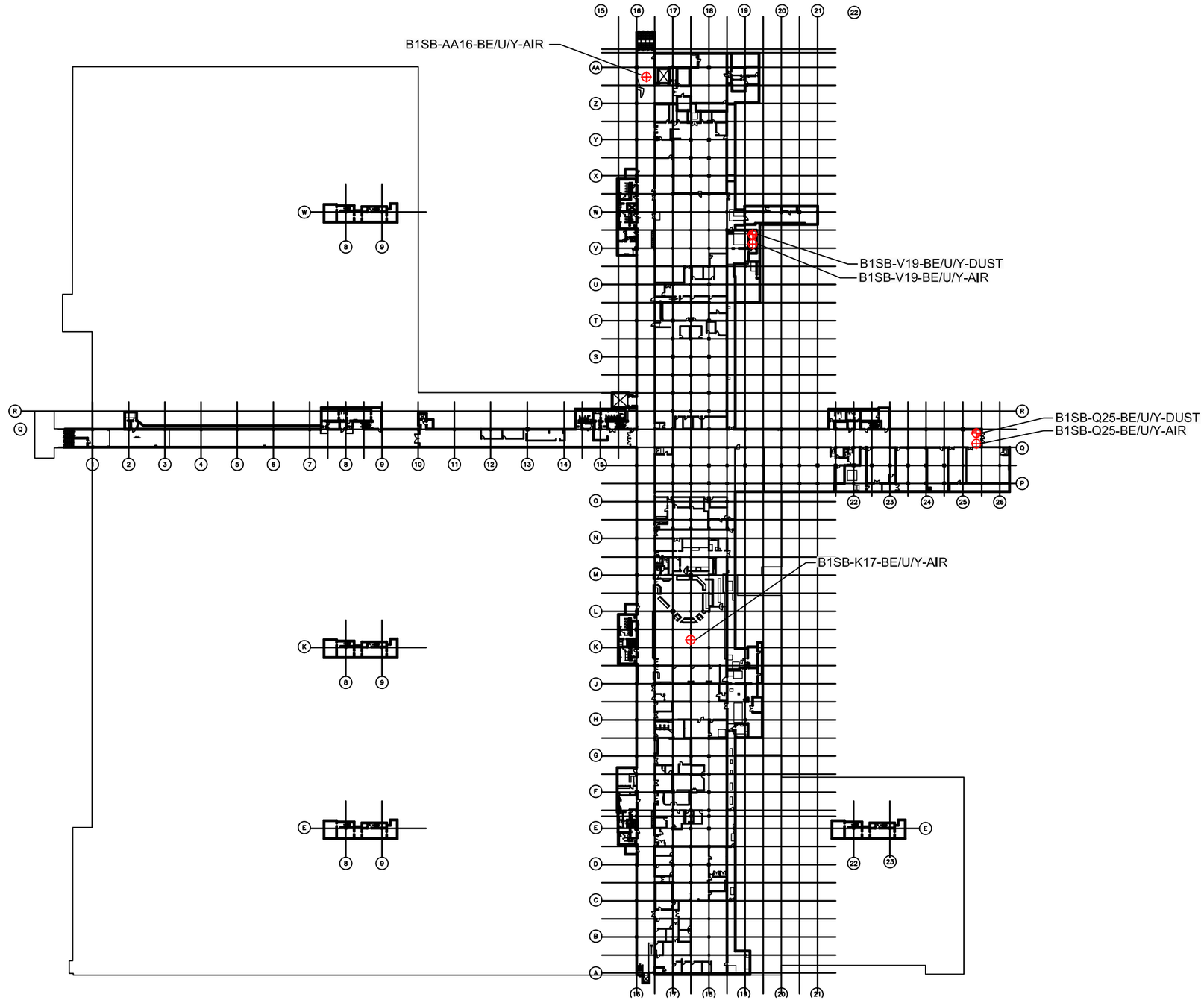
EXHIBIT 1 - SAMPLE LOCATION DIAGRAM

BUILDING 1 - FLOOR 1

3RD QUARTER BE/U/Y AIR & DUST SAMPLING
1500 E. BANNISTER ROAD
KANSAS CITY, MISSOURI

Exhibit # 1



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LEGEND

- BERYLLIUM/URANIUM BULK DUST SAMPLE LOCATION
- BERYLLIUM/URANIUM INDOOR AIR SAMPLE LOCATION

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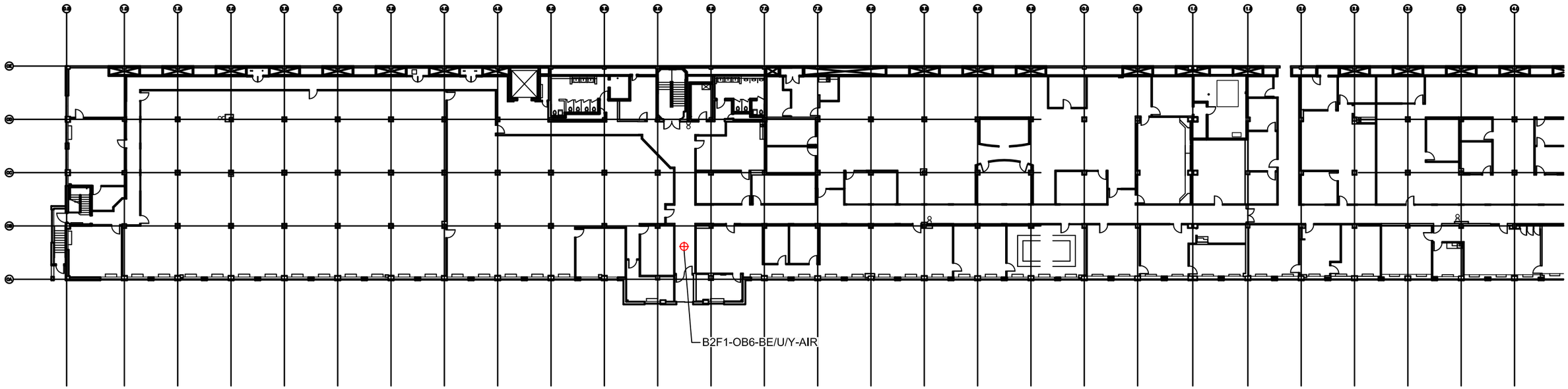
EXHIBIT 2 - SAMPLE LOCATION DIAGRAM

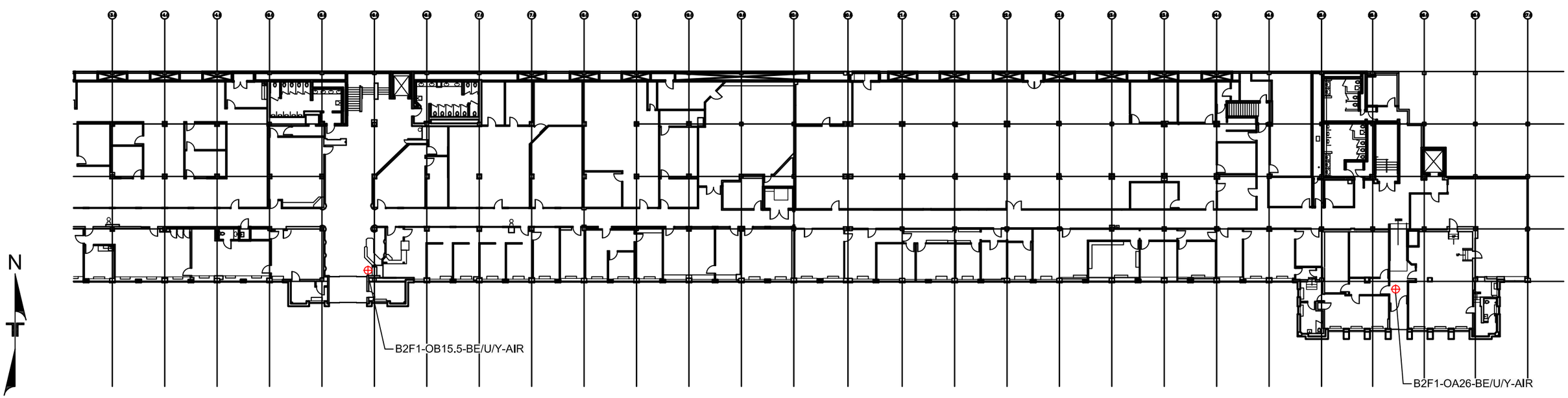
BUILDING 1 SUB-BASEMENT

3RD QUARTER BE/U/Y AIR & DUST SAMPLING
1500 E. BANNISTER ROAD
KANSAS CITY, MISSOURI

Exhibit #

2





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- BERYLLIUM/URANIUM BULK DUST SAMPLE LOCATION
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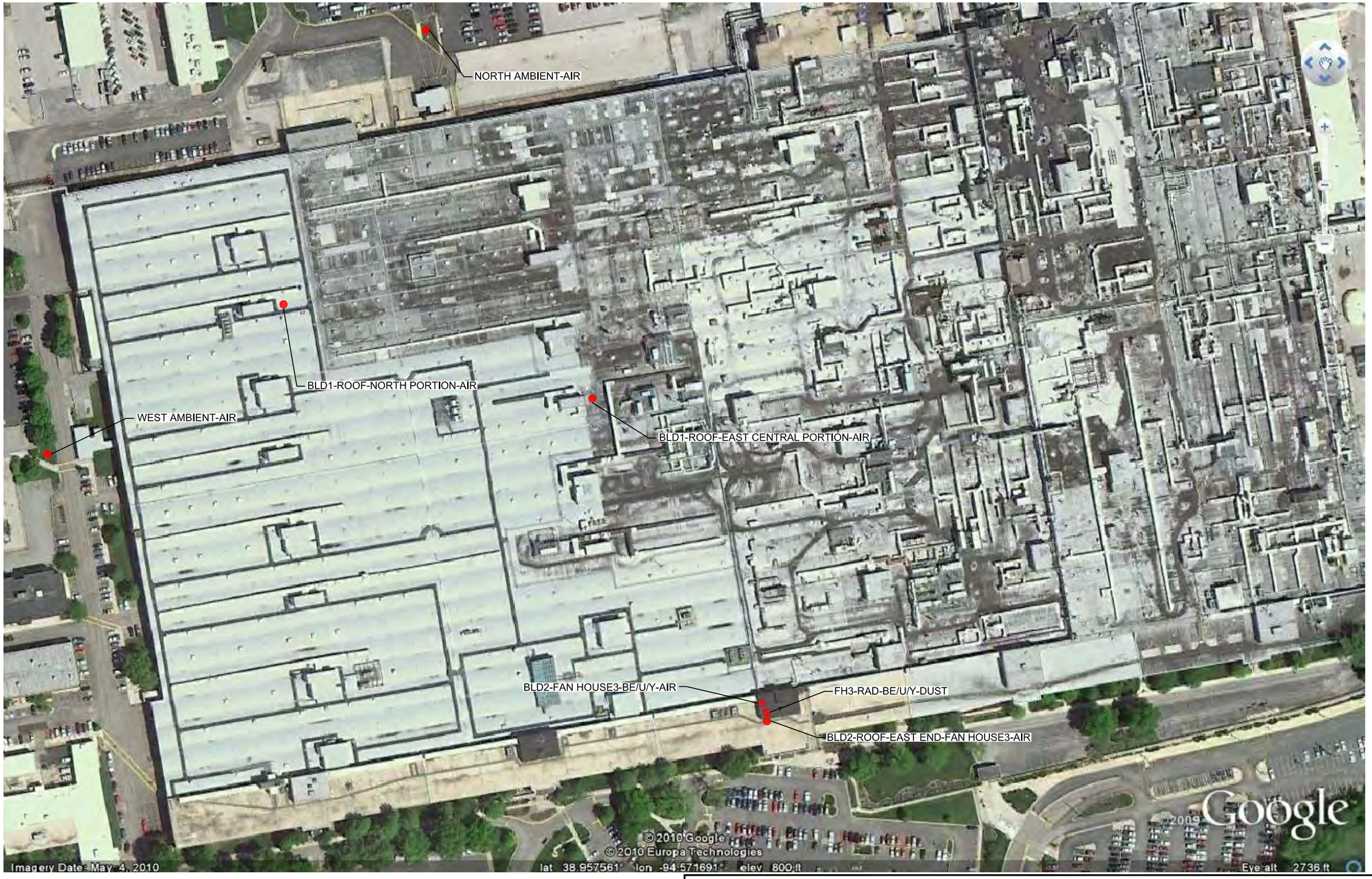
EXHIBIT 3 - SAMPLE LOCATION DIAGRAM

BUILDING 2 - FLOOR 1

3RD QUARTER BE/U/Y AIR & DUST SAMPLING
1500 E. BANNISTER ROAD
KANSAS CITY, MISSOURI

Exhibit # 3



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- BERYLLIUM/URANIUM INDOOR AIR SAMPLE LOCATION
- BERYLLIUM/URANIUM OUTDOOR AIR SAMPLE LOCATION
- BERYLLIUM/URANIUM BULK DUST SAMPLE LOCATION

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EXHIBIT 4 - SAMPLE LOCATION DIAGRAM

BUILDING 1-2 - ROOF

3RD QUARTER BE/U/Y AIR & DUST SAMPLING
1500 E. BANNISTER ROAD
KANSAS CITY, MISSOURI

Exhibit # 4

APPENDIX B

Photographic Documentation

PHOTO #1 Building 1 – Floor 1 – Hallway Near FEMA Warehouse - Near Fire Doors to DOE-Controlled Area (R18) Sample No. B1F1-R18-Be/U/Y-Air and Duplicate Sample Location	
PHOTO #2 Building 1 – Floor 1 – Hallway Near Sliding Fire Door to DOE-Controlled Area (Y10) B1F1-Y10-Be/U/Y-Air	
PHOTO #3 Building 1 – Floor 1 – East End of Carpet Hallway Near Fire Doors to DOE-Controlled Area (A25) Sample No. B1F1-A25-Be/U/Y-Air	

PHOTO #4 Building 2 – Floor 1 – Lobby 6 Entrance (OB6) Sample No. B2F1-OB6-Be/U/Y-Air	
PHOTO #5 Building 2 – Floor 1 – Lobby 16 Entrance (OB15.5) Sample No. B2F1-OB15.5-Be/U/Y-Air	
PHOTO #6 Building 2 – Floor 1 – Shared Entrance (OA26) Sample No. B2F1-OB6-Be/U/Y-Air	

PHOTO #7 Building 2 – Floor 2 – Fan House 3 – Shared Relief Air Duct Sample No. Bld2-Fan House 3-Be/U/Y-Air	
PHOTO #8 Building 1 – Sub-Basement – Cafeteria (K17) Sample No. B1SB-K17-Be/U/Y Air	

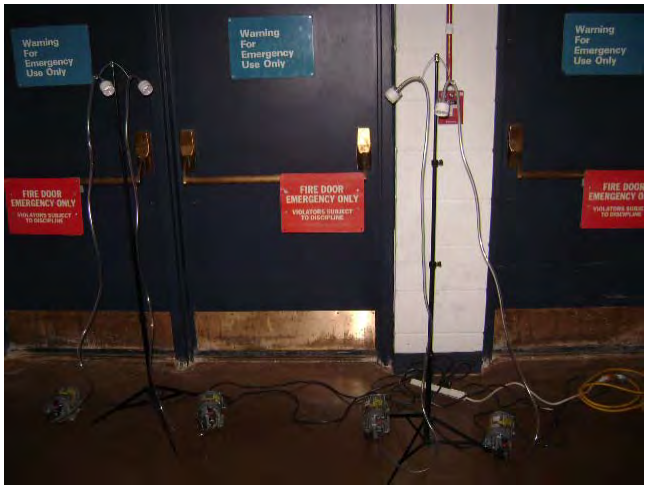
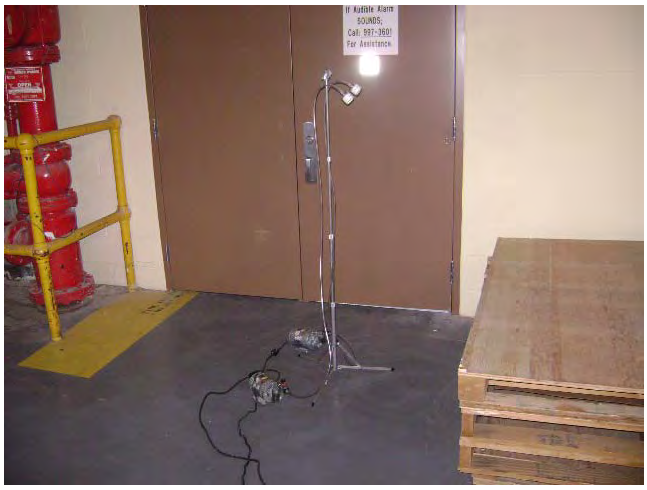
PHOTO #1 Building 1 – Sub-Basement – East End of Q-Corridor (Q25) Sample No. B1SB Q25-Be/U/Y Air and Duplicate Sample Location	
PHOTO #2 Building 1 – Sub-Basement – Near North Security Desk (AA16) Sample No. B1SB-AA16-Be/U/Y Air	
PHOTO #3 Building 1 – Floor 1 – Northeast Corner of FEMA Warehouse Near Fire Doors to DOE-Controlled Area (Q19) B1F1-Q19-Be/U/Y-Air	

PHOTO #4 Building 1 – Floor 1 – Northeast Corner of GSA Warehouse (F25) Sample No. B1F1-F25-Be/U/Y-Air	
PHOTO #5 Exterior – North Ambient – Between North Parking Lot and North Entrance to Sub-Basement of Building 1 Sample No. North Ambient-Air	
PHOTO #6 Exterior – West Ambient – Across Freedom Drive and Near Q-Corridor Sample No. West Ambient-Air	

PHOTO #7 Building 2 – Roof – Rooftop Air Intake on East End of GSA-Controlled Building (Fan House 3) Sample No. Bld2-Roof-East End-Fan House 3-Air	
PHOTO #8 Building 1 – Roof – Air Intake on East-Central Portion of GSA-Controlled Building Sample No. Bld1-Roof-East Central Portion-Air	
PHOTO #9 Building 1 – Roof – Air Intake on North Portion of GSA-Controlled Building Sample No. Bld1-Roof-North Portion-Air	

PHOTO #10 Building 1 – Sub-Basement – Mechanical Room 3B Air Intake (V19) Sample No. B1SB-V19-Be/U/Y Air	
PHOTO #11 Building 1 – Sub-Basement – Cafeteria (K17) Sample No. B1SB-K17-Be/U/Y Air	

PHOTO #1 Building 1 – Sub-Basement – East End of Q-Corridor – Concrete Floor By Fire Doors to DOE-Controlled Area (Q25) Sample No. B1SB-Q25-Be/U/Y-Dust	
PHOTO #2 Building 1 – Sub-Basement – East End of Q-Corridor – Top of Piping and Air Conditioning Unit (Q25) Sample No. B1SB-Q25-Be/U/Y-Dust	
PHOTO #3 Building 1 – Sub-Basement – East End of Q-Corridor – Top of Shelving on North Side of Corridor (Q25) Sample No. B1SB-Q25-Be/U/Y-Dust	

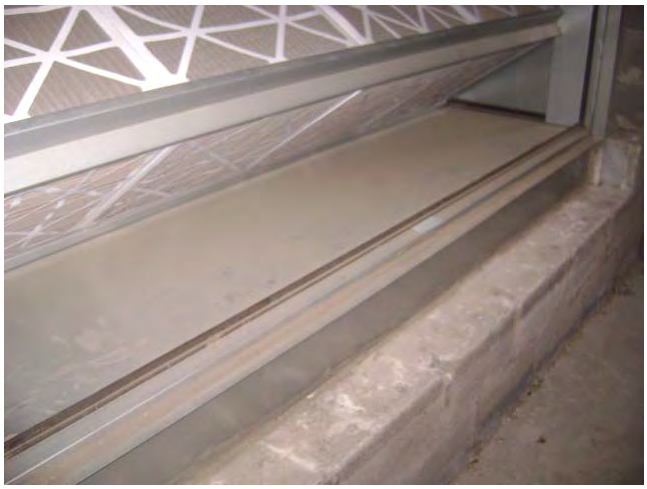
PHOTO #4 Building 1 – Sub-Basement – Mechanical Room 3B Air Intake – Metal Filter Ledge (V19) Sample No. B1SB-V19-Be/U/Y-Dust	
PHOTO #5 Building 1 – Sub-Basement – Mechanical Room 3B Air Intake – Concrete Floor (V19) Sample No. B1SB-V19-Be/U/Y-Dust	
PHOTO #6 Building 1 – Floor 1 – Northeast Corner of FEMA Warehouse by Fire Doors to DOE-Controlled Area and by Fire Suppressant System Piping – Concrete Floor (Q19) Sample No. B1F1-Q19-Be/U/Y-Dust	

PHOTO #7 Building 1 – Floor 1 – Fire Doors to DOE-Controlled Area By FEMA Warehouse – Concrete Floor and Metal Door Handle (R18) Sample No. B1F1-R18-Be/U/Y-Dust	
PHOTO #8 Building 1 – Floor 1 – Sliding Fire Door to DOE-Controlled Area – Concrete Floor, Bay Door Ledge and Sliding Door Ledge (Y10) Sample No. B1F1-Y10-Be/U/Y-Dust	
PHOTO #9 Building 1 – Floor 1 – Northeast Corner of GSA Warehouse – Concrete Floor (F25) Sample No. B1F1-F25-Be/U/Y-Dust	

PHOTO #10 Building 2 – Roof – Fan House 3 – Return Air Duct – Metal Floor of Air Handling Unit Sample No. FH3-RAD-Be/U/Y-Dust	
PHOTO #11 Building 1 – Floor 1 – East End of Hall By GSA Warehouse Near Fire Doors to DOE-Controlled Area - Carpet Floor (A25) Sample No. B1F1-A25-Be/U/Y-Dust	

APPENDIX C

Field Logs

Field Sample Descriptions

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Field Sample ID	General Sample Location
B1F1-Y10-Be/U/4-Air	Building 1- Floor 1- Hallway Near Sliding Fire Door to DOE-Controlled Area
Collection Date: 5-23-11	
Collected By: WWK, CSC, TEE	Facility: Bannister Complex
Sample Type (check one): ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Building: 1
Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	
Exposure Type (check one): ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Exposure Estimate Method (check one): ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)
Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0656	1656	600	4347			
					Sampling Equipment: Hi-Vol Pump # 38		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total ~600 Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

started pump at 6:56 on 5-23-11
validity check at 8:51 on 5-23-11 - pumps running ok
Validity check at 1104 on 5-23-11 - pump running ok
Validity check at ~~HOT~~ 1301 on 5-23-11 - pump ok
Validity check at 1451 on 5-23-11 - pump ok
stopped pump at 1656 on 5-23-11

pre-cal pump to 7.049 L/min @ 0428 on 5-23-11
post-cal pump to 7.440 L/min @ 1656 on 5-23-11
average flow → 7.245 L/min

Photo 102 - 0213

Field Sample Descriptions

Page ____ of ____

Field Sample ID B1F1-Y10-Be/U/Y-Iso	General Sample Location Building 1-Floor 1-Hallway Near Sliding Fire Door to DOE-Controlled Area
Collection Date 5-23-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building 1
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone
	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0656	1656	600	4347.6			
					Sampling Equipment Hi-Vol Pump #9		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total ~600 Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

started pump at 6:56 on 5-23-11
validity check at 8:57 on 5-23-11 pump running ok
validity check at 1104 on 5-23-11 - pump running ok
validity check at 1301 on 5-23-11 - pump ok
validity check at 1451 on 5-23-11 - pump ok
stopped pump at 1656 on 5-23-11

pump pre-cal to 7.075 L/min @ 0459 on 5-23-11
pump post-cal to 7.416 L/min @ 1656 on 5-23-11
average flow → 7.246 L/min

Photo 102-0213

Field Sample Descriptions

Field Sample ID B1F1-R18-Be/U/4-Air	General Sample Location Building 1 - Floor 1 - Hallway Near Fire Doors to DOE-Controlled Area (By FEMA Warehouse)
Collection Date 5-23-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	Building 1
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0659	1705	606	4323.81			
					Sampling Equipment Hi-Vol Pump #63		
	Total Runtime / Volume						
Work shift Information	Shift: 4 10hrs	Shift Start	Shift End	Total Minutes 4600			

Factors that Could Modify Results of this Sample

Sample Comments

started pump at 6:59 on 5-23-11
validity check at 8:57 on 5-23-11 - pump running ok
validity check at 11:01 on 5-23-11 - pump running ok
validity check at 1303 on 5-23-11 - pump ok
validity check at 1453 on 5-23-11 - pump ok
stopped pump at 1705 on 5-23-11

pre-cal pump to 7.080 L/min @ 0425 on 5-23-11
post-cal pump to 7.184 L/min @ 1707 on 5-23-11
average flow → 7.135

Photo 102-0214

Field Sample Descriptions

Page ____ of ____

Field Sample ID B1F1-R18-Be/U/Y-Iso	General Sample Location Building 1- Floor 1- Hallway Near Fire Doors to DOE-Controlled Area (By FEMA Warehouse)
Collection Date 5-23-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	Building 1
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0659	1705	606	4121.41			
					Sampling Equipment Hi-Vol Pump # M04		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total Minutes 4600			

Factors that Could Modify Results of this Sample

Sample Comments

Started pump at 6:59 on 5-23-11
validity check at 8:57 on 5-23-11 pump running ok
validity check at 11:01 on 5-23-11 - pump running ok
validity check at 1303 on 5-23-11 - pump ok
validity check at 1453 on 5-23-11 - pump on
stopped pump at 1705 on 5-23-11

pre-cal pump to 7.018 L/min @ 0421 on 5-23-11
post-cal pump to 6.584 L/min @ 1708 on 5-23-11
average flow → 6.801

Photo 102-0214

Field Sample Descriptions

Field Sample ID: Dup-Air	General Sample Location: Building 1-Floor 1-Hallway Near Fire Doors to DOE-Controlled Area (By FEMA Warehouse)
Collection Date: 5-23-11	
Collected By: WWK, CSC, TEE	Facility: Bannister Complex
Sample Type (check one): ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Building: 1
Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	
Exposure Type (check one): ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Exposure Estimate Method (check one): ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)
Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0659	1705	606	4321.99			
					Sampling Equipment: Hi-Vol Pump # 47		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total Minutes ~600			

Factors that Could Modify Results of this Sample

Sample Comments

started pump at 6:59 on 5-23-11
validity check at 8:57 on 5-23-11 pump running ok
Validity check at 1101 on 5-23-11 - pump running ok
Validity check at 1303 on 5-23-11 - pump ok
validity check at 1453 on 5-23-11 - pump ok
stopped pump at 1705 on 5-23-11

pre-cal pump to 7.126 L/min @ 0431 on 5-23-11
post-cal pump to 7.137 L/min @ 1709 on 5-23-11
average flow → 7.132 L/min

Photo 102-0214

Field Sample Descriptions

Page ____ of ____

Field Sample ID: Dup-Iso	General Sample Location: Building 1- Floor 1- Hallway Near Fire Doors to DOE-Controlled Area (By FEMA Warehouse)
Collection Date: 5-23-11	
Collected By: WWK, CSC, TEE	Facility: Bannister Complex
Sample Type (check one): ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Building: 1
Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	
Exposure Type (check one): ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Exposure Estimate Method (check one): ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)
Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0659	1705	606	4218.37			
					Sampling Equipment: Hi-Vol Pump #419		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total Minutes ~600			

Factors that Could Modify Results of this Sample

Sample Comments

started pump at 6:59 on 5-23-11
validity check at 8:57 on 5-23-11 pump running ok
validity check at 11:01 on 5-23-11 - pump running ok
validity check at 1303 on 5-23-11 - pump ok
validity check at 1453 on 5-23-11 - pump ok
stopped pump at 1705 on 5-23-11

pre-cal pump to 7.095 L/min @0438 on 5-23-11
post-cal pump to 6.8826 L/min @1710 on 5-23-11
average flow → 6.961 L/min

Photo 102-0214

Field Sample Descriptions

Page ____ of ____

Field Sample ID B1F1-A25-Be/U/4-Air	General Sample Location Building 1 - Floor 1 - End of Carpeted Hallway Ending at Fire Doors to DOE-Controlled Area
Collection Date 5-23-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	Building 1
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0705	1716	611	4311.22			
					Sampling Equipment Hi-Vol Pump #66		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total ~600 Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

started pump at 7:05 on 5-23-11
validity check at 905 on 5-23-11 pump running ok
validity check at 1110 on 5-23-11 - pump running ok
validity check at 1309 on 5-23-11 - pump ok
validity check at 1459 on 5-23-11 - pump ok
stopped pump at 1716 on 5-23-11

pre-cal pump to 7.087 L/min @ 0429 on 5-23-11
post-cal pump to 7.024 L/min @ 1718 on 5-23-11
average flow → 7.056 L/min

Photo 102-0215

Field Sample Descriptions

Page ____ of ____

Field Sample ID B1F1-A25-Be/U/Y-I30	General Sample Location Building 1-Floor 1-End of Carpeted Hallway Ending at Five Doors to DOE-Controlled Area
Collection Date 5-23-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building 1
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone
	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0705	1716	611	4262.95			
					Sampling Equipment Hi-Vol Pump # 67		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total ~600 Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

Started pump at 7:05 on 5-23-11
validity check at 9:05 on 5-23-11 pump running ok
Validity check at 1110 on 5-23-11 - pump running ok
Validity check at 1309 on 5-23-11 - pump ok
Validity check at 1459 on 5-23-11 - pump ok
stopped pump at 1716 on 5-23-11

pre-cal pump to 7.023 L/min @ 0424 on 5-23-11
post-cal pump to 6.931 L/min @ 1717 on 5-23-11
average flow → 6.977 L/min

Photo 102-0215

Field Sample Descriptions

Page ____ of ____

Field Sample ID B2. Fan House 3 - Be/U/Y - Air	General Sample Location Fan House 3 - Shared Relief Air Duct
Collection Date 5-23-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	Building 2
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0710	1727	617	4391.81			
					Sampling Equipment Hi-Vol Pump #22		
	Total Runtime / Volume						
Work shift Information	Shift: ~10 hrs	Shift Start	Shift End	Total 4600 Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

Started pump at 7:10 on 5-23-11
Validity check at 9:12 on 5-23-11 pump running ok
Validity check at 1115 on 5-23-11 - pump running ok
Validity check at 1313 on 5-23-11 - pump ok
Validity check at 1504 on 5-23-11 - pump ok
stopped pump at 1727 on 5-23-11

pre-cal pump to 7.047 L/min @ 0418 on 5-23-11
post-cal pump to 7.188 L/min @ 1729 on 5-23-11
average flow → 7.118 L/min

Photo # 102-0216

Field Sample Descriptions

Page ____ of ____

Field Sample ID B2-FanHouse 3-Be/U/4-Iso	General Sample Location Fan House 3- Shared Relief Air Duct
Collection Date 5-23-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	Building 2
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0710	1727	617	4628.73			
					Sampling Equipment Hi-Vol Pump #1		
	Total Runtime / Volume						
Work shift Information	Shift: 4 10hrs	Shift Start	Shift End	Total Minutes 4600			

Factors that Could Modify Results of this Sample

Sample Comments

Started pump at 7:10 on 5-23-11
validity check at 9:12 on 5-23-11 pump running ok
validity check at 1115 on 5-23-11 - pump running ok
validity check at 1313 on 5-23-11 - pump ok
validity check at 1504 on 5-23-11 - pump ok
stopped pump at 1727 on 5-23-11

pre-cal pump to 7.420 L/min @ 0449 on 5-23-11
post-cal pump to 7.584 L/min @ 1728 on 5-23-11
average flow → 7.502 L/min

Photo 102-0216

Field Sample Descriptions

Field Sample ID B2F1-OA26-Be/U/Y-Air	General Sample Location Building 2 - Floor 1 - Shared Entrance
Collection Date 5-23-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building 2
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone
	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0712	1734	622	4464.72			
					Sampling Equipment Hi-Vol Pump # 28		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total ~600 Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

Started pump at 7:12 on 5-23-11
validity check at 9:15 on 5-23-11 pump running ok
validity check at 1117 on 5-23-11 - pump running ok
validity check at 1315 on 5-23-11 - pump ok
validity check at 1506 on 5-23-11 - pump ok
stopped pump at 1734 on 5-23-11

pre-cal pump to 7.078 L/min @ 0450 on 5-23-11
post-cal pump to 7.278 L/min @ 1735 on 5-23-11
average flow → 7.~~183~~ 178 L/min

Photo 102-0217

Field Sample Descriptions

Field Sample ID B2F1-OA26-Be/U/Y-Iso	General Sample Location Building 2-Floor 1-Shared Entrance
Collection Date 5-23-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	Building 2
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0712	1734	~~627~~ 622	4449.17			
					Sampling Equipment Hi-Vol Pump # 2		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total ~600 Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

Started pump at 7:12 on 5-23-11
Validity check at 9:15 on 5-23-11 pump running ok
Validity check at 1117 on 5-23-11 - pump running ok
Validity check at 1315 on 5-23-11 - pump ok
Validity check at 1506 on 5-23-11 - pump ok
stopped pump at 1734 on 5-23-11

pre-cal pump to 7.088 L/min @ 0458 on 5-23-11
post-cal pump to 7.217 L/min @ 1735 on 5-23-11
average flow → 7.153 L/min

Photo 102-0217

Field Sample Descriptions

Page ____ of ____

Field Sample ID B2F1-0B15.5-Be/U/4-Air	General Sample Location Building 2- Floor 1- Lobby 16 Entrance
Collection Date 5-23-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	Building 2
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0715	1738	623	4537.31			
					Sampling Equipment Hi-Vol Pump # 303		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total ~600 Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

Started pump at 7:15 on 5-23-11
validity check at 9:19 on 5-23-11 pump running ok
validity check at 1119 on 5-23-11 - pump running ok
validity check at 1317 on 5-23-11 - pump ok
validity check at 1508 on 5-23-11 pump ok
stopped pump at 1738 on 5-23-11

pre-cal pump to 7.171 L/min @ 0455 on 5-23-11
post-cal pump to 7.395 L/min @ 1739 on 5-23-11
average flow → 7.283

Photo 102-0218

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B2F1-0B15.5-Be/U/Y-I30	Building 2-Floor 1-Lobby 16 Entrance
Collection Date 5-23-11	
Collected By WWK, CSC, TEE	**Facility** Bannister Complex

Sample Type (check one)	Workload (check one)	Building
☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	☐ Light ☒ Normal ☐ Heavy ☐ Unknown	2

Exposure Type (check one)	Sample Placement (check one)	Exposure Estimate Method (check one)
☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0715	1738	~~23~~ 623	4554.13			
					Sampling Equipment: Hi-Vol Pump # 3		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total Minutes ~600			

Factors that Could Modify Results of this Sample

Sample Comments

Started pump at 7:15 on 5-23-11
validity check at 9:19 on 5-23-11 pump running ok
validity check at 1119 on 5-23-11 - pump running ok
validity check at 1317 on 5-23-11 - pump ok
validity check at 1508 on 5-23-11 pump ok
stopped pump at 1738 on 5-23-11

pre-cal pump to 7.137 L/min @ 0454 on 5-23-11
post-cal pump to 7.482 L/min @ 1738 on 5-23-11
average flow → 7.310 L/min

Photo 102-0218

Field Sample Descriptions

Page ____ of ____

Field Sample ID B2F1-OB6-Belu/4-Air	General Sample Location Building 2 - Floor 1 - Lobby 6 Entrance
Collection Date 5-23-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	Building 2
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0717	1744	627	4530.08			
					Sampling Equipment Hi-Vol Pump # G1		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total ~600 Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

Started pump at 7:17 on 5-23-11
validity check at 9:23 on 5-23-11 pump running ok
validity check at 1121 on 5-23-11 pump running ok
validity check at 1319 on 5-23-11 - pump ok
validity check at 1570 on 5-23-11 pump ok
stopped pump at 1744 on 5-23-11

pre-cal pump to 7.157 L/min @ 0440 on 5-23-11
post-cal pump to 7.293 L/min @ 1744 on 5-23-11
average flow → 7.225 L/min

Photo 102-0219

Field Sample Descriptions

Page ____ of ____

Field Sample ID B2F1-OB6-Be/U/4-Iso	General Sample Location Building 2-Floor 1-Lobby 6 Entrance
Collection Date 5-23-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	Building 2
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0717	1744	627	4431.01			
					Sampling Equipment Hi-Vol Pump # G2		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total ~600 Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

Started pump at 7:17 on 5-23-11
validity check at 9:23 on 5-23-11 pump running ok
validity check at 1121 on 5-23-11 pump running ok
Validity check at 1319 on 5-23-11 - pump ok
Validity check at 1500 on 5-23-11 pump ok
stopped pump at 1744 on 5-23-11

pre-cal pump to 7.162 L/min @ 0437 on 5-23-11
post-cal pump to 6.975 L/min @ 1744 on 5-23-11
average flow → 7.067 L/min

Photo 102 - 0219

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B1SB-V19-Be/U/Y-Air	Building 1- Sub-Basement- Mechanical Room 3B Air Intake
Collection Date: 5-23-11	
Collected By: WWK, CSC, TEE	Facility: Bannister Complex

Sample Type (check one)	Workload (check one)	Building
☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	☐ Light ☒ Normal ☐ Heavy ☐ Unknown	1

Exposure Type (check one)	Sample Placement (check one)	Exposure Estimate Method (check one)
☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0728	1758	630	4504.5			
					Sampling Equipment: Hi-Vol Pump # 14		
	Total Runtime / Volume						
Work shift Information	Shift: 40hrs	Shift Start	Shift End	Total Minutes 4600			

Factors that Could Modify Results of this Sample

Sample Comments

Started pump at 7:28 on 5-23-11
validity check at 9:40 on 5-23-11 pump running ok
Validity check at 1130 on 5-23-11 - pump running ok
validity check at 1327 on 5-23-11 . pump ok
validity check at ~~1515~~ 1515 on 5-23-11 pump ok
Stopped pump at 1758 on 5-23-11

pre-cal pump to 7.177 L/min @ 0443 on 5-23-11
post-cal pump to 7.123 L/min @ 1754 on 5-23-11
average flow → 7.150 L/min

Photo 102-0221

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B1SB-V19-Be/U/Y-I30	Building 1- Sub-Basement-Mechanical Room 3B Air Intake
Collection Date: 5-23-11	
Collected By: WWK, CSC, TEE	Facility: Bannister Complex

Sample Type (check one)	Workload (check one)	Building
☒ Area ☐ Blank ☐ Bulk ~~☒ Personal~~ ☐ Wipe	☐ Light ☒ Normal ☐ Heavy ☐ Unknown	1

Exposure Type (check one)	Sample Placement (check one)	Exposure Estimate Method (check one)
☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0728	1758	630	4455.99			
					Sampling Equipment: Hi-Vol Pump # 6		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total Minutes ~600			

Factors that Could Modify Results of this Sample

Sample Comments

started pump at 7:28 on 5-23-11
validity check at 9:40 on 5-23-11 pump running ok
validity check at 1130 on 5-23-11 pump running ok
validity check at 1327 on 5-23-11 - pump ok
validity check at 1515 on 5-23-11 - pump ok
stopped pump at 1758 on 5-23-11

pre-cal pump to 7.078 L/min @ 0444 on 5-23-11
post-cal pump to 7.067 L/min @ 1758 on 5-23-11
average flow → 7.073 L/min

Photo 102-0221

Field Sample Descriptions

Field Sample ID BISB-K17-Be/U/Y-Air	General Sample Location Building 1- Sub-Basement- Cafeteria
Collection Date 5-23-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building 1
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone
	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0724	—	—	—			
					Sampling Equipment Legacy Pump # R12250		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total Minutes ~600			

Factors that Could Modify Results of this Sample

Sample Comments

started pump at 7:24 on 5-23-11
validity check at 9:29 on 5-23-11 ~~pump running ok~~ pump not running
did not start
↳ low flow fault
pulled sample at ~1050 due to pump not starting
↳ will run sample location next sample day (5-24-11)

will not analyze sample

Photo 102-0220

Field Sample Descriptions

Page ____ of ____

Field Sample ID B1SB-K17-Be/U/Y-Iso	General Sample Location Building 1-Sub-Basement-Cafeteria
Collection Date 5-23-11	
Collected By WWK, CSC TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building 1
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone
	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0724	—	—	—			
					Sampling Equipment Legacy Pump # R12107		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total ~600 Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

started pump at 7:24 on 5-23-11
validity check at 9:23 on 5-23-11 pump running ok
pulled sample at ~1050 due to B1SB-K17-Be/U/Y-Air not running
↳ will run sample location next sample day (5-24-11) ↳ low flow fault

will not analyze sample

Photo 102-0220

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
Blank-Air	—
Collection Date	
5-23-11	
Collected By	**Facility**
WWK, CSC, TEE	Bannister Complex

Sample Type (check one)	Workload (check one)	Building
☐ Area ☒ Blank ☐ Bulk ☐ Personal ☐ Wipe	X Blank ☐ Light ☐ Normal ☐ Heavy ☐ Unknown	—

Exposure Type (check one)	Sample Placement (check one)	Exposure Estimate Method (check one)
☒ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	X Blank ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☐ General breathing zone	X Blank ☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	—	—	—	—	—	—	
					Sampling Equipment		
					—		
	Total Runtime / Volume						
Work shift Information	Shift: —	Shift Start	Shift End	Total Minutes —			

Factors that Could Modify Results of this Sample

Sample Comments

Field Sample ID	General Sample Location
Blank-Iso	—
Collection Date 5-23-11	
Collected By: WWK, CSC, TEE	Facility: Bannister Complex

Sample Type (check one)	Workload (check one)	Building
☐ Area ☒ Blank ☐ Bulk ☐ Personal ☐ Wipe	X Blank ☐ Light ☐ Normal ☐ Heavy ☐ Unknown	—

Exposure Type (check one)	Sample Placement (check one)	Exposure Estimate Method (check one)
☒ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	X Blank ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☐ General breathing zone	X Blank ☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	—	—	—	—	—	—	
					Sampling Equipment		
					—		
	Total Runtime / Volume						
Work shift Information	Shift: —	Shift Start	Shift End	Total Minutes —			

Factors that Could Modify Results of this Sample

Sample Comments

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
Bld 1 - Roof - North Portion - Air	Rooftop Air Intake on North Portion of QSA - Controlled Building 1
Collection Date: 5-24-11	
Collected By: WWK, CSC, TEE	Facility: Bannister Complex
Sample Type (check one): ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building: 1
Exposure Type (check one): ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone
	Exposure Estimate Method (check one): ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0550	1550	600	4446.60			
					Sampling Equipment: Hi-Vol Pump # 303		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total Minutes ~600			

Factors that Could Modify Results of this Sample

Sample Comments

started sample at 5:50 on 5-24-11
validity check at ~~8:19~~ 8:25 on 5-24-11 pump running ok
validity check between 10:30 + 11:30 pump running ok
validity check between 12:00 + 13:00 pump running ok
stopped sample at 1550 on 5-24-11

pre-cal pump to 7.191 L/min @ 0550 on 5-24-11
post-cal pump to 7.630 L/min @ 1550 on 5-24-11
average flow → 7.411 L/min

Photo 102-~~0222~~ 0223

Field Sample Descriptions

Field Sample ID Bld 1-Roof-North Portion-I30	General Sample Location Rooftop Air Intake on North Portion of GSA-Controlled Building 1
Collection Date 5-24-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	Building 1
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0550	1550	600	4446.60			
					Sampling Equipment Hi-Vol Pump # 3		
	Total Runtime / Volume						
Work shift Information	Shift: 4 10hrs	Shift Start	Shift End	Total Minutes 4600			

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 5:50 on 5-24-11
validity check at 8:25 on 5-24-11 pump running OK
validity check between 10:30 & 11:30 pump running ok
validity check between 12:00 and 13:00 pump running ok
stopped sample at 1550 on 5-24-11

pre-cal pump to 7.274 L/min @ 0550 on 5-24-11
post-cal pump to 7.547 L/min @ 1550 on 5-24-11
average flow → 7.411 L/min

Photo 102-0223

Field Sample Descriptions

Page ____ of ____

Field Sample ID Bld 1 - Roof - East Central Portion - Air	General Sample Location Rooftop Air Intake on East Central Portion of GSA-Controlled Building 1
Collection Date 5-24-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	Building 1
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0554	1556	602	4300.69			
					Sampling Equipment Hi-Vol Pump # G1		
	Total Runtime / Volume						
Work shift Information	Shift: 4 10hrs	Shift Start	Shift End	Total ~600 Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

started sample at 5:54 on 5-24-11
validity check at 8:19 on 5-24-11 pump running ok
validity check between 10:30 & 11:30 pump running ok
validity check between 12:00 & 13:00 pump running ok
stopped sample at 1556 on 5-24-11

pre-cal pump to 7.233 L/min @ 0554 on 5-24-11
post-cal pump to 7.055 L/min @ 1556 on 5-24-11
average flow → 7.144 L/min

Photo 102-0222

Field Sample Descriptions

Page ____ of ____

Field Sample ID B1O1-Roof-East Central Portion-Iso	General Sample Location Rooftop Air Intake on East Central Portion of GSA-Controlled Building 1
Collection Date 5-24-11	
Collected By WWK CSC TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	Building 1
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0554	1556	602	4462.63			
					Sampling Equipment Hi-Vol Pump # G2		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total Minutes ~600			

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 5:54 on 5-24-11
validity check at 8:19 on 5-24-11 pump running ok
validity check between 10:30 + 11:30 pump running ok
validity check between 12:00 and 13:00 pump running ok
stopped sample at 1556 on 5-24-11

pre-cal pump to 7.356 L/min @ 0554 on 5-24-11
post-cal pump to 7.470 L/min @ 1557 on 5-24-11
average flow → 7.413 L/min

Photo 102-0222

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
Bld 2- Roof- East End-Fan House 3-Air	Rooftop Air Intake on East End of GSA-Controlled Building 2 (Fan House 3)
Collection Date: 5-24-11	
Collected By: WWK, CSC, TEE	Facility: Bannister Complex
Sample Type (check one): ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building: 2
Exposure Type (check one): ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone
	Exposure Estimate Method (check one): ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0602	1033	271	1934.13			
	1209	1608	239	1705.74			
	Total Runtime / Volume		510	3639.87			
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total ~600 Minutes			

Sampling Equipment: Legacy Pump #R12167

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 6:02 on 5-24-11
validity check at 835 on 5-24-11 pump running ok
stopped sample at 1033 due to rain event
restarted sample at 12:09
stopped sample at 1608 on 5-24-11

pre-cal pump to 7.244 L/min @ 1207 on 5-23-11
post-cal pump to 7.029 L/min @ 1608 on 5-24-11
average flow → 7.137 L/min

Photo 102-0224

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
Bld 2-Roof-East End-Fan House 3-I30	Rooftop Air Intake on East End of GSA-Controlled Building 2 (Fan House 3)
Collection Date: 5-24-11	
Collected By: WNK, CSC, TEE	Facility: Bannister Complex
Sample Type (check one): ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building: 2
Exposure Type (check one): ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone
	Exposure Estimate Method (check one): ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0602	1033	271	1992.12			
	1209	1608	239	1756.89			
	Total Runtime / Volume		510	3749.01			
Work shift Information	Shift: 4 10hrs	Shift Start	Shift End	Total Minutes 4600			

Sampling Equipment: Legacy Pump # R11151

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 6:02 on 5-24-11
Validity check at 8:35 on 5-24-11 pump running ok
stopped sample at 1033 due to rain event
restarted sample at 12:09
stopped sample at 1608 on 5-24-11

pre-cal pump to 7.4192 L/min @1217 on 5-24-11
post-cal pump to 7.283 L/min @1609 on 5-24-11
average flow → 7.3511 L/min

Photo 102-0224

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
West Ambient - Air	Across Western Street By Q-Corridor
Collection Date: 5-24-11	
Collected By: WWK, CSC, TEE	Facility: Bannister Complex
Sample Type (check one): ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Building: None - Exterior
Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	
Exposure Type (check one): ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Exposure Estimate Method (check one): ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)
Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0615	1625	610	4437.14			
					Sampling Equipment: Legacy Pump # K11149		
	Total Runtime / Volume						
Work shift Information	Shift: 4 10hrs	Shift Start	Shift End	Total Minutes 4600			

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 6:15 on 5-24-11
validity check at 8:52 on 5-24-11 pumps running ok
moved pumps 45' north to shelter of picknick table
at ~10:00 due to rain
Validity check ~12:45 pump running ok
stopped pump at 1625 on 5-24-11

pre-cal pump to 7.252 L/min @ 1205 on 5-23-11
post-cal pump to 7.295 L/min @ 1626 on 5-24-11
average flow → 7.274 L/min

Photo 102-0225

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
West Ambient-Iso	Across Western Street By Q-Corridor
Collection Date: 5-24-11	
Collected By: WWK, CSR, TEE	Facility: Bannister Complex
Sample Type (check one): ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building: None-Ex
Exposure Type (check one): ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone
	Exposure Estimate Method (check one): ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0615	1625	610	4356.62			
					Sampling Equipment: Legacy Pump # R12144		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total Minutes ~600			

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 6:15 on 5-24-11
validity check at 8:52 on 5-24-11 pump running ok
moved pump 45' north to shelter of picknick table at ~10:00 due to rain
validity check ~12:45 pump running ok
stopped sample at 1625 on 5-24-11

pre-cal pump to 7.123 L/min @ 1032 on 5-23-11
post-cal pump to 7.160 L/min @ 1625 on 5-24-11
average flow → 7.142 L/min

Photo 102-~~0225~~
0225

Field Sample Descriptions

Field Sample ID: North Ambient - Arc	General Sample Location: Between North Parking Lot + North Entrance to Building 1
Collection Date: 5-24-11	
Collected By: WWK CSC, TEE	Facility: Bannister Complex
Sample Type (check one): ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Building: None - Exterior
Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	
Exposure Type (check one): ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Exposure Estimate Method (check one): ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)
Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0622	1635	613	4324.72			
					Sampling Equipment: Legacy Pump # 512245		
	Total Runtime / Volume						
Work shift Information	Shift: 4 10hrs	Shift Start	Shift End	Total Minutes 4600			

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 6:22 on 5-24-11
validity check at 8:59 on 5-24-11 pump running ok
moved pump ~20' east to shelter of picknick table at ~10:10 due to rain
validity check at ~12:50 pump running ok
stopped sample at 1635 on 5-24-11

pre-cal pump to 7.067 L/min @ 1028 on 5-23-11
~~pre~~ post cal pump to 7.042 L/min @ 1636 on 5-24-11
average flow → 7.055 L/min

Photo 102-0226

Field Sample Descriptions

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Field Sample ID	General Sample Location
North Ambient- Iso	Between North Parking Lot & North Entrance to Building 1
Collection Date	
5-24-11	
Collected By	**Facility**
WWK, CSC, TEE	Bannister Complex

Sample Type (check one)	Workload (check one)	Building
☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	☐ Light ☒ Normal ☐ Heavy ☐ Unknown	None-Exterior

Exposure Type (check one)	Sample Placement (check one)	Exposure Estimate Method (check one)
☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0622	1635	613	4604.86			
					Sampling Equipment: Legacy Pump# R12107		
	Total Runtime / Volume						
Work shift Information	Shift: 40hrs	Shift Start	Shift End	Total Minutes 4600			

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 6:22 on 5-24-11
validity check at 8:59 on 5-24-11 pump running ok
moved pump ~20' east to shelter of picknick table at ~10:10 due to rain
validity check at ~12:50 pump running ok
stopped sample at 1635 on 5-24-11

pre-cal pump to 7.438 L/min @ 1201 on 5-23-11
post-cal pump to 7.585 L/min @ 1637 on 5-24-11
average flow → 7.512 L/min

Photo 102 - 0226

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B1SB-Q25-Be/U/4-Air	Building 1 - Sub-Basement - East End of Q-Corridor Near Fire Doors to DOE-Controlled Area
Collection Date: 5-24-11	
Collected By: WWK, CSE, TEE	Facility: Bannister Complex
Sample Type (check one): ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Building: 1
Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	
Exposure Type (check one): ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Exposure Estimate Method (check one): ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)
Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0631	1651	620	441378			
					Sampling Equipment: Hi-Vol Pump #005		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total Minutes 4600			

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 6:31 on 5-24-11
validity check at 9:08 on 5-24-11 - pump running ok
validity check at ~9:45 - pump running ok
validity check at ~13:10 pump running ok
stopped sample at 1651 on 5-24-11

pre-cal pump to 7.053 L/min @ 1555 on 5-23-11
post-cal pump to 7.185 L/min @ 1727 on 5-24-11
average flow → 7.119 L/min

Photo 102-0228

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
BISB-Q25-Be/U/Y-Iso	Building 1 - Sub-Basement - East End of Q-Corridor Near Fire Doors to DOE-Controlled Area
Collection Date: 5-24-11	
Collected By: WWK, CSC, TEE	Facility: Bannister Complex
Sample Type (check one): [X] Area [ ] Blank [ ] Bulk [ ] Personal [ ] Wipe	Workload (check one): [ ] Light [X] Normal [ ] Heavy [ ] Unknown
Building: 1	
Exposure Type (check one): [ ] Blank [ ] Bulk [ ] Ceiling [ ] Grab [ ] Peak [ ] STEL [X] TWA	Sample Placement (check one): [ ] Area [ ] Collar [ ] Inside helmet [ ] Wipe [ ] Bulk [X] General breathing zone
Exposure Estimate Method (check one): [X] Use sample period TWA as exposure (assume constant exposure) [ ] Calculate TWA (assume no exposure outside sample period)	

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0631	1651	620	4444.16			
					Sampling Equipment: Hi-Vol Pump #008		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total Minutes ~600			

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 6:31 on 5-24-11
validity check at 9:08 on 5-24-11 pump running ok
validity check at ~9:45 pump running ok
validity check at ~13:10 pump running ok
stopped sample at 1651 on 5-24-11

pre-cal pump to 7.087 L/min @ 1554 on 5-23-11
post-cal pump to 7.249 L/min @ 1728 on 5-24-11
average flow → 7.168 L/min

Photo 102-0228

Field Sample Descriptions

Field Sample ID: Dup-Air	General Sample Location: Building 1-Sub Basement - East End of Corridor Near Fire Doors to DOE-Controlled Areas
Collection Date: 5-24-11	
Collected By: WWK CSC TEE	Facility: Bannister Complex
Sample Type (check one): ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building:
Exposure Type (check one): ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone
	Exposure Estimate Method (check one): ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0631	1651	620	4495			
					Sampling Equipment: Hi-Vol Pumps #004		
	Total Runtime / Volume						
Work shift Information	Shift: 4 10hrs	Shift Start	Shift End	Total 4600 Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

started sample at 6:31 on 5-24-11
validity check at 908 on 5-24-11 pump running ok
validity check at ~9:45 pump running ok
validity check at ~13:10 pump running ok
stopped sample at 1651 on 5-24-11

pre-cal pump to 7.184 L/min @ 1603 on 5-23-11
post-cal pump to 7.315 L/min @ 1726 on 5-24-11
average flow → 7.250 L/min

Photo 102-0228

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
Dup-Iso	Building 1 - Sub Basement - East End of Q-Corridor Near Fire Doors to DOE-Controlled Area
Collection Date: 5-24-11	
Collected By: WWK CSC TEE	Facility: Bannister Complex
Sample Type (check one): ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Building: 1
Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	
Exposure Type (check one): ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone
Exposure Estimate Method (check one): ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)	

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0631	1651	620	4417.50			
					Sampling Equipment: Hi-Vol Pump # 003		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total Minutes ~600			

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 6:31 on 5-24-11
validity check at 9:08 on 5-24-11 pump running ok
validity check at ~9:45 pump running ok
validity check at ~13:10 pump running ok
stopped sample at 1651 on 5-24-11

pre-cal pump to 7.123 L/min @ 1609 on 5-23-11
post-cal pump to 7.126 L/min @ 1725 on 5-24-11
average flow → 7.125 L/min

Photo 102-0228

Field Sample Descriptions

Field Sample ID B1SB-K17-Be/U/Y-Air	General Sample Location Building 1 - Sub Basement - Cafeteria
Collection Date 5-24-11	
Collected By WLJK CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	Building 1
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0637	1655	618	4450.22			
					Sampling Equipment Legacy Pump# R17164		
	Total Runtime / Volume						
Work shift Information	Shift: ~10 hrs	Shift Start	Shift End	Total ~600 Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 637 on 5-24-11
Validity check at 9:15 on 5-24-11 pump running ok
validity check between 10:30 + 11:30 pump running ok
validity check ~ 13:05 pump running ok
stopped sample at 1655 on 5-24-11

pre-cal pump to 7.254 L/min @ 1209 on 5-23-11
post-cal pump to 7.147 L/min @ 1656 on 5-24-11
average flow → 7.201 L/min

Photo 102-0229

Field Sample Descriptions

Page ____ of ____

Field Sample ID B1SB-K17-Be/U/Y-~~Ra~~Iso	General Sample Location Building 1-Sub Basement-Cafeteria
Collection Date 5-24-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	Building 1
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0637	1655	618	4552.81			
					Sampling Equipment: Legacy Pump # R12145		
	Total Runtime / Volume						
Work shift Information	Shift: ~10 hrs	Shift Start	Shift End	Total Minutes ~600			

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 6:37 on 5-24-11
validity check at 9:15 on 5-24-11 pump running ok.
validity check between 10:30 + 11:30 pump running ok
validity check ~13:05 pump running ok
stopped sample at 1655 on 5-24-11

pre-cal pump to 7.409 L/min @ 1215 on 5-23-11
post-cal pump to 7.325 L/min @ 1655 on 5-24-11
average flow → 7.367 L/min

Photo 102-0229

Field Sample Descriptions

Field Sample ID B1F1-F25-Be/U/Y-Air	General Sample Location Building 1-Floor 1-GSA Warehouse Near Utility Perforations to DOE-Controlled Area
Collection Date 5-24-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone
	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0703	1703	600	4458.60			
	Total Runtime / Volume						
Work shift Information	Shift: 40hrs	Shift Start	Shift End	Total Minutes 4600			

Sampling Equipment
~~Legacy Pump~~ # 66
Hi-Vol Pump

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 703 on 5-24-11
could not ~~collect~~ conduct validity checks
because pump located in side locked cage area
stopped sample at 1703 on 5-24-11

pre-cal pump to 7.472 L/min @ 0702 on 5-24-11
post-cal pump to 7.389 L/min @ 1704 on 5-24-11
average flow → 7.431 L/min

Photo 102-0231

Field Sample Descriptions

Field Sample ID B1F1-F25-Be/U/Y-Iso	General Sample Location Building 1- Floor 1- GSA Warehouse Near Utility Perforations to DOE-Controlled Area
Collection Date 5-24-11	
Collected By WWK, CSC TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	Building 1
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0703	1703	600	4249.20			
					Sampling Equipment ~~Legacy Pump#~~ 67 Hi-Vol Pump#		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total Minutes ~600			

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 703 on 5-24-11
could not conduct validity checks because pump
is located inside locked cage area.
stopped sample at 1703 on 5-24-11

pre-cal pump to 7.150 L/min @ 0703 on 5-24-11
post-cal pump to 7.013 L/min @ 1705 on 5-24-11
average flow → 7.082 L/min

Photo 102-0231

Field Sample Descriptions

Field Sample ID B1F1-Q19-Be/U/Y-Air	General Sample Location Building 1- Floor 1- FEMA Warehouse Space Near Fire Doors + Utility Perforations to DOE-Controlled Area
Collection Date 5-24-11	
Collected By WWK, CSC, TEE	Facility Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building 1
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone
	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0718	1718	600	4392.60			
					Sampling Equipment Hi-Vol Pump #47		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total ~600 Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

started sample at 7:18 on 5-24-11
validity check at 9:26 on 5-24-11 pump running ok
validity check between 10:30 + 11:30 pump running ok
validity check ~13:00 pump running ok
stopped sample at 1718 on 5-24-11

pre-cal pump to 7.388 L/min @ 0717 on 5-24-11
post-cal pump to 7.253 L/min @ 1718 on 5-24-11
average flow → 7.321 L/min

Photo 102-0230

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B1F1-Q19-Be/u/4-I-80	Building 1-Floor 1-FEMA Warehouse Space Near Fire Doors + Utility Perforations to DOE-Controlled Area
Collection Date 5-24-11	
Collected By WWK, CSC, TEE	**Facility** Bannister Complex
Sample Type (check one) ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	**Workload (check one)** ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building 1
Exposure Type (check one) ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	**Sample Placement (check one)** ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone
	Exposure Estimate Method (check one) ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0718	1718	600	4372.20			
					Sampling Equipment: Hi-Vol Pump # 49		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total Minutes ~600			

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 718 on 5-24-11
validity check at 9:26 on 5-24-11 pump running ok
validity check between 10:30 + 11:30 pump running ok
validity check ~13:00 pump running ok
stopped sample at 1718 on 5-24-11

pre-cal pump to 7.291 L/min @ 0718 on 5-24-11
post-cal pump to 7.283 L/min @ 1719 on 5-24-11
average flow → 7.287 L/min

Photo 102-0230

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B1SB-AA16-Be/U/4-Air	Building 1- SubBasement- Security Desk At North Entrance
Collection Date: 5-24-11	
Collected By: WWK, CSC TEE	Facility: Bannister Complex
Sample Type (check one): ☒ Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	Building: 1
Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	
Exposure Type (check one): ☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☒ TWA	Exposure Estimate Method (check one): ☒ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)
Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☒ General breathing zone	

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0626	1644	618	4489.15			
					Sampling Equipment: Hi-Vol Pump #09		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total Minutes ~600			

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 6:26 on 5-24-11
Validity check at 9:02 on 5-24-11 pump running ok
validity check between 10:30 + 11:30 pump running ok
validity check at ~ 12:55 pump running ok
stopped sample at 1644 on 5-24-11

pre-cal pump to 7.147 L/min @ 0432 on 5-23-11
post-cal pump to 7.381 L/min @ 1644 on 5-24-11
average flow → 7.264 L/min

Photo 102-0227

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B1SB-AA16-Be/U/Y-I30	Building 1 - SubBasement - Security Desk at North Entrance
Collection Date: 5-24-11	
Collected By: WWK, CSC, TEE	Facility: Bannister Complex

Sample Type (check one)	Workload (check one)	Building
[X] Area ☐ Blank ☐ Bulk ☐ Personal ☐ Wipe	☐ Light [X] Normal ☐ Heavy ☐ Unknown	1

Exposure Type (check one)	Sample Placement (check one)	Exposure Estimate Method (check one)
☐ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL [X] TWA	☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk [X] General breathing zone	[X] Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	0626	1644	618	4473.08			
					Sampling Equipment: Hi-Vol Pump #007		
	Total Runtime / Volume						
Work shift Information	Shift: ~10hrs	Shift Start	Shift End	Total ~600 Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

Started sample at 6:26 on 5-24-11
validity check at 9:02 on 5-24-11 pump running ok
validity check between 10:30 & 11:30 pump running ok
validity check at ~ 12:55 pump running ok
stopped sample at 1644 on 5-24-11

pre-cal to pump to 7.112 L/min @ 1618 on ~~5-23-11~~ 5-23-11
post-cal pump to 7.363 L/min @ 1645 on 5-24-11
average flow → 7.238 L/min

Photo 102-0227

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
Blank-Air	—
Collection Date: 5-24-11	
Collected By: WWK, CSC, TEE	Facility: Bannister Complex

Sample Type (check one)	Workload (check one)	Building
☐ Area ☒ Blank ☐ Bulk ☐ Personal ☐ Wipe	X Blank ☐ Light ☐ Normal ☐ Heavy ☐ Unknown	—

Exposure Type (check one)	Sample Placement (check one)	Exposure Estimate Method (check one)
☒ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	X Blank ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☐ General breathing zone	X Blank ☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	—	—	—	—	—	—	
					Sampling Equipment: —		
	Total Runtime / Volume						
Work shift Information	Shift: —	Shift Start	Shift End	Total Minutes —			

Factors that Could Modify Results of this Sample

Sample Comments

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
Blank-Iso	—
Collection Date	
5-24-11	
Collected By	**Facility**
WWK, CSC, TEE	Bannister Complex

Sample Type (check one)	Workload (check one)	Building
☐ Area ☒ Blank ☐ Bulk ☐ Personal ☐ Wipe	X Blank ☐ Light ☐ Normal ☐ Heavy ☐ Unknown	—

Exposure Type (check one)	Sample Placement (check one)	Exposure Estimate Method (check one)
☒ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	X Blank ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☐ General breathing zone	X Blank ☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	—	—	—	—	—	—	
					Sampling Equipment		
	Total Runtime / Volume				—		
Work shift Information	Shift: —	Shift Start	Shift End	Total Minutes —			

Factors that Could Modify Results of this Sample

Sample Comments

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B1SB-Q25-Be/U/Y-Dust	Building 1- SubBasement- East End of Q-Corridor Near Five Doors to DOE-Controlled Area
Collection Date	
5.25.11	
Collected By	**Facility**
CSC + TEE	Bannister Complex

Sample Type (check one)	Workload (check one)	Building
☐ Area ☐ Blank ☒ Bulk ☐ Personal ☐ Wipe	☐ Light ☒ Normal ☐ Heavy ☐ Unknown	1

Exposure Type (check one)	Sample Placement (check one)	Exposure Estimate Method (check one)
☐ Blank ☒ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☒ Bulk ☐ General breathing zone	☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	10:48	11:05	17	43.52			
					Sampling Equipment		
					MSA Pump # 1		
	Total Runtime / Volume						

Work shift Information	Shift:	Shift Start	Shift End	Total Minutes

Factors that Could Modify Results of this Sample

Sample Comments

Pump 1 pre-cal to 2.530 L/min on 5.25.11
sample collected for 17 minutes → 1048 - 1105
10 100cm² templates used → 1000 cm² total
↳ 6 on floor, 1 on pipe, 1 on air conditioning unit, 2 on shelves (N. Wall)
Pump 1 post-cal to 2.59 L/min on 5.25.11

Photo 102-0232, 102-0233, 102-0234

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B1SB-Q25-Be/U/Y-Dust Iso	Building 1- SubBasement- East End of Q-Corridor Near Fire Doors to DOE-Controlled Area
Collection Date: 5-25-11	
Collected By: CSC + TEE	Facility: Bannister Complex
Sample Type (check one): ☐ Area ☐ Blank ☒ Bulk ☐ Personal ☐ Wipe	Building: 1
Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	
Exposure Type (check one): ☐ Blank ☒ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	Exposure Estimate Method (check one): ☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)
Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☒ Bulk ☐ General breathing zone	

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	11:09	12:17	47 minutes of sample time	43.52			
					Sampling Equipment: MSA Pump # 1		
	Total Runtime / Volume						

Work shift Information	Shift:	Shift Start	Shift End	Total Minutes

Factors that Could Modify Results of this Sample

Sample Comments

Pump 1 pre-cal to 2.530 L/min on 5-25-11
sample collected for minutes →
10 100cm² templates used → 1000 cm² total
↳ 6 on floor, 1 on pipe, 1 on air conditioning unit, 2 on shelves (N. Wall)
Pump 1 post-cal to 2.59 L/min on 5-25-11
Tornado warning during sampling caused a pause in sample collection.

Photo 102-0232, 102-0233, 102-0234

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B1F1-R18-Be/U/4-Dust	Building 1 - Floor 1 - Hallway Near Fire Doors to DOE-controlled Area (By FEMA Warehouse)
Collection Date	
Collected By: ☒ CSC + TEE	Facility: Bannister Complex
Sample Type (check one): ☐ Area ☐ Blank ☒ Bulk ☐ Personal ☐ Wipe	Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	Building: 1
Exposure Type (check one): ☐ Blank ☒ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☒ Bulk ☐ General breathing zone	Exposure Estimate Method (check one): ☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	12:51	1302	11	28.16			
					Sampling Equipment: MSA Pump # 1		
	Total Runtime / Volume						
Work shift Information	Shift:	Shift Start	Shift End	Total Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

Pump 1 precal to 2.53 L/min on 5-25-11
sample collected for 11 minutes → 1251-1302
5 100cm² templates used on floor
2.5 doorhandles used → 76cm by 6cm each
} 1640 cm² total
Pump 1 post cal to 2.59 L/min on 5-25-11

Photo 102-0235

Field Sample Descriptions

Page ____ of ____

Field Sample ID B1F1-R18-Be/u/4-Dust Iso	General Sample Location Building 1-Floor 1-Hallway Near Fire Doors to DOE-Controlled Area (By FEMA Warehouse)
Collection Date 5-25-11	
Collected By ☒ CSC + TEE	Facility Bannister Complex
Sample Type (check one) ☐ Area ☐ Blank ☒ Bulk ☐ Personal ☐ Wipe	Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building 1
Exposure Type (check one) ☐ Blank ☒ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☒ Bulk ☐ General breathing zone
	Exposure Estimate Method (check one) ☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	1305	1315	10	25.60			
					Sampling Equipment MSA Pump #1		
	Total Runtime / Volume						

Work shift Information	Shift:	Shift Start	Shift End	Total Minutes

Factors that Could Modify Results of this Sample

Sample Comments

Pump 1 precal to 2.53 L/min on 5-25-11
sample collected for 10 minutes → 1305-1315
5 100cm² templates used on floor } 1640 cm² total
2.5 doorhandles used → 76cm by 6cm each
Pump 1 post cal to 2.59 L/min on 5-25-11

Photo 102-0235

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B1F1-Q19-Be/U/Y-Dust	Building 1- Floor 1- FEMA Warehouse Near Fire Doors & Utility Perforations to DOE-Controlled Area
Collection Date 5.25.11	
Collected By CSC + TEE	**Facility** Bannister Complex

Sample Type (check one)	Workload (check one)	Building
☐ Area ☐ Blank ☒ Bulk ☐ Personal ☐ Wipe	☐ Light ☒ Normal ☐ Heavy ☐ Unknown	1

Exposure Type (check one)	Sample Placement (check one)	Exposure Estimate Method (check one)
☐ Blank ☒ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☒ Bulk ☐ General breathing zone	☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	13:24	13:30	6	15.36			
					Sampling Equipment: MSA Pump # 1		
	Total Runtime / Volume						

Work shift Information	Shift:	Shift Start	Shift End	Total Minutes

Factors that Could Modify Results of this Sample

Sample Comments

Pump 1 pre-cal to 2.53 L/min on 5-25-11
sample collected for 6 minutes → 1324-1330
4 100cm² templates used → 400 cm² total
↳ 2 by fire doors + 2 by fire suppressant system piping
Pump 1 post cal to 2.59 L/min on 5-25-11

Photo 102-0236

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B1F1-Q19-Be/U/Y-Dust Iso	Building 1- Floor 1- FEMA Warehouse Near Fire Doors & Utility Perforations to DOE-Controlled Area
Collection Date	
Collected By: CSC + TEE	Facility: Bannister Complex

Sample Type (check one)	Workload (check one)	Building
☐ Area ☐ Blank ☒ Bulk ☐ Personal ☐ Wipe	☐ Light ☒ Normal ☐ Heavy ☐ Unknown	1

Exposure Type (check one)	Sample Placement (check one)	Exposure Estimate Method (check one)
☐ Blank ☒ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☒ Bulk ☐ General breathing zone	☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	1332	1338	6	15.36			
					Sampling Equipment: MSA Pump #		
	Total Runtime / Volume						

Work shift Information	Shift:	Shift Start	Shift End	Total Minutes

Factors that Could Modify Results of this Sample

Sample Comments

Pump 1 pre-cal to 2.53 L/min on 5-25-11
sample collected for 6 minutes → 1332-1338
4 100cm² templates used → 400 cm² total
↳ 2 by fire doors + 2 by fire suppressant system piping
Pump 1 post cal to 2.59 L/min on 5-25-11

Photo 102-0236

Field Sample Descriptions

Page ____ of ____

Field Sample ID B1F1-Y10-Be/u/4-Dust	General Sample Location Building 1 - Floor 1 - Hallway Near Sliding Fire Door to DOE-Controlled Area
Collection Date	
Collected By CSC + TEE	Facility Bannister Complex
Sample Type (check one) ☐ Area ☐ Blank ☒ Bulk ☐ Personal ☐ Wipe	Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	Building 1
Exposure Type (check one) ☐ Blank ☒ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☒ Bulk ☐ General breathing zone	Exposure Estimate Method (check one) ☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	1349	1357	8	20.48			
					Sampling Equipment MSA Pump# 1		
	Total Runtime / Volume						

Work shift Information	Shift:	Shift Start	Shift End	Total Minutes

Factors that Could Modify Results of this Sample

Sample Comments

Pump 1 pre-cal to 2.53 L/min on 5-25-11
Sample collected for 8 minutes → 1349-1357
3 100cm² templates used on floor
1/2 of bay door ledge used → 304cm by 5cm
1/2 of sliding door ledge used → 294cm by 4.5cm
} 1108.5 cm² total
→ full length of ledges
Pump 1 post cal to 2.59 L/min on 5-25-11

Photo 102 0237

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B1F1-Y10-Be/u/4-Dust Iso	Building 1 - Floor 1 - Hallway Near Sliding Fire Door to DOE-Controlled Area
Collection Date	
Collected By: CSC + TEE	Facility: Bannister Complex
Sample Type (check one): ☐ Area ☐ Blank ☒ Bulk ☐ Personal ☐ Wipe	Building: 1
Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown	
Exposure Type (check one): ☐ Blank ☒ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	Exposure Estimate Method (check one): ☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)
Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☒ Bulk ☐ General breathing zone	

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	1401	1410	9	23.04			
					Sampling Equipment: MSA Pump# 1		
	Total Runtime / Volume						

Work shift Information	Shift:	Shift Start	Shift End	Total Minutes

Factors that Could Modify Results of this Sample

Sample Comments

Pump 1 pre-cal to 2.53 L/min on 5-25-11
sample collected for 9 minutes → 1401 - 1410
3 100cm² templates used on floor
1/2 of bay door ledge used → 304cm by 5cm
1/2 of sliding door ledge used → 294cm by 4.5cm
} 1108.5 cm² total
→ full length of ledges
Pump 1 post cal to 2.59 L/min on 5-25-11

Photo 102-0237

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B1F1-F25-Be1u/4-Dust	Building 1 - Floor 1 - Northeast Corner of GSA Warehouse
Collection Date 5-25-11	
Collected By CSC + TEE	**Facility** Bannister Complex

Sample Type (check one)	Workload (check one)	Building
☐ Area ☐ Blank ☒ Bulk ☐ Personal ☐ Wipe	☐ Light ☒ Normal ☐ Heavy ☐ Unknown	1

Exposure Type (check one)	Sample Placement (check one)	Exposure Estimate Method (check one)
☐ Blank ☒ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☒ Bulk ☐ General breathing zone	☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	1423	14:28	5	12.80			
					Sampling Equipment: MSA Pump # 1		
	Total Runtime / Volume						

Work shift Information	Shift:	Shift Start	Shift End	Total Minutes

Factors that Could Modify Results of this Sample

Sample Comments

Pump 1 precal to 2.53 L/min on 5-25-11
sample collected for 5 minutes → 1423-1428
4 100cm² templates used on concrete floor → 400cm² total
Pump 1 postcal to 2.53 L/min on 5-25-11

Photo 102-0238

Field Sample Descriptions

Page ____ of ____

Field Sample ID B1F1-F25-Be/U/Y-Dust Iso	General Sample Location Building 1 - Floor 1 - Northeast Corner of GSA Warehouse
Collection Date 5-25-11	
Collected By CSC + TEE	Facility Bannister Complex
Sample Type (check one) ☐ Area ☐ Blank ☒ Bulk ☐ Personal ☐ Wipe	Workload (check one) ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building 1
Exposure Type (check one) ☐ Blank ☒ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	Sample Placement (check one) ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☒ Bulk ☐ General breathing zone
	Exposure Estimate Method (check one) ☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	14:31	14:36	5	12.80			
	Total Runtime / Volume						

Sampling Equipment: MSA Pump # 1

Work shift Information	Shift:	Shift Start	Shift End	Total Minutes

Factors that Could Modify Results of this Sample

Sample Comments

Pump 1 precal to 2.53 L/min on 5-25-11
sample collected for 5 minutes → 1431-1436
4 100cm² templates used on concrete floor → 400cm² total
Pump 1 postcal to 2.59 L/min on 5-25-11

Photo 102-0238

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B1F1-A25-Be/U/Y-Dust	Building 1-Floor 1-East End of Carpeted Hallway Near Fire Doors to DOE-Controlled Area
Collection Date: 5-25-11	
Collected By: CSC + TEE	Facility: Bannister Complex

Sample Type (check one)	Workload (check one)	Building
☐ Area ☐ Blank ☒ Bulk ☐ Personal ☐ Wipe	☐ Light ☒ Normal ☐ Heavy ☐ Unknown	1

Exposure Type (check one)	Sample Placement (check one)	Exposure Estimate Method (check one)
☐ Blank ☒ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☒ Bulk ☐ General breathing zone	☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	1446	1450	4	10.24			
	Total Runtime / Volume						

Sampling Equipment: MSA Pump # 1

Work shift Information	Shift:	Shift Start	Shift End	Total Minutes

Factors that Could Modify Results of this Sample

Sample Comments

Pump 1 pre-cal to 2.53 L/min on 5-25-11
Sample collected for 4 minutes → 1446-1450
4 100cm² templates used on carpeted floor → 400cm² total
Pump 1 post cal to 2.59 L/min on 5-25-11

Photo 102-0239

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B1F1-A25-Be/u/Y-Dust Iso	Building 1-Floor 1-East End of Carpeted Hallway Near Fire Doors to DOE-Controlled Area
Collection Date	
5-25-11	
Collected By	**Facility**
CSC + TEE	Bannister Complex

Sample Type (check one)	Workload (check one)	Building
☐ Area ☐ Blank ☒ Bulk ☐ Personal ☐ Wipe	☐ Light ☒ Normal ☐ Heavy ☐ Unknown	1

Exposure Type (check one)	Sample Placement (check one)	Exposure Estimate Method (check one)
☐ Blank ☒ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☒ Bulk ☐ General breathing zone	☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	1454	15:00	6	15.36			
					Sampling Equipment		
					MSA Pump # 1		
	Total Runtime / Volume						

Work shift Information	Shift:	Shift Start	Shift End	Total Minutes

Factors that Could Modify Results of this Sample

Sample Comments

Pump 1 pre-cal to 2.53 L/min on 5-25-11
Sample collected for 6 minutes → 1454-1600
4 100cm² templates used on carpeted floor → 400cm² total
Pump 1 post cal to 2.59 L/min on 5-25-11

Photo 102-0239

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
FH3-RAD-Be/U/Y-Dust	Fan House 3-Return Air Duct-Bottom of Air Handler Unit
Collection Date: 5-25-11	
Collected By: CSC+TEE	Facility: Bannister Complex

Sample Type (check one)	Workload (check one)	Building
☐ Area ☐ Blank ☒ Bulk ☐ Personal ☐ Wipe	☐ Light ☒ Normal ☐ Heavy ☐ Unknown	2

Exposure Type (check one)	Sample Placement (check one)	Exposure Estimate Method (check one)
☐ Blank ☒ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☒ Bulk ☐ General breathing zone	☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	1511	1517	6	15.36			
					Sampling Equipment: MSA Pump # 1		
	Total Runtime / Volume						

Work shift Information	Shift:	Shift Start	Shift End	Total Minutes

Factors that Could Modify Results of this Sample

Sample Comments

Pump 1 pre-cal to 2.53 L/min on 5-25-11
Sample collected for 6 minutes → 1511-1517
templates (100cm²) used on bottom floor of handler → cm² total
Pump 1 post-cal to 2.59 L/min on 5-25-11

Photo 102-0240

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
FH3-RAD-Be/U/Y-Dust Iso	Fan House 3-Return Air Duct-Bottom of Air Handler Unit
Collection Date	
Collected By: CSC+TEE	Facility: Bannister Complex
Sample Type (check one): ☐ Area ☐ Blank ☒ Bulk ☐ Personal ☐ Wipe	Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building: 2
Exposure Type (check one): ☐ Blank ☒ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☒ Bulk ☐ General breathing zone
	Exposure Estimate Method (check one): ☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	1518	1525	7	17.92			
					Sampling Equipment: MSA Pump# 1		
	Total Runtime / Volume						
Work shift Information	Shift:	Shift Start	Shift End	Total Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

Pump 1 pre-cal to 2.53 L/min on 5-25-11
Sample collected for 7 minutes → 1518-1525
templates (100cm²) used on bottom floor of handler → cm² total
Pump 1 post-cal to 2.59 L/min on 5-25-11

Photo 102-0240

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B1SB-V19-Be/U/Y-Dust	Building 1 - SubBasement - Mechanical Room 3B Air Intake
Collection Date	
Collected By: CSC + TEE	Facility: Bannister Complex
Sample Type (check one): ☐ Area ☐ Blank ☒ Bulk ☐ Personal ☐ Wipe	Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building: 1
Exposure Type (check one): ☐ Blank ☒ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☒ Bulk ☐ General breathing zone
	Exposure Estimate Method (check one): ☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	1542	1547	5	12.80			
					Sampling Equipment: MSA Pump # 1		
	Total Runtime / Volume						

Work shift Information	Shift:	Shift Start	Shift End	Total Minutes

Factors that Could Modify Results of this Sample

Sample Comments

Pump 1 pre cal to 2.530L/min on 5-25-11
sample collected for 5 minutes → 1542-1547
5 100cm² templates used → 500cm² total
↳ 3 on metal ledge associated with filters, 1 on floor on North End of room + 1 on floor on south end of room
Pump 1 post cal to 2.590L/min on 5-25-11

Photo 102-0241 thru 0243

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
B1SB-V19-Be/U/4-Dust Iso	Building 1- SubBasement - Mechanical Room 3B Air Intake
Collection Date	
Collected By: CSC + TEE	Facility: Bannister Complex
Sample Type (check one): ☐ Area ☐ Blank ☒ Bulk ☐ Personal ☐ Wipe	Workload (check one): ☐ Light ☒ Normal ☐ Heavy ☐ Unknown
	Building: 1
Exposure Type (check one): ☐ Blank ☒ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	Sample Placement (check one): ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☒ Bulk ☐ General breathing zone
	Exposure Estimate Method (check one): ☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	1549	1555	6	15.36			
					Sampling Equipment: MSA Pump # 1		
	Total Runtime / Volume						

Work shift Information	Shift:	Shift Start	Shift End	Total Minutes

Factors that Could Modify Results of this Sample

Sample Comments

Pump 1 pre cal to 2.53 L/min on 5-25-11
Sample collected for 6 minutes → 1549-1555
5 100cm² templates used → 500cm² total
↳ 3 on metal ledge associated with filters, 1 on floor on North End of room + 1 on floor on south end of room
Pump 1 post cal to 2.59 L/min on 5-25-11

Photo 102-0241 thru 102-0243

Field Sample Descriptions

Page ____ of ____

Field Sample ID	General Sample Location
Blank-Dust	—
Collection Date	
Collected By: CSC + TEE	Facility: Bannister Complex
Sample Type (check one): ☐ Area ☒ Blank ☐ Bulk ☐ Personal ☐ Wipe	Workload (check one): x Blank ☐ Light ☐ Normal ☐ Heavy ☐ Unknown	Building: —
Exposure Type (check one): ☒ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	Sample Placement (check one): x Blank ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☐ General breathing zone	Exposure Estimate Method (check one): x Blank ☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	—	—	—	—			
					Sampling Equipment: —		
	Total Runtime / Volume						
Work shift Information	Shift:	Shift Start	Shift End	Total Minutes			

Factors that Could Modify Results of this Sample

Sample Comments

Field Sample Descriptions

Field Sample ID	General Sample Location
Blank-Dust Iso	—
Collection Date	
Collected By: CSC + TEE	Facility: Bannister Complex
Sample Type (check one): ☐ Area ☒ Blank ☐ Bulk ☐ Personal ☐ Wipe	Building: —
Workload (check one): x Blank ☐ Light ☐ Normal ☐ Heavy ☐ Unknown	
Exposure Type (check one): ☒ Blank ☐ Bulk ☐ Ceiling ☐ Grab ☐ Peak ☐ STEL ☐ TWA	Exposure Estimate Method (check one): x Blank ☐ Use sample period TWA as exposure (assume constant exposure) ☐ Calculate TWA (assume no exposure outside sample period)
Sample Placement (check one): x Blank ☐ Area ☐ Collar ☐ Inside helmet ☐ Wipe ☐ Bulk ☐ General breathing zone	

Sample Runtimes and Volumes	Sample Start	Sample Stop	Runtime (min)	Volume (L)	BP (mm Hg)	Avg. Temp (F)	RH (%)
	—	—	—	—			
					Sampling Equipment: —		
	Total Runtime / Volume						

Work shift Information	Shift:	Shift Start	Shift End	Total Minutes

Factors that Could Modify Results of this Sample

Sample Comments

APPENDIX D

Analytical Tables

TABLE 1
Air Sampling Data Summary - Beryllium/Uranium/Yttrium
Bannister Complex - Building 1 and 2
Terracon Project No. 02107144

Sample I.D.	Sample Date	Beryllium (ug/m^3)	Uranium (ug/m^3)	Yttrium (ug/m^3)
B1SB-AA16-Be/U/Y Air	11/23/2010	< 0.0047	< 0.070	< 0.0093
	2/23/2011	<0.0046	<0.068	<0.0091
	5/24/2011	<0.0045	<0.067	<0.0089
B1SB-K17-Be/U/Y Air	11/23/2010	< 0.0047	< 0.070	< 0.0094
	2/22/2011	<0.0045	<0.067	<0.0090
	5/24/2011	<0.0045	<0.067	<0.0090
B1SB-Q25-Be/U/Y Air	11/23/2010	< 0.0048	< 0.073	< 0.0097
	2/23/2011	<0.0045	<0.068	<0.0090
	5/24/2011	<0.0045	<0.068	<0.0091
B1SB-V19-Be/U/Y Air	11/23/2010	< 0.0047	< 0.070	< 0.0093
	2/22/2011	<0.0044	<0.066	<0.0088
	5/23/2011	<0.0044	<0.067	<0.0089
Bld 1-Roof-North Portion-Air	11/23/2010	< 0.0045	< 0.068	< 0.0090
	2/23/2011	<0.0046	<0.069	<0.0091
	5/24/2011	<0.0045	<0.067	<0.0090
Bld 1-Roof-East Central Portion-Air	11/23/2010	< 0.0045	< 0.068	< 0.0091
	2/23/2011	<0.0047	<0.071	<0.0094
	5/24/2011	<0.0045	<0.070	<0.0093
Bld 2-Roof-East End-Fan House 3- Air	11/23/2010	< 0.0047	< 0.070	< 0.0093
	2/23/2011	<0.0047	<0.070	<0.0094
	5/24/2011	<0.0055	<0.082	<0.011
West Ambient-Air	11/23/2010	< 0.0045	< 0.067	< 0.0090
	2/23/2011	<0.0047	<0.070	<0.0093
	5/24/2011	<0.0045	<0.068	<0.0090
North Ambient-Air	11/23/2010	< 0.0046	< 0.069	< 0.0093
	2/23/2011	<0.0046	<0.069	<0.0091
	5/24/2011	<0.0046	<0.069	<0.0092
B2F1-OB15.5-Be/U/Y Air	11/24/2010	< 0.0046	< 0.070	< 0.0093
	2/22/2011	<0.0045	<0.068	<0.0090
	5/23/2011	<0.0044	<0.066	<0.0088
B2F1-OB6-Be/U/Y Air	11/24/2010	< 0.0048	< 0.072	< 0.0095
	2/22/2011	<0.0045	<0.068	<0.0091
	5/23/2011	<0.0044	<0.066	<0.0088
B2F1-OA26-Be/U/Y Air	11/24/2010	< 0.0047	< 0.070	< 0.0093
	2/22/2011	<0.0045	<0.067	<0.0090
	5/23/2011	<0.0045	<0.067	<0.0090
Bld 2-Fan House 3-Be/U/Y Air	11/24/2010	< 0.0046	< 0.069	< 0.0092
	2/22/2011	<0.0046	<0.069	<0.0091
	5/23/2011	<0.0046	<0.068	<0.0091
B1F1-F25-Be/U/Y-Air	11/24/2010	< 0.0046	< 0.069	< 0.0092
	2/23/2011	<0.0045	<0.067	<0.0089
	5/24/2011	<0.0045	<0.067	<0.0090
B1F1-A25-Be/U/Y Air	11/24/2010	< 0.0046	< 0.068	< 0.0091
	2/22/2011	<0.0045	<0.067	<0.0090
	5/23/2011	<0.0046	<0.070	<0.0093
B1F1-Q19-Be/U/Y Air	11/24/2010	< 0.0047	< 0.071	< 0.0094
	2/23/2011	<0.0045	<0.068	<0.0090
	5/24/2011	<0.0046	<0.068	<0.0091
B1F1-Y10-Be/U/Y Air	11/24/2010	< 0.0046	< 0.069	< 0.0092
	2/22/2011	<0.0043	<0.065	<0.0086
	5/23/2011	<0.0046	<0.069	<0.0092
B1F1-R18-Be/U/Y Air	11/24/2010	< 0.0046	< 0.069	< 0.0092
	2/22/2011	<0.0044	<0.066	<0.0088
	5/23/2011	<0.0046	<0.069	<0.0093
Dup 1-Be/U/Y Air (Q25)	11/23/2010	< 0.0048	< 0.072	< 0.0096
	2/23/2011	<0.0046	<0.068	<0.0091
	5/24/2011	<0.0044	<0.067	<0.0089
Dup 2-Be/U/Y Air (R18)	11/24/2010	< 0.0048	< 0.072	< 0.0096
	2/22/2011	<0.0045	<0.067	<0.0089
	5/23/2011	<0.0046	<0.069	<0.0093
Blank 1-Air	11/23/2010	< 0.020 µg/sample	< 0.30 µg/sample	< 0.040 µg/sample
	2/22/2011	< 0.020 µg/sample	< 0.30 µg/sample	< 0.040 µg/sample
	5/23/2011	< 0.020 µg/sample	< 0.30 µg/sample	< 0.040 µg/sample
Bank 2 - Air	11/24/2010	< 0.020 µg/sample	< 0.30 µg/sample	< 0.040 µg/sample
	2/23/2011	< 0.020 µg/sample	< 0.30 µg/sample	< 0.040 µg/sample
	5/24/2011	< 0.020 µg/sample	< 0.30 µg/sample	< 0.040 µg/sample
EPA Regional Screening Level (RSL) - Industrial Air (Carcinogenic)		**0.0051**	**0.00244 to 0.244[1]**	**NA***
EPA Regional Screening Level (RSL) - Industrial Air (Non-Carcinogenic)		**0.088**	**1.3**	**NA***

Sources:

ALS Environmental, 2011

EPA Regional Screening Levels (RSLs) - http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm

Addendum to the Final Work Plan and Quality Assurance Project Plan for Site Investigation and Limited Removal Action Activities (adendum) dated June 3, 2011

Radionuclide Toxicity and Preliminary Remediation Goals for Superfund tables

Notes:

ug/m^3 = All air concentrations reported in micrograms per cubic meter.

<0.024 = Not detected above the laboratory reporting limit.

1 = Concentration range corresponds to an acceptable cancer risk range of 1 x 10-6 to 1 x 10-4 = Site Specific RSLs (SRSLs)

NA* = Not Applicable - Yttrium analysis was performed for source evaluation, not health risk analysis. Therefore, Yttrium is not being evaluated for potential health risks.

BOLD = Indicates analyte reported above the laboratory reporting limit

* Yttrium analysis was performed for source evaluation, not health risk analysis. Therefore, Yttrium is not being evaluated for potential health risks.

TABLE 2
Dust Sampling Data Summary - Beryllium/Uranium/Yttrium
Bannister Complex - Building 1 and 2
Terracon Project No. 02107144

Sample I.D.	Sample Date	Beryllium (mg/kg)	Uranium (mg/kg)	Yttrium (mg/kg)
B1SB-Q25-Be/U/Y-Dust	11/30/2010	< 0.79	< 12	3.8
	2/24/2011	<0.32	<4.8	4.6
	5/25/2011	<41	<83	<830
B1SB-V19-Be/U/Y-Dust	11/30/2010	< 2.8	< 42	< 5.60
	2/24/2011	<0.86	<13	4.7
	5/25/2011	<0.32	<320	<6.5
B1F1-Q19-Be/U/Y-Dust	11/30/2010	< 2.5	< 38	6.1
	2/24/2011	0.34	<26	8.3
	5/25/2011	<1.8	<3.5	<35
B1F1-R18-Be/U/Y-Dust	11/30/2010	< 0.92	< 14	5.7
	2/24/2011	<1.6	<24	8.4
	5/25/2011	<20	<39	<390
B1F1-Y10-Be/U/Y/Dust	11/30/2010	< 1.3	< 19	2.7
	2/24/2011	<0.90	<14	<4.5
	5/25/2011	<1.9	<3.8	<38
B2SB-BOC26-Be/U/Y-Dust	11/30/2010	< 1.2	< 18	6
FH3-RAD-Be/U/Y-Dust	11/30/2010	< 200	< 3,000	< 400
	2/24/2011	<69	<1,000	<140
	5/25/2011	<1.2	<2.3	<23
FH3-AI-Be/U/Y-Dust	11/30/2010	< 0.65	< 9.8	4
FH3-MC-Be/U/Y-Dust	11/30/2010	< 0.3	< 45	4.2
B1-Roof-ECAI-Be/U/Y-Dust	11/30/2010	0.18	< 9.2	6.1
B1-Roof-NAI-Be/U/Y-Dust	11/30/2010	< 1.5	< 23	< 3.1
B1F1-A25-Be/U/Y-Dust	11/30/2010	< 3.8	< 57	< 7.7
	2/24/2011	<0.83	<12	6.2
	5/25/2011	<1.8	<3.6	<36
B1F1-F25-Be/U/Y-Dust	11/30/2010	1.5	< 13	9.9
	2/24/2011	0.98	<27	8
	5/25/2011	0.9	<220	6.1
Blank 1 -Dust[1]	11/30/2010	< 40	< 600	< 80
	2/24/2011	<0.10	<1.5	<0.20
	5/25/2011	<0.50	<1.0	<10
EPA Regional Screening Levels (RSLs) - Industrial Soil (Carcinogenic)		**6,900**	**156 to 15,584[2]**	**NA***
EPA Regional Screening Levels (RSLs) - Industrial Soil (Non-Carcinogenic)		**2,000**	**3,100**	**NA***

Sources:

ALS Environmental, 2011

November 2010 EPA Regional Screening Levels (RSLs) - http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/Generic_Tables/index.htm

Addendum to the Final Work Plan and Quality Assurance Project Plan for Site Investigation and Limited Removal Action Activities (adendum) dated June 3, 2011

Radionuclide Toxicity and Preliminary Remediation Goals for Superfund tables

Notes:

mg/kg = All dust concentrations reported in milligrams per kilogram.
<0.024 = Not detected above the laboratory reporting limit.
1 = Results in milligrams per sample
2 = Concentration range corresponds to an acceptable cancer risk range of 1 x 10-6 to 1 x 10-4 = Site Specific RSLs (SRSLs)
NE = Not Established by EPA
NA* = Not Applicable - Yttrium analysis was performed for source evaluation, not health risk analysis. Therefore, Yttrium is not being evaluated for potential health risks.
BOLD = Indicates analyte reported above the laboratory reporting limit
* Yttrium analysis was performed for source evaluation, not health risk analysis. Therefore, Yttrium is not being evaluated for potential health risks.

APPENDIX E

Laboratory Analytical Reports

10-Jun-2011

Wil King
Terracon
13910 W. 96th Terrace
Lenexa, KS 66215

Tel: (913) 492-7777
Fax: (913) 492-7443

Re: Bannister Complex Work Order: **1105702**

Dear Wil,

ALS Environmental received 10 samples on 27-May-2011 10:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 10.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Chris Gibson

Electronically approved by: Chris Gibson

Chris Gibson
Project Manager

ALS Environmental

Date: 10-Jun-11

Client: Terracon
Project: Bannister Complex
Work Order: **1105702**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1105702-01	BIFI-Y10-BE/U/Y-Air	Air		5/23/2011	5/27/2011 10:30	☐
1105702-02	BIFI-R18-Be/U/Y-Air	Air		5/23/2011	5/27/2011 10:30	☐
1105702-03	BIFI-A25-BE/U/Y-Air	Air		5/23/2011	5/27/2011 10:30	☐
1105702-04	B2-FanHouse3-Be/U/Y-Air	Air		5/23/2011	5/27/2011 10:30	☐
1105702-05	B2FI-OA26-Be/U/Y-Air	Air		5/23/2011	5/27/2011 10:30	☐
1105702-06	B2FI-OB155-Be/U/Y-Air	Air		5/23/2011	5/27/2011 10:30	☐
1105702-07	B2FI-OB6-Be/U/Y-Air	Air		5/23/2011	5/27/2011 10:30	☐
1105702-08	BISB-V19-Be/U/Y-Air	Air		5/23/2011	5/27/2011 10:30	☐
1105702-09	Dup-Air	Air		5/23/2011	5/27/2011 10:30	☐
1105702-10	Blank-Air	Air		5/23/2011	5/27/2011 10:30	☐

ALS Environmental

Date: 10-Jun-11

Client: Terracon
Project: Bannister Complex
Work Order: 1105702

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

ALS Environmental

Date: *10-Jun-11*

Client: Terracon
Project: Bannister Complex

Work Order: 1105702

Analytical Results

Lab ID: 1105702-01A
Client Sample ID: BIFI-Y10-BE/U/Y-Air

Collection Date: 5/23/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4347** Analyst: **CEG**

Date Analyzed: 6/7/2011 13:20

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000046
Uranium	ND	0.30	<0.000069
Yttrium	ND	0.040	<0.0000092

Lab ID: 1105702-02A
Client Sample ID: BIFI-R18-Be/U/Y-Air

Collection Date: 5/23/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4323.81** Analyst: **CEG**

Date Analyzed: 6/7/2011 13:26

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000046
Uranium	ND	0.30	<0.000069
Yttrium	ND	0.040	<0.0000093

Lab ID: 1105702-03A
Client Sample ID: BIFI-A25-BE/U/Y-Air

Collection Date: 5/23/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4311.22** Analyst: **CEG**

Date Analyzed: 6/7/2011 13:49

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000046
Uranium	ND	0.30	<0.000070
Yttrium	ND	0.040	<0.0000093

Note:

ALS Environmental

Date: *10-Jun-11*

Client: Terracon
Project: Bannister Complex

Work Order: 1105702

Analytical Results

Lab ID: 1105702-04A
Client Sample ID: B2-FanHouse3-Be/U/Y-Air

Collection Date: 5/23/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4391.81** Analyst: **CEG**
Date Analyzed: 6/7/2011 13:55

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000046
Uranium	ND	0.30	<0.000068
Yttrium	ND	0.040	<0.0000091

Lab ID: 1105702-05A
Client Sample ID: B2FI-OA26-Be/U/Y-Air

Collection Date: 5/23/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4464.72** Analyst: **CEG**
Date Analyzed: 6/7/2011 14:01

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000045
Uranium	ND	0.30	<0.000067
Yttrium	ND	0.040	<0.0000090

Lab ID: 1105702-06A
Client Sample ID: B2FI-OB155-Be/U/Y-Air

Collection Date: 5/23/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4537.31** Analyst: **CEG**
Date Analyzed: 6/7/2011 14:06

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000044
Uranium	ND	0.30	<0.000066
Yttrium	ND	0.040	<0.0000088

Note:

ALS Environmental

Date: *10-Jun-11*

Client: Terracon
Project: Bannister Complex

Work Order: 1105702

Analytical Results

Lab ID: 1105702-07A
Client Sample ID: B2FI-OB6-Be/U/Y-Air

Collection Date: 5/23/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4530.08** Analyst: **CEG**
Date Analyzed: 6/7/2011 14:12

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000044
Uranium	ND	0.30	<0.000066
Yttrium	ND	0.040	<0.0000088

Lab ID: 1105702-08A
Client Sample ID: BISB-V19-Be/U/Y-Air

Collection Date: 5/23/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4504.5** Analyst: **CEG**
Date Analyzed: 6/7/2011 14:18

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000044
Uranium	ND	0.30	<0.000067
Yttrium	ND	0.040	<0.0000089

Lab ID: 1105702-09A
Client Sample ID: Dup-Air

Collection Date: 5/23/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4321.99** Analyst: **CEG**
Date Analyzed: 6/7/2011 14:24

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000046
Uranium	ND	0.30	<0.000069
Yttrium	ND	0.040	<0.0000093

Note:

ALS Environmental

Date: *10-Jun-11*

Client: Terracon
Project: Bannister Complex

Work Order: 1105702

Analytical Results

Lab ID: 1105702-10A
Client Sample ID: Blank-Air

Collection Date: 5/23/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **0** Analyst: **CEG**

Date Analyzed: 6/7/2011 14:30

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	NA
Uranium	ND	0.30	NA
Yttrium	ND	0.040	NA

Note:

ALS Environmental

Date: 10-Jun-11

Client: Terracon
Work Order: 1105702
Project: Bannister Complex

QC BATCH REPORT

Batch ID: **6274** Instrument ID **ICP1** Method: **N7300**

MBLK Sample ID: **mblk-6274-6274** Units: **µg/sample** Analysis Date: **6/7/2011 01:03 PM**

Client ID: Run ID: **ICP1_110607A** SeqNo: **272409** Prep Date: **6/2/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	ND	0.020								
Uranium	ND	10								
Yttrium	0.0007726	1.0								J

LCS Sample ID: **lcs-6274-6274** Units: **µg/sample** Analysis Date: **6/7/2011 01:14 PM**

Client ID: Run ID: **ICP1_110607A** SeqNo: **272410** Prep Date: **6/2/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	18.99	0.020	20	0	95	80-120	0			
Uranium	18.49	10	20	0	92.4	80-120	0			
Yttrium	18.14	1.0	20	0	90.7	80-120	0			

LCSD Sample ID: **LCSD-6274-6274** Units: **µg/sample** Analysis Date: **6/7/2011 01:43 PM**

Client ID: Run ID: **ICP1_110607A** SeqNo: **272413** Prep Date: **6/2/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	17.84	0.020	20	0	89.2	80-120	18.99	6.24	20	
Uranium	16.7	10	20	0	83.5	80-120	18.49	10.2		
Yttrium	17.35	1.0	20	0	86.8	80-120	18.14	4.45		

The following samples were analyzed in this batch:

1105702-01A	1105702-02A	1105702-03A
1105702-04A	1105702-05A	1105702-06A
1105702-07A	1105702-08A	1105702-09A
1105702-10A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 10-Jun-11

Client: Terracon
Project: Bannister Complex
WorkOrder: **1105702**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **TERRACON-LENEXA** Date/Time Received: **27-May-11 10:30**

Work Order: **1105702** Received by: **SJW**

Checklist completed by Steve Wilcox (eSignature) 27-May-11 (Date) Reviewed by: Kelsey Kennedy (eSignature) 27-May-11 (Date)

Matrices:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):			
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

ANALYTICAL REQUEST FORM

☒ **REGULAR Status**

☐ **RUSH Status Required - ADDITIONAL CHARGE**

RESULTS REQUIRED BY _____ DATE

CONTACT ALS LABORATORY GROUP PRIOR TO SENDING SAMPLES

Date 5-26-11 Purchase Order No. 02107144

Company Name Terracon Consultants Inc

Address 13910 West 96th Terrace

Lenexa (City) Kansas (State) 66215 (Zip)

Person to Contact Will King

Email Address wwking@terracon.com

Telephone (913) 492-7777

Fax Telephone (913) 492-7443

Billing Address (if different)

Quote No.

Sampling Site Bannister Complex

Date/Time of Collection 5-23-11/~0700 - ~1800

1105702

Laboratory Use Only	Client Sample Number	Media Type	Sample Volume (Liters)	ANALYSES REQUESTED - Use Method Number if Known
01	B1F1-Y10-Be/U/Y-Air	0.8MCE	4347	NIOSH7300/ICP-MS(Be,Y); ICP-MS(U)
02	B1F1-R18-Be/U/Y-Air		4323.81	
03	B1F1-A25-Be/U/Y-Air		4311.22	
04	B2-FanHouse3-Be/U/Y-Air		4391.81	
05	B2F1-OA26-Be/U/Y-Air		4464.72	
06	B2F1-OB55-Be/U/Y-Air		4537.31	
07	B2F1-OB6-Be/U/Y-Air		4530.08	
08	B08-YA1-Be/U/Y-Air		4504.50	
09	Dup-Air		4321.99	
10	Blank-Air		—	
11 5/31/11	B1F1-Y10-Be/U/Y-~~Air~~ Iso		4347.6	ASTM D3971-90M(U)*
12	B1F1-R18-Be/U/Y-Iso		4121.41	
13	B1F1-A25-Be/U/Y-Iso		4262.95	
14	B2-FanHouse3-Be/U/Y-Iso		4628.73	
15	B2F1-OA26-Be/U/Y-Iso		4449.17	
16	B2F1-OB55-Be/U/Y-Iso		4534.13	

Failure to complete all portions of this form may delay analysis. Please fill in this form *LEGIBLY*.

*Please hold samples pending further analysis

CHAIN OF CUSTODY

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time
[signature]	5-26-11/1530	Steve Wilson	5/27/11 10:30
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time

Fed-ex

ANALYTICAL REQUEST FORM

☐ **REGULAR Status**

☐ **RUSH Status Required - ADDITIONAL CHARGE**

RESULTS REQUIRED BY _____ DATE

CONTACT ALS LABORATORY GROUP PRIOR TO SENDING SAMPLES

Date 5-26-11 Purchase Order No. 02107144

Company Name Terracon Consultants Inc

Address 13910 West 96th Terrace

Lenexa (City) Kansas (State) 66215 (Zip)

Person to Contact Wil King

Email Address wwking@terracon.com

Telephone (913) 492-7777

Fax Telephone (913) 492-7443

Billing Address (if different)

Quote No.

Sampling Site Bannister Complex

Date/Time of Collection 5-23-11 / 07100 - 11800

1105702

Laboratory Use Only	Client Sample Number	Media Type	Sample Volume (Liters)	ANALYSES REQUESTED - Use Method Number if Known
17 5/31/11	B3F1-036-Be/44-Iso	0.8 MCE	4431.01	ASTM D3971-90M (U)*
18	B1S8-VF1-Be/44-Iso		4455.99	
19	Dup-Iso		4218.37	
20	Blank-Iso		—	

Failure to complete all portions of this form may delay analysis. Please fill in this form *LEGIBLY.*

*Please hold samples pending further analysis.

CHAIN OF CUSTODY

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time
[signature]	5-26-11 / 1530	Steve Wilson	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time

[redacted]

3268,3291 - 70
BOOK PAGE

TITLE 7300 mod filters Be U Y **PROJECT** **DATE**

Continued from page

WO	#	CLIENT
1105702	-01A → 10A	TERRACON
1105705	-01A → 12A	"

P.pette 20528827
HNO_3 BDH 1110020
HCl ↓ 4110110
HOTBLOCK 101861 @ 104.9 °C setting

#	12IS2280 mL	12IS2282 (mL)	1/10 64CS121	1/10 64CS080
RB - 6274				
MBLK - 6274				
LCS - 6274	0.200	0.200	0.200	0.200
LCSD - 6274	0.200	0.200	0.200	0.200
1105702-01A ↓ 10A				
RB - 6275				
MBLK - 6275				
LCS - 6275	0.200	0.200	0.200	0.200
LCSD - 6275	0.200	0.200	0.200	0.200
1105705-01A ↓ 1105705-12A				

final V = 10 mL

6/2/11

Continued to page 70

SIGNATURE DATE 6/2/11

DISCLOSED TO AND UNDERSTOOD BY DATE 10/2/11

PROPRIETARY INFORMATION

Sample Name: Blank Acquired: 6/7/2011 11:45:17 Type: Cal
Method: BeUY(v42) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8.360	-17.96	9.491	-4.763	-6.262	133.9	10.39	-.6932	2.289	-45.03
Stddev	1.621	6.63	4.901	.546	9.468	.6	2.38	3.500	3.134	2.28
%RSD	19.38	36.90	51.64	11.47	151.2	.4831	22.88	504.9	136.9	5.068
#1	9.102	-16.36	9.435	-5.019	.0892	133.5	12.80	3.279	4.818	-42.51
#2	6.501	-25.24	14.42	-4.135	-1.730	133.6	10.30	-3.326	3.267	-46.96
#3	9.477	-12.27	4.618	-5.134	-17.14	134.6	8.052	-2.033	-1.217	-45.61

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	i -24.89	2.100	i 11.96	-1.939	-16.95	-34.32	10.84	-7.635	-9.319
Stddev	8.63	2.979	8.51	3.406	8.30	7.23	6.47	13.10	.929
%RSD	34.68	141.8	71.20	175.6	48.96	21.06	59.68	171.6	9.973
#1	-18.71	3.351	17.62	-2.984	-14.92	-31.51	3.601	-12.85	-9.952
#2	-34.75	4.251	16.09	1.867	-26.08	-28.92	12.85	-17.32	-8.252
#3	-21.20	-1.300	2.167	-4.701	-9.857	-42.53	16.05	7.268	-9.752

CG 6/8/11
ICP3 ICP1_110607A 6/7/11

10 ppm Al, Ca, Fe, Mg 299 ws 195
1 ppm Be, Y ↓ 185
10 ppm U 131
ICV/CCV ↓ 133
1 CSA 296 ws 189
1 CSAB ↓ 196

AIR FILTERS

Sample Name: HighStd Acquired: 6/7/2011 11:51:07 Type: Cal
Method: BeUY(v42) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1471.	2848.	19340.	13420.	2680.	149.0	1136.	1949.
Stddev	15.	15.	24.	67.	17.	1.7	3.	1.
%RSD	.9922	.5313	.1241	.4972	.6232	1.144	.2426	.0423
#1	1459.	2848.	19330.	13410.	2670.	148.0	1133.	1948.
#2	1466.	2832.	19320.	13350.	2670.	151.0	1137.	1949.
#3	1487.	2863.	19360.	13490.	2699.	148.0	1137.	1950.

Sample Name: U 10 ppm Acquired: 6/7/2011 11:56:53 Type: Cal
Method: BeUY(v42) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	95.07	599.8	965.8	847.6	17360.	4274.	21090.
Stddev	.56	4.0	14.6	9.7	75.	14.	38.
%RSD	.5928	.6627	1.515	1.141	.4337	.3354	.1800
#1	95.37	603.5	962.9	837.0	17290.	4260.	21040.
#2	94.42	600.3	981.6	855.8	17440.	4289.	21120.
#3	95.42	595.6	952.8	850.1	17340.	4274.	21100.

Sample Name: BeY 1ppm Acquired: 6/7/2011 12:02:42 Type: Cal
Method: BeUY(v42) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Be3130	Y_3242	Y_3710	Y_3242-2
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	48240.	103100.	16240.	6015.
Stddev	217.	204.	70.	32.
%RSD	.4494	.1976	.4335	.5364
#1	48020.	102900.	16190.	5980.
#2	48240.	103200.	16200.	6022.
#3	48460.	103200.	16320.	6043.

Sample Name: ICV Acquired: 6/7/2011 12:08:25 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.250	5.332	.4955	5.330	5.251	5.214	5.161	5.133	5.188	.5008
Stddev	.064	.006	.0029	.009	.023	.055	.301	.023	.018	.0007
%RSD	1.226	.1045	.5839	.1785	.4453	1.060	5.834	.4452	.3463	.1380
#1	5.261	5.338	.4957	5.335	5.243	5.210	5.211	5.116	5.179	.5000
#2	5.180	5.329	.4926	5.319	5.233	5.161	5.434	5.124	5.176	.5014
#3	5.308	5.328	.4984	5.337	5.278	5.271	4.838	5.159	5.208	.5010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .4959	5.274	iF 6.647	4.887	4.829	4.691	4.772	4.769	.4923
Stddev	.0027	.101	.118	.035	.131	.014	.005	.012	.0028
%RSD	.5363	1.916	1.769	.7071	2.712	.2883	.1078	.2604	.5664
#1	i .4964	5.238	i 6.650	4.847	4.980	4.682	4.769	4.756	.4932
#2	i .4931	5.388	i 6.763	4.905	4.750	4.707	4.770	4.772	.4892
#3	i .4984	5.195	i 6.528	4.907	4.758	4.685	4.778	4.780	.4946
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5.000						
Range			10.00%						

Sample Name: ICB Acquired: 6/7/2011 12:14:09 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0113	.0050	-.0001	-.0009	.0008	-.0052	-.0782	-.0032	-.0103	.0001
Stddev	.0222	.0049	.0001	.0002	.0013	.0044	.0452	.0253	.0126	.0000
%RSD	196.0	98.15	109.9	24.40	159.7	85.17	57.83	783.4	121.6	53.91
#1	-.0233	.0098	.0000	-.0007	.0020	-.0007	-.1215	-.0315	.0031	.0001
#2	.0143	.0000	-.0001	-.0012	-.0005	-.0052	-.0313	.0042	-.0219	.0001
#3	-.0250	.0053	-.0001	-.0009	.0009	-.0095	-.0818	.0176	-.0122	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0005	F .2438	i -.0156	.0002	.0589	.0004	-.0008	.0039	-.0002
Stddev	.0002	.2719	.0547	.0259	.0310	.0023	.0104	.0059	.0006
%RSD	36.65	111.5	350.8	15020.	52.67	594.4	1336.	149.7	291.4
#1	i -.0003	.5217	i -.0526	.0175	.0682	.0030	.0084	.0090	.0003
#2	i -.0006	.2313	i .0473	-.0296	.0842	-.0010	-.0122	-.0025	.0000
#3	i -.0006	-.0216	i -.0415	.0126	.0243	-.0009	.0014	.0052	-.0009
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.1500							
Low Limit		-.1500							

Sample Name: ICSA Acquired: 6/7/2011 12:20:01 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	245.6	246.0	-.0001	F 192.0	231.8	93.19	92.15	239.8	240.0	-.0002
Stddev	.6	.7	.0001	.4	3.0	.19	.29	.6	.8	.0000
%RSD	.2608	.2964	57.18	.1827	1.310	.1989	.3164	.2704	.3230	17.73
#1	246.4	246.7	-.0001	192.1	228.7	93.37	92.45	240.4	240.7	-.0001
#2	245.3	246.2	-.0001	192.3	232.1	93.20	92.12	239.8	240.1	-.0002
#3	245.2	245.2	-.0002	191.6	234.7	93.00	91.87	239.2	239.2	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				300.0						
Low Limit				200.0						

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	-.0898	iF .3361	F -1.005	.0811	.0261	-.0325	.0355	-.0002
Stddev	.0003	.3638	.0175	.046	.0386	.0034	.0251	.0026	.0008
%RSD	285.0	404.9	5.214	4.535	47.54	12.96	77.29	7.256	337.2
#1	i -.0004	-.4215	i .3453	-1.057	.0909	.0276	-.0595	.0353	-.0011
#2	i -.0001	-.1472	i .3470	-.9825	.1139	.0285	-.0099	.0381	-.0003
#3	i .0002	.2992	i .3159	-.9744	.0386	.0223	-.0280	.0330	.0006
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.1500	.1500					
Low Limit			-.1500	-.1500					

Sample Name: ICSAB Acquired: 6/7/2011 12:25:29 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	248.6	248.4	.4669	F 193.0	230.3	94.44	91.92	241.4	241.5	-.0001
Stddev	1.3	1.1	.0023	.8	3.3	.37	.54	1.0	.7	.0001
%RSD	.5073	.4605	.4846	.4110	1.431	.3914	.5923	.3965	.2872	65.01
#1	247.2	247.1	.4643	193.8	226.8	94.02	91.29	240.5	240.7	-.0001
#2	249.6	249.0	.4685	192.2	230.8	94.70	92.20	241.2	241.7	-.0002
#3	249.1	249.2	.4680	193.0	233.3	94.61	92.27	242.4	242.0	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				300.0						
Low Limit				200.0						

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0002	F .2025	iF .3359	F -1.045	.0856	-.0247	-.0332	.0296	-.0002
Stddev	.0004	.2659	.0829	.030	.0151	.0062	.0060	.0081	.0002
%RSD	204.4	131.3	24.68	2.870	17.65	25.23	18.05	27.47	92.80
#1	i .0003	.1308	i .3159	-1.067	.1020	-.0233	-.0328	.0202	-.0001
#2	i .0005	.4969	i .2649	-1.011	.0722	-.0316	-.0394	.0341	-.0001
#3	i -.0002	-.0202	i .4270	-1.058	.0827	-.0193	-.0274	.0344	-.0005
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.1500	.1500	.1500					
Low Limit		-.1500	-.1500	-.1500					

Sample Name: 2 PPB BE Y Acquired: 6/7/2011 12:33:45 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0469	.0498	.0018	.0293	.0463	.0190	-.1227	.0385	.0419	.0021
Stddev	.0289	.0226	.0000	.0006	.0138	.0037	.1616	.0285	.0045	.0001
%RSD	61.58	45.28	2.506	1.940	29.82	19.51	131.7	73.98	10.71	6.837
#1	.0278	.0255	.0019	.0299	.0308	.0203	.0120	.0152	.0367	.0019
#2	.0801	.0539	.0018	.0293	.0572	.0148	-.0782	.0302	.0448	.0022
#3	.0328	.0701	.0018	.0287	.0511	.0219	-.3018	.0703	.0442	.0020

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0014	.1451	i .1321	-.0018	.0314	-.0003	.0009	-.0060	.0010
Stddev	.0002	.0378	.0380	.0371	.0744	.0033	.0070	.0022	.0005
%RSD	13.95	26.05	28.77	2084.	237.2	1182.	774.5	37.33	46.67
#1	i .0016	.1452	i .1681	.0318	.1148	.0033	-.0068	-.0051	.0010
#2	i .0012	.1828	i .1358	-.0416	.0073	-.0032	.0068	-.0085	.0015
#3	i .0014	.1072	i .0924	.0045	-.0280	-.0009	.0026	-.0043	.0005

Sample Name: 100 PPB U Acquired: 6/7/2011 12:39:37 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029	.0055	-.0001	.0201	.0191	.0004	.2128	-.0012	-.0037	.0000
Stddev	.0173	.0035	.0000	.0002	.0021	.0064	.0885	.0109	.0173	.000
%RSD	594.4	63.90	59.41	1.161	10.78	1466.	41.60	892.2	469.5	296.3
#1	-.0067	.0070	-.0001	.0202	.0185	.0063	.2068	.0033	-.0223	-.0001
#2	-.0074	.0079	.0000	.0198	.0174	-.0064	.3042	-.0136	-.0006	.0000
#3	.0229	.0015	-.0001	.0202	.0214	.0014	.1275	.0067	.0119	.0000

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0003	.2620	i .1163	.0759	.1475	.0993	.0963	.1041	-.0004
Stddev	.0004	.1507	.1139	.0143	.0919	.0047	.0060	.0035	.0007
%RSD	161.9	57.53	97.96	18.90	62.27	4.706	6.206	3.353	168.9
#1	i .0001	.1778	i .2415	.0595	.0660	.0952	.1004	.1048	.0004
#2	i -.0007	.4361	i .0884	.0822	.1295	.1044	.0989	.1072	-.0009
#3	i -.0001	.1723	i .0189	.0860	.2471	.0982	.0894	.1003	-.0007

Sample Name: 15 PPB U Acquired: 6/7/2011 12:45:29 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0112	.0109	-.0001	.0080	.0067	-.0059	-.1022	-.0030	-.0024	.0000
Stddev	.0063	.0095	.0000	.0002	.0031	.0058	.0941	.0017	.0206	.000
%RSD	56.41	86.82	54.70	1.966	45.94	97.19	92.06	54.88	870.9	328.5
#1	.0160	.0000	-.0001	.0080	.0032	-.0003	-.1251	-.0023	.0210	.0000
#2	.0040	.0160	.0000	.0078	.0088	-.0056	-.1828	-.0049	-.0179	.0000
#3	.0134	.0168	-.0001	.0082	.0083	-.0119	.0012	-.0019	-.0102	-.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	.0017	i .0378	.0271	.0844	.0170	.0048	.0150	-.0005
Stddev	.0003	.3016	.0684	.0471	.0237	.0083	.0011	.0016	.0012
%RSD	455.6	18040.	180.8	173.8	28.12	48.60	23.88	10.46	235.1
#1	i .0002	.1397	i -.0168	.0509	.0701	.0233	.0038	.0167	.0000
#2	i -.0003	.2096	i .0158	-.0272	.0712	.0201	.0045	.0146	-.0018
#3	i .0002	-.3443	i .1145	.0576	.1117	.0077	.0060	.0136	.0004

Sample Name: rb-6274 Acquired: 6/7/2011 12:51:20 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0257	.0500	-.0001	.1063	.1040	.0030	.0734	.0057	.0133	.0003
Stddev	.0058	.0218	.0001	.0007	.0017	.0015	.1469	.0182	.0021	.0001
%RSD	22.63	43.62	70.52	.6667	1.632	49.45	200.3	318.2	15.94	19.09
#1	.0300	.0689	.0000	.1056	.1057	.0014	-.0962	.0215	.0152	.0003
#2	.0191	.0549	-.0002	.1062	.1023	.0042	.1527	.0098	.0110	.0002
#3	.0280	.0262	-.0001	.1070	.1040	.0034	.1635	-.0142	.0136	.0004

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	-.0788	i .0005	-.0362	.0629	.0031	-.0011	.0034	.0005
Stddev	.0001	.1626	.0231	.0746	.0358	.0094	.0107	.0008	.0006
%RSD	98.88	206.4	4885.	205.9	56.94	306.1	946.9	24.43	119.8
#1	i .0000	-.0378	i .0271	-.0764	.0392	.0127	-.0117	.0043	.0001
#2	i -.0003	-.2580	i -.0126	.0498	.0453	.0025	-.0015	.0027	.0013
#3	i -.0001	.0594	i -.0131	-.0821	.1040	-.0060	.0098	.0033	.0003

Sample Name: 30 PPB U1 Acquired: 6/7/2011 12:57:11 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023	.0192	-.0001	.0067	.0062	-.0024	.0048	-.0035	.0059	.0000
Stddev	.0216	.0336	.0001	.0004	.0027	.0020	.1442	.0206	.0059	.0001
%RSD	948.6	175.1	88.60	5.798	42.92	82.06	2997.	586.5	99.54	690.4
#1	.0201	.0483	-.0002	.0069	.0054	-.0043	.1599	-.0232	-.0003	.0002
#2	.0085	-.0176	-.0002	.0069	.0092	-.0003	-.0204	.0180	.0114	.0000
#3	-.0218	.0269	.0000	.0062	.0040	-.0026	-.1251	-.0053	.0066	-.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0002	-.0412	i -.0443	.0118	.0663	.0328	.0235	.0339	-.0007
Stddev	.0003	.2351	.0353	.0357	.0627	.0046	.0020	.0060	.0006
%RSD	207.7	570.2	79.57	301.5	94.49	13.90	8.491	17.73	74.97
#1	i -.0005	.1562	i -.0826	-.0235	.0174	.0275	.0234	.0350	-.0001
#2	i .0000	.0215	i -.0372	.0478	.1369	.0352	.0256	.0392	-.0010
#3	i .0001	-.3014	i -.0131	.0113	.0445	.0356	.0216	.0274	-.0011

Sample Name: mblk-6274 Acquired: 6/7/2011 13:03:02 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0413	.0584	-.0001	.1791	.1856	-.0180	-.1455	.0055	.0134	.0001
Stddev	.0223	.0123	.0001	.0005	.0021	.0007	.1051	.0181	.0065	.0000
%RSD	54.04	21.02	78.09	.2742	1.136	3.665	72.26	329.5	48.02	35.50
#1	.0369	.0476	.0000	.1787	.1834	-.0174	-.0709	-.0048	.0064	.0001
#2	.0654	.0559	-.0001	.1790	.1857	-.0187	-.2658	-.0051	.0191	.0001
#3	.0215	.0717	-.0001	.1797	.1876	-.0179	-.0998	.0264	.0149	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0000	-.0235	i -.0811	.0640	.0764	-.0005	-.0145	-.0031	-.0002
Stddev	.0004	.2595	.0288	.0350	.0223	.0024	.0140	.0030	.0003
%RSD	1493.	1105.	35.53	54.66	29.20	518.2	96.10	95.87	142.3
#1	i -.0001	-.0915	i -.0642	.0705	.1004	.0020	-.0289	.0003	.0001
#2	i .0005	.2633	i -.1144	.0262	.0563	-.0029	-.0010	-.0051	-.0006
#3	i -.0002	-.2422	i -.0648	.0953	.0724	-.0006	-.0137	-.0046	-.0002

Sample Name: 0.25 PREP CHECK Acquired: 6/7/2011 13:08:53 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2696	.2930	.2503	.3313	.3402	.2757	.1135	.2573	.2720	.2500
Stddev	.0081	.0057	.0016	.0006	.0023	.0038	.0534	.0127	.0208	.0006
%RSD	2.997	1.931	.6302	.1684	.6623	1.396	47.03	4.935	7.651	.2247
#1	.2604	.2987	.2498	.3307	.3376	.2800	.0581	.2629	.2588	.2504
#2	.2752	.2874	.2520	.3318	.3414	.2746	.1177	.2427	.2960	.2494
#3	.2733	.2927	.2490	.3313	.3417	.2726	.1646	.2662	.2612	.2502

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .2469	.0998	i 1.067	.2173	.2768	.2267	.2779	.2613	.1775
Stddev	.0008	.1604	.130	.0198	.1092	.0019	.0088	.0040	.0007
%RSD	.3384	160.8	12.16	9.130	39.46	.8450	3.149	1.536	.4107
#1	i .2460	.0697	i .9199	.1956	.3941	.2287	.2786	.2627	.1768
#2	i .2472	-.0435	i 1.116	.2220	.1781	.2265	.2688	.2645	.1783
#3	i .2476	.2731	i 1.165	.2344	.2582	.2249	.2862	.2568	.1775

Sample Name: lcs-6274 Acquired: 6/7/2011 13:14:39 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.038	2.052	1.899	2.013	2.241	2.003	2.032	1.916	1.951	1.814
Stddev	.036	.026	.007	.002	.005	.009	.249	.019	.019	.004
%RSD	1.750	1.270	.3828	.1197	.2245	.4381	12.25	.9989	.9631	.2252
#1	2.013	2.024	1.891	2.013	2.236	2.004	1.751	1.926	1.939	1.810
#2	2.023	2.075	1.901	2.010	2.241	1.994	2.225	1.928	1.972	1.818
#3	2.079	2.057	1.906	2.015	2.246	2.012	2.118	1.894	1.941	1.813

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i 1.863	2.367	i 8.651	1.892	1.790	1.668	1.934	1.849	1.339
Stddev	.009	.067	.207	.084	.063	.009	.002	.012	.003
%RSD	.5057	2.838	2.397	4.426	3.504	.5675	.1248	.6212	.2304
#1	i 1.854	2.290	i 8.672	1.853	1.860	1.667	1.933	1.838	1.336
#2	i 1.863	2.400	i 8.434	1.988	1.740	1.678	1.932	1.849	1.340
#3	i 1.873	2.412	i 8.848	1.835	1.770	1.660	1.937	1.861	1.342

Sample Name: 1105702-01A Acquired: 6/7/2011 13:20:24 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0446	.0552	-.0001	.3423	.3536	.0994	-.0072	.0367	.0395	.0002
Stddev	.0169	.0257	.0000	.0011	.0010	.0057	.1514	.0189	.0126	.0000
%RSD	37.88	46.59	38.61	.3103	.2791	5.703	2098.	51.43	31.86	25.11
#1	.0350	.0766	-.0001	.3430	.3532	.0962	.1058	.0150	.0267	.0002
#2	.0641	.0267	-.0001	.3411	.3529	.1060	.0517	.0462	.0519	.0001
#3	.0347	.0623	-.0001	.3430	.3547	.0962	-.1792	.0489	.0400	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	-.2007	i .0096	.0039	.0626	.0046	.0031	-.0013	-.0006
Stddev	.0001	.2086	.0415	.0922	.0811	.0083	.0129	.0012	.0002
%RSD	103.8	103.9	430.5	2360.	129.5	179.9	418.1	95.48	24.94
#1	i .0000	-.3924	i -.0239	-.0744	.0196	.0124	.0169	-.0001	-.0005
#2	i .0001	-.2311	i .0561	.1055	.1561	-.0041	-.0086	-.0026	-.0008
#3	i .0002	.0214	i -.0032	-.0194	.0121	.0055	.0010	-.0012	-.0006

Sample Name: 1105702-02A Acquired: 6/7/2011 13:26:13 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0213	.0577	-.0001	.3955	.4056	.1287	.0289	.0231	.0145	.0001
Stddev	.0104	.0047	.0000	.0002	.0026	.0043	.2071	.0143	.0077	.0001
%RSD	48.97	8.224	52.84	.0624	.6395	3.354	717.5	61.76	53.28	84.27
#1	.0095	.0606	-.0001	.3955	.4032	.1279	-.0132	.0304	.0198	.0001
#2	.0251	.0604	-.0001	.3952	.4083	.1249	-.1539	.0067	.0180	.0000
#3	.0294	.0523	-.0001	.3957	.4053	.1334	.2537	.0322	.0056	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	-.1181	i -.0398	.0342	.0902	.0050	-.0045	-.0020	-.0005
Stddev	.0003	.1536	.1685	.0758	.0541	.0014	.0153	.0021	.0006
%RSD	311.7	130.1	423.4	221.9	60.01	27.22	339.8	103.1	113.7
#1	i .0000	.0539	i .1122	-.0118	.0721	.0036	.0039	.0003	-.0009
#2	i -.0002	-.1668	i -.0106	-.0073	.1511	.0050	.0047	-.0037	.0002
#3	i .0004	-.2416	i -.2210	.1217	.0475	.0063	-.0221	-.0028	-.0008

Sample Name: CCV Acquired: 6/7/2011 13:32:05 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.171	5.228	.4842	5.298	5.153	5.113	4.894	5.039	5.094	.4924
Stddev	.044	.026	.0012	.012	.014	.028	.139	.007	.025	.0006
%RSD	.8602	.4894	.2581	.2235	.2729	.5442	2.847	.1368	.4889	.1158
#1	5.126	5.225	.4827	5.311	5.138	5.080	4.951	5.041	5.068	.4928
#2	5.215	5.204	.4848	5.288	5.156	5.128	4.736	5.032	5.096	.4927
#3	5.173	5.255	.4850	5.295	5.166	5.129	4.997	5.045	5.117	.4917
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .4889	5.163	iF 6.619	4.808	4.715	4.609	4.691	4.705	.4819
Stddev	.0012	.324	.064	.060	.038	.015	.017	.017	.0011
%RSD	.2542	6.269	.9587	1.259	.8047	.3291	.3647	.3533	.2186
#1	i .4881	4.808	i 6.553	4.804	4.742	4.613	4.691	4.696	.4821
#2	i .4904	5.237	i 6.623	4.750	4.671	4.622	4.708	4.724	.4808
#3	i .4884	5.443	i 6.680	4.871	4.730	4.593	4.674	4.694	.4829
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5.000						
Range			10.00%						

Sample Name: CCB Acquired: 6/7/2011 13:37:52 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0069	.0166	-.0001	.0035	.0033	-.0036	-.1371	-.0006	.0014	.0001
Stddev	.0161	.0254	.0000	.0001	.0020	.0059	.1212	.0143	.0153	.0001
%RSD	233.0	153.0	60.90	2.012	60.13	163.1	88.44	2551.	1118.	244.4
#1	.0039	.0088	-.0001	.0036	.0019	.0025	-.1106	-.0162	.0144	-.0001
#2	.0008	.0450	-.0001	.0034	.0056	-.0041	-.2694	.0117	-.0155	.0000
#3	-.0254	-.0040	.0000	.0036	.0024	-.0093	-.0313	.0029	.0053	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0003	.0393	i -.0226	.0486	.0502	.0025	-.0039	.0009	-.0007
Stddev	.0005	.1624	.0518	.0552	.0672	.0108	.0012	.0057	.0009
%RSD	190.3	413.4	229.5	113.4	133.9	425.5	29.25	658.2	128.0
#1	i -.0007	-.0701	i .0274	.0051	.1171	.0016	-.0049	.0073	-.0010
#2	i .0003	-.0380	i -.0191	.1107	-.0173	-.0077	-.0027	-.0036	-.0014
#3	i -.0005	.2259	i -.0761	.0302	.0509	.0137	-.0043	-.0011	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: LCSD-6274 Acquired: 6/7/2011 13:43:45 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.906	1.917	1.784	1.940	1.996	1.900	1.754	1.841	1.888	1.735
Stddev	.022	.025	.008	.000	.014	.021	.089	.007	.014	.004
%RSD	1.167	1.302	.4316	.0208	.6746	1.093	5.091	.3928	.7399	.2286
#1	1.901	1.923	1.793	1.940	2.011	1.921	1.777	1.836	1.904	1.734
#2	1.931	1.938	1.779	1.939	1.987	1.879	1.656	1.838	1.877	1.739
#3	1.887	1.889	1.782	1.940	1.989	1.901	1.830	1.849	1.883	1.731

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i 1.726	2.147	i 7.924	1.671	1.639	1.483	1.800	1.670	1.246
Stddev	.009	.169	.424	.103	.049	.004	.002	.006	.004
%RSD	.5177	7.870	5.355	6.189	2.997	.2445	.1094	.3377	.2926
#1	i 1.736	1.979	i 8.406	1.786	1.672	1.479	1.798	1.665	1.250
#2	i 1.719	2.145	i 7.609	1.585	1.582	1.486	1.800	1.676	1.244
#3	i 1.723	2.316	i 7.756	1.643	1.662	1.482	1.802	1.667	1.243

Sample Name: 1105702-03A Acquired: 6/7/2011 13:49:29 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0286	.0258	.0000	.2285	.2385	.0643	.0241	.0139	.0194	.0001
Stddev	.0190	.0099	.000	.0007	.0037	.0016	.1699	.0090	.0041	.0001
%RSD	66.43	38.35	85.69	.3199	1.555	2.548	706.3	64.50	21.30	60.15
#1	.0340	.0327	.0000	.2279	.2416	.0626	-.1395	.0126	.0146	.0002
#2	.0075	.0145	.0000	.2293	.2344	.0642	.0120	.0235	.0217	.0001
#3	.0442	.0303	-.0001	.2284	.2396	.0659	.1996	.0057	.0218	.0000

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	.0467	i -.0272	.0264	.0736	.0024	-.0047	-.0012	-.0001
Stddev	.0003	.3251	.1259	.1216	.0602	.0026	.0052	.0046	.0006
%RSD	230.2	695.7	462.4	460.5	81.75	107.7	109.2	372.3	566.1
#1	i .0000	.3227	i -.1561	.1112	.0067	.0042	-.0044	-.0011	.0004
#2	i -.0005	.1292	i -.0211	.0810	.1233	.0036	.0003	-.0059	-.0008
#3	i .0001	-.3117	i .0955	-.1129	.0909	-.0006	-.0100	.0033	.0001

Sample Name: 1105702-04A Acquired: 6/7/2011 13:55:17 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0303	.0307	-.0001	.0855	.0864	-.0011	-.1635	.0087	.0066	.0002
Stddev	.0167	.0235	.0001	.0007	.0034	.0050	.0397	.0161	.0102	.0001
%RSD	54.99	76.40	61.12	.8033	3.904	441.0	24.30	186.3	153.5	31.77
#1	.0429	.0329	.0000	.0858	.0857	.0046	-.1611	.0167	.0149	.0002
#2	.0367	.0062	-.0002	.0847	.0900	-.0036	-.2044	.0192	.0097	.0002
#3	.0114	.0530	-.0002	.0859	.0834	-.0044	-.1251	-.0099	-.0047	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0003	.0249	i -.0224	.0160	.0261	.0043	-.0016	-.0011	-.0004
Stddev	.0001	.0487	.0406	.0512	.0773	.0011	.0150	.0065	.0002
%RSD	45.65	195.7	181.0	319.4	295.7	25.97	916.3	569.8	44.69
#1	i -.0004	.0321	i -.0489	.0352	.0329	.0030	.0091	-.0085	-.0003
#2	i -.0001	.0697	i .0243	.0548	-.0543	.0046	-.0188	.0012	-.0005
#3	i -.0004	-.0270	i -.0426	-.0420	.0998	.0052	.0048	.0038	-.0002

Sample Name: 1105702-05A Acquired: 6/7/2011 14:01:07 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0569	.0684	-.0001	.5300	.5492	.1042	-.0373	.0280	.0337	.0000
Stddev	.0194	.0138	.0001	.0012	.0022	.0097	.0927	.0120	.0118	.0001
%RSD	34.03	20.18	57.72	.2262	.3944	9.335	248.7	42.62	35.04	221.7
#1	.0596	.0826	-.0001	.5302	.5499	.1026	.0697	.0168	.0317	.0000
#2	.0748	.0674	-.0002	.5312	.5468	.1146	-.0890	.0406	.0464	.0002
#3	.0364	.0551	-.0001	.5288	.5510	.0954	-.0926	.0267	.0230	.0000

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0002	.0073	i .0009	.0163	.0620	.0006	-.0117	.0016	-.0007
Stddev	.0002	.1526	.1532	.0959	.0293	.0044	.0056	.0071	.0004
%RSD	81.25	2097.	16210.	590.2	47.25	703.7	48.03	448.6	58.66
#1	i -.0004	-.0213	i .0589	-.0928	.0686	.0001	-.0164	-.0030	-.0004
#2	i .0000	-.1291	i -.1728	.0876	.0874	.0052	-.0131	.0098	-.0012
#3	i -.0002	.1722	i .1167	.0540	.0300	-.0035	-.0055	-.0020	-.0006

Sample Name: 1105702-06A Acquired: 6/7/2011 14:06:58 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009	.0327	-.0001	.0660	.0663	-.0092	.0661	.0015	.0055	.0001
Stddev	.0103	.0212	.0000	.0004	.0047	.0042	.1737	.0178	.0132	.0001
%RSD	1134.	64.65	36.45	.5646	7.065	46.19	262.6	1218.	242.9	72.38
#1	-.0071	.0390	-.0001	.0663	.0704	-.0043	.0986	.0033	.0197	.0000
#2	-.0028	.0091	-.0001	.0661	.0673	-.0116	-.1215	.0183	.0032	.0001
#3	.0126	.0500	.0000	.0656	.0612	-.0116	.2213	-.0172	-.0065	.0002

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0002	.0879	i -.0661	.0176	.0167	-.0005	-.0147	.0015	-.0001
Stddev	.0001	.0999	.0675	.0586	.1023	.0076	.0051	.0033	.0005
%RSD	84.46	113.6	102.2	333.3	613.9	1500.	34.89	213.5	742.7
#1	i -.0002	-.0268	i -.0063	-.0356	-.0303	.0074	-.0151	.0043	-.0006
#2	i .0000	.1558	i -.0526	.0803	-.0537	-.0013	-.0195	-.0021	.0003
#3	i -.0003	.1348	i -.1393	.0080	.1340	-.0077	-.0093	.0024	.0001

Sample Name: 1105702-07A Acquired: 6/7/2011 14:12:48 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0515	.0550	.0000	.2600	.2695	.0138	-.1347	-.0035	.0125	.0002
Stddev	.0221	.0037	.000	.0002	.0018	.0057	.2073	.0257	.0142	.0000
%RSD	43.03	6.784	173.4	.0803	.6667	41.19	153.9	728.8	113.4	26.30
#1	.0323	.0526	.0000	.2598	.2683	.0141	-.3704	-.0322	.0205	.0002
#2	.0757	.0593	-.0001	.2601	.2715	.0080	.0192	.0042	.0209	.0002
#3	.0464	.0532	-.0001	.2602	.2685	.0194	-.0529	.0174	-.0039	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	-.0037	i -.0028	-.0009	.1198	.0039	-.0163	.0005	-.0001
Stddev	.0002	.2326	.0493	.0442	.0749	.0028	.0139	.0027	.0007
%RSD	243.9	6290.	1739.	5130.	62.51	72.19	85.18	515.0	759.4
#1	i .0001	-.0326	i -.0259	-.0041	.1977	.0017	-.0034	-.0004	.0004
#2	i -.0001	-.2205	i -.0364	.0448	.0484	.0070	-.0146	-.0016	-.0009
#3	i -.0002	.2421	i .0538	-.0434	.1132	.0029	-.0310	.0036	.0002

Sample Name: 1105702-08A Acquired: 6/7/2011 14:18:39 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0403	.0598	-.0001	.2442	.2547	.0063	.0060	-.0012	.0291	.0000
Stddev	.0105	.0281	.0001	.0010	.0034	.0058	.2129	.0195	.0102	.0001
%RSD	26.13	47.08	116.3	.3970	1.334	91.95	3541.	1610.	34.96	131.3
#1	.0287	.0885	.0000	.2441	.2508	.0083	-.2044	.0193	.0183	.0000
#2	.0430	.0586	-.0002	.2432	.2570	-.0002	.0012	-.0034	.0385	.0000
#3	.0492	.0322	-.0001	.2452	.2563	.0109	.2213	-.0195	.0305	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0003	.1919	i -.0132	-.0169	.1288	.0021	-.0108	.0015	-.0010
Stddev	.0001	.0497	.0797	.0455	.0254	.0059	.0043	.0056	.0006
%RSD	38.36	25.92	602.3	269.3	19.76	276.6	40.39	375.2	57.98
#1	i -.0004	.2257	i .0563	-.0568	.1023	.0071	-.0156	.0061	-.0014
#2	i -.0002	.2152	i .0042	-.0265	.1310	-.0043	-.0096	-.0048	-.0013
#3	i -.0002	.1348	i -.1002	.0326	.1530	.0036	-.0071	.0032	-.0003

Sample Name: 1105702-09A Acquired: 6/7/2011 14:24:28 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0205	.0293	.0000	.2025	.2089	.0285	.0216	.0272	.0155	.0001
Stddev	.0047	.0086	.000	.0004	.0039	.0007	.2153	.0166	.0089	.0001
%RSD	22.86	29.34	998.1	.2077	1.848	2.612	994.8	61.19	57.47	98.84
#1	.0177	.0284	.0000	.2028	.2090	.0291	-.0277	.0284	.0137	.0000
#2	.0259	.0212	.0000	.2027	.2051	.0287	.2573	.0431	.0252	.0000
#3	.0179	.0383	.0000	.2020	.2128	.0277	-.1647	.0099	.0077	.0002

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0000	-.0681	i -.0837	.0144	.0512	.0032	.0052	-.0033	.0004
Stddev	.0003	.4225	.0875	.0324	.0126	.0039	.0139	.0044	.0005
%RSD	907.1	620.6	104.6	225.4	24.58	121.4	265.4	134.2	129.7
#1	i .0004	-.0699	i .0166	.0438	.0427	.0002	.0189	.0018	.0002
#2	i -.0001	.3553	i -.1442	.0195	.0657	.0076	.0057	-.0064	.0000
#3	i -.0002	-.4897	i -.1235	-.0203	.0453	.0018	-.0089	-.0052	.0009

Sample Name: 1105702-10A Acquired: 6/7/2011 14:30:18 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0305	.0279	-.0001	.1656	.1750	.0950	.0036	.0030	.0078	.0000
Stddev	.0186	.0084	.0000	.0006	.0021	.0018	.1164	.0143	.0033	.0001
%RSD	60.94	30.22	36.30	.3411	1.194	1.933	3225.	474.2	42.82	247.1
#1	.0239	.0197	-.0002	.1653	.1728	.0964	.1275	.0193	.0081	.0000
#2	.0516	.0274	-.0001	.1652	.1770	.0955	-.1034	-.0072	.0043	.0001
#3	.0162	.0365	-.0002	.1662	.1753	.0929	-.0132	-.0031	.0110	.0000

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	-.1541	i -.1180	.0051	.0707	.0018	-.0047	-.0015	-.0015
Stddev	.0000	.3700	.0406	.0654	.0534	.0069	.0092	.0014	.0006
%RSD	68.10	240.2	34.43	1280.	75.50	382.9	198.2	93.86	44.15
#1	i .0000	-.4408	i -.1107	-.0590	.1316	-.0060	-.0136	-.0011	-.0014
#2	i -.0001	.2636	i -.0815	.0026	.0315	.0074	-.0052	-.0004	-.0021
#3	i -.0001	-.2850	i -.1617	.0717	.0492	.0040	.0048	-.0031	-.0008

Sample Name: rb-6275 Acquired: 6/7/2011 14:36:09 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1562	.1578	-.0002	.3084	.3042	.0127	-.1912	.0205	.0200	.0116
Stddev	.0202	.0065	.0000	.0010	.0036	.0015	.2378	.0070	.0030	.0001
%RSD	12.92	4.135	10.72	.3322	1.173	11.58	124.4	34.37	15.24	.5328
#1	.1470	.1565	-.0002	.3094	.3051	.0135	-.2369	.0128	.0213	.0116
#2	.1793	.1649	-.0002	.3085	.3073	.0110	.0661	.0221	.0221	.0115
#3	.1422	.1521	-.0002	.3073	.3003	.0137	-.4028	.0266	.0165	.0115

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i.0111	.1128	i.0846	-.0477	.1071	-.0018	-.0111	-.0015	.0108
Stddev	.0004	.3178	.0631	.0369	.0428	.0060	.0038	.0061	.0001
%RSD	3.942	281.8	74.58	77.37	39.94	335.1	33.84	417.0	1.035
#1	i.0111	.4409	i.0975	-.0725	.1513	.0046	-.0096	-.0035	.0109
#2	i.0115	-.1936	i.0161	-.0654	.1040	-.0074	-.0154	.0054	.0107
#3	i.0106	.0910	i.1403	-.0053	.0660	-.0026	-.0084	-.0063	.0108

Sample Name: CCV Acquired: 6/7/2011 14:42:00 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.208	5.249	.4886	5.296	5.174	5.158	5.188	5.017	5.092	.4938
Stddev	.037	.028	.0038	.005	.030	.029	.206	.022	.012	.0016
%RSD	.7060	.5237	.7850	.0904	.5797	.5610	3.972	.4477	.2424	.3197
#1	5.166	5.220	.4850	5.301	5.144	5.140	5.339	4.991	5.083	.4950
#2	5.231	5.253	.4881	5.296	5.175	5.142	5.272	5.034	5.086	.4920
#3	5.227	5.275	.4926	5.291	5.204	5.191	4.953	5.026	5.106	.4943
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .4939	5.159	iF 6.604	4.786	4.765	4.638	4.700	4.728	.4873
Stddev	.0035	.291	.103	.043	.218	.014	.022	.020	.0049
%RSD	.7010	5.633	1.563	.8978	4.565	.2908	.4783	.4257	1.008
#1	i .4900	5.314	i 6.643	4.737	4.514	4.653	4.680	4.750	.4821
#2	i .4951	4.824	i 6.487	4.819	4.906	4.627	4.724	4.722	.4881
#3	i .4966	5.340	i 6.682	4.801	4.874	4.635	4.695	4.711	.4919
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5.000						
Range			10.00%						

Sample Name: CCB Acquired: 6/7/2011 14:47:46 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0156	.0080	-.0001	.0037	.0049	-.0062	.0253	.0099	-.0082	.0000
Stddev	.0298	.0355	.0000	.0001	.0006	.0042	.0696	.0156	.0103	.0001
%RSD	190.6	443.1	32.00	3.322	11.29	67.03	275.7	157.6	125.8	483.5
#1	-.0136	-.0144	-.0002	.0036	.0049	-.0095	.0481	-.0046	-.0014	.0001
#2	.0145	.0490	-.0002	.0038	.0044	-.0077	-.0529	.0264	-.0200	-.0001
#3	.0459	-.0106	-.0001	.0037	.0055	-.0015	.0806	.0079	-.0031	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0004	F -.2080	i -.0288	-.0245	.0674	-.0006	-.0200	.0029	.0002
Stddev	.0001	.3728	.0406	.0221	.0551	.0074	.0070	.0026	.0007
%RSD	13.43	179.3	140.8	90.44	81.83	1234.	34.91	90.68	288.3
#1	i -.0004	.2206	i .0127	-.0294	.0115	.0064	-.0185	.0008	.0010
#2	i -.0004	-.4573	i -.0307	-.0437	.0689	-.0083	-.0139	.0057	-.0005
#3	i -.0005	-.3872	i -.0684	-.0003	.1217	.0001	-.0276	.0021	.0002
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.1500							
Low Limit		-.1500							

Sample Name: mblk-6275 Acquired: 6/7/2011 14:53:39 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2757	.2844	-.0001	.5176	.5253	-.0238	-.1635	.0264	.0182	.0111
Stddev	.0252	.0189	.0001	.0015	.0057	.0085	.2041	.0199	.0114	.0001
%RSD	9.157	6.641	104.0	.2883	1.082	35.66	124.8	75.16	62.55	.6363
#1	.3015	.2973	.0000	.5186	.5289	-.0327	-.0493	.0277	.0203	.0111
#2	.2744	.2933	-.0001	.5159	.5283	-.0229	-.0421	.0456	.0059	.0110
#3	.2511	.2628	-.0001	.5183	.5188	-.0158	-.3992	.0060	.0283	.0111

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0113	.1343	i -.0051	.0074	.0792	-.0004	-.0116	.0045	.0111
Stddev	.0001	.2185	.1033	.0512	.0183	.0006	.0167	.0017	.0009
%RSD	1.321	162.7	2024.	691.3	23.06	177.1	144.2	37.84	7.920
#1	i .0112	-.1076	i .1139	.0564	.0981	-.0003	-.0199	.0044	.0116
#2	i .0114	.3173	i -.0716	.0116	.0616	-.0010	-.0226	.0028	.0116
#3	i .0112	.1932	i -.0577	-.0458	.0779	.0002	.0077	.0062	.0101

Sample Name: lcs-6275 Acquired: 6/7/2011 14:59:29 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.174	2.193	1.845	2.187	2.443	1.935	1.969	1.861	1.899	1.734
Stddev	.015	.017	.004	.007	.006	.012	.129	.009	.009	.002
%RSD	.6860	.7628	.2295	.3093	.2382	.6028	6.545	.5015	.4844	.1330
#1	2.158	2.184	1.844	2.189	2.446	1.923	1.863	1.852	1.893	1.734
#2	2.177	2.213	1.841	2.180	2.437	1.946	1.932	1.870	1.910	1.732
#3	2.187	2.183	1.849	2.193	2.447	1.936	2.112	1.861	1.895	1.736

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i 1.795	2.151	i 8.175	1.804	1.743	1.597	1.851	1.770	1.283
Stddev	.004	.225	.173	.101	.019	.004	.019	.012	.005
%RSD	.2188	10.46	2.111	5.593	1.094	.2239	1.018	.6786	.4294
#1	i 1.791	2.408	i 8.282	1.734	1.729	1.600	1.846	1.764	1.284
#2	i 1.795	1.990	i 8.267	1.920	1.734	1.593	1.836	1.761	1.277
#3	i 1.799	2.055	i 7.976	1.758	1.764	1.597	1.872	1.783	1.288

Sample Name: lcsd-6275 Acquired: 6/7/2011 15:05:13 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.067	2.079	1.842	2.074	2.290	1.955	1.799	1.841	1.899	1.773
Stddev	.013	.022	.005	.002	.008	.009	.119	.008	.013	.007
%RSD	.6437	1.055	.2819	.1046	.3630	.4331	6.594	.4296	.7068	.4083
#1	2.066	2.103	1.846	2.072	2.296	1.952	1.664	1.850	1.907	1.765
#2	2.053	2.059	1.845	2.076	2.293	1.965	1.884	1.839	1.907	1.779
#3	2.080	2.075	1.836	2.075	2.280	1.950	1.850	1.835	1.884	1.775

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i 1.819	2.209	i 8.261	1.811	1.695	1.634	1.893	1.826	1.304
Stddev	.004	.051	.348	.028	.105	.008	.017	.008	.005
%RSD	.2389	2.323	4.216	1.524	6.177	.4917	.8880	.4366	.4162
#1	i 1.823	2.267	i 7.860	1.781	1.803	1.627	1.874	1.817	1.306
#2	i 1.819	2.174	i 8.488	1.817	1.687	1.642	1.906	1.832	1.308
#3	i 1.814	2.185	i 8.435	1.835	1.594	1.632	1.899	1.828	1.298

Sample Name: CHECK1 Acquired: 6/7/2011 15:10:58 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.924	1.925	1.797	1.949	2.009	1.920	1.885	1.844	1.867	1.742
Stddev	.029	.030	.011	.002	.015	.014	.045	.017	.022	.001
%RSD	1.497	1.543	.6227	.1250	.7288	.7510	2.370	.9435	1.166	.0338
#1	1.955	1.935	1.801	1.946	2.011	1.919	1.921	1.836	1.869	1.741
#2	1.920	1.891	1.785	1.950	1.994	1.906	1.835	1.864	1.844	1.742
#3	1.898	1.948	1.806	1.950	2.023	1.935	1.898	1.832	1.888	1.741

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i 1.744	2.402	i 8.076	1.667	1.632	1.506	1.811	1.686	1.256
Stddev	.013	.135	.180	.073	.088	.006	.005	.005	.005
%RSD	.7313	5.625	2.235	4.398	5.422	.3855	.3029	.3160	.3970
#1	i 1.751	2.311	i 8.133	1.723	1.705	1.502	1.814	1.683	1.256
#2	i 1.729	2.557	i 7.874	1.584	1.533	1.503	1.815	1.683	1.251
#3	i 1.752	2.338	i 8.221	1.694	1.657	1.513	1.805	1.692	1.261

Sample Name: 1105705-01A Acquired: 6/7/2011 15:16:44 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0777	.0810	-.0002	.4411	.4614	.1147	-.0349	.0301	.0300	.0018
Stddev	.0139	.0217	.0000	.0016	.0021	.0069	.0940	.0012	.0133	.0000
%RSD	17.84	26.82	31.28	.3681	.4563	6.006	269.6	4.003	44.20	2.336
#1	.0707	.0622	-.0001	.4426	.4636	.1152	-.0818	.0309	.0167	.0018
#2	.0936	.0761	-.0001	.4413	.4594	.1076	-.0962	.0287	.0302	.0018
#3	.0687	.1048	-.0002	.4394	.4612	.1213	.0734	.0308	.0432	.0017

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0016	.1256	i -.0721	-.0101	.1184	.0012	.0094	-.0047	.0002
Stddev	.0004	.2866	.0811	.0505	.0635	.0085	.0036	.0026	.0004
%RSD	25.56	228.1	112.5	500.1	53.66	719.2	38.62	54.46	202.3
#1	i .0012	.3121	i .0141	-.0676	.1836	.0044	.0114	-.0062	-.0001
#2	i .0019	-.2044	i -.1470	.0271	.1150	-.0084	.0052	-.0017	.0001
#3	i .0019	.2692	i -.0835	.0102	.0567	.0075	.0115	-.0061	.0006

Sample Name: 1105705-02A Acquired: 6/7/2011 15:22:33 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0897	.0970	-.0001	.3980	.4148	.0838	-.0818	.0380	.0369	.0010
Stddev	.0136	.0222	.0001	.0015	.0050	.0059	.1389	.0051	.0043	.0000
%RSD	15.20	22.92	134.9	.3809	1.209	6.999	169.9	13.29	11.72	3.034
#1	.0767	.1012	-.0001	.3967	.4197	.0854	.0553	.0345	.0319	.0010
#2	.0885	.1167	-.0001	.3978	.4150	.0887	-.0782	.0357	.0389	.0009
#3	.1039	.0729	.0000	.3997	.4097	.0773	-.2225	.0438	.0398	.0010

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0011	.0054	i -.0516	.0086	.0843	.0061	-.0166	-.0017	.0002
Stddev	.0003	.2069	.0737	.0376	.0317	.0059	.0015	.0031	.0007
%RSD	29.96	3844.	142.8	437.0	37.62	96.03	9.342	180.3	315.5
#1	i .0008	.0970	i -.0696	-.0249	.0494	.0113	-.0152	.0015	.0008
#2	i .0010	.1506	i .0294	.0014	.1114	.0075	-.0183	-.0046	-.0006
#3	i .0014	-.2315	i -.1147	.0493	.0920	-.0003	-.0163	-.0021	.0004

Sample Name: 1105705-03A Acquired: 6/7/2011 15:28:22 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0430	.0651	.0000	.3316	.3429	.0273	-.1275	.0209	.0187	.0005
Stddev	.0182	.0142	.000	.0006	.0060	.0026	.1711	.0098	.0051	.0001
%RSD	42.34	21.75	34.63	.1838	1.750	9.443	134.3	46.75	27.44	11.77
#1	.0635	.0591	-.0000	.3312	.3360	.0277	-.2153	.0096	.0242	.0005
#2	.0290	.0812	.0000	.3313	.3471	.0245	.0697	.0263	.0140	.0006
#3	.0364	.0549	-.0001	.3323	.3457	.0296	-.2369	.0269	.0180	.0006

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0005	.2061	i -.0057	.0226	.0917	-.0004	.0035	-.0023	.0000
Stddev	.0000	.6951	.1268	.0643	.0417	.0071	.0057	.0040	.001
%RSD	6.265	337.2	2236.	285.1	45.42	1996.	164.0	168.7	3133.
#1	i .0005	.3172	i -.0503	-.0516	.1398	-.0063	-.0005	-.0064	-.0005
#2	i .0005	-.5378	i -.1042	.0629	.0668	-.0023	.0010	.0015	.0007
#3	i .0005	.8389	i .1375	.0564	.0686	.0075	.0100	-.0021	-.0002

Sample Name: 1105705-04A Acquired: 6/7/2011 15:34:13 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0390	.0592	-.0001	.3718	.3830	.0299	-.1335	.0238	.0222	.0002
Stddev	.0178	.0278	.0001	.0011	.0026	.0027	.0454	.0127	.0114	.0001
%RSD	45.55	46.93	134.7	.2963	.6662	9.103	34.01	53.56	51.05	35.11
#1	.0425	.0742	.0000	.3716	.3819	.0283	-.1395	.0361	.0334	.0002
#2	.0548	.0272	.0000	.3707	.3812	.0330	-.1756	.0107	.0227	.0001
#3	.0198	.0764	-.0002	.3729	.3859	.0283	-.0854	.0245	.0107	.0002

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	.1900	i -.0963	-.0112	.0100	.0068	-.0092	-.0002	-.0003
Stddev	.0002	.2421	.1501	.0375	.0832	.0063	.0071	.0013	.0006
%RSD	118.9	127.5	155.8	334.9	829.1	92.14	76.91	604.1	186.4
#1	i .0000	-.0485	i -.0931	.0321	.0396	.0122	-.0041	-.0009	.0004
#2	i .0003	.4356	i .0521	-.0322	.0744	-.0001	-.0173	.0013	-.0007
#3	i .0001	.1829	i -.2480	-.0335	-.0839	.0083	-.0063	-.0011	-.0007

Sample Name: 1105705-05A Acquired: 6/7/2011 15:40:02 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0425	.0530	-.0001	.0899	.0913	-.0026	-.0974	.0001	.0093	.0001
Stddev	.0145	.0146	.0001	.0005	.0011	.0042	.1225	.0216	.0085	.0000
%RSD	34.17	27.46	92.08	.5536	1.172	163.0	125.7	28990.	91.53	38.65
#1	.0593	.0420	-.0002	.0898	.0901	-.0049	-.0746	-.0249	.0186	.0001
#2	.0348	.0696	.0000	.0904	.0919	-.0051	-.2297	.0135	.0078	.0001
#3	.0335	.0475	-.0001	.0894	.0919	.0023	.0120	-.0116	.0017	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	.0106	i .0241	-.0358	.0565	.0035	-.0047	-.0027	-.0007
Stddev	.0003	.1586	.0484	.0613	.0265	.0039	.0089	.0062	.0004
%RSD	200.5	1490.	200.8	171.2	46.96	109.2	191.4	232.2	59.17
#1	i .0002	.1129	i -.0007	-.0961	.0306	.0005	-.0144	-.0016	-.0003
#2	i -.0003	.0912	i -.0069	.0264	.0836	.0079	-.0027	.0029	-.0011
#3	i -.0002	-.1721	i .0799	-.0377	.0552	.0023	.0031	-.0094	-.0008

Sample Name: 1105705-06A Acquired: 6/7/2011 15:45:53 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0173	.0475	.0000	.2328	.2446	.0052	.0986	.0087	.0166	.0001
Stddev	.0111	.0065	.000	.0010	.0035	.0006	.2582	.0064	.0078	.0000
%RSD	64.37	13.67	133.0	.4281	1.442	12.33	261.9	73.61	47.07	27.79
#1	.0131	.0412	-.0001	.2323	.2420	.0045	.3078	.0032	.0217	.0001
#2	.0088	.0542	.0000	.2323	.2486	.0057	-.1900	.0157	.0203	.0001
#3	.0299	.0472	.0000	.2340	.2432	.0055	.1780	.0071	.0076	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	.3444	i -.0213	.0106	.0478	.0016	-.0088	.0015	-.0002
Stddev	.0001	.3578	.0468	.0501	.0586	.0011	.0039	.0031	.0009
%RSD	143.6	103.9	220.1	474.4	122.6	65.66	43.71	205.5	351.1
#1	i .0000	-.0534	i .0127	.0433	.1106	.0028	-.0044	.0035	.0007
#2	i .0002	.6399	i -.0018	.0355	.0380	.0009	-.0105	-.0021	-.0010
#3	i .0000	.4467	i -.0747	-.0471	-.0053	.0011	-.0116	.0031	-.0004

Sample Name: CCV Acquired: 6/7/2011 15:51:46 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.253	5.269	.4881	5.266	5.172	5.127	4.888	5.022	5.111	.4916
Stddev	.061	.041	.0019	.015	.010	.030	.167	.005	.009	.0002
%RSD	1.171	.7818	.3848	.2811	.1917	.5841	3.412	.1006	.1668	.0380
#1	5.216	5.284	.4867	5.283	5.163	5.104	4.738	5.022	5.101	.4917
#2	5.219	5.222	.4874	5.260	5.169	5.116	4.858	5.017	5.116	.4918
#3	5.324	5.300	.4902	5.255	5.183	5.161	5.068	5.028	5.115	.4914
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .4936	5.093	iF 6.647	4.790	4.756	4.633	4.694	4.723	.4856
Stddev	.0026	.233	.072	.070	.114	.010	.033	.003	.0015
%RSD	.5314	4.568	1.080	1.469	2.389	.2093	.6935	.0534	.3020
#1	i .4914	4.878	i 6.623	4.715	4.700	4.642	4.701	4.720	.4839
#2	i .4929	5.060	i 6.590	4.855	4.681	4.623	4.722	4.722	.4864
#3	i .4965	5.340	i 6.727	4.799	4.887	4.634	4.658	4.725	.4865
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5.000						
Range			10.00%						

Sample Name: CCB Acquired: 6/7/2011 15:57:32 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0180	.0251	-.0001	.0052	.0061	-.0076	.0228	-.0127	-.0029	.0000
Stddev	.0004	.0142	.0000	.0005	.0006	.0037	.0596	.0076	.0079	.0001
%RSD	2.397	56.53	25.79	9.574	10.27	48.07	260.9	59.43	271.5	465.6
#1	.0176	.0359	-.0002	.0048	.0059	-.0057	.0265	-.0114	-.0112	.0000
#2	.0179	.0303	-.0001	.0057	.0056	-.0119	.0806	-.0209	.0046	.0001
#3	.0184	.0090	-.0002	.0050	.0068	-.0053	-.0385	-.0059	-.0022	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0002	F .3353	i -.0544	-.0187	.0012	-.0030	-.0035	.0001	.0004
Stddev	.0004	.2888	.0629	.0543	.0535	.0059	.0132	.0030	.0008
%RSD	166.1	86.13	115.7	290.8	4652.	198.6	380.7	5529.	218.0
#1	i .0002	.6671	i -.1084	-.0280	.0621	.0011	.0111	.0021	.0008
#2	i -.0004	.1991	i .0147	.0397	-.0383	-.0098	-.0149	-.0034	.0008
#3	i -.0004	.1398	i -.0693	-.0676	-.0203	-.0003	-.0066	.0015	-.0005
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.1500							
Low Limit		-.1500							

Sample Name: 1105705-07A Acquired: 6/7/2011 16:03:25 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0263	.0366	-.0001	.2249	.2340	.0345	.0397	.0311	.0215	.0000
Stddev	.0175	.0039	.0000	.0012	.0026	.0039	.0928	.0229	.0180	.0001
%RSD	66.57	10.75	17.87	.5403	1.128	11.38	233.8	73.72	83.50	157.6
#1	.0090	.0358	-.0001	.2246	.2336	.0346	.1455	.0515	.0009	.0000
#2	.0259	.0332	-.0001	.2238	.2316	.0384	.0012	.0063	.0340	.0001
#3	.0441	.0409	-.0001	.2262	.2369	.0306	-.0277	.0355	.0298	.0000

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0002	-.1147	i -.0083	-.0475	.0889	.0056	.0007	-.0005	-.0013
Stddev	.0002	.3741	.0998	.0564	.0606	.0024	.0029	.0033	.0011
%RSD	79.30	326.2	1199.	118.6	68.23	42.63	392.8	688.3	83.82
#1	i -.0004	.2530	i .0385	-.0442	.0747	.0032	.0039	.0020	-.0024
#2	i -.0002	-.4948	i -.1229	.0071	.1553	.0080	.0002	-.0042	-.0011
#3	i -.0001	-.1022	i .0595	-.1055	.0365	.0056	-.0018	.0008	-.0003

Sample Name: 1105705-08A Acquired: 6/7/2011 16:09:15 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0189	.0191	-.0002	.0928	.0929	.0559	.1455	.0037	.0000	.0000
Stddev	.0052	.0121	.0001	.0004	.0031	.0052	.0844	.0054	.019	.000
%RSD	27.69	63.20	48.38	.4101	3.342	9.257	57.99	148.1	66370.	187.2
#1	.0143	.0299	-.0002	.0931	.0895	.0509	.2429	.0012	-.0212	-.0001
#2	.0177	.0215	-.0002	.0923	.0956	.0612	.0950	-.0001	.0154	.0000
#3	.0246	.0060	-.0001	.0929	.0935	.0557	.0986	.0099	.0057	.0000

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0004	-.0984	i -.1008	.0083	-.0092	.0027	.0023	.0030	.0000
Stddev	.0004	.0887	.0282	.0444	.0031	.0031	.0064	.0004	.000
%RSD	103.9	90.21	27.99	533.1	33.47	115.0	278.6	11.83	939.7
#1	i .0006	-.1234	i -.1331	-.0297	-.0087	.0021	-.0047	.0033	.0000
#2	i .0005	.0002	i -.0812	-.0024	-.0125	-.0001	.0080	.0026	.0002
#3	i -.0001	-.1720	i -.0880	.0571	-.0064	.0061	.0036	.0032	-.0002

Sample Name: 1105705-09A Acquired: 6/7/2011 16:15:08 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0544	.0653	-.0001	.2681	.2785	.0446	.0253	.0245	.0131	.0002
Stddev	.0052	.0044	.0001	.0003	.0020	.0034	.1420	.0118	.0076	.0001
%RSD	9.582	6.801	125.6	.1136	.7035	7.543	562.5	48.27	58.06	64.71
#1	.0492	.0602	.0000	.2678	.2786	.0477	-.0457	.0141	.0080	.0001
#2	.0596	.0673	.0000	.2683	.2765	.0410	-.0673	.0219	.0095	.0003
#3	.0545	.0684	-.0001	.2683	.2805	.0451	.1888	.0374	.0219	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0002	-.1989	i -.0068	.0045	.1042	.0016	-.0013	.0044	.0002
Stddev	.0003	.0144	.1636	.0247	.0674	.0055	.0114	.0022	.0003
%RSD	127.4	7.231	2403.	550.8	64.62	346.9	881.0	50.05	184.2
#1	i .0002	-.2044	i -.1067	.0330	.1819	.0011	-.0134	.0021	.0005
#2	i -.0001	-.2098	i .1820	-.0101	.0686	.0073	.0005	.0065	.0000
#3	i .0005	-.1826	i -.0957	-.0094	.0622	-.0037	.0091	.0048	.0000

Sample Name: 1105705-10A Acquired: 6/7/2011 16:20:59 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0601	.0627	-.0001	.5410	.5563	.0701	-.1239	.0245	.0425	.0001
Stddev	.0029	.0137	.0001	.0003	.0022	.0049	.2604	.0157	.0045	.0000
%RSD	4.784	21.77	73.87	.0600	.3920	6.957	210.2	64.00	10.64	41.58
#1	.0612	.0785	-.0001	.5407	.5570	.0663	.0228	.0426	.0477	.0002
#2	.0623	.0557	.0000	.5413	.5581	.0756	-.4245	.0168	.0400	.0001
#3	.0569	.0540	-.0002	.5412	.5539	.0684	.0301	.0141	.0399	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0002	.0753	i -.0385	-.0393	.0489	.0026	-.0018	-.0036	-.0003
Stddev	.0003	.1350	.1154	.0601	.0579	.0092	.0084	.0046	.0004
%RSD	125.8	179.4	299.8	152.9	118.5	354.1	477.8	128.1	135.2
#1	i .0001	-.0106	i .0612	.0281	.1018	-.0076	.0011	-.0055	.0001
#2	i .0000	.2309	i -.1649	-.0871	.0578	.0053	-.0112	.0016	-.0002
#3	i .0005	.0055	i -.0117	-.0589	-.0130	.0101	.0048	-.0069	-.0008

Sample Name: 1105705-11A Acquired: 6/7/2011 16:26:49 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0614	.0653	-.0001	.3273	.3395	.1364	.0313	.0364	.0370	.0001
Stddev	.0026	.0129	.0001	.0010	.0015	.0047	.0776	.0239	.0040	.0001
%RSD	4.260	19.70	53.31	.3073	.4414	3.458	248.1	65.75	10.82	111.8
#1	.0605	.0737	-.0001	.3265	.3391	.1313	.1166	.0130	.0412	.0000
#2	.0594	.0505	-.0001	.3284	.3411	.1373	.0120	.0354	.0333	.0002
#3	.0644	.0717	-.0002	.3270	.3382	.1406	-.0349	.0608	.0365	.0002

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	.3319	i .0073	-.0482	-.0053	.0019	-.0028	.0027	-.0011
Stddev	.0002	.0764	.0505	.0240	.1006	.0074	.0132	.0070	.0003
%RSD	381.6	23.03	693.7	49.76	1906.	389.2	467.6	259.0	25.09
#1	i .0002	.2962	i -.0180	-.0540	-.1117	-.0051	-.0122	-.0025	-.0009
#2	i -.0002	.2799	i .0654	-.0218	.0883	.0097	.0122	.0000	-.0010
#3	i .0002	.4197	i -.0256	-.0687	.0076	.0011	-.0085	.0106	-.0014

Sample Name: 1105705-12A Acquired: 6/7/2011 16:32:40 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057	.0310	-.0001	.1427	.1473	.0307	-.0902	.0109	.0103	.0001
Stddev	.0267	.0056	.0000	.0002	.0016	.0025	.0604	.0049	.0024	.0000
%RSD	467.8	18.08	54.29	.1613	1.070	8.131	66.97	45.20	23.41	13.10
#1	.0360	.0314	.0000	.1425	.1490	.0321	-.1251	.0079	.0105	.0001
#2	-.0048	.0252	-.0001	.1427	.1459	.0321	-.0204	.0166	.0078	.0001
#3	-.0141	.0363	-.0001	.1429	.1470	.0278	-.1251	.0083	.0126	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	.0932	i -.0012	.0434	.0731	.0016	.0017	.0003	-.0003
Stddev	.0003	.1314	.0064	.1168	.0309	.0062	.0217	.0023	.0007
%RSD	350.1	141.0	519.6	269.3	42.33	388.0	1288.	733.9	200.3
#1	i .0001	.1344	i -.0009	.1777	.1077	-.0042	.0267	-.0022	.0004
#2	i -.0004	.1990	i .0050	-.0341	.0483	.0008	-.0117	.0023	-.0009
#3	i .0000	-.0539	i -.0078	-.0136	.0631	.0082	-.0099	.0008	-.0006

Sample Name: CCV Acquired: 6/7/2011 17:01:51 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.135	5.216	.4822	5.232	5.109	5.097	4.963	4.946	5.020	.4877
Stddev	.028	.018	.0019	.005	.029	.014	.004	.061	.037	.0014
%RSD	.5441	.3438	.3912	.0933	.5598	.2721	.0793	1.235	.7341	.2843
#1	5.162	5.201	.4839	5.227	5.141	5.111	4.962	5.010	5.055	.4874
#2	5.138	5.212	.4823	5.235	5.101	5.096	4.959	4.939	5.024	.4865
#3	5.106	5.236	.4802	5.235	5.085	5.083	4.967	4.888	4.981	.4892
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .4877	4.869	iF 6.556	4.830	4.699	4.597	4.634	4.680	.4776
Stddev	.0014	.173	.131	.026	.113	.014	.010	.028	.0024
%RSD	.2777	3.560	1.997	.5413	2.410	.2936	.2088	.6007	.5022
#1	i .4890	4.685	i 6.542	4.803	4.806	4.584	4.626	4.668	.4803
#2	i .4879	4.893	i 6.433	4.856	4.580	4.595	4.631	4.660	.4768
#3	i .4863	5.029	i 6.694	4.832	4.709	4.611	4.644	4.712	.4757
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5.000						
Range			10.00%						

Sample Name: CCB Acquired: 6/7/2011 17:07:37 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0005	.0142	-.0001	.0052	.0036	-.0053	-.1178	.0023	.0069	.0000
Stddev	.0142	.0159	.0001	.0004	.0010	.0026	.1134	.0179	.0133	.0001
%RSD	2766.	112.2	47.24	7.092	28.37	48.48	96.22	767.8	193.8	793.2
#1	-.0095	.0169	-.0001	.0049	.0044	-.0051	.0120	.0225	.0198	.0000
#2	-.0079	.0285	-.0002	.0056	.0024	-.0079	-.1972	-.0042	-.0068	-.0001
#3	.0158	-.0029	-.0001	.0050	.0039	-.0028	-.1684	-.0113	.0076	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	-.0790	i -.0085	.0273	-.0080	-.0022	.0034	.0004	.0002
Stddev	.0001	.1244	.1215	.1052	.0735	.0072	.0131	.0021	.0010
%RSD	51.09	157.4	1428.	385.8	924.8	335.5	384.6	572.5	575.7
#1	i -.0001	.0376	i .0447	-.0546	.0762	.0028	.0030	-.0019	-.0010
#2	i -.0001	-.0648	i -.1476	.1460	-.0595	-.0104	-.0095	.0022	.0009
#3	i -.0002	-.2100	i .0773	-.0096	-.0406	.0012	.0167	.0008	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 6/7/2011 17:13:31 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	243.4	243.1	-.0002	F 189.2	228.6	92.25	89.36	234.0	234.4	-.0002
Stddev	1.6	1.3	.0001	1.6	1.9	.57	1.02	1.2	1.4	.0000
%RSD	.6746	.5513	48.78	.8451	.8510	.6153	1.136	.4960	.5836	23.83
#1	245.2	244.6	-.0002	187.4	228.6	92.86	90.40	235.3	235.9	-.0002
#2	242.0	242.2	-.0001	189.9	226.7	91.75	89.30	233.5	233.9	-.0002
#3	242.9	242.4	-.0002	190.4	230.6	92.13	88.37	233.1	233.3	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				300.0						
Low Limit				200.0						

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	F -.2391	iF .3226	F -1.041	.1093	.0243	-.0173	.0033	.0002
Stddev	.0004	.4847	.0514	.027	.0692	.0049	.0102	.0117	.0007
%RSD	434.1	202.7	15.93	2.628	63.26	20.20	58.77	350.2	451.0
#1	i -.0003	-.2032	i .3360	-1.054	.1129	.0226	-.0252	-.0008	-.0005
#2	i .0004	-.7407	i .2658	-1.010	.1766	.0204	-.0208	.0165	.0001
#3	i -.0003	.2266	i .3659	-1.060	.0384	.0298	-.0058	-.0057	.0009
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.1500	.1500	.1500					
Low Limit		-.1500	-.1500	-.1500					

Sample Name: ICSAB Acquired: 6/7/2011 17:18:59 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	243.3	243.2	.4551	F 191.9	228.9	92.14	89.23	234.6	234.8	-.0002
Stddev	1.9	1.7	.0031	.6	1.3	.73	.11	1.1	1.3	.0000
%RSD	.7960	.7106	.6756	.3024	.5709	.7903	.1256	.4714	.5423	12.88
#1	241.2	241.3	.4517	191.9	227.4	91.31	89.11	233.3	233.4	-.0002
#2	243.5	243.8	.4562	191.3	229.8	92.42	89.24	234.9	235.2	-.0002
#3	245.0	244.6	.4575	192.5	229.4	92.69	89.34	235.5	235.8	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				300.0						
Low Limit				200.0						

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0000	.0110	iF .4083	F -1.073	.0815	-.0194	-.0228	-.0058	-.0002
Stddev	.000	.1375	.1268	.041	.0365	.0059	.0044	.0119	.0009
%RSD	268.8	1246.	31.05	3.830	44.85	30.22	19.52	206.8	371.1
#1	i -.0001	.1513	i .2748	-1.054	.1220	-.0259	-.0178	-.0145	.0004
#2	i -.0001	.0053	i .5271	-1.120	.0716	-.0144	-.0241	-.0106	-.0013
#3	i .0001	-.1235	i .4231	-1.044	.0509	-.0180	-.0264	.0078	.0002
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.1500	.1500					
Low Limit			-.1500	-.1500					

Sample Name: Blank Acquired: 6/8/2011 13:37:51 Type: Cal
Method: BeUY(v42) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8.318	-15.23	15.86	-4.613	-6.448	129.3	9.885	-2.047	2.762	-41.14
Stddev	2.877	.31	3.11	.177	2.095	2.3	.189	2.817	1.600	4.18
%RSD	34.59	2.030	19.60	3.832	32.48	1.758	1.915	137.6	57.95	10.15
#1	10.35	-15.37	17.60	-4.709	-8.840	131.7	9.752	-2.116	1.167	-45.81
#2	5.026	-14.88	17.70	-4.409	-4.943	128.9	9.802	-4.828	2.751	-37.76
#3	9.577	-15.45	12.27	-4.720	-5.561	127.2	10.10	.8043	4.368	-39.86

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	i -28.04	4.184	i 3.556	-6.146	-7.827	-31.09	8.318	-2.867	-11.52
Stddev	4.29	1.907	2.941	4.025	5.967	10.31	4.576	6.952	6.79
%RSD	15.31	45.58	82.70	65.50	76.24	33.17	55.02	242.5	58.90
#1	-27.61	2.601	1.567	-6.985	-11.14	-24.76	9.102	-10.42	-4.051
#2	-32.53	6.301	2.167	-1.767	-.9385	-25.51	3.401	3.267	-13.20
#3	-23.98	3.651	6.935	-9.685	-11.40	-42.98	12.45	-1.450	-17.30

Sample Name: HighStd Acquired: 6/8/2011 13:47:51 Type: Cal
Method: BeUY(v42) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1502.	2895.	19390.	13930.	2715.	144.7	1126.	1965.
Stddev	8.	11.	57.	15.	4.	3.9	3.	4.
%RSD	.5125	.3777	.2932	.1095	.1389	2.671	.2303	.1914
#1	1497.	2903.	19320.	13920.	2717.	148.3	1129.	1961.
#2	1510.	2899.	19420.	13950.	2711.	140.6	1125.	1967.
#3	1497.	2882.	19420.	13920.	2717.	145.2	1124.	1968.

Sample Name: U 10 ppm Acquired: 6/8/2011 13:56:49 Type: Cal
Method: BeUY(v42) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	93.32	612.0	994.6	859.7	17280.	4260.	21270.
Stddev	5.22	4.7	11.7	10.9	90.	8.	104.
%RSD	5.595	.7657	1.179	1.265	.5197	.1795	.4907
#1	90.82	609.4	981.3	847.7	17240.	4255.	21220.
#2	89.82	617.4	1004.	869.0	17210.	4256.	21210.
#3	99.32	609.1	998.8	862.5	17380.	4269.	21390.

Sample Name: BeY 1ppm Acquired: 6/8/2011 14:03:34 Type: Cal
Method: BeUY(v42) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Be3130	Y_3242	Y_3710	Y_3242-2
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	47270.	103200.	16330.	6011.
Stddev	493.	491.	141.	45.
%RSD	1.043	.4752	.8656	.7553
#1	47600.	103000.	16430.	6034.
#2	46700.	103800.	16170.	5959.
#3	47500.	102900.	16400.	6041.

Sample Name: icv Acquired: 6/8/2011 14:11:05 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.262	5.304	.5034	5.344	5.259	5.183	5.367	5.197	5.210	.4962
Stddev	.050	.049	.0044	.010	.042	.060	.081	.038	.029	.0018
%RSD	.9538	.9156	.8759	.1798	.7902	1.152	1.511	.7228	.5506	.3652
#1	5.210	5.256	.4997	5.352	5.217	5.116	5.398	5.179	5.177	.4946
#2	5.265	5.303	.5022	5.333	5.260	5.200	5.428	5.173	5.223	.4959
#3	5.311	5.353	.5082	5.345	5.300	5.231	5.275	5.240	5.230	.4982

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .5029	4.657	i 6.726	4.818	4.731	4.687	4.767	4.758	.4982
Stddev	.0063	.236	.097	.077	.005	.020	.032	.021	.0043
%RSD	1.256	5.071	1.437	1.596	.1039	.4205	.6690	.4331	.8628
#1	i .4961	4.919	i 6.635	4.775	4.735	4.665	4.730	4.749	.4941
#2	i .5041	4.462	i 6.715	4.771	4.731	4.695	4.787	4.744	.4980
#3	i .5086	4.589	i 6.827	4.907	4.726	4.702	4.784	4.782	.5027

Sample Name: Al 100 ppm Acquired: 6/8/2011 14:17:37 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	107.0	107.1	.0000	.0068	.0099	-.0056	.0052	.0040	.0004	.0000
Stddev	1.1	1.0	.0001	.0001	.0016	.0062	.1349	.0148	.0105	.000
%RSD	.9994	.9136	370.2	1.889	16.25	110.8	2596.	374.6	2818.	386.5
#1	108.0	107.9	-.0001	.0068	.0087	.0014	.1323	-.0129	.0102	.0001
#2	107.2	107.3	.0000	.0067	.0118	-.0079	-.1362	.0095	-.0106	-.0001
#3	105.9	106.0	.0001	.0070	.0093	-.0103	.0195	.0152	.0015	-.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	-.2601	i .1317	.0379	-.0201	-.0002	.0049	-.0016	.0006
Stddev	.0004	.3343	.0453	.0585	.0310	.0021	.0016	.0047	.0006
%RSD	259.1	128.5	34.39	154.4	154.4	990.5	32.22	302.5	112.8
#1	i .0005	-.4301	i .1839	-.0228	-.0036	-.0021	.0041	.0038	.0004
#2	i -.0002	-.4752	i .1029	.0426	-.0558	-.0006	.0067	-.0034	.0000
#3	i .0001	.1251	i .1083	.0939	-.0008	.0021	.0038	-.0051	.0012

Sample Name: Fe 100 ppm Acquired: 6/8/2011 14:26:07 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0077	.0072	-.0001	.0085	.0001	102.1	106.3	-.0168	.0311	.0000
Stddev	.0128	.0093	.0000	.0002	.0012	.7	1.3	.0044	.0066	.0002
%RSD	166.4	129.2	59.05	2.178	1208.	.6757	1.239	25.90	21.21	4378.
#1	-.0034	-.0004	-.0001	.0086	-.0007	101.7	104.9	-.0125	.0238	.0001
#2	.0024	.0045	.0000	.0086	.0015	101.6	106.6	-.0212	.0365	-.0002
#3	-.0221	.0176	-.0001	.0083	-.0005	102.9	107.5	-.0167	.0329	.0002

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0006	-.1294	i .6669	-1.009	.0052	.0144	-.0113	.0490	-.0001
Stddev	.0004	.1859	.0899	.010	.0522	.0052	.0097	.0037	.0002
%RSD	55.93	143.7	13.48	1.023	1012.	36.16	86.16	7.499	399.5
#1	i .0009	-.0495	i .7502	-.9975	-.0544	.0184	-.0007	.0475	.0001
#2	i .0002	.0032	i .6790	-1.018	.0271	.0085	-.0132	.0532	-.0003
#3	i .0007	-.3419	i .5716	-1.012	.0428	.0164	-.0199	.0463	.0001

10-Jun-2011

Wil King
Terracon
13910 W. 96th Terrace
Lenexa, KS 66215

Tel: (913) 492-7777
Fax: (913) 492-7443

Re: Bannister Complex Work Order: **1105703**

Dear Wil,

ALS Environmental received 9 samples on 27-May-2011 10:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 10.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Chris Gibson

Electronically approved by: Chris Gibson

Chris Gibson
Project Manager

ALS Environmental

Date: 10-Jun-11

Client: Terracon
Project: Bannister Complex
Work Order: **1105703**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1105703-01	BISB-Q25-Be/U/Y-Dust	Air		5/26/2011	5/27/2011 10:30	☐
1105703-02	BIFI-R18-Be/U/Y-Dust	Air		5/26/2011	5/27/2011 10:30	☐
1105703-03	BIFI-Q19-Be/U/Y-Dust	Air		5/26/2011	5/27/2011 10:30	☐
1105703-04	BIFI-Y10-Be/U/Y-Dust	Air		5/26/2011	5/27/2011 10:30	☐
1105703-05	BIFI-F25-Be/U/Y-Dust	Air		5/26/2011	5/27/2011 10:30	☐
1105703-06	BIFI-A25-Be/U/Y-Dust	Air		5/26/2011	5/27/2011 10:30	☐
1105703-07	FH3-RAD-Be/U/Y-Dust	Air		5/26/2011	5/27/2011 10:30	☐
1105703-08	BISB-V19-Be/U/Y-Dust	Air		5/26/2011	5/27/2011 10:30	☐
1105703-09	Blank-Dust	Air		5/26/2011	5/27/2011 10:30	☐

ALS Environmental

Date: 10-Jun-11

Client: Terracon
Project: Bannister Complex
Work Order: 1105703

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

ALS Environmental

Date: *10-Jun-11*

Client: Terracon
Project: Bannister Complex

Work Order: 1105703

Lab ID: 1105703-01A
Collection Date: 5/26/2011
Client Sample ID: BISB-Q25-Be/U/Y-Dust
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
NIOSH 0500 PARTICULATES NOT REGULATED			**N0500**			Analyst: **RDN**
Dust	**2.4**		**0.050**	**mg/sample**	1	6/1/2011
METALS BY ICP			**SW6010B**		Prep Date: **6/8/2011**	Analyst: **CEG**
Beryllium	ND		41	mg/Kg	1	6/7/2011 05:24 PM
Uranium	ND		83	mg/Kg	1	6/7/2011 05:24 PM
Yttrium	ND		830	mg/Kg	1	6/7/2011 05:24 PM

Lab ID: 1105703-02A
Collection Date: 5/26/2011
Client Sample ID: BIFI-R18-Be/U/Y-Dust
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
NIOSH 0500 PARTICULATES NOT REGULATED			**N0500**			Analyst: **RDN**
Dust	**5.1**		**0.050**	**mg/sample**	1	6/1/2011
METALS BY ICP			**SW6010B**		Prep Date: **6/8/2011**	Analyst: **CEG**
Beryllium	ND		20	mg/Kg	1	6/7/2011 05:30 PM
Uranium	ND		39	mg/Kg	1	6/7/2011 05:30 PM
Yttrium	ND		390	mg/Kg	1	6/7/2011 05:30 PM

Lab ID: 1105703-03A
Collection Date: 5/26/2011
Client Sample ID: BIFI-Q19-Be/U/Y-Dust
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
NIOSH 0500 PARTICULATES NOT REGULATED			**N0500**			Analyst: **RDN**
Dust	**57**		**0.050**	**mg/sample**	1	6/1/2011
METALS BY ICP			**SW6010B**		Prep Date: **6/8/2011**	Analyst: **CEG**
Beryllium	ND		1.8	mg/Kg	1	6/7/2011 05:36 PM
Uranium	ND		3.5	mg/Kg	1	6/7/2011 05:36 PM
Yttrium	ND		35	mg/Kg	1	6/7/2011 05:36 PM

Note:

ALS Environmental

Date: *10-Jun-11*

Client: Terracon
Project: Bannister Complex

Work Order: 1105703

Lab ID: 1105703-04A
Collection Date: 5/26/2011
Client Sample ID: BIFI-Y10-Be/U/Y-Dust
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
NIOSH 0500 PARTICULATES NOT REGULATED			**N0500**			Analyst: **RDN**
Dust	**52**		**0.050**	**mg/sample**	1	6/1/2011
METALS BY ICP			**SW6010B**		Prep Date: **6/8/2011**	Analyst: **CEG**
Beryllium	ND		1.9	mg/Kg	1	6/7/2011 05:41 PM
Uranium	ND		3.8	mg/Kg	1	6/7/2011 05:41 PM
Yttrium	ND		38	mg/Kg	1	6/7/2011 05:41 PM

Lab ID: 1105703-05A
Collection Date: 5/26/2011
Client Sample ID: BIFI-F25-Be/U/Y-Dust
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
NIOSH 0500 PARTICULATES NOT REGULATED			**N0500**			Analyst: **RDN**
Dust	**450**		**0.050**	**mg/sample**	1	6/1/2011
METALS BY ICP			**SW6010B**		Prep Date: **6/8/2011**	Analyst: **CEG**
Beryllium	**0.90**		**0.22**	**mg/Kg**	1	6/7/2011 05:46 PM
Uranium	ND		220	mg/Kg	10	6/7/2011 06:14 PM
Yttrium	**6.1**		**4.4**	**mg/Kg**	1	6/7/2011 05:46 PM

Lab ID: 1105703-06A
Collection Date: 5/26/2011
Client Sample ID: BIFI-A25-Be/U/Y-Dust
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
NIOSH 0500 PARTICULATES NOT REGULATED			**N0500**			Analyst: **RDN**
Dust	**55**		**0.050**	**mg/sample**	1	6/1/2011
METALS BY ICP			**SW6010B**		Prep Date: **6/8/2011**	Analyst: **CEG**
Beryllium	ND		1.8	mg/Kg	1	6/7/2011 05:52 PM
Uranium	ND		3.6	mg/Kg	1	6/7/2011 05:52 PM
Yttrium	ND		36	mg/Kg	1	6/7/2011 05:52 PM

Note:

ALS Environmental

Date: *10-Jun-11*

Client: Terracon
Project: Bannister Complex

Work Order: 1105703

Lab ID: 1105703-07A
Collection Date: 5/26/2011
Client Sample ID: FH3-RAD-Be/U/Y-Dust
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
NIOSH 0500 PARTICULATES NOT REGULATED			**N0500**			Analyst: **RDN**
Dust	**86**		**0.050**	**mg/sample**	1	6/1/2011
METALS BY ICP			**SW6010B**		Prep Date: **6/8/2011**	Analyst: **CEG**
Beryllium	ND		1.2	mg/Kg	1	6/7/2011 05:57 PM
Uranium	ND		2.3	mg/Kg	1	6/7/2011 05:57 PM
Yttrium	ND		23	mg/Kg	1	6/7/2011 05:57 PM

Lab ID: 1105703-08A
Collection Date: 5/26/2011
Client Sample ID: BISB-V19-Be/U/Y-Dust
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
NIOSH 0500 PARTICULATES NOT REGULATED			**N0500**			Analyst: **RDN**
Dust	**310**		**0.050**	**mg/sample**	1	6/1/2011
METALS BY ICP			**SW6010B**		Prep Date: **6/8/2011**	Analyst: **CEG**
Beryllium	ND		0.32	mg/Kg	1	6/7/2011 06:03 PM
Uranium	ND		320	mg/Kg	10	6/7/2011 06:31 PM
Yttrium	ND		6.5	mg/Kg	1	6/7/2011 06:03 PM

Lab ID: 1105703-09A
Collection Date: 5/26/2011
Client Sample ID: Blank-Dust
Matrix: AIR

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
NIOSH 0500 PARTICULATES NOT REGULATED			**N0500**			Analyst: **RDN**
Dust	ND		0.050	mg/sample	1	6/1/2011
METALS BY ICP			**SW6010B**		Prep Date: **6/8/2011**	Analyst: **CEG**
Beryllium	ND		0.50	mg/Kg	1	6/7/2011 06:08 PM
Uranium	ND		1.0	mg/Kg	1	6/7/2011 06:08 PM
Yttrium	ND		10	mg/Kg	1	6/7/2011 06:08 PM

Note:

ALS Environmental

Date: *10-Jun-11*

Client: Terracon
Project: Bannister Complex
Work Order: 1105703

Analytical Comments

Method	Type:	SampID	SeqNo	Analysis	Comments
Batch R82462					
N0500	Analysis	1105703-01A	268154	NIOSH 0500 Particulates not regulated	Loose material present.
N0500	Analysis	1105703-02A	268155	NIOSH 0500 Particulates not regulated	Loose material present.
N0500	Analysis	1105703-03A	268156	NIOSH 0500 Particulates not regulated	Loose material present.
N0500	Analysis	1105703-04A	268157	NIOSH 0500 Particulates not regulated	Loose material present.
N0500	Analysis	1105703-05A	268158	NIOSH 0500 Particulates not regulated	Loose material present.
N0500	Analysis	1105703-06A	268159	NIOSH 0500 Particulates not regulated	Loose material present.
N0500	Analysis	1105703-07A	268160	NIOSH 0500 Particulates not regulated	Loose material present.
N0500	Analysis	1105703-08A	268161	NIOSH 0500 Particulates not regulated	Loose material present.
Batch 6337					
SW6010B	Analysis	1105703-03A	272473	Metals by ICP	Large amount of spectral interference for uranium. Reporting limit adjusted due to matrix.
SW6010B	Analysis	1105703-04A	272474	Metals by ICP	Large amount of spectral interference for uranium. Reporting limit adjusted due to matrix.
SW6010B	Analysis	1105703-05A	272475	Metals by ICP	Large amount of spectral interference for uranium. Reporting limit adjusted due to matrix.
SW6010B	Analysis	1105703-06A	272476	Metals by ICP	Large amount of spectral interference for uranium. Reporting limit adjusted due to matrix.
SW6010B	Analysis	1105703-07A	272477	Metals by ICP	Large amount of spectral interference for uranium. Reporting limit adjusted due to matrix.
SW6010B	Analysis	1105703-08A	272478	Metals by ICP	Large amount of spectral interference for uranium. Reporting limit adjusted due to matrix.
SW6010B	Analysis	1105703-09A	272479	Metals by ICP	Large amount of spectral interference for uranium. Reporting limit adjusted due to matrix.

ALS Environmental

Date: 10-Jun-11

Client: Terracon
Work Order: 1105703
Project: Bannister Complex

QC BATCH REPORT

Batch ID: **6337** Instrument ID **ICP1** Method: **SW6010B**

MBLK Sample ID: **mblk-6337-6337** Units: **mg/Kg** Analysis Date: **6/7/2011 04:44 PM**

Client ID: Run ID: **ICP1_110607B** SeqNo: **272468** Prep Date: **6/8/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	ND	0.50	0	0	0		0			
Uranium	ND	1.0	0	0	0		0			
Yttrium	ND	10	0	0	0		0			

LCS Sample ID: **lcs-6337-6337** Units: **mg/Kg** Analysis Date: **6/7/2011 04:50 PM**

Client ID: Run ID: **ICP1_110607B** SeqNo: **272469** Prep Date: **6/8/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	97.27	0.50	100	0	97.3	80-120	0			
Uranium	91.33	1.0	100	0	91.3	80-120	0			
Yttrium	93	10	100	0	93	80-120	0			

LCSD Sample ID: **lcsd-6337-6337** Units: **mg/Kg** Analysis Date: **6/7/2011 04:56 PM**

Client ID: Run ID: **ICP1_110607B** SeqNo: **272470** Prep Date: **6/8/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	95.15	0.50	100	0	95.2	80-120	97.27	2.2	20	
Uranium	90.99	1.0	100	0	91	80-120	91.33	0.373	20	
Yttrium	92.95	10	100	0	93	80-120	93	0.0538	20	

The following samples were analyzed in this batch:

1105703-01A	1105703-02A	1105703-03A
1105703-04A	1105703-05A	1105703-06A
1105703-07A	1105703-08A	1105703-09A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 10-Jun-11

Client: Terracon
Project: Bannister Complex
WorkOrder: **1105703**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit

Units Reported	Description
mg/Kg	
mg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **TERRACON-LENEXA** Date/Time Received: **27-May-11 10:30**

Work Order: **1105703** Received by: **SJW**

Checklist completed by Steve Wilcox (eSignature) 27-May-11 (Date) Reviewed by: Kelsey Kennedy (eSignature) 27-May-11 (Date)

Matrices:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):			
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

ANALYTICAL REQUEST FORM

☒ **REGULAR Status**

☐ **RUSH Status Required - ADDITIONAL CHARGE**

RESULTS REQUIRED BY _____ DATE

CONTACT ALS LABORATORY GROUP PRIOR TO SENDING SAMPLES

Date 5-26-11 Purchase Order No. 02107144

Company Name Terracon Consultants Inc

Address 13910 West 96th Terrace

Lenexa (City) Kansas (State) 66215 (Zip)

Person to Contact Wil King

Email Address wwking@terracon.com

Telephone (913) 492-7777

Fax Telephone (913) 492-7443

Billing Address (if different)

Quote No.

Sampling Site Bannister Complex

Date/Time of Collection 5-26-11 / ~1045 - ~1600

1105703

Laboratory Use Only	Client Sample Number	Media Type	Sample Volume (Liters)	ANALYSES REQUESTED - Use Method Number if Known
01	BISB-Q25-Be/U/Y-Dust	5.0 um PVC	43.52	SW-846 Method 6010(Be); ICPAES(U,Y)
02	BIFI-B18-Be/U/Y-Dust		28.16	
03	BIFI-Q19-Be/U/Y-Dust		15.36	
04	BIFI-Y10-Be/U/Y-Dust		20.48	
05	BIFI-F25-Be/U/Y-Dust		12.80	
06	BIFI-A25-Be/U/Y-Dust		10.24	
07	FH3-RAD-Be/U/Y-Dust		15.36	
08	BISB-V19-Be/U/Y-Dust		12.80	
09	Blank-Dust			
10 DW 5/27/11	BISB-Q25-Be/U/Y-Dust ISO		~~43.52~~ ~~28.16~~	ASTM D3972-90M (modified)-Uranium *
11	BIFI-B18-Be/U/Y-Dust ISO		25.60	
12	BIFI-Q19-Be/U/Y-Dust ISO		15.36	
13	BIFI-Y10-Be/U/Y-Dust ISO		23.04	
14	BIFI-F25-Be/U/Y-Dust ISO		12.80	
15	BIFI-A25-Be/U/Y-Dust ISO		15.36	
16	FH3-RAD-Be/U/Y-Dust ISO		17.92	

Failure to complete all portions of this form may delay analysis. Please fill in this form *LEGIBLY*.

* Please hold samples pending further analysis

CHAIN OF CUSTODY

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time
[signature]	5-26-11/1530	Steve Wilson	5/27/11 10:30
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time

Fed-ex

ANALYTICAL REQUEST FORM

☒ **REGULAR Status**

☐ **RUSH Status Required - ADDITIONAL CHARGE**

RESULTS REQUIRED BY _____ DATE

CONTACT ALS LABORATORY GROUP PRIOR TO SENDING SAMPLES

Date 5-26-11 Purchase Order No. 02107144

Company Name Terracon Consultants Inc

Address 13910 West 96th Terrace

Lenexa (City) Kansas (State) 66215 (Zip)

Person to Contact Wil King

Email Address wwking@terracon.com

Telephone (913) 492-7777

Fax Telephone (913) 492-7443

Billing Address (if different)

Quote No. ~~G275~~

Sampling Site Bannister Complex

Date/Time of Collection 5-25-11 / ~1045 - ~1600

Laboratory Use Only	Client Sample Number	Media Type	Sample Volume (Liters)	ANALYSES REQUESTED - Use Method Number if Known
17 5/31/11	B15B-V19-Be/U/4-Dust Iso	5.0 um PVC	15.36	ASTM D3972-90M (modified)-Uranium*
18	Blank-Dust Iso	1	—	1

Failure to complete all portions of this form may delay analysis. Please fill in this form *LEGIBLY*.

*Please hold samples pending further analysis

CHAIN OF CUSTODY

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time
[signature]	5-26-11/1550	Steve Wilson	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time

3998 - 8
BOOK PAGE

TITLE Micro Vac Dust (PVC filters) PROJECT DATE 6/7/11

Continued from page

Set ID	ALS #	Client	Method
1105703	01→09	TERRACON	7300 mod / 3050 B mod

Sample	12TS2280(g)	12TS2282(g)	U (1/10) 64CS121(g)	V (1/10) 64CS080(g)
RB-6337	—	—	—	—
MBLK-6337	—	—	—	—
LCS-6337	0.2060	0.2026	0.2089	0.2096
LCSD-6337	0.2060	0.2030	0.2087	0.2088
1105703-01 A				
↓				
09 A				

NOTES:
- samples 1105703-02→08 contained excess material that was added to vessel during prep
- slight reaction occurred when adding acid

HCl: 4110110
HNO_3: 1111020
pipette: 2052827
balance: 109093
hotblock: 101681 for 1 hr @ 110.2°C
final volume: 20 mL

TCW 6/7/11

Continued to page

SIGNATURE: J. Ciara Wilkinson
DATE: 07 June 2011
DISCLOSED TO AND UNDERSTOOD BY: [signature]
DATE: 6/7/11

PROPRIETARY INFORMATION

Sample Name: Blank Acquired: 6/7/2011 11:45:17 Type: Cal
Method: BeUY(v44) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8.360	-17.96	9.491	-4.763	-6.262	133.9	10.39	-.6932	2.289	-45.03
Stddev	1.621	6.63	4.901	.546	9.468	.6	2.38	3.500	3.134	2.28
%RSD	19.38	36.90	51.64	11.47	151.2	.4831	22.88	504.9	136.9	5.068
#1	9.102	-16.36	9.435	-5.019	.0892	133.5	12.80	3.279	4.818	-42.51
#2	6.501	-25.24	14.42	-4.135	-1.730	133.6	10.30	-3.326	3.267	-46.96
#3	9.477	-12.27	4.618	-5.134	-17.14	134.6	8.052	-2.033	-1.217	-45.61

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	i -24.89	2.100	i 11.96	-1.939	-16.95	-34.32	10.84	-7.635	-9.319
Stddev	8.63	2.979	8.51	3.406	8.30	7.23	6.47	13.10	.929
%RSD	34.68	141.8	71.20	175.6	48.96	21.06	59.68	171.6	9.973
#1	-18.71	3.351	17.62	-2.984	-14.92	-31.51	3.601	-12.85	-9.952
#2	-34.75	4.251	16.09	1.867	-26.08	-28.92	12.85	-17.32	-8.252
#3	-21.20	-1.300	2.167	-4.701	-9.857	-42.53	16.05	7.268	-9.752

6/7/2011

10 ppm Al Ca Fe Mg 299 WS 195
1 ppm Be, Y 185
10 ppm U 131
ICV/CCV 133
ICSA 296 WS 189
ICSAB 196

MICROVAC 5

Sample Name: HighStd Acquired: 6/7/2011 11:51:07 Type: Cal
Method: BeUY(v44) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1471.	2848.	19340.	13420.	2680.	149.0	1136.	1949.
Stddev	15.	15.	24.	67.	17.	1.7	3.	1.
%RSD	.9922	.5313	.1241	.4972	.6232	1.144	.2426	.0423
#1	1459.	2848.	19330.	13410.	2670.	148.0	1133.	1948.
#2	1466.	2832.	19320.	13350.	2670.	151.0	1137.	1949.
#3	1487.	2863.	19360.	13490.	2699.	148.0	1137.	1950.

Sample Name: U 10 ppm Acquired: 6/7/2011 11:56:53 Type: Cal
Method: BeUY(v44) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	95.07	599.8	965.8	847.6	17360.	4274.	21090.
Stddev	.56	4.0	14.6	9.7	75.	14.	38.
%RSD	.5928	.6627	1.515	1.141	.4337	.3354	.1800
#1	95.37	603.5	962.9	837.0	17290.	4260.	21040.
#2	94.42	600.3	981.6	855.8	17440.	4289.	21120.
#3	95.42	595.6	952.8	850.1	17340.	4274.	21100.

Sample Name: BeY 1ppm Acquired: 6/7/2011 12:02:42 Type: Cal
Method: BeUY(v44) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Be3130	Y_3242	Y_3710	Y_3242-2
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	48240.	103100.	i 16240.	6015.
Stddev	217.	204.	70.	32.
%RSD	.4494	.1976	.4335	.5364
#1	48020.	102900.	16190.	5980.
#2	48240.	103200.	16200.	6022.
#3	48460.	103200.	16320.	6043.

Sample Name: ICV Acquired: 6/7/2011 12:08:25 Type: QC
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.250	5.332	.4955	5.330	5.251	5.214	5.161	5.133	5.188	.5008
Stddev	.064	.006	.0029	.009	.023	.055	.301	.023	.018	.0007
%RSD	1.226	.1045	.5839	.1785	.4453	1.060	5.834	.4452	.3463	.1380
#1	5.261	5.338	.4957	5.335	5.243	5.210	5.211	5.116	5.179	.5000
#2	5.180	5.329	.4926	5.319	5.233	5.161	5.434	5.124	5.176	.5014
#3	5.308	5.328	.4984	5.337	5.278	5.271	4.838	5.159	5.208	.5010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .4959	5.274	iF 6.647	4.887	4.829	4.691	4.772	4.769	.4923
Stddev	.0027	.101	.118	.035	.131	.014	.005	.012	.0028
%RSD	.5363	1.916	1.769	.7071	2.712	.2883	.1078	.2604	.5664
#1	i .4964	5.238	i 6.650	4.847	4.980	4.682	4.769	4.756	.4932
#2	i .4931	5.388	i 6.763	4.905	4.750	4.707	4.770	4.772	.4892
#3	i .4984	5.195	i 6.528	4.907	4.758	4.685	4.778	4.780	.4946
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5.000						
Range			10.00%						

Sample Name: ICB Acquired: 6/7/2011 12:14:09 Type: QC
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0113	.0050	-.0001	-.0009	.0008	-.0052	-.0782	-.0032	-.0103	.0001
Stddev	.0222	.0049	.0001	.0002	.0013	.0044	.0452	.0253	.0126	.0000
%RSD	196.0	98.15	109.9	24.40	159.7	85.17	57.83	783.4	121.6	53.91
#1	-.0233	.0098	.0000	-.0007	.0020	-.0007	-.1215	-.0315	.0031	.0001
#2	.0143	.0000	-.0001	-.0012	-.0005	-.0052	-.0313	.0042	-.0219	.0001
#3	-.0250	.0053	-.0001	-.0009	.0009	-.0095	-.0818	.0176	-.0122	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0005	F .2438	i -.0156	.0002	.0589	.0004	-.0008	.0039	-.0002
Stddev	.0002	.2719	.0547	.0259	.0310	.0023	.0104	.0059	.0006
%RSD	36.65	111.5	350.8	15020.	52.67	594.4	1336.	149.7	291.4
#1	i -.0003	.5217	i -.0526	.0175	.0682	.0030	.0084	.0090	.0003
#2	i -.0006	.2313	i .0473	-.0296	.0842	-.0010	-.0122	-.0025	.0000
#3	i -.0006	-.0216	i -.0415	.0126	.0243	-.0009	.0014	.0052	-.0009
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.1500							
Low Limit		-.1500							

Sample Name: ICSA Acquired: 6/7/2011 12:20:01 Type: QC
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	245.6	246.0	-.0001	F 192.0	231.8	93.19	92.15	239.8	240.0	-.0002
Stddev	.6	.7	.0001	.4	3.0	.19	.29	.6	.8	.0000
%RSD	.2608	.2964	57.18	.1827	1.310	.1989	.3164	.2704	.3230	17.73
#1	246.4	246.7	-.0001	192.1	228.7	93.37	92.45	240.4	240.7	-.0001
#2	245.3	246.2	-.0001	192.3	232.1	93.20	92.12	239.8	240.1	-.0002
#3	245.2	245.2	-.0002	191.6	234.7	93.00	91.87	239.2	239.2	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				300.0						
Low Limit				200.0						

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	-.0898	iF .3361	F -1.005	.0811	.0261	-.0325	.0355	-.0002
Stddev	.0003	.3638	.0175	.046	.0386	.0034	.0251	.0026	.0008
%RSD	285.0	404.9	5.214	4.535	47.54	12.96	77.29	7.256	337.2
#1	i -.0004	-.4215	i .3453	-1.057	.0909	.0276	-.0595	.0353	-.0011
#2	i -.0001	-.1472	i .3470	-.9825	.1139	.0285	-.0099	.0381	-.0003
#3	i .0002	.2992	i .3159	-.9744	.0386	.0223	-.0280	.0330	.0006
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.1500	.1500					
Low Limit			-.1500	-.1500					

Sample Name: ICSAB Acquired: 6/7/2011 12:25:29 Type: QC
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	248.6	248.4	.4669	F 193.0	230.3	94.44	91.92	241.4	241.5	-.0001
Stddev	1.3	1.1	.0023	.8	3.3	.37	.54	1.0	.7	.0001
%RSD	.5073	.4605	.4846	.4110	1.431	.3914	.5923	.3965	.2872	65.01
#1	247.2	247.1	.4643	193.8	226.8	94.02	91.29	240.5	240.7	-.0001
#2	249.6	249.0	.4685	192.2	230.8	94.70	92.20	241.2	241.7	-.0002
#3	249.1	249.2	.4680	193.0	233.3	94.61	92.27	242.4	242.0	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				300.0						
Low Limit				200.0						

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0002	F .2025	iF .3359	F -1.045	.0856	-.0247	-.0332	.0296	-.0002
Stddev	.0004	.2659	.0829	.030	.0151	.0062	.0060	.0081	.0002
%RSD	204.4	131.3	24.68	2.870	17.65	25.23	18.05	27.47	92.80
#1	i .0003	.1308	i .3159	-1.067	.1020	-.0233	-.0328	.0202	-.0001
#2	i .0005	.4969	i .2649	-1.011	.0722	-.0316	-.0394	.0341	-.0001
#3	i -.0002	-.0202	i .4270	-1.058	.0827	-.0193	-.0274	.0344	-.0005
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.1500	.1500	.1500					
Low Limit		-.1500	-.1500	-.1500					

Sample Name: 2 PPB BE Y Acquired: 6/7/2011 12:33:45 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0469	.0498	.0018	.0293	.0463	.0190	-.1227	.0385	.0419	.0021
Stddev	.0289	.0226	.0000	.0006	.0138	.0037	.1616	.0285	.0045	.0001
%RSD	61.58	45.28	2.506	1.940	29.82	19.51	131.7	73.98	10.71	6.837
#1	.0278	.0255	.0019	.0299	.0308	.0203	.0120	.0152	.0367	.0019
#2	.0801	.0539	.0018	.0293	.0572	.0148	-.0782	.0302	.0448	.0022
#3	.0328	.0701	.0018	.0287	.0511	.0219	-.3018	.0703	.0442	.0020

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0014	.1451	i .1321	-.0018	.0314	-.0003	.0009	-.0060	.0010
Stddev	.0002	.0378	.0380	.0371	.0744	.0033	.0070	.0022	.0005
%RSD	13.95	26.05	28.77	2084.	237.2	1182.	774.5	37.33	46.67
#1	i .0016	.1452	i .1681	.0318	.1148	.0033	-.0068	-.0051	.0010
#2	i .0012	.1828	i .1358	-.0416	.0073	-.0032	.0068	-.0085	.0015
#3	i .0014	.1072	i .0924	.0045	-.0280	-.0009	.0026	-.0043	.0005

Sample Name: 100 PPB U Acquired: 6/7/2011 12:39:37 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029	.0055	-.0001	.0201	.0191	.0004	.2128	-.0012	-.0037	.0000
Stddev	.0173	.0035	.0000	.0002	.0021	.0064	.0885	.0109	.0173	.000
%RSD	594.4	63.90	59.41	1.161	10.78	1466.	41.60	892.2	469.5	296.3
#1	-.0067	.0070	-.0001	.0202	.0185	.0063	.2068	.0033	-.0223	-.0001
#2	-.0074	.0079	.0000	.0198	.0174	-.0064	.3042	-.0136	-.0006	.0000
#3	.0229	.0015	-.0001	.0202	.0214	.0014	.1275	.0067	.0119	.0000

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0003	.2620	i .1163	.0759	.1475	.0993	.0963	.1041	-.0004
Stddev	.0004	.1507	.1139	.0143	.0919	.0047	.0060	.0035	.0007
%RSD	161.9	57.53	97.96	18.90	62.27	4.706	6.206	3.353	168.9
#1	i .0001	.1778	i .2415	.0595	.0660	.0952	.1004	.1048	.0004
#2	i -.0007	.4361	i .0884	.0822	.1295	.1044	.0989	.1072	-.0009
#3	i -.0001	.1723	i .0189	.0860	.2471	.0982	.0894	.1003	-.0007

Sample Name: 15 PPB U Acquired: 6/7/2011 12:45:29 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0112	.0109	-.0001	.0080	.0067	-.0059	-.1022	-.0030	-.0024	.0000
Stddev	.0063	.0095	.0000	.0002	.0031	.0058	.0941	.0017	.0206	.000
%RSD	56.41	86.82	54.70	1.966	45.94	97.19	92.06	54.88	870.9	328.5
#1	.0160	.0000	-.0001	.0080	.0032	-.0003	-.1251	-.0023	.0210	.0000
#2	.0040	.0160	.0000	.0078	.0088	-.0056	-.1828	-.0049	-.0179	.0000
#3	.0134	.0168	-.0001	.0082	.0083	-.0119	.0012	-.0019	-.0102	-.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	.0017	i .0378	.0271	.0844	.0170	.0048	.0150	-.0005
Stddev	.0003	.3016	.0684	.0471	.0237	.0083	.0011	.0016	.0012
%RSD	455.6	18040.	180.8	173.8	28.12	48.60	23.88	10.46	235.1
#1	i .0002	.1397	i -.0168	.0509	.0701	.0233	.0038	.0167	.0000
#2	i -.0003	.2096	i .0158	-.0272	.0712	.0201	.0045	.0146	-.0018
#3	i .0002	-.3443	i .1145	.0576	.1117	.0077	.0060	.0136	.0004

Sample Name: 30 PPB U1 Acquired: 6/7/2011 12:57:11 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023	.0192	-.0001	.0067	.0062	-.0024	.0048	-.0035	.0059	.0000
Stddev	.0216	.0336	.0001	.0004	.0027	.0020	.1442	.0206	.0059	.0001
%RSD	948.6	175.1	88.60	5.798	42.92	82.06	2997.	586.5	99.54	690.4
#1	.0201	.0483	-.0002	.0069	.0054	-.0043	.1599	-.0232	-.0003	.0002
#2	.0085	-.0176	-.0002	.0069	.0092	-.0003	-.0204	.0180	.0114	.0000
#3	-.0218	.0269	.0000	.0062	.0040	-.0026	-.1251	-.0053	.0066	-.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0002	-.0412	i -.0443	.0118	.0663	.0328	.0235	.0339	-.0007
Stddev	.0003	.2351	.0353	.0357	.0627	.0046	.0020	.0060	.0006
%RSD	207.7	570.2	79.57	301.5	94.49	13.90	8.491	17.73	74.97
#1	i -.0005	.1562	i -.0826	-.0235	.0174	.0275	.0234	.0350	-.0001
#2	i .0000	.0215	i -.0372	.0478	.1369	.0352	.0256	.0392	-.0010
#3	i .0001	-.3014	i -.0131	.0113	.0445	.0356	.0216	.0274	-.0011

Sample Name: CCV Acquired: 6/7/2011 15:51:46 Type: QC
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.253	5.269	.4881	5.266	5.172	5.127	4.888	5.022	5.111	.4916
Stddev	.061	.041	.0019	.015	.010	.030	.167	.005	.009	.0002
%RSD	1.171	.7818	.3848	.2811	.1917	.5841	3.412	.1006	.1668	.0380
#1	5.216	5.284	.4867	5.283	5.163	5.104	4.738	5.022	5.101	.4917
#2	5.219	5.222	.4874	5.260	5.169	5.116	4.858	5.017	5.116	.4918
#3	5.324	5.300	.4902	5.255	5.183	5.161	5.068	5.028	5.115	.4914
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range								√		

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .4936	5.093	iF 6.647	4.790	4.756	4.633	4.694	4.723	.4856
Stddev	.0026	.233	.072	.070	.114	.010	.033	.003	.0015
%RSD	.5314	4.568	1.080	1.469	2.389	.2093	.6935	.0534	.3020
#1	i .4914	4.878	i 6.623	4.715	4.700	4.642	4.701	4.720	.4839
#2	i .4929	5.060	i 6.590	4.855	4.681	4.623	4.722	4.722	.4864
#3	i .4965	5.340	i 6.727	4.799	4.887	4.634	4.658	4.725	.4865
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5.000						
Range			10.00%						

Sample Name: CCB Acquired: 6/7/2011 15:57:32 Type: QC
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0180	.0251	-.0001	.0052	.0061	-.0076	.0228	-.0127	-.0029	.0000
Stddev	.0004	.0142	.0000	.0005	.0006	.0037	.0596	.0076	.0079	.0001
%RSD	2.397	56.53	25.79	9.574	10.27	48.07	260.9	59.43	271.5	465.6
#1	.0176	.0359	-.0002	.0048	.0059	-.0057	.0265	-.0114	-.0112	.0000
#2	.0179	.0303	-.0001	.0057	.0056	-.0119	.0806	-.0209	.0046	.0001
#3	.0184	.0090	-.0002	.0050	.0068	-.0053	-.0385	-.0059	-.0022	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0002	F .3353	i -.0544	-.0187	.0012	-.0030	-.0035	.0001	.0004
Stddev	.0004	.2888	.0629	.0543	.0535	.0059	.0132	.0030	.0008
%RSD	166.1	86.13	115.7	290.8	4652.	198.6	380.7	5529.	218.0
#1	i .0002	.6671	i -.1084	-.0280	.0621	.0011	.0111	.0021	.0008
#2	i -.0004	.1991	i .0147	.0397	-.0383	-.0098	-.0149	-.0034	.0008
#3	i -.0004	.1398	i -.0693	-.0676	-.0203	-.0003	-.0066	.0015	-.0005
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.1500							
Low Limit		-.1500							

Sample Name: mblk-6337 Acquired: 6/7/2011 16:44:24 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0198	.0274	-.0001	.1004	.0996	-.0115	-.1287	-.0047	.0096	.0000
Stddev	.0224	.0257	.0001	.0004	.0044	.0014	.1701	.0157	.0124	.0000
%RSD	113.2	93.95	81.83	.3665	4.421	12.07	132.2	333.8	129.6	334.5
#1	.0287	-.0022	-.0001	.1008	.1036	-.0099	-.0854	-.0057	.0223	.0000
#2	.0364	.0444	.0000	.1002	.0949	-.0125	-.3163	.0115	.0090	.0000
#3	-.0057	.0400	-.0002	.1002	.1003	-.0120	.0156	-.0198	-.0025	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0002	-.0306	i -.0461	.0171	.0817	-.0044	-.0088	-.0035	-.0002
Stddev	.0005	.0450	.1014	.1060	.0876	.0053	.0030	.0015	.0008
%RSD	263.5	146.9	219.8	619.4	107.2	121.8	33.84	43.77	326.3
#1	i -.0006	-.0162	i .0246	-.0647	.0406	-.0085	-.0097	-.0040	.0007
#2	i -.0003	-.0811	i -.0007	.1368	.1823	-.0063	-.0055	-.0018	-.0006
#3	i .0003	.0054	i -.1623	-.0208	.0223	.0016	-.0112	-.0048	-.0008

Sample Name: lcs-6337 Acquired: 6/7/2011 16:50:16 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.044	1.053	.9727	1.157	1.171	1.043	.9815	1.002	1.028	.9300
Stddev	.023	.012	.0065	.002	.008	.005	.1617	.011	.015	.0031
%RSD	2.208	1.143	.6653	.1940	.6902	.4520	16.48	1.130	1.423	.3290
#1	1.023	1.065	.9801	1.155	1.180	1.038	.8390	.9894	1.012	.9265
#2	1.042	1.053	.9701	1.159	1.169	1.043	1.157	1.011	1.041	.9313
#3	1.069	1.041	.9680	1.156	1.164	1.047	.9483	1.006	1.031	.9323

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .9436	1.189	i 4.360	.9582	.8540	.8024	.9810	.9133	.6768
Stddev	.0035	.113	.340	.0576	.0334	.0113	.0069	.0069	.0042
%RSD	.3709	9.464	7.794	6.014	3.909	1.403	.7006	.7527	.6156
#1	i .9476	1.072	i 4.173	.9512	.8923	.7911	.9882	.9079	.6813
#2	i .9422	1.199	i 4.154	1.019	.8386	.8026	.9804	.9210	.6760
#3	i .9410	1.296	i 4.752	.9044	.8311	.8136	.9745	.9109	.6730

Sample Name: lcsd-6337 Acquired: 6/7/2011 16:56:03 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.041	1.036	.9515	1.134	1.147	1.018	.9546	.9777	1.004	.9295
Stddev	.036	.015	.0033	.001	.006	.001	.2594	.0102	.011	.0028
%RSD	3.447	1.400	.3416	.1244	.5358	.1341	27.17	1.048	1.140	.2997
#1	1.036	1.041	.9520	1.134	1.141	1.020	.8570	.9659	1.017	.9327
#2	1.079	1.048	.9544	1.132	1.154	1.018	.7582	.9843	.9953	.9277
#3	1.007	1.020	.9480	1.135	1.146	1.017	1.249	.9828	1.000	.9281

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .9331	1.420	i 4.331	.9818	.8544	.8073	.9712	.9099	.6695
Stddev	.0026	.439	.078	.0307	.0207	.0027	.0132	.0102	.0016
%RSD	.2833	30.93	1.811	3.128	2.428	.3324	1.361	1.123	.2380
#1	i .9313	1.516	i 4.295	.9809	.8539	.8095	.9738	.9142	.6677
#2	i .9362	1.802	i 4.421	.9516	.8340	.8082	.9568	.8982	.6706
#3	i .9319	.9402	i 4.278	1.013	.8754	.8043	.9828	.9172	.6703

Sample Name: CCV Acquired: 6/7/2011 17:01:51 Type: QC
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.135	5.216	.4822	5.232	5.109	5.097	4.963	4.946	5.020	.4877
Stddev	.028	.018	.0019	.005	.029	.014	.004	.061	.037	.0014
%RSD	.5441	.3438	.3912	.0933	.5598	.2721	.0793	1.235	.7341	.2843
#1	5.162	5.201	.4839	5.227	5.141	5.111	4.962	5.010	5.055	.4874
#2	5.138	5.212	.4823	5.235	5.101	5.096	4.959	4.939	5.024	.4865
#3	5.106	5.236	.4802	5.235	5.085	5.083	4.967	4.888	4.981	.4892
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

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Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .4877	4.869	iF 6.556	4.830	4.699	4.597	4.634	4.680	.4776
Stddev	.0014	.173	.131	.026	.113	.014	.010	.028	.0024
%RSD	.2777	3.560	1.997	.5413	2.410	.2936	.2088	.6007	.5022
#1	i .4890	4.685	i 6.542	4.803	4.806	4.584	4.626	4.668	.4803
#2	i .4879	4.893	i 6.433	4.856	4.580	4.595	4.631	4.660	.4768
#3	i .4863	5.029	i 6.694	4.832	4.709	4.611	4.644	4.712	.4757
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5.000						
Range			10.00%						

Sample Name: CCB Acquired: 6/7/2011 17:07:37 Type: QC
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0005	.0142	-.0001	.0052	.0036	-.0053	-.1178	.0023	.0069	.0000
Stddev	.0142	.0159	.0001	.0004	.0010	.0026	.1134	.0179	.0133	.0001
%RSD	2766.	112.2	47.24	7.092	28.37	48.48	96.22	767.8	193.8	793.2
#1	-.0095	.0169	-.0001	.0049	.0044	-.0051	.0120	.0225	.0198	.0000
#2	-.0079	.0285	-.0002	.0056	.0024	-.0079	-.1972	-.0042	-.0068	-.0001
#3	.0158	-.0029	-.0001	.0050	.0039	-.0028	-.1684	-.0113	.0076	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

√

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	-.0790	i -.0085	.0273	-.0080	-.0022	.0034	.0004	.0002
Stddev	.0001	.1244	.1215	.1052	.0735	.0072	.0131	.0021	.0010
%RSD	51.09	157.4	1428.	385.8	924.8	335.5	384.6	572.5	575.7
#1	i -.0001	.0376	i .0447	-.0546	.0762	.0028	.0030	-.0019	-.0010
#2	i -.0001	-.0648	i -.1476	.1460	-.0595	-.0104	-.0095	.0022	.0009
#3	i -.0002	-.2100	i .0773	-.0096	-.0406	.0012	.0167	.0008	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 6/7/2011 17:13:31 Type: QC
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	243.4	243.1	-.0002	F 189.2	228.6	92.25	89.36	234.0	234.4	-.0002
Stddev	1.6	1.3	.0001	1.6	1.9	.57	1.02	1.2	1.4	.0000
%RSD	.6746	.5513	48.78	.8451	.8510	.6153	1.136	.4960	.5836	23.83
#1	245.2	244.6	-.0002	187.4	228.6	92.86	90.40	235.3	235.9	-.0002
#2	242.0	242.2	-.0001	189.9	226.7	91.75	89.30	233.5	233.9	-.0002
#3	242.9	242.4	-.0002	190.4	230.6	92.13	88.37	233.1	233.3	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				300.0						
Low Limit				200.0						

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	F -.2391	iF .3226	F -1.041	.1093	.0243	-.0173	.0033	.0002
Stddev	.0004	.4847	.0514	.027	.0692	.0049	.0102	.0117	.0007
%RSD	434.1	202.7	15.93	2.628	63.26	20.20	58.77	350.2	451.0
#1	i -.0003	-.2032	i .3360	-1.054	.1129	.0226	-.0252	-.0008	-.0005
#2	i .0004	-.7407	i .2658	-1.010	.1766	.0204	-.0208	.0165	.0001
#3	i -.0003	.2266	i .3659	-1.060	.0384	.0298	-.0058	-.0057	.0009
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.1500	.1500	.1500					
Low Limit		-.1500	-.1500	-.1500					

Sample Name: ICSAB Acquired: 6/7/2011 17:18:59 Type: QC
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	243.3	243.2	.4551	F 191.9	228.9	92.14	89.23	234.6	234.8	-.0002
Stddev	1.9	1.7	.0031	.6	1.3	.73	.11	1.1	1.3	.0000
%RSD	.7960	.7106	.6756	.3024	.5709	.7903	.1256	.4714	.5423	12.88
#1	241.2	241.3	.4517	191.9	227.4	91.31	89.11	233.3	233.4	-.0002
#2	243.5	243.8	.4562	191.3	229.8	92.42	89.24	234.9	235.2	-.0002
#3	245.0	244.6	.4575	192.5	229.4	92.69	89.34	235.5	235.8	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				300.0						
Low Limit				200.0						

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0000	.0110	iF .4083	F -1.073	.0815	-.0194	-.0228	-.0058	-.0002
Stddev	.000	.1375	.1268	.041	.0365	.0059	.0044	.0119	.0009
%RSD	268.8	1246.	31.05	3.830	44.85	30.22	19.52	206.8	371.1
#1	i -.0001	.1513	i .2748	-1.054	.1220	-.0259	-.0178	-.0145	.0004
#2	i -.0001	.0053	i .5271	-1.120	.0716	-.0144	-.0241	-.0106	-.0013
#3	i .0001	-.1235	i .4231	-1.044	.0509	-.0180	-.0264	.0078	.0002
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.1500	.1500					
Low Limit			-.1500	-.1500					

Sample Name: 1105703-01A Acquired: 6/7/2011 17:24:25 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8039	.7880	.0000	8.066	7.616	.9572	.9738	.3399	.3586	.0009
Stddev	.0237	.0159	.000	.031	.030	.0129	.0744	.0245	.0051	.0000
%RSD	2.949	2.016	3315.	.3854	.3908	1.349	7.643	7.210	1.425	4.462
#1	.7955	.7763	.0001	8.066	7.583	.9680	.9231	.3641	.3617	.0010
#2	.7856	.7816	-.0001	8.035	7.624	.9607	1.059	.3403	.3527	.0009
#3	.8307	.8061	.0001	8.098	7.641	.9429	.9392	.3151	.3614	.0009

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0007	.1402	i .0052	-.0131	.0390	.0005	.0035	-.0002	-.0045
Stddev	.0006	.0965	.0855	.0343	.0765	.0023	.0077	.0016	.0007
%RSD	77.55	68.81	1645.	261.0	195.8	484.3	218.3	896.3	15.39
#1	i .0007	.0401	i .0504	-.0144	-.0471	.0030	.0046	.0008	-.0048
#2	i .0002	.2327	i .0586	.0218	.0654	-.0013	-.0047	-.0020	-.0037
#3	i .0013	.1480	i -.0934	-.0468	.0989	-.0003	.0106	.0007	-.0051

w = .00242 g

V = 20 mL

CF = 8264

Sample Name: 1105703-02A Acquired: 6/7/2011 17:30:16 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.675	1.644	-.0001	13.24	12.66	3.393	3.282	.7368	.7369	.0012
Stddev	.004	.009	.0000	.02	.06	.030	.057	.0200	.0182	.0001
%RSD	.2259	.5414	49.31	.1797	.4459	.8851	1.727	2.718	2.468	7.285
#1	1.679	1.638	-.0001	13.23	12.70	3.380	3.244	.7562	.7173	.0012
#2	1.676	1.639	-.0001	13.22	12.68	3.427	3.347	.7162	.7402	.0011
#3	1.671	1.654	-.0001	13.27	12.59	3.371	3.254	.7379	.7533	.0012

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0009	.1005	i -.0345	-.0272	-.0095	-.0007	-.0065	-.0101	-.0150
Stddev	.0002	.3411	.0450	.0301	.0756	.0020	.0126	.0087	.0002
%RSD	23.56	339.5	130.5	110.6	794.6	281.8	194.5	86.30	1.475
#1	i .0007	.1898	i -.0333	-.0514	.0667	-.0018	-.0097	-.0027	-.0148
#2	i .0011	-.2764	i .0099	-.0367	-.0108	-.0020	.0074	-.0197	-.0152
#3	i .0008	.3880	i -.0800	.0065	-.0845	.0016	-.0172	-.0079	-.0151

Sample Name: 1105703-03A Acquired: 6/7/2011 17:36:05 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.00	17.08	.0005	217.5	261.3	79.14	76.74	15.49	15.50	.0199
Stddev	.09	.06	.0001	.3	2.8	.43	.66	.07	.05	.0001
%RSD	.4938	.3728	18.58	.1308	1.059	.5407	.8597	.4401	.3388	.6257
#1	17.91	17.01	.0004	217.2	261.6	78.67	75.99	15.41	15.44	.0201
#2	18.00	17.11	.0005	217.5	258.4	79.50	76.98	15.52	15.54	.0198
#3	18.09	17.13	.0005	217.8	263.9	79.26	77.24	15.53	15.51	.0199

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0204	.4289	i .3518	-.8269	.0758	-.0035	.0228	-.0250	-.1810
Stddev	.0002	.0795	.1101	.0587	.0806	.0031	.0088	.0059	.0017
%RSD	.7976	18.54	31.31	7.103	106.3	89.15	38.66	23.49	.9192
#1	i .0206	.5063	i .4782	-.8335	.1681	-.0008	.0229	-.0292	-.1797
#2	i .0204	.3474	i .3002	-.8821	.0398	-.0028	.0315	-.0183	-.1804
#3	i .0203	.4329	i .2769	-.7652	.0195	-.0069	.0139	-.0276	-.1829

Sample Name: 1105703-04A Acquired: 6/7/2011 17:41:31 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.14	10.37	.0003	166.8	193.2	47.55	45.13	9.548	9.677	.0110
Stddev	.07	.09	.0001	.3	1.4	.32	.26	.075	.087	.0001
%RSD	.6008	.8447	20.42	.1654	.7451	.6699	.5821	.7809	.8964	1.063
#1	11.21	10.43	.0004	166.6	194.1	47.78	45.02	9.586	9.656	.0110
#2	11.13	10.40	.0003	167.1	194.1	47.69	45.43	9.597	9.772	.0108
#3	11.07	10.27	.0002	166.8	191.6	47.19	44.94	9.463	9.602	.0111

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0112	.3681	i .1643	-.5220	.0334	-.0019	-.0048	-.0797	-.1041
Stddev	.0002	.1655	.1264	.0298	.0653	.0057	.0126	.0132	.0015
%RSD	1.684	44.97	76.91	5.709	195.5	306.7	262.5	16.55	1.395
#1	i .0112	.4076	i .1330	-.5388	-.0231	-.0013	-.0153	-.0683	-.1051
#2	i .0111	.5104	i .0565	-.5396	.1049	-.0078	-.0083	-.0767	-.1048
#3	i .0114	.1864	i .3034	-.4876	.0184	.0035	.0092	-.0942	-.1025

ND

Sample Name: 1105703-05A Acquired: 6/7/2011 17:46:49 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	235.7	230.5	.0205	743.3	2136.	255.8	244.6	168.8	169.9	.1385
Stddev	.7	.7	.0001	5.8	15.	.8	1.7	.4	.4	.0001
%RSD	.2893	.2826	.3564	.7813	.6848	.3197	.6826	.2616	.2185	.1036
#1	236.5	231.0	.0205	740.4	2125.	256.6	243.6	168.8	169.7	.1383
#2	235.4	230.8	.0205	739.6	2152.	255.0	246.5	169.2	170.3	.1386
#3	235.2	229.8	.0204	750.0	2130.	255.7	243.6	168.3	169.7	.1385

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .1656	2.293	i 1.959	-2.808	-.1124	-.0541	.3729	^ *****	^ *****
Stddev	.0012	.310	.072	.084	.0832	.0055	.0029	-----	-----
%RSD	.7114	13.51	3.673	3.000	74.00	10.07	.7753	-----	-----
#1	i .1670	2.173	i 1.885	-2.723	-.0238	-.0545	.3725	^ -----	^ -----
#2	i .1651	2.645	i 1.962	-2.810	-.1888	-.0593	.3703	^ -----	^ -----
#3	i .1648	2.061	i 2.029	-2.892	-.1247	-.0485	.3760	^ -----	^ -----

see x5
due to interference

Sample Name: 1105703-06A Acquired: 6/7/2011 17:52:14 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.44	21.45	.0006	207.4	250.1	49.48	47.10	27.58	27.69	.0123
Stddev	.12	.09	.0001	.3	1.9	.19	.29	.09	.09	.0001
%RSD	.5291	.4312	13.72	.1456	.7427	.3929	.6143	.3173	.3351	.6018
#1	22.34	21.34	.0007	207.7	251.3	49.25	46.99	27.49	27.59	.0123
#2	22.41	21.49	.0006	207.3	247.9	49.59	46.88	27.61	27.74	.0123
#3	22.58	21.51	.0005	207.2	250.9	49.59	47.43	27.65	27.75	.0122

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0131	.2341	i .1457	-.4881	-.0423	-.0499	.0119	-.0863	-.1554
Stddev	.0001	.1186	.0315	.0575	.0377	.0032	.0185	.0089	.0014
%RSD	.8936	50.66	21.65	11.79	89.07	6.324	155.8	10.37	.8897
#1	i .0130	.2968	i .1805	-.5539	-.0838	-.0515	.0064	-.0761	-.1539
#2	i .0131	.0973	i .1376	-.4475	-.0101	-.0519	-.0032	-.0927	-.1565
#3	i .0132	.3081	i .1190	-.4629	-.0331	-.0463	.0325	-.0901	-.1559

Sample Name: 1105703-07A Acquired: 6/7/2011 17:57:41 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.16	22.01	.0008	238.0	296.1	37.01	35.51	17.40	17.45	.0156
Stddev	.10	.11	.0000	.7	3.3	.22	.25	.04	.10	.0001
%RSD	.4147	.5003	5.327	.2914	1.104	.5975	.6947	.2576	.5892	.5420
#1	23.19	22.04	.0008	238.8	299.1	36.90	35.50	17.36	17.36	.0155
#2	23.05	21.89	.0008	237.9	296.7	36.87	35.27	17.40	17.43	.0157
#3	23.23	22.11	.0009	237.4	292.6	37.26	35.76	17.45	17.56	.0156

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0163	.4825	i .1154	-.3467	.0705	-.0051	.0192	-.0625	-.0848
Stddev	.0006	.1093	.0750	.0990	.1287	.0033	.0194	.0033	.0006
%RSD	3.793	22.65	65.02	28.55	182.6	65.21	101.3	5.273	.6596
#1	i .0167	.5346	i .0418	-.2332	-.0731	-.0034	.0355	-.0587	-.0853
#2	i .0167	.3569	i .1125	-.4150	.1089	-.0089	.0243	-.0647	-.0842
#3	i .0156	.5560	i .1917	-.3920	.1757	-.0030	-.0023	-.0642	-.0848

Sample Name: 1105703-08A Acquired: 6/7/2011 18:03:08 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	111.6	108.2	.0037	619.5	1302.	363.6	350.3	78.10	78.60	.0600
Stddev	.6	.5	.0000	4.0	9.	1.9	.6	.27	.18	.0003
%RSD	.5084	.4368	.3354	.6385	.6616	.5316	.1726	.3424	.2308	.5678
#1	111.2	107.7	.0037	617.9	1298.	362.3	350.4	77.79	78.43	.0604
#2	112.3	108.7	.0038	616.6	1296.	365.8	350.9	78.30	78.79	.0600
#3	111.4	108.1	.0037	624.0	1312.	362.6	349.7	78.21	78.59	.0597

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0706	1.735	i 1.989	-4.011	.0669	.0288	.0984	^ *****	-.2401
Stddev	.0005	.234	.080	.061	.1011	.0061	.0061	------	.0006
%RSD	.6754	13.47	4.026	1.528	151.3	21.31	6.172	------	.2304
#1	i .0702	1.478	i 1.991	-3.945	-.0498	.0247	.0978	^ ------	-.2404
#2	i .0711	1.936	i 2.068	-4.067	.1300	.0358	.0927	^ ------	-.2395
#3	i .0706	1.792	i 1.908	-4.021	.1204	.0258	.1048	^ ------	-.2405

see +10

Sample Name: 1105703-09A Acquired: 6/7/2011 18:08:33 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0601	.0469	-.0001	.0934	.0900	.0060	-.0144	.0083	-.0042	.0001
Stddev	.0037	.0154	.0001	.0018	.0008	.0035	.1624	.0134	.0112	.0001
%RSD	6.133	32.84	87.47	1.915	.8847	59.34	1125.	161.0	267.9	60.59
#1	.0642	.0596	-.0001	.0943	.0892	.0063	.1455	-.0071	.0083	.0000
#2	.0572	.0513	.0000	.0945	.0908	.0023	-.1792	.0174	-.0133	.0002
#3	.0588	.0298	.0000	.0913	.0902	.0093	-.0096	.0147	-.0075	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	.1883	i .0080	.0018	.0261	-.0082	-.0038	-.0015	-.0008
Stddev	.0003	.3171	.0553	.1148	.0540	.0071	.0044	.0039	.0007
%RSD	319.9	168.4	688.3	6246.	207.0	86.85	114.9	254.7	93.06
#1	i .0000	.5542	i .0714	-.0268	.0797	-.0064	-.0058	-.0032	.0001
#2	i -.0002	.0159	i -.0165	.1282	-.0282	-.0021	.0012	.0029	-.0011
#3	i .0004	-.0054	i -.0307	-.0959	.0267	-.0160	-.0068	-.0044	-.0013

Sample Name: 1105703-05A x10 Acquired: 6/7/2011 18:14:25 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.15	22.22	.0021	220.0	260.8	27.59	26.05	18.27	18.32	.0163
Stddev	.16	.12	.0001	.7	1.0	.10	.51	.05	.05	.0002
%RSD	.6930	.5196	3.889	.3124	.3931	.3608	1.974	.2544	.2699	1.172
#1	23.05	22.09	.0020	219.7	261.3	27.48	25.51	18.26	18.27	.0161
#2	23.33	22.32	.0022	220.8	259.6	27.68	26.10	18.23	18.33	.0163
#3	23.06	22.23	.0021	219.5	261.4	27.60	26.54	18.32	18.37	.0165

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0166	.2601	i .1709	-.3214	-.0128	-.0094	.0398	-.0498	-.2189
Stddev	.0002	.2720	.0845	.0302	.0428	.0041	.0156	.0040	.0005
%RSD	1.333	104.6	49.45	9.387	334.5	43.61	39.22	8.077	.2122
#1	i .0165	.4603	i .2600	-.2906	.0359	-.0047	.0294	-.0505	-.2187
#2	i .0168	.3697	i .0918	-.3229	-.0299	-.0121	.0577	-.0454	-.2186
#3	i .0164	-.0495	i .1610	-.3508	-.0444	-.0115	.0323	-.0534	-.2194

Sample Name: CCV Acquired: 6/7/2011 18:19:53 Type: QC
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.025	5.097	.4725	5.190	5.000	4.994	4.869	4.865	4.923	.4819
Stddev	.024	.031	.0019	.013	.020	.025	.234	.010	.031	.0011
%RSD	.4724	.6001	.4108	.2428	.4035	.5106	4.801	.2137	.6339	.2362
#1	5.045	5.120	.4745	5.200	5.022	5.015	4.703	4.853	4.953	.4805
#2	4.999	5.108	.4725	5.176	4.997	5.000	4.768	4.872	4.925	.4826
#3	5.032	5.062	.4706	5.194	4.982	4.966	5.136	4.870	4.890	.4824
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .4790	4.817	iF 6.442	4.606	4.644	4.547	4.614	4.630	.4696
Stddev	.0028	.460	.017	.071	.128	.012	.026	.010	.0023
%RSD	.5863	9.554	.2619	1.552	2.745	.2630	.5659	.2195	.4810
#1	i .4821	5.319	i 6.462	4.586	4.707	4.541	4.584	4.619	.4709
#2	i .4785	4.414	i 6.436	4.547	4.497	4.539	4.631	4.635	.4710
#3	i .4765	4.718	i 6.430	4.686	4.727	4.561	4.627	4.638	.4670
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5.000						
Range			10.00%						

Sample Name: CCB Acquired: 6/7/2011 18:25:39 Type: QC
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0100	.0115	-.0001	.0069	.0078	-.0014	-.0661	-.0146	-.0003	-.0001
Stddev	.0126	.0091	.0001	.0001	.0017	.0036	.0647	.0091	.0047	.0001
%RSD	126.5	78.70	103.9	.7604	21.55	259.8	97.78	62.74	1645.	84.70
#1	.0005	.0040	-.0001	.0069	.0094	-.0035	.0084	-.0207	-.0009	-.0001
#2	-.0240	.0090	.0000	.0069	.0061	-.0035	-.1070	-.0041	-.0047	.0000
#3	-.0064	.0216	-.0001	.0069	.0078	.0028	-.0998	-.0189	.0047	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0002	F .2492	i -.0360	.0533	.0378	.0011	-.0018	-.0002	-.0002
Stddev	.0003	.2348	.0669	.0284	.0142	.0008	.0169	.0012	.0005
%RSD	144.1	94.23	185.7	53.16	37.56	74.77	958.8	527.6	234.1
#1	i -.0005	.0269	i .0399	.0858	.0291	.0020	-.0144	-.0010	.0004
#2	i -.0001	.4948	i -.0616	.0405	.0301	.0006	-.0083	-.0008	-.0005
#3	i .0000	.2258	i -.0863	.0336	.0542	.0007	.0174	.0011	-.0004
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.1500							
Low Limit		-.1500							

Sample Name: 1105703-08A x10 Acquired: 6/7/2011 18:31:33 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.02	10.51	.0004	135.3	149.9	38.77	37.34	8.497	8.479	.0068
Stddev	.08	.03	.0001	.3	.4	.32	.28	.016	.033	.0001
%RSD	.7458	.2530	17.50	.2348	.2842	.8339	.7549	.1838	.3884	.7588
#1	11.07	10.48	.0003	135.6	150.1	39.07	37.04	8.479	8.448	.0069
#2	11.06	10.52	.0004	135.2	150.1	38.80	37.38	8.508	8.474	.0068
#3	10.92	10.53	.0004	135.0	149.4	38.43	37.60	8.505	8.513	.0068

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0069	.1719	i .1277	-.3756	.0600	.0071	.0035	-.0733	-.0248
Stddev	.0001	.1078	.0353	.0709	.0554	.0019	.0153	.0058	.0005
%RSD	1.789	62.71	27.63	18.87	92.38	26.24	440.3	7.865	2.162
#1	i .0070	.2608	i .1119	-.4212	.0812	.0080	-.0093	-.0678	-.0242
#2	i .0068	.2028	i .1681	-.2939	.1017	.0084	.0204	-.0793	-.0252
#3	i .0070	.0520	i .1031	-.4117	-.0029	.0050	-.0007	-.0729	-.0250

Sample Name: ICSA Acquired: 6/7/2011 18:36:53 Type: QC
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	240.6	241.2	-.0001	F 190.0	224.1	91.61	87.42	231.3	230.9	-.0001
Stddev	1.1	1.1	.0000	1.4	1.5	.38	.28	1.0	1.1	.0001
%RSD	.4650	.4634	31.25	.7593	.6669	.4173	.3211	.4157	.4821	51.11
#1	239.9	240.3	-.0001	189.8	225.8	91.39	87.35	230.5	230.0	-.0002
#2	241.9	242.5	-.0001	191.6	223.0	92.05	87.73	232.4	232.1	.0000
#3	240.0	240.8	-.0001	188.7	223.6	91.38	87.18	231.1	230.6	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				300.0						
Low Limit				200.0						

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0002	F -.3005	iF .3816	F -.9629	.0414	.0244	-.0251	-.0106	-.0009
Stddev	.0008	.2126	.0413	.0770	.0711	.0061	.0092	.0102	.0003
%RSD	345.7	70.75	10.82	7.995	171.5	25.10	36.89	95.40	35.65
#1	i .0006	-.1850	i .4248	-.9340	.0049	.0186	-.0306	-.0211	-.0009
#2	i -.0009	-.1707	i .3425	-1.050	-.0039	.0237	-.0302	-.0009	-.0011
#3	i -.0004	-.5459	i .3776	-.9046	.1233	.0308	-.0144	-.0099	-.0005
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.1500	.1500	.1500					
Low Limit		-.1500	-.1500	-.1500					

Sample Name: ICSAB Acquired: 6/7/2011 18:42:22 Type: QC
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	241.5	242.4	.4516	F 190.2	226.3	91.74	88.56	232.6	232.4	-.0001
Stddev	1.4	.9	.0016	.9	1.9	.47	.74	.6	.6	.0002
%RSD	.5635	.3643	.3562	.4944	.8447	.5129	.8305	.2452	.2401	121.8
#1	241.1	242.1	.4515	189.2	227.2	91.72	89.31	232.8	232.7	.0000
#2	240.4	241.6	.4501	190.4	224.1	91.29	88.52	231.9	231.8	-.0003
#3	243.0	243.3	.4533	191.0	227.5	92.23	87.84	233.0	232.7	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				300.0						
Low Limit				200.0						

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	-.0660	iF .4238	F -.9689	.0620	-.0169	-.0108	-.0103	-.0008
Stddev	.0002	.0978	.1620	.0884	.0699	.0048	.0043	.0087	.0007
%RSD	391.8	148.1	38.23	9.119	112.7	28.08	40.39	83.86	85.49
#1	i .0003	-.1374	i .5228	-1.008	.0780	-.0209	-.0144	-.0179	-.0011
#2	i .0000	.0455	i .5118	-.8676	.1226	-.0182	-.0059	-.0009	-.0012
#3	i -.0002	-.1062	i .2369	-1.030	-.0145	-.0117	-.0119	-.0122	.0000
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.1500	.1500					
Low Limit			-.1500	-.1500					

Sample Name: CCV Acquired: 6/7/2011 18:47:49 Type: QC
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.068	5.118	.4738	5.224	5.027	5.018	4.646	4.908	4.930	.4829
Stddev	.040	.063	.0047	.005	.033	.029	.351	.043	.043	.0014
%RSD	.7832	1.223	1.001	.0972	.6654	.5746	7.557	.8873	.8793	.2899
#1	5.073	5.147	.4785	5.221	5.058	5.041	4.285	4.928	4.973	.4814
#2	5.026	5.046	.4690	5.222	4.991	4.986	4.667	4.858	4.886	.4833
#3	5.105	5.160	.4739	5.230	5.031	5.028	4.986	4.937	4.929	.4841
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .4789	4.838	iF 6.386	4.735	4.572	4.544	4.589	4.642	.4681
Stddev	.0049	.295	.177	.104	.065	.013	.016	.017	.0039
%RSD	1.027	6.098	2.770	2.190	1.412	.2758	.3459	.3725	.8309
#1	i .4832	5.178	i 6.388	4.849	4.606	4.529	4.582	4.625	.4706
#2	i .4735	4.684	i 6.209	4.711	4.497	4.550	4.607	4.660	.4636
#3	i .4801	4.652	i 6.563	4.645	4.612	4.552	4.578	4.641	.4700
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5.000						
Range			10.00%						

Sample Name: CCB Acquired: 6/7/2011 18:53:36 Type: QC
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0080	.0130	-.0002	.0057	.0057	-.0024	.0228	-.0057	.0025	.0001
Stddev	.0168	.0181	.0001	.0004	.0007	.0020	.2218	.0148	.0044	.0000
%RSD	209.5	139.4	58.61	7.749	12.42	83.85	970.9	259.5	178.0	33.01
#1	.0114	-.0012	-.0002	.0057	.0059	-.0001	-.2261	-.0156	-.0013	.0001
#2	-.0175	.0333	-.0002	.0062	.0063	-.0034	.1996	-.0129	.0014	.0001
#3	-.0180	.0067	-.0001	.0053	.0049	-.0038	.0950	.0113	.0073	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0002	.1345	i .0071	-.0131	.0471	.0032	-.0069	.0027	-.0004
Stddev	.0003	.0193	.0253	.0435	.0536	.0042	.0109	.0023	.0005
%RSD	114.2	14.33	357.1	332.0	113.8	132.0	158.1	83.07	114.6
#1	i .0000	.1504	i -.0097	-.0589	.0767	.0050	-.0011	.0042	-.0004
#2	i -.0002	.1401	i .0362	-.0080	.0793	.0062	-.0194	.0001	.0000
#3	i -.0005	.1131	i -.0052	.0276	-.0148	-.0016	-.0001	.0039	-.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: Blank Acquired: 6/8/2011 13:37:51 Type: Cal
Method: BeUY(v44) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8.318	-15.23	15.86	-4.613	-6.448	129.3	9.885	-2.047	2.762	-41.14
Stddev	2.877	.31	3.11	.177	2.095	2.3	.189	2.817	1.600	4.18
%RSD	34.59	2.030	19.60	3.832	32.48	1.758	1.915	137.6	57.95	10.15
#1	10.35	-15.37	17.60	-4.709	-8.840	131.7	9.752	-2.116	1.167	-45.81
#2	5.026	-14.88	17.70	-4.409	-4.943	128.9	9.802	-4.828	2.751	-37.76
#3	9.577	-15.45	12.27	-4.720	-5.561	127.2	10.10	.8043	4.368	-39.86

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	i -28.04	4.184	i 3.556	-6.146	-7.827	-31.09	8.318	-2.867	-11.52
Stddev	4.29	1.907	2.941	4.025	5.967	10.31	4.576	6.952	6.79
%RSD	15.31	45.58	82.70	65.50	76.24	33.17	55.02	242.5	58.90
#1	-27.61	2.601	1.567	-6.985	-11.14	-24.76	9.102	-10.42	-4.051
#2	-32.53	6.301	2.167	-1.767	-.9385	-25.51	3.401	3.267	-13.20
#3	-23.98	3.651	6.935	-9.685	-11.40	-42.98	12.45	-1.450	-17.30

Sample Name: HighStd Acquired: 6/8/2011 13:47:51 Type: Cal
Method: BeUY(v44) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1502.**	**2895.**	**19390.**	**13930.**	**2715.**	**144.7**	**1126.**	**1965.**
Stddev	8.	11.	57.	15.	4.	3.9	3.	4.
%RSD	.5125	.3777	.2932	.1095	.1389	2.671	.2303	.1914
#1	1497.	2903.	19320.	13920.	2717.	148.3	1129.	1961.
#2	1510.	2899.	19420.	13950.	2711.	140.6	1125.	1967.
#3	1497.	2882.	19420.	13920.	2717.	145.2	1124.	1968.

Sample Name: U 10 ppm Acquired: 6/8/2011 13:56:49 Type: Cal
Method: BeUY(v44) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	93.32	i 612.0	994.6	859.7	17280.	4260.	21270.
Stddev	5.22	4.7	11.7	10.9	90.	8.	104.
%RSD	5.595	.7657	1.179	1.265	.5197	.1795	.4907
#1	90.82	609.4	981.3	847.7	17240.	4255.	21220.
#2	89.82	617.4	1004.	869.0	17210.	4256.	21210.
#3	99.32	609.1	998.8	862.5	17380.	4269.	21390.

Sample Name: BeY 1ppm Acquired: 6/8/2011 14:03:34 Type: Cal
Method: BeUY(v44) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Be3130	Y_3242	Y_3710	Y_3242-2
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	47270.	103200.	16330.	6011.
Stddev	493.	491.	141.	45.
%RSD	1.043	.4752	.8656	.7553
#1	47600.	103000.	16430.	6034.
#2	46700.	103800.	16170.	5959.
#3	47500.	102900.	16400.	6041.

Sample Name: icv Acquired: 6/8/2011 14:11:05 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.262	5.304	.5034	5.344	5.259	5.183	5.367	5.197	5.210	.4962
Stddev	.050	.049	.0044	.010	.042	.060	.081	.038	.029	.0018
%RSD	.9538	.9156	.8759	.1798	.7902	1.152	1.511	.7228	.5506	.3652
#1	5.210	5.256	.4997	5.352	5.217	5.116	5.398	5.179	5.177	.4946
#2	5.265	5.303	.5022	5.333	5.260	5.200	5.428	5.173	5.223	.4959
#3	5.311	5.353	.5082	5.345	5.300	5.231	5.275	5.240	5.230	.4982

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .5029	4.657	i 6.726	4.818	4.731	4.687	4.767	4.758	.4982
Stddev	.0063	.236	.097	.077	.005	.020	.032	.021	.0043
%RSD	1.256	5.071	1.437	1.596	.1039	.4205	.6690	.4331	.8628
#1	i .4961	4.919	i 6.635	4.775	4.735	4.665	4.730	4.749	.4941
#2	i .5041	4.462	i 6.715	4.771	4.731	4.695	4.787	4.744	.4980
#3	i .5086	4.589	i 6.827	4.907	4.726	4.702	4.784	4.782	.5027

Sample Name: Al 100 ppm Acquired: 6/8/2011 14:17:37 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	107.0	107.1	.0000	.0068	.0099	-.0056	.0052	.0040	.0004	.0000
Stddev	1.1	1.0	.0001	.0001	.0016	.0062	.1349	.0148	.0105	.000
%RSD	.9994	.9136	370.2	1.889	16.25	110.8	2596.	374.6	2818.	386.5
#1	108.0	107.9	-.0001	.0068	.0087	.0014	.1323	-.0129	.0102	.0001
#2	107.2	107.3	.0000	.0067	.0118	-.0079	-.1362	.0095	-.0106	-.0001
#3	105.9	106.0	.0001	.0070	.0093	-.0103	.0195	.0152	.0015	-.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	-.2601	i .1317	.0379	-.0201	-.0002	.0049	-.0016	.0006
Stddev	.0004	.3343	.0453	.0585	.0310	.0021	.0016	.0047	.0006
%RSD	259.1	128.5	34.39	154.4	154.4	990.5	32.22	302.5	112.8
#1	i .0005	-.4301	i .1839	-.0228	-.0036	-.0021	.0041	.0038	.0004
#2	i -.0002	-.4752	i .1029	.0426	-.0558	-.0006	.0067	-.0034	.0000
#3	i .0001	.1251	i .1083	.0939	-.0008	.0021	.0038	-.0051	.0012

Sample Name: Fe 100 ppm Acquired: 6/8/2011 14:26:07 Type: Unk
Method: BeUY(v44) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0077	.0072	-.0001	.0085	.0001	102.1	106.3	-.0168	.0311	.0000
Stddev	.0128	.0093	.0000	.0002	.0012	.7	1.3	.0044	.0066	.0002
%RSD	166.4	129.2	59.05	2.178	1208.	.6757	1.239	25.90	21.21	4378.
#1	-.0034	-.0004	-.0001	.0086	-.0007	101.7	104.9	-.0125	.0238	.0001
#2	.0024	.0045	.0000	.0086	.0015	101.6	106.6	-.0212	.0365	-.0002
#3	-.0221	.0176	-.0001	.0083	-.0005	102.9	107.5	-.0167	.0329	.0002

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0006	-.1294	i .6669	-1.009	.0052	.0144	-.0113	.0490	-.0001
Stddev	.0004	.1859	.0899	.010	.0522	.0052	.0097	.0037	.0002
%RSD	55.93	143.7	13.48	1.023	1012.	36.16	86.16	7.499	399.5
#1	i .0009	-.0495	i .7502	-.9975	-.0544	.0184	-.0007	.0475	.0001
#2	i .0002	.0032	i .6790	-1.018	.0271	.0085	-.0132	.0532	-.0003
#3	i .0007	-.3419	i .5716	-1.012	.0428	.0164	-.0199	.0463	.0001

Sample #	Filter #	Final Wt(g)	Initial Wt(g)	mg/sample	Vol (L)	mg/m3	Final Wt(g) Dup	Notes
1105703-01	mw pvc	0.017256	0.014836	2.420		#DIV/0!		loose material
1105703-02	mw pvc	0.019292	0.014176	5.116		#DIV/0!		loose material
1105703-03	mw pvc	0.068532	0.011784	56.748		#DIV/0!		loose material
1105703-04	mw pvc	0.067042	0.014757	52.285		#DIV/0!		loose material
1105703-05	mw pvc	0.467017	0.014522	452.495		#DIV/0!		loose material
1105703-06	mw pvc	0.070257	0.015302	54.955		#DIV/0!		loose material
1105703-07	mw pvc	0.099619	0.014097	85.522		#DIV/0!		loose material
1105703-08	mw pvc	0.323155	0.014232	308.923		#DIV/0!		loose material
1105703-09	mw pvc	0.012875	0.0129	-0.025		#DIV/0!	0.012875	

LCS1	0.012155	Target=0.012152g
LCS2	0.012672	Target=0.012658g

Analyst: RN
Date Weighed: 6/1/2011

	Filter	Boat	Total
1105703-03	0.013182	0.05535	0.068532
1105703-05	0.017687	0.44933	0.467017
1105703-06	0.016367	0.05389	0.070257
1105703-07	0.016799	0.08282	0.099619
1105703-08	0.016445	0.30671	0.323155

10-Jun-2011

Wil King
Terracon
13910 W. 96th Terrace
Lenexa, KS 66215

Tel: (913) 492-7777
Fax: (913) 492-7443

Re: Bannister Complex Work Order: **1105705**

Dear Wil,

ALS Environmental received 12 samples on 27-May-2011 10:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

QC sample results for this data met laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Laboratory Group. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 10.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

Chris Gibson

Electronically approved by: Chris Gibson

Chris Gibson
Project Manager

ALS Environmental

Date: 10-Jun-11

Client: Terracon
Project: Bannister Complex
Work Order: **1105705**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1105705-01	Bld1-Roof-NorthPortion-Air	Air		5/24/2011	5/27/2011 10:30	☐
1105705-02	Bld1-Roof-EastCentralPortion-Air	Air		5/24/2011	5/27/2011 10:30	☐
1105705-03	Bld2-Roof-EastEnd-FanHouse3-Air	Air		5/24/2011	5/27/2011 10:30	☐
1105705-04	WestAmbient-Air	Air		5/24/2011	5/27/2011 10:30	☐
1105705-05	NorthAmbient-Air	Air		5/24/2011	5/27/2011 10:30	☐
1105705-06	BISB-Q25-Be/U/Y-Air	Air		5/24/2011	5/27/2011 10:30	☐
1105705-07	BISB-K17-Be/U/Y-Air	Air		5/24/2011	5/27/2011 10:30	☐
1105705-08	BIFI-F25-Be/U/Y-Air	Air		5/24/2011	5/27/2011 10:30	☐
1105705-09	BIFI-Q19-Be/U/Y-Air	Air		5/24/2011	5/27/2011 10:30	☐
1105705-10	BISB-AA16-Be/U/Y-Air	Air		5/24/2011	5/27/2011 10:30	☐
1105705-11	Dup-Air	Air		5/24/2011	5/27/2011 10:30	☐
1105705-12	Blank-Air	Air		5/24/2011	5/27/2011 10:30	☐

ALS Environmental

Date: 10-Jun-11

Client: Terracon
Project: Bannister Complex
Work Order: 1105705

Case Narrative

The sample condition upon receipt was acceptable except where noted.

Results relate only to the items tested and are not blank corrected unless indicated.

ALS Environmental

Date: *10-Jun-11*

Client: Terracon
Project: Bannister Complex

Work Order: 1105705

Analytical Results

Lab ID: 1105705-01A
Client Sample ID: Bld1-Roof-NorthPortion-Air
Collection Date: 5/24/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4446.6** Analyst: **CEG**
Date Analyzed: 6/7/2011 15:16

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000045
Uranium	ND	0.30	<0.000067
Yttrium	ND	0.040	<0.0000090

Lab ID: 1105705-02A
Client Sample ID: Bld1-Roof-EastCentralPortion-Air
Collection Date: 5/24/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4300.69** Analyst: **CEG**
Date Analyzed: 6/7/2011 15:22

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000047
Uranium	ND	0.30	<0.000070
Yttrium	ND	0.040	<0.0000093

Lab ID: 1105705-03A
Client Sample ID: Bld2-Roof-EastEnd-FanHouse3-Air
Collection Date: 5/24/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **3639.87** Analyst: **CEG**
Date Analyzed: 6/7/2011 15:28

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000055
Uranium	ND	0.30	<0.000082
Yttrium	ND	0.040	<0.000011

Note:

ALS Environmental

Date: *10-Jun-11*

Client: Terracon
Project: Bannister Complex

Work Order: 1105705

Analytical Results

Lab ID: 1105705-04A
Client Sample ID: WestAmbient-Air
Collection Date: 5/24/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4437.14** Analyst: **CEG**
Date Analyzed: 6/7/2011 15:34

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000045
Uranium	ND	0.30	<0.000068
Yttrium	ND	0.040	<0.0000090

Lab ID: 1105705-05A
Client Sample ID: NorthAmbient-Air
Collection Date: 5/24/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4324.72** Analyst: **CEG**
Date Analyzed: 6/7/2011 15:40

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000046
Uranium	ND	0.30	<0.000069
Yttrium	ND	0.040	<0.0000092

Lab ID: 1105705-06A
Client Sample ID: BISB-Q25-Be/U/Y-Air
Collection Date: 5/24/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4413.78** Analyst: **CEG**
Date Analyzed: 6/7/2011 15:45

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000045
Uranium	ND	0.30	<0.000068
Yttrium	ND	0.040	<0.0000091

Note:

ALS Environmental

Date: *10-Jun-11*

Client: Terracon
Project: Bannister Complex

Work Order: 1105705

Analytical Results

Lab ID: 1105705-07A
Client Sample ID: BISB-K17-Be/U/Y-Air

Collection Date: 5/24/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4450.22** Analyst: **CEG**
Date Analyzed: 6/7/2011 16:03

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000045
Uranium	ND	0.30	<0.000067
Yttrium	ND	0.040	<0.0000090

Lab ID: 1105705-08A
Client Sample ID: BIFI-F25-Be/U/Y-Air

Collection Date: 5/24/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4458.6** Analyst: **CEG**
Date Analyzed: 6/7/2011 16:09

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000045
Uranium	ND	0.30	<0.000067
Yttrium	ND	0.040	<0.0000090

Lab ID: 1105705-09A
Client Sample ID: BIFI-Q19-Be/U/Y-Air

Collection Date: 5/24/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4392.6** Analyst: **CEG**
Date Analyzed: 6/7/2011 16:15

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000046
Uranium	ND	0.30	<0.000068
Yttrium	ND	0.040	<0.0000091

Note:

ALS Environmental

Date: *10-Jun-11*

Client: Terracon
Project: Bannister Complex

Work Order: 1105705

Analytical Results

Lab ID: 1105705-10A
Client Sample ID: BISB-AA16-Be/U/Y-Air

Collection Date: 5/24/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4489.15** Analyst: **CEG**
Date Analyzed: 6/7/2011 16:20

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000045
Uranium	ND	0.30	<0.000067
Yttrium	ND	0.040	<0.0000089

Lab ID: 1105705-11A
Client Sample ID: Dup-Air

Collection Date: 5/24/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **4495** Analyst: **CEG**
Date Analyzed: 6/7/2011 16:26

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	<0.0000044
Uranium	ND	0.30	<0.000067
Yttrium	ND	0.040	<0.0000089

Lab ID: 1105705-12A
Client Sample ID: Blank-Air

Collection Date: 5/24/2011
Matrix: AIR

Analyses

METALS BY NIOSH 7300 MOD. Method: **N7300** Air Volume (L): **0** Analyst: **CEG**
Date Analyzed: 6/7/2011 16:32

	µg/sample	Reporting Limit µg/sample	mg/m3
Beryllium	ND	0.020	NA
Uranium	ND	0.30	NA
Yttrium	ND	0.040	NA

Note:

ALS Environmental

Date: 10-Jun-11

Client: Terracon
Work Order: 1105705
Project: Bannister Complex

QC BATCH REPORT

Batch ID: **6275** Instrument ID **ICP1** Method: **N7300**

MBLK Sample ID: **mblk-6275-6275** Units: **µg/sample** Analysis Date: **6/7/2011 02:53 PM**

Client ID: Run ID: **ICP1_110607A** SeqNo: **272423** Prep Date: **6/2/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	ND	0.020								
Uranium	0.045	10								J
Yttrium	0.1109	1.0								J

LCS Sample ID: **lcs-6275-6275** Units: **µg/sample** Analysis Date: **6/7/2011 02:59 PM**

Client ID: Run ID: **ICP1_110607A** SeqNo: **272424** Prep Date: **6/2/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	18.45	0.020	20	0	92.2	80-120	0			
Uranium	17.7	10	20	0	88.5	80-120	0			
Yttrium	17.34	1.0	20	0	86.7	80-120	0			

LCSD Sample ID: **lcsd-6275-6275** Units: **µg/sample** Analysis Date: **6/7/2011 03:05 PM**

Client ID: Run ID: **ICP1_110607A** SeqNo: **272425** Prep Date: **6/2/2011** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Beryllium	18.42	0.020	20	0	92.1	80-120	18.45	0.163	20	
Uranium	18.26	10	20	0	91.3	80-120	17.7	3.11		
Yttrium	17.73	1.0	20	0	88.6	80-120	17.34	2.22		

The following samples were analyzed in this batch:

1105705-01A	1105705-02A	1105705-03A
1105705-04A	1105705-05A	1105705-06A
1105705-07A	1105705-08A	1105705-09A
1105705-10A	1105705-11A	1105705-12A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

ALS Environmental

Date: 10-Jun-11

Client: Terracon
Project: Bannister Complex
WorkOrder: **1105705**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SDL	Sample Detection Limit

Units Reported	Description
µg/sample	

ALS Environmental

Sample Receipt Checklist

Client Name: **TERRACON-LENEXA** Date/Time Received: **27-May-11 10:30**

Work Order: **1105705** Received by: **SJW**

Checklist completed by Steve Wilcox (eSignature) 27-May-11 (Date) Reviewed by: Steve Wilcox (eSignature) 27-May-11 (Date)

Matrices:

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):			
Cooler(s)/Kit(s):			
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☐
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

ANALYTICAL REQUEST FORM

☒ **REGULAR Status**

☐ **RUSH Status Required - ADDITIONAL CHARGE**

RESULTS REQUIRED BY _____ DATE

CONTACT ALS LABORATORY GROUP PRIOR TO SENDING SAMPLES

Date 5-26-11 Purchase Order No. G2107144

Company Name Terracon Consultants Inc

Address 13910 West 96th Terrace

Lenexa (City) Kansas (State) 66215 (Zip)

Person to Contact Wil King

Email Address wwking@terracon.com

Telephone (913) 492-7777

Fax Telephone (913) 492-7443

Billing Address (if different)

Quote No.

Sampling Site Bannister Complex

Date/Time of Collection 5-24-11 / ~0600 - ~1700

1105705

Laboratory Use Only	Client Sample Number	Media Type	Sample Volume (Liters)	ANALYSES REQUESTED - Use Method Number if Known
01	BIO 1-Roof-North Portion-Air	0.8 MCE	4446.60	NIOSH 7300/ICP-MS(Be,Y); ICP-MS(U)
02	BIO 1-Roof-East Central Portion-Air		4300.69	
03	BIO 2-Roof-East End-Fan House 3-Air		3639.87	
04	West Ambient-Air		4437.14	
05	North Ambient-Air		4324.72	
06	BSB-Q25-Be/U/Y-Air		4413.78	
07	BISB-K17-Be/U/Y-Air		4450.22	
08	BIF1-F25-Be/U/Y-Air		4458.60	
09	BIF1-Q19-Be/U/Y-Air		4397.60	
10	BISB-AA16-Be/U/Y-Air		4489.15	
11	Dup-Air		4495.00	
12	Blank-Air		—	
13 5/27/11	BIO 1-Roof-North Portion-Air ISO		4446.60	ASTM D3971-90M(U)*
14	BO-1-Roof-East Central Portion-ISO		4462.63	
15	BIO 2-Roof-East End-Fan House 3-ISO		3749.01	
16	West Ambient-ISO		4356.62	

Failure to complete all portions of this form may delay analysis. Please fill in this form *LEGIBLY*.

*Please hold samples pending further analysis.

CHAIN OF CUSTODY

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time
[signature]	5-26-11/1530	Steve Tucker	5/27/11 10:30
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time

Fed-ex

ANALYTICAL REQUEST FORM

☒ **REGULAR Status**

☐ **RUSH Status Required - ADDITIONAL CHARGE**

RESULTS REQUIRED BY _____ DATE

CONTACT ALS LABORATORY GROUP PRIOR TO SENDING SAMPLES

Date 5-26-11 Purchase Order No. 02107144

Company Name Terracon Consultants Inc

Address 13910 West 96th Terrace

Lenexa (City) Kansas (State) 66215 (Zip)

Person to Contact Wil King

Email Address wwking@terracon.com

Telephone (913) 492-7777

Fax Telephone (913) 492-7443

Billing Address (if different)

Quote No.

Sampling Site Bannister Complex

Date/Time of Collection 5-24-11 / 0600-1700

H05705 5/31/11

Laboratory Use Only	Client Sample Number	Media Type	Sample Volume (Liters)	ANALYSES REQUESTED - Use Method Number if Known
17 5/31/11	North Ambient-Iso	0.8 MCE	4604.86	ASTM D3971-90M (u)*
18	BISB-Q25-Be/U/Y-Iso		4444.16	
19	BISB-K17-Be/U/Y-Iso		4552.87	
20	BIF1-F25-Be/U/Y-Iso		4249.20	
21	BIF1-Q19-Be/U/Y-Iso		4372.20	
22	BISB-AA16-Be/U/Y-Iso		4473.08	
23	Dup-Iso		4417.50	
24	Blank-Iso		—	

Failure to complete all portions of this form may delay analysis. Please fill in this form *LEGIBLY*.

*Please hold samples pending further analysis.

CHAIN OF CUSTODY

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time
	5-26-11/1530	Steve Fisher	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time

[redacted]

3268,3291 - 70
BOOK PAGE

TITLE 7300 mod filters Be U Y **PROJECT** **DATE**

Continued from page

WO	#	CLIENT
1105702	-01A → 10A	TERRACON
1105705	-01A → 12A	"

P.pette 20528827
HNO_3 BDH 1110020
HCl ↓ 4110110
HOTBLOCK 101861 @ 104.9 °C setting

#	12IS2280 mL	12IS2282 (mL)	1/10 64CS121	1/10 64CS080
RB - 6274				
MBLK - 6274				
LCS - 6274	0.200	0.200	0.200	0.200
LCSD - 6274	0.200	0.200	0.200	0.200
1105702-01A ↓ 10A				
RB - 6275				
MBLK - 6275				
LCS - 6275	0.200	0.200	0.200	0.200
LCSD - 6275	0.200	0.200	0.200	0.200
1105705-01A ↓ 1105705-12A				

final V = 10 mL

6/2/11

Continued to page 70

SIGNATURE DATE 6/2/11

DISCLOSED TO AND UNDERSTOOD BY DATE 10/2/11

PROPRIETARY INFORMATION

Sample Name: Blank Acquired: 6/7/2011 11:45:17 Type: Cal
Method: BeUY(v42) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8.360	-17.96	9.491	-4.763	-6.262	133.9	10.39	-.6932	2.289	-45.03
Stddev	1.621	6.63	4.901	.546	9.468	.6	2.38	3.500	3.134	2.28
%RSD	19.38	36.90	51.64	11.47	151.2	.4831	22.88	504.9	136.9	5.068
#1	9.102	-16.36	9.435	-5.019	.0892	133.5	12.80	3.279	4.818	-42.51
#2	6.501	-25.24	14.42	-4.135	-1.730	133.6	10.30	-3.326	3.267	-46.96
#3	9.477	-12.27	4.618	-5.134	-17.14	134.6	8.052	-2.033	-1.217	-45.61

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	i -24.89	2.100	i 11.96	-1.939	-16.95	-34.32	10.84	-7.635	-9.319
Stddev	8.63	2.979	8.51	3.406	8.30	7.23	6.47	13.10	.929
%RSD	34.68	141.8	71.20	175.6	48.96	21.06	59.68	171.6	9.973
#1	-18.71	3.351	17.62	-2.984	-14.92	-31.51	3.601	-12.85	-9.952
#2	-34.75	4.251	16.09	1.867	-26.08	-28.92	12.85	-17.32	-8.252
#3	-21.20	-1.300	2.167	-4.701	-9.857	-42.53	16.05	7.268	-9.752

CG 6/8/11
ICP3 ICP1_110607A 6/7/11

10 ppm Al, Ca, Fe, Mg 299 ws 195
1 ppm Be, Y ↓ 185
10 ppm U 131
ICV/CCV ↓ 133
1 CSA 296 ws 189
1 CSAB ↓ 196

AIR FILTERS

Sample Name: HighStd Acquired: 6/7/2011 11:51:07 Type: Cal
Method: BeUY(v42) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1471.	2848.	19340.	13420.	2680.	149.0	1136.	1949.
Stddev	15.	15.	24.	67.	17.	1.7	3.	1.
%RSD	.9922	.5313	.1241	.4972	.6232	1.144	.2426	.0423
#1	1459.	2848.	19330.	13410.	2670.	148.0	1133.	1948.
#2	1466.	2832.	19320.	13350.	2670.	151.0	1137.	1949.
#3	1487.	2863.	19360.	13490.	2699.	148.0	1137.	1950.

Sample Name: U 10 ppm Acquired: 6/7/2011 11:56:53 Type: Cal
Method: BeUY(v42) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	95.07	599.8	965.8	847.6	17360.	4274.	21090.
Stddev	.56	4.0	14.6	9.7	75.	14.	38.
%RSD	.5928	.6627	1.515	1.141	.4337	.3354	.1800
#1	95.37	603.5	962.9	837.0	17290.	4260.	21040.
#2	94.42	600.3	981.6	855.8	17440.	4289.	21120.
#3	95.42	595.6	952.8	850.1	17340.	4274.	21100.

Sample Name: BeY 1ppm Acquired: 6/7/2011 12:02:42 Type: Cal
Method: BeUY(v42) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Be3130	Y_3242	Y_3710	Y_3242-2
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	48240.	103100.	16240.	6015.
Stddev	217.	204.	70.	32.
%RSD	.4494	.1976	.4335	.5364
#1	48020.	102900.	16190.	5980.
#2	48240.	103200.	16200.	6022.
#3	48460.	103200.	16320.	6043.

Sample Name: ICV Acquired: 6/7/2011 12:08:25 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.250	5.332	.4955	5.330	5.251	5.214	5.161	5.133	5.188	.5008
Stddev	.064	.006	.0029	.009	.023	.055	.301	.023	.018	.0007
%RSD	1.226	.1045	.5839	.1785	.4453	1.060	5.834	.4452	.3463	.1380
#1	5.261	5.338	.4957	5.335	5.243	5.210	5.211	5.116	5.179	.5000
#2	5.180	5.329	.4926	5.319	5.233	5.161	5.434	5.124	5.176	.5014
#3	5.308	5.328	.4984	5.337	5.278	5.271	4.838	5.159	5.208	.5010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .4959	5.274	iF 6.647	4.887	4.829	4.691	4.772	4.769	.4923
Stddev	.0027	.101	.118	.035	.131	.014	.005	.012	.0028
%RSD	.5363	1.916	1.769	.7071	2.712	.2883	.1078	.2604	.5664
#1	i .4964	5.238	i 6.650	4.847	4.980	4.682	4.769	4.756	.4932
#2	i .4931	5.388	i 6.763	4.905	4.750	4.707	4.770	4.772	.4892
#3	i .4984	5.195	i 6.528	4.907	4.758	4.685	4.778	4.780	.4946
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5.000						
Range			10.00%						

Sample Name: ICB Acquired: 6/7/2011 12:14:09 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0113	.0050	-.0001	-.0009	.0008	-.0052	-.0782	-.0032	-.0103	.0001
Stddev	.0222	.0049	.0001	.0002	.0013	.0044	.0452	.0253	.0126	.0000
%RSD	196.0	98.15	109.9	24.40	159.7	85.17	57.83	783.4	121.6	53.91
#1	-.0233	.0098	.0000	-.0007	.0020	-.0007	-.1215	-.0315	.0031	.0001
#2	.0143	.0000	-.0001	-.0012	-.0005	-.0052	-.0313	.0042	-.0219	.0001
#3	-.0250	.0053	-.0001	-.0009	.0009	-.0095	-.0818	.0176	-.0122	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0005	F .2438	i -.0156	.0002	.0589	.0004	-.0008	.0039	-.0002
Stddev	.0002	.2719	.0547	.0259	.0310	.0023	.0104	.0059	.0006
%RSD	36.65	111.5	350.8	15020.	52.67	594.4	1336.	149.7	291.4
#1	i -.0003	.5217	i -.0526	.0175	.0682	.0030	.0084	.0090	.0003
#2	i -.0006	.2313	i .0473	-.0296	.0842	-.0010	-.0122	-.0025	.0000
#3	i -.0006	-.0216	i -.0415	.0126	.0243	-.0009	.0014	.0052	-.0009
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.1500							
Low Limit		-.1500							

Sample Name: ICSA Acquired: 6/7/2011 12:20:01 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	245.6	246.0	-.0001	F 192.0	231.8	93.19	92.15	239.8	240.0	-.0002
Stddev	.6	.7	.0001	.4	3.0	.19	.29	.6	.8	.0000
%RSD	.2608	.2964	57.18	.1827	1.310	.1989	.3164	.2704	.3230	17.73
#1	246.4	246.7	-.0001	192.1	228.7	93.37	92.45	240.4	240.7	-.0001
#2	245.3	246.2	-.0001	192.3	232.1	93.20	92.12	239.8	240.1	-.0002
#3	245.2	245.2	-.0002	191.6	234.7	93.00	91.87	239.2	239.2	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				300.0						
Low Limit				200.0						

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	-.0898	iF .3361	F -1.005	.0811	.0261	-.0325	.0355	-.0002
Stddev	.0003	.3638	.0175	.046	.0386	.0034	.0251	.0026	.0008
%RSD	285.0	404.9	5.214	4.535	47.54	12.96	77.29	7.256	337.2
#1	i -.0004	-.4215	i .3453	-1.057	.0909	.0276	-.0595	.0353	-.0011
#2	i -.0001	-.1472	i .3470	-.9825	.1139	.0285	-.0099	.0381	-.0003
#3	i .0002	.2992	i .3159	-.9744	.0386	.0223	-.0280	.0330	.0006
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.1500	.1500					
Low Limit			-.1500	-.1500					

Sample Name: ICSAB Acquired: 6/7/2011 12:25:29 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	248.6	248.4	.4669	F 193.0	230.3	94.44	91.92	241.4	241.5	-.0001
Stddev	1.3	1.1	.0023	.8	3.3	.37	.54	1.0	.7	.0001
%RSD	.5073	.4605	.4846	.4110	1.431	.3914	.5923	.3965	.2872	65.01
#1	247.2	247.1	.4643	193.8	226.8	94.02	91.29	240.5	240.7	-.0001
#2	249.6	249.0	.4685	192.2	230.8	94.70	92.20	241.2	241.7	-.0002
#3	249.1	249.2	.4680	193.0	233.3	94.61	92.27	242.4	242.0	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				300.0						
Low Limit				200.0						

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0002	F .2025	iF .3359	F -1.045	.0856	-.0247	-.0332	.0296	-.0002
Stddev	.0004	.2659	.0829	.030	.0151	.0062	.0060	.0081	.0002
%RSD	204.4	131.3	24.68	2.870	17.65	25.23	18.05	27.47	92.80
#1	i .0003	.1308	i .3159	-1.067	.1020	-.0233	-.0328	.0202	-.0001
#2	i .0005	.4969	i .2649	-1.011	.0722	-.0316	-.0394	.0341	-.0001
#3	i -.0002	-.0202	i .4270	-1.058	.0827	-.0193	-.0274	.0344	-.0005
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.1500	.1500	.1500					
Low Limit		-.1500	-.1500	-.1500					

Sample Name: 2 PPB BE Y Acquired: 6/7/2011 12:33:45 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0469	.0498	.0018	.0293	.0463	.0190	-.1227	.0385	.0419	.0021
Stddev	.0289	.0226	.0000	.0006	.0138	.0037	.1616	.0285	.0045	.0001
%RSD	61.58	45.28	2.506	1.940	29.82	19.51	131.7	73.98	10.71	6.837
#1	.0278	.0255	.0019	.0299	.0308	.0203	.0120	.0152	.0367	.0019
#2	.0801	.0539	.0018	.0293	.0572	.0148	-.0782	.0302	.0448	.0022
#3	.0328	.0701	.0018	.0287	.0511	.0219	-.3018	.0703	.0442	.0020

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0014	.1451	i .1321	-.0018	.0314	-.0003	.0009	-.0060	.0010
Stddev	.0002	.0378	.0380	.0371	.0744	.0033	.0070	.0022	.0005
%RSD	13.95	26.05	28.77	2084.	237.2	1182.	774.5	37.33	46.67
#1	i .0016	.1452	i .1681	.0318	.1148	.0033	-.0068	-.0051	.0010
#2	i .0012	.1828	i .1358	-.0416	.0073	-.0032	.0068	-.0085	.0015
#3	i .0014	.1072	i .0924	.0045	-.0280	-.0009	.0026	-.0043	.0005

Sample Name: 100 PPB U Acquired: 6/7/2011 12:39:37 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0029	.0055	-.0001	.0201	.0191	.0004	.2128	-.0012	-.0037	.0000
Stddev	.0173	.0035	.0000	.0002	.0021	.0064	.0885	.0109	.0173	.000
%RSD	594.4	63.90	59.41	1.161	10.78	1466.	41.60	892.2	469.5	296.3
#1	-.0067	.0070	-.0001	.0202	.0185	.0063	.2068	.0033	-.0223	-.0001
#2	-.0074	.0079	.0000	.0198	.0174	-.0064	.3042	-.0136	-.0006	.0000
#3	.0229	.0015	-.0001	.0202	.0214	.0014	.1275	.0067	.0119	.0000

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0003	.2620	i .1163	.0759	.1475	.0993	.0963	.1041	-.0004
Stddev	.0004	.1507	.1139	.0143	.0919	.0047	.0060	.0035	.0007
%RSD	161.9	57.53	97.96	18.90	62.27	4.706	6.206	3.353	168.9
#1	i .0001	.1778	i .2415	.0595	.0660	.0952	.1004	.1048	.0004
#2	i -.0007	.4361	i .0884	.0822	.1295	.1044	.0989	.1072	-.0009
#3	i -.0001	.1723	i .0189	.0860	.2471	.0982	.0894	.1003	-.0007

Sample Name: 15 PPB U Acquired: 6/7/2011 12:45:29 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0112	.0109	-.0001	.0080	.0067	-.0059	-.1022	-.0030	-.0024	.0000
Stddev	.0063	.0095	.0000	.0002	.0031	.0058	.0941	.0017	.0206	.000
%RSD	56.41	86.82	54.70	1.966	45.94	97.19	92.06	54.88	870.9	328.5
#1	.0160	.0000	-.0001	.0080	.0032	-.0003	-.1251	-.0023	.0210	.0000
#2	.0040	.0160	.0000	.0078	.0088	-.0056	-.1828	-.0049	-.0179	.0000
#3	.0134	.0168	-.0001	.0082	.0083	-.0119	.0012	-.0019	-.0102	-.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	.0017	i .0378	.0271	.0844	.0170	.0048	.0150	-.0005
Stddev	.0003	.3016	.0684	.0471	.0237	.0083	.0011	.0016	.0012
%RSD	455.6	18040.	180.8	173.8	28.12	48.60	23.88	10.46	235.1
#1	i .0002	.1397	i -.0168	.0509	.0701	.0233	.0038	.0167	.0000
#2	i -.0003	.2096	i .0158	-.0272	.0712	.0201	.0045	.0146	-.0018
#3	i .0002	-.3443	i .1145	.0576	.1117	.0077	.0060	.0136	.0004

Sample Name: rb-6274 Acquired: 6/7/2011 12:51:20 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0257	.0500	-.0001	.1063	.1040	.0030	.0734	.0057	.0133	.0003
Stddev	.0058	.0218	.0001	.0007	.0017	.0015	.1469	.0182	.0021	.0001
%RSD	22.63	43.62	70.52	.6667	1.632	49.45	200.3	318.2	15.94	19.09
#1	.0300	.0689	.0000	.1056	.1057	.0014	-.0962	.0215	.0152	.0003
#2	.0191	.0549	-.0002	.1062	.1023	.0042	.1527	.0098	.0110	.0002
#3	.0280	.0262	-.0001	.1070	.1040	.0034	.1635	-.0142	.0136	.0004

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	-.0788	i .0005	-.0362	.0629	.0031	-.0011	.0034	.0005
Stddev	.0001	.1626	.0231	.0746	.0358	.0094	.0107	.0008	.0006
%RSD	98.88	206.4	4885.	205.9	56.94	306.1	946.9	24.43	119.8
#1	i .0000	-.0378	i .0271	-.0764	.0392	.0127	-.0117	.0043	.0001
#2	i -.0003	-.2580	i -.0126	.0498	.0453	.0025	-.0015	.0027	.0013
#3	i -.0001	.0594	i -.0131	-.0821	.1040	-.0060	.0098	.0033	.0003

Sample Name: 30 PPB U1 Acquired: 6/7/2011 12:57:11 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023	.0192	-.0001	.0067	.0062	-.0024	.0048	-.0035	.0059	.0000
Stddev	.0216	.0336	.0001	.0004	.0027	.0020	.1442	.0206	.0059	.0001
%RSD	948.6	175.1	88.60	5.798	42.92	82.06	2997.	586.5	99.54	690.4
#1	.0201	.0483	-.0002	.0069	.0054	-.0043	.1599	-.0232	-.0003	.0002
#2	.0085	-.0176	-.0002	.0069	.0092	-.0003	-.0204	.0180	.0114	.0000
#3	-.0218	.0269	.0000	.0062	.0040	-.0026	-.1251	-.0053	.0066	-.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0002	-.0412	i -.0443	.0118	.0663	.0328	.0235	.0339	-.0007
Stddev	.0003	.2351	.0353	.0357	.0627	.0046	.0020	.0060	.0006
%RSD	207.7	570.2	79.57	301.5	94.49	13.90	8.491	17.73	74.97
#1	i -.0005	.1562	i -.0826	-.0235	.0174	.0275	.0234	.0350	-.0001
#2	i .0000	.0215	i -.0372	.0478	.1369	.0352	.0256	.0392	-.0010
#3	i .0001	-.3014	i -.0131	.0113	.0445	.0356	.0216	.0274	-.0011

Sample Name: mblk-6274 Acquired: 6/7/2011 13:03:02 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0413	.0584	-.0001	.1791	.1856	-.0180	-.1455	.0055	.0134	.0001
Stddev	.0223	.0123	.0001	.0005	.0021	.0007	.1051	.0181	.0065	.0000
%RSD	54.04	21.02	78.09	.2742	1.136	3.665	72.26	329.5	48.02	35.50
#1	.0369	.0476	.0000	.1787	.1834	-.0174	-.0709	-.0048	.0064	.0001
#2	.0654	.0559	-.0001	.1790	.1857	-.0187	-.2658	-.0051	.0191	.0001
#3	.0215	.0717	-.0001	.1797	.1876	-.0179	-.0998	.0264	.0149	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0000	-.0235	i -.0811	.0640	.0764	-.0005	-.0145	-.0031	-.0002
Stddev	.0004	.2595	.0288	.0350	.0223	.0024	.0140	.0030	.0003
%RSD	1493.	1105.	35.53	54.66	29.20	518.2	96.10	95.87	142.3
#1	i -.0001	-.0915	i -.0642	.0705	.1004	.0020	-.0289	.0003	.0001
#2	i .0005	.2633	i -.1144	.0262	.0563	-.0029	-.0010	-.0051	-.0006
#3	i -.0002	-.2422	i -.0648	.0953	.0724	-.0006	-.0137	-.0046	-.0002

Sample Name: 0.25 PREP CHECK Acquired: 6/7/2011 13:08:53 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2696	.2930	.2503	.3313	.3402	.2757	.1135	.2573	.2720	.2500
Stddev	.0081	.0057	.0016	.0006	.0023	.0038	.0534	.0127	.0208	.0006
%RSD	2.997	1.931	.6302	.1684	.6623	1.396	47.03	4.935	7.651	.2247
#1	.2604	.2987	.2498	.3307	.3376	.2800	.0581	.2629	.2588	.2504
#2	.2752	.2874	.2520	.3318	.3414	.2746	.1177	.2427	.2960	.2494
#3	.2733	.2927	.2490	.3313	.3417	.2726	.1646	.2662	.2612	.2502

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .2469	.0998	i 1.067	.2173	.2768	.2267	.2779	.2613	.1775
Stddev	.0008	.1604	.130	.0198	.1092	.0019	.0088	.0040	.0007
%RSD	.3384	160.8	12.16	9.130	39.46	.8450	3.149	1.536	.4107
#1	i .2460	.0697	i .9199	.1956	.3941	.2287	.2786	.2627	.1768
#2	i .2472	-.0435	i 1.116	.2220	.1781	.2265	.2688	.2645	.1783
#3	i .2476	.2731	i 1.165	.2344	.2582	.2249	.2862	.2568	.1775

Sample Name: lcs-6274 Acquired: 6/7/2011 13:14:39 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.038	2.052	1.899	2.013	2.241	2.003	2.032	1.916	1.951	1.814
Stddev	.036	.026	.007	.002	.005	.009	.249	.019	.019	.004
%RSD	1.750	1.270	.3828	.1197	.2245	.4381	12.25	.9989	.9631	.2252
#1	2.013	2.024	1.891	2.013	2.236	2.004	1.751	1.926	1.939	1.810
#2	2.023	2.075	1.901	2.010	2.241	1.994	2.225	1.928	1.972	1.818
#3	2.079	2.057	1.906	2.015	2.246	2.012	2.118	1.894	1.941	1.813

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i 1.863	2.367	i 8.651	1.892	1.790	1.668	1.934	1.849	1.339
Stddev	.009	.067	.207	.084	.063	.009	.002	.012	.003
%RSD	.5057	2.838	2.397	4.426	3.504	.5675	.1248	.6212	.2304
#1	i 1.854	2.290	i 8.672	1.853	1.860	1.667	1.933	1.838	1.336
#2	i 1.863	2.400	i 8.434	1.988	1.740	1.678	1.932	1.849	1.340
#3	i 1.873	2.412	i 8.848	1.835	1.770	1.660	1.937	1.861	1.342

Sample Name: 1105702-01A Acquired: 6/7/2011 13:20:24 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0446	.0552	-.0001	.3423	.3536	.0994	-.0072	.0367	.0395	.0002
Stddev	.0169	.0257	.0000	.0011	.0010	.0057	.1514	.0189	.0126	.0000
%RSD	37.88	46.59	38.61	.3103	.2791	5.703	2098.	51.43	31.86	25.11
#1	.0350	.0766	-.0001	.3430	.3532	.0962	.1058	.0150	.0267	.0002
#2	.0641	.0267	-.0001	.3411	.3529	.1060	.0517	.0462	.0519	.0001
#3	.0347	.0623	-.0001	.3430	.3547	.0962	-.1792	.0489	.0400	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	-.2007	i .0096	.0039	.0626	.0046	.0031	-.0013	-.0006
Stddev	.0001	.2086	.0415	.0922	.0811	.0083	.0129	.0012	.0002
%RSD	103.8	103.9	430.5	2360.	129.5	179.9	418.1	95.48	24.94
#1	i .0000	-.3924	i -.0239	-.0744	.0196	.0124	.0169	-.0001	-.0005
#2	i .0001	-.2311	i .0561	.1055	.1561	-.0041	-.0086	-.0026	-.0008
#3	i .0002	.0214	i -.0032	-.0194	.0121	.0055	.0010	-.0012	-.0006

Sample Name: 1105702-02A Acquired: 6/7/2011 13:26:13 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0213	.0577	-.0001	.3955	.4056	.1287	.0289	.0231	.0145	.0001
Stddev	.0104	.0047	.0000	.0002	.0026	.0043	.2071	.0143	.0077	.0001
%RSD	48.97	8.224	52.84	.0624	.6395	3.354	717.5	61.76	53.28	84.27
#1	.0095	.0606	-.0001	.3955	.4032	.1279	-.0132	.0304	.0198	.0001
#2	.0251	.0604	-.0001	.3952	.4083	.1249	-.1539	.0067	.0180	.0000
#3	.0294	.0523	-.0001	.3957	.4053	.1334	.2537	.0322	.0056	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	-.1181	i -.0398	.0342	.0902	.0050	-.0045	-.0020	-.0005
Stddev	.0003	.1536	.1685	.0758	.0541	.0014	.0153	.0021	.0006
%RSD	311.7	130.1	423.4	221.9	60.01	27.22	339.8	103.1	113.7
#1	i .0000	.0539	i .1122	-.0118	.0721	.0036	.0039	.0003	-.0009
#2	i -.0002	-.1668	i -.0106	-.0073	.1511	.0050	.0047	-.0037	.0002
#3	i .0004	-.2416	i -.2210	.1217	.0475	.0063	-.0221	-.0028	-.0008

Sample Name: CCV Acquired: 6/7/2011 13:32:05 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.171	5.228	.4842	5.298	5.153	5.113	4.894	5.039	5.094	.4924
Stddev	.044	.026	.0012	.012	.014	.028	.139	.007	.025	.0006
%RSD	.8602	.4894	.2581	.2235	.2729	.5442	2.847	.1368	.4889	.1158
#1	5.126	5.225	.4827	5.311	5.138	5.080	4.951	5.041	5.068	.4928
#2	5.215	5.204	.4848	5.288	5.156	5.128	4.736	5.032	5.096	.4927
#3	5.173	5.255	.4850	5.295	5.166	5.129	4.997	5.045	5.117	.4917
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .4889	5.163	iF 6.619	4.808	4.715	4.609	4.691	4.705	.4819
Stddev	.0012	.324	.064	.060	.038	.015	.017	.017	.0011
%RSD	.2542	6.269	.9587	1.259	.8047	.3291	.3647	.3533	.2186
#1	i .4881	4.808	i 6.553	4.804	4.742	4.613	4.691	4.696	.4821
#2	i .4904	5.237	i 6.623	4.750	4.671	4.622	4.708	4.724	.4808
#3	i .4884	5.443	i 6.680	4.871	4.730	4.593	4.674	4.694	.4829
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5.000						
Range			10.00%						

Sample Name: CCB Acquired: 6/7/2011 13:37:52 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0069	.0166	-.0001	.0035	.0033	-.0036	-.1371	-.0006	.0014	.0001
Stddev	.0161	.0254	.0000	.0001	.0020	.0059	.1212	.0143	.0153	.0001
%RSD	233.0	153.0	60.90	2.012	60.13	163.1	88.44	2551.	1118.	244.4
#1	.0039	.0088	-.0001	.0036	.0019	.0025	-.1106	-.0162	.0144	-.0001
#2	.0008	.0450	-.0001	.0034	.0056	-.0041	-.2694	.0117	-.0155	.0000
#3	-.0254	-.0040	.0000	.0036	.0024	-.0093	-.0313	.0029	.0053	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0003	.0393	i -.0226	.0486	.0502	.0025	-.0039	.0009	-.0007
Stddev	.0005	.1624	.0518	.0552	.0672	.0108	.0012	.0057	.0009
%RSD	190.3	413.4	229.5	113.4	133.9	425.5	29.25	658.2	128.0
#1	i -.0007	-.0701	i .0274	.0051	.1171	.0016	-.0049	.0073	-.0010
#2	i .0003	-.0380	i -.0191	.1107	-.0173	-.0077	-.0027	-.0036	-.0014
#3	i -.0005	.2259	i -.0761	.0302	.0509	.0137	-.0043	-.0011	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: LCSD-6274 Acquired: 6/7/2011 13:43:45 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.906	1.917	1.784	1.940	1.996	1.900	1.754	1.841	1.888	1.735
Stddev	.022	.025	.008	.000	.014	.021	.089	.007	.014	.004
%RSD	1.167	1.302	.4316	.0208	.6746	1.093	5.091	.3928	.7399	.2286
#1	1.901	1.923	1.793	1.940	2.011	1.921	1.777	1.836	1.904	1.734
#2	1.931	1.938	1.779	1.939	1.987	1.879	1.656	1.838	1.877	1.739
#3	1.887	1.889	1.782	1.940	1.989	1.901	1.830	1.849	1.883	1.731

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i 1.726	2.147	i 7.924	1.671	1.639	1.483	1.800	1.670	1.246
Stddev	.009	.169	.424	.103	.049	.004	.002	.006	.004
%RSD	.5177	7.870	5.355	6.189	2.997	.2445	.1094	.3377	.2926
#1	i 1.736	1.979	i 8.406	1.786	1.672	1.479	1.798	1.665	1.250
#2	i 1.719	2.145	i 7.609	1.585	1.582	1.486	1.800	1.676	1.244
#3	i 1.723	2.316	i 7.756	1.643	1.662	1.482	1.802	1.667	1.243

Sample Name: 1105702-03A Acquired: 6/7/2011 13:49:29 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0286	.0258	.0000	.2285	.2385	.0643	.0241	.0139	.0194	.0001
Stddev	.0190	.0099	.000	.0007	.0037	.0016	.1699	.0090	.0041	.0001
%RSD	66.43	38.35	85.69	.3199	1.555	2.548	706.3	64.50	21.30	60.15
#1	.0340	.0327	.0000	.2279	.2416	.0626	-.1395	.0126	.0146	.0002
#2	.0075	.0145	.0000	.2293	.2344	.0642	.0120	.0235	.0217	.0001
#3	.0442	.0303	-.0001	.2284	.2396	.0659	.1996	.0057	.0218	.0000

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	.0467	i -.0272	.0264	.0736	.0024	-.0047	-.0012	-.0001
Stddev	.0003	.3251	.1259	.1216	.0602	.0026	.0052	.0046	.0006
%RSD	230.2	695.7	462.4	460.5	81.75	107.7	109.2	372.3	566.1
#1	i .0000	.3227	i -.1561	.1112	.0067	.0042	-.0044	-.0011	.0004
#2	i -.0005	.1292	i -.0211	.0810	.1233	.0036	.0003	-.0059	-.0008
#3	i .0001	-.3117	i .0955	-.1129	.0909	-.0006	-.0100	.0033	.0001

Sample Name: 1105702-04A Acquired: 6/7/2011 13:55:17 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0303	.0307	-.0001	.0855	.0864	-.0011	-.1635	.0087	.0066	.0002
Stddev	.0167	.0235	.0001	.0007	.0034	.0050	.0397	.0161	.0102	.0001
%RSD	54.99	76.40	61.12	.8033	3.904	441.0	24.30	186.3	153.5	31.77
#1	.0429	.0329	.0000	.0858	.0857	.0046	-.1611	.0167	.0149	.0002
#2	.0367	.0062	-.0002	.0847	.0900	-.0036	-.2044	.0192	.0097	.0002
#3	.0114	.0530	-.0002	.0859	.0834	-.0044	-.1251	-.0099	-.0047	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0003	.0249	i -.0224	.0160	.0261	.0043	-.0016	-.0011	-.0004
Stddev	.0001	.0487	.0406	.0512	.0773	.0011	.0150	.0065	.0002
%RSD	45.65	195.7	181.0	319.4	295.7	25.97	916.3	569.8	44.69
#1	i -.0004	.0321	i -.0489	.0352	.0329	.0030	.0091	-.0085	-.0003
#2	i -.0001	.0697	i .0243	.0548	-.0543	.0046	-.0188	.0012	-.0005
#3	i -.0004	-.0270	i -.0426	-.0420	.0998	.0052	.0048	.0038	-.0002

Sample Name: 1105702-05A Acquired: 6/7/2011 14:01:07 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0569	.0684	-.0001	.5300	.5492	.1042	-.0373	.0280	.0337	.0000
Stddev	.0194	.0138	.0001	.0012	.0022	.0097	.0927	.0120	.0118	.0001
%RSD	34.03	20.18	57.72	.2262	.3944	9.335	248.7	42.62	35.04	221.7
#1	.0596	.0826	-.0001	.5302	.5499	.1026	.0697	.0168	.0317	.0000
#2	.0748	.0674	-.0002	.5312	.5468	.1146	-.0890	.0406	.0464	.0002
#3	.0364	.0551	-.0001	.5288	.5510	.0954	-.0926	.0267	.0230	.0000

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0002	.0073	i .0009	.0163	.0620	.0006	-.0117	.0016	-.0007
Stddev	.0002	.1526	.1532	.0959	.0293	.0044	.0056	.0071	.0004
%RSD	81.25	2097.	16210.	590.2	47.25	703.7	48.03	448.6	58.66
#1	i -.0004	-.0213	i .0589	-.0928	.0686	.0001	-.0164	-.0030	-.0004
#2	i .0000	-.1291	i -.1728	.0876	.0874	.0052	-.0131	.0098	-.0012
#3	i -.0002	.1722	i .1167	.0540	.0300	-.0035	-.0055	-.0020	-.0006

Sample Name: 1105702-06A Acquired: 6/7/2011 14:06:58 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009	.0327	-.0001	.0660	.0663	-.0092	.0661	.0015	.0055	.0001
Stddev	.0103	.0212	.0000	.0004	.0047	.0042	.1737	.0178	.0132	.0001
%RSD	1134.	64.65	36.45	.5646	7.065	46.19	262.6	1218.	242.9	72.38
#1	-.0071	.0390	-.0001	.0663	.0704	-.0043	.0986	.0033	.0197	.0000
#2	-.0028	.0091	-.0001	.0661	.0673	-.0116	-.1215	.0183	.0032	.0001
#3	.0126	.0500	.0000	.0656	.0612	-.0116	.2213	-.0172	-.0065	.0002

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0002	.0879	i -.0661	.0176	.0167	-.0005	-.0147	.0015	-.0001
Stddev	.0001	.0999	.0675	.0586	.1023	.0076	.0051	.0033	.0005
%RSD	84.46	113.6	102.2	333.3	613.9	1500.	34.89	213.5	742.7
#1	i -.0002	-.0268	i -.0063	-.0356	-.0303	.0074	-.0151	.0043	-.0006
#2	i .0000	.1558	i -.0526	.0803	-.0537	-.0013	-.0195	-.0021	.0003
#3	i -.0003	.1348	i -.1393	.0080	.1340	-.0077	-.0093	.0024	.0001

Sample Name: 1105702-07A Acquired: 6/7/2011 14:12:48 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0515	.0550	.0000	.2600	.2695	.0138	-.1347	-.0035	.0125	.0002
Stddev	.0221	.0037	.000	.0002	.0018	.0057	.2073	.0257	.0142	.0000
%RSD	43.03	6.784	173.4	.0803	.6667	41.19	153.9	728.8	113.4	26.30
#1	.0323	.0526	.0000	.2598	.2683	.0141	-.3704	-.0322	.0205	.0002
#2	.0757	.0593	-.0001	.2601	.2715	.0080	.0192	.0042	.0209	.0002
#3	.0464	.0532	-.0001	.2602	.2685	.0194	-.0529	.0174	-.0039	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	-.0037	i -.0028	-.0009	.1198	.0039	-.0163	.0005	-.0001
Stddev	.0002	.2326	.0493	.0442	.0749	.0028	.0139	.0027	.0007
%RSD	243.9	6290.	1739.	5130.	62.51	72.19	85.18	515.0	759.4
#1	i .0001	-.0326	i -.0259	-.0041	.1977	.0017	-.0034	-.0004	.0004
#2	i -.0001	-.2205	i -.0364	.0448	.0484	.0070	-.0146	-.0016	-.0009
#3	i -.0002	.2421	i .0538	-.0434	.1132	.0029	-.0310	.0036	.0002

Sample Name: 1105702-08A Acquired: 6/7/2011 14:18:39 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0403	.0598	-.0001	.2442	.2547	.0063	.0060	-.0012	.0291	.0000
Stddev	.0105	.0281	.0001	.0010	.0034	.0058	.2129	.0195	.0102	.0001
%RSD	26.13	47.08	116.3	.3970	1.334	91.95	3541.	1610.	34.96	131.3
#1	.0287	.0885	.0000	.2441	.2508	.0083	-.2044	.0193	.0183	.0000
#2	.0430	.0586	-.0002	.2432	.2570	-.0002	.0012	-.0034	.0385	.0000
#3	.0492	.0322	-.0001	.2452	.2563	.0109	.2213	-.0195	.0305	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0003	.1919	i -.0132	-.0169	.1288	.0021	-.0108	.0015	-.0010
Stddev	.0001	.0497	.0797	.0455	.0254	.0059	.0043	.0056	.0006
%RSD	38.36	25.92	602.3	269.3	19.76	276.6	40.39	375.2	57.98
#1	i -.0004	.2257	i .0563	-.0568	.1023	.0071	-.0156	.0061	-.0014
#2	i -.0002	.2152	i .0042	-.0265	.1310	-.0043	-.0096	-.0048	-.0013
#3	i -.0002	.1348	i -.1002	.0326	.1530	.0036	-.0071	.0032	-.0003

Sample Name: 1105702-09A Acquired: 6/7/2011 14:24:28 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0205	.0293	.0000	.2025	.2089	.0285	.0216	.0272	.0155	.0001
Stddev	.0047	.0086	.000	.0004	.0039	.0007	.2153	.0166	.0089	.0001
%RSD	22.86	29.34	998.1	.2077	1.848	2.612	994.8	61.19	57.47	98.84
#1	.0177	.0284	.0000	.2028	.2090	.0291	-.0277	.0284	.0137	.0000
#2	.0259	.0212	.0000	.2027	.2051	.0287	.2573	.0431	.0252	.0000
#3	.0179	.0383	.0000	.2020	.2128	.0277	-.1647	.0099	.0077	.0002

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0000	-.0681	i -.0837	.0144	.0512	.0032	.0052	-.0033	.0004
Stddev	.0003	.4225	.0875	.0324	.0126	.0039	.0139	.0044	.0005
%RSD	907.1	620.6	104.6	225.4	24.58	121.4	265.4	134.2	129.7
#1	i .0004	-.0699	i .0166	.0438	.0427	.0002	.0189	.0018	.0002
#2	i -.0001	.3553	i -.1442	.0195	.0657	.0076	.0057	-.0064	.0000
#3	i -.0002	-.4897	i -.1235	-.0203	.0453	.0018	-.0089	-.0052	.0009

Sample Name: 1105702-10A Acquired: 6/7/2011 14:30:18 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0305	.0279	-.0001	.1656	.1750	.0950	.0036	.0030	.0078	.0000
Stddev	.0186	.0084	.0000	.0006	.0021	.0018	.1164	.0143	.0033	.0001
%RSD	60.94	30.22	36.30	.3411	1.194	1.933	3225.	474.2	42.82	247.1
#1	.0239	.0197	-.0002	.1653	.1728	.0964	.1275	.0193	.0081	.0000
#2	.0516	.0274	-.0001	.1652	.1770	.0955	-.1034	-.0072	.0043	.0001
#3	.0162	.0365	-.0002	.1662	.1753	.0929	-.0132	-.0031	.0110	.0000

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	-.1541	i -.1180	.0051	.0707	.0018	-.0047	-.0015	-.0015
Stddev	.0000	.3700	.0406	.0654	.0534	.0069	.0092	.0014	.0006
%RSD	68.10	240.2	34.43	1280.	75.50	382.9	198.2	93.86	44.15
#1	i .0000	-.4408	i -.1107	-.0590	.1316	-.0060	-.0136	-.0011	-.0014
#2	i -.0001	.2636	i -.0815	.0026	.0315	.0074	-.0052	-.0004	-.0021
#3	i -.0001	-.2850	i -.1617	.0717	.0492	.0040	.0048	-.0031	-.0008

Sample Name: rb-6275 Acquired: 6/7/2011 14:36:09 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1562	.1578	-.0002	.3084	.3042	.0127	-.1912	.0205	.0200	.0116
Stddev	.0202	.0065	.0000	.0010	.0036	.0015	.2378	.0070	.0030	.0001
%RSD	12.92	4.135	10.72	.3322	1.173	11.58	124.4	34.37	15.24	.5328
#1	.1470	.1565	-.0002	.3094	.3051	.0135	-.2369	.0128	.0213	.0116
#2	.1793	.1649	-.0002	.3085	.3073	.0110	.0661	.0221	.0221	.0115
#3	.1422	.1521	-.0002	.3073	.3003	.0137	-.4028	.0266	.0165	.0115

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i.0111	.1128	i.0846	-.0477	.1071	-.0018	-.0111	-.0015	.0108
Stddev	.0004	.3178	.0631	.0369	.0428	.0060	.0038	.0061	.0001
%RSD	3.942	281.8	74.58	77.37	39.94	335.1	33.84	417.0	1.035
#1	i.0111	.4409	i.0975	-.0725	.1513	.0046	-.0096	-.0035	.0109
#2	i.0115	-.1936	i.0161	-.0654	.1040	-.0074	-.0154	.0054	.0107
#3	i.0106	.0910	i.1403	-.0053	.0660	-.0026	-.0084	-.0063	.0108

Sample Name: CCV Acquired: 6/7/2011 14:42:00 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.208	5.249	.4886	5.296	5.174	5.158	5.188	5.017	5.092	.4938
Stddev	.037	.028	.0038	.005	.030	.029	.206	.022	.012	.0016
%RSD	.7060	.5237	.7850	.0904	.5797	.5610	3.972	.4477	.2424	.3197
#1	5.166	5.220	.4850	5.301	5.144	5.140	5.339	4.991	5.083	.4950
#2	5.231	5.253	.4881	5.296	5.175	5.142	5.272	5.034	5.086	.4920
#3	5.227	5.275	.4926	5.291	5.204	5.191	4.953	5.026	5.106	.4943
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .4939	5.159	iF 6.604	4.786	4.765	4.638	4.700	4.728	.4873
Stddev	.0035	.291	.103	.043	.218	.014	.022	.020	.0049
%RSD	.7010	5.633	1.563	.8978	4.565	.2908	.4783	.4257	1.008
#1	i .4900	5.314	i 6.643	4.737	4.514	4.653	4.680	4.750	.4821
#2	i .4951	4.824	i 6.487	4.819	4.906	4.627	4.724	4.722	.4881
#3	i .4966	5.340	i 6.682	4.801	4.874	4.635	4.695	4.711	.4919
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5.000						
Range			10.00%						

Sample Name: CCB Acquired: 6/7/2011 14:47:46 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0156	.0080	-.0001	.0037	.0049	-.0062	.0253	.0099	-.0082	.0000
Stddev	.0298	.0355	.0000	.0001	.0006	.0042	.0696	.0156	.0103	.0001
%RSD	190.6	443.1	32.00	3.322	11.29	67.03	275.7	157.6	125.8	483.5
#1	-.0136	-.0144	-.0002	.0036	.0049	-.0095	.0481	-.0046	-.0014	.0001
#2	.0145	.0490	-.0002	.0038	.0044	-.0077	-.0529	.0264	-.0200	-.0001
#3	.0459	-.0106	-.0001	.0037	.0055	-.0015	.0806	.0079	-.0031	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0004	F -.2080	i -.0288	-.0245	.0674	-.0006	-.0200	.0029	.0002
Stddev	.0001	.3728	.0406	.0221	.0551	.0074	.0070	.0026	.0007
%RSD	13.43	179.3	140.8	90.44	81.83	1234.	34.91	90.68	288.3
#1	i -.0004	.2206	i .0127	-.0294	.0115	.0064	-.0185	.0008	.0010
#2	i -.0004	-.4573	i -.0307	-.0437	.0689	-.0083	-.0139	.0057	-.0005
#3	i -.0005	-.3872	i -.0684	-.0003	.1217	.0001	-.0276	.0021	.0002
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.1500							
Low Limit		-.1500							

Sample Name: mblk-6275 Acquired: 6/7/2011 14:53:39 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2757	.2844	-.0001	.5176	.5253	-.0238	-.1635	.0264	.0182	.0111
Stddev	.0252	.0189	.0001	.0015	.0057	.0085	.2041	.0199	.0114	.0001
%RSD	9.157	6.641	104.0	.2883	1.082	35.66	124.8	75.16	62.55	.6363
#1	.3015	.2973	.0000	.5186	.5289	-.0327	-.0493	.0277	.0203	.0111
#2	.2744	.2933	-.0001	.5159	.5283	-.0229	-.0421	.0456	.0059	.0110
#3	.2511	.2628	-.0001	.5183	.5188	-.0158	-.3992	.0060	.0283	.0111

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0113	.1343	i -.0051	.0074	.0792	-.0004	-.0116	.0045	.0111
Stddev	.0001	.2185	.1033	.0512	.0183	.0006	.0167	.0017	.0009
%RSD	1.321	162.7	2024.	691.3	23.06	177.1	144.2	37.84	7.920
#1	i .0112	-.1076	i .1139	.0564	.0981	-.0003	-.0199	.0044	.0116
#2	i .0114	.3173	i -.0716	.0116	.0616	-.0010	-.0226	.0028	.0116
#3	i .0112	.1932	i -.0577	-.0458	.0779	.0002	.0077	.0062	.0101

Sample Name: lcs-6275 Acquired: 6/7/2011 14:59:29 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.174	2.193	1.845	2.187	2.443	1.935	1.969	1.861	1.899	1.734
Stddev	.015	.017	.004	.007	.006	.012	.129	.009	.009	.002
%RSD	.6860	.7628	.2295	.3093	.2382	.6028	6.545	.5015	.4844	.1330
#1	2.158	2.184	1.844	2.189	2.446	1.923	1.863	1.852	1.893	1.734
#2	2.177	2.213	1.841	2.180	2.437	1.946	1.932	1.870	1.910	1.732
#3	2.187	2.183	1.849	2.193	2.447	1.936	2.112	1.861	1.895	1.736

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i 1.795	2.151	i 8.175	1.804	1.743	1.597	1.851	1.770	1.283
Stddev	.004	.225	.173	.101	.019	.004	.019	.012	.005
%RSD	.2188	10.46	2.111	5.593	1.094	.2239	1.018	.6786	.4294
#1	i 1.791	2.408	i 8.282	1.734	1.729	1.600	1.846	1.764	1.284
#2	i 1.795	1.990	i 8.267	1.920	1.734	1.593	1.836	1.761	1.277
#3	i 1.799	2.055	i 7.976	1.758	1.764	1.597	1.872	1.783	1.288

Sample Name: lcsd-6275 Acquired: 6/7/2011 15:05:13 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.067	2.079	1.842	2.074	2.290	1.955	1.799	1.841	1.899	1.773
Stddev	.013	.022	.005	.002	.008	.009	.119	.008	.013	.007
%RSD	.6437	1.055	.2819	.1046	.3630	.4331	6.594	.4296	.7068	.4083
#1	2.066	2.103	1.846	2.072	2.296	1.952	1.664	1.850	1.907	1.765
#2	2.053	2.059	1.845	2.076	2.293	1.965	1.884	1.839	1.907	1.779
#3	2.080	2.075	1.836	2.075	2.280	1.950	1.850	1.835	1.884	1.775

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i 1.819	2.209	i 8.261	1.811	1.695	1.634	1.893	1.826	1.304
Stddev	.004	.051	.348	.028	.105	.008	.017	.008	.005
%RSD	.2389	2.323	4.216	1.524	6.177	.4917	.8880	.4366	.4162
#1	i 1.823	2.267	i 7.860	1.781	1.803	1.627	1.874	1.817	1.306
#2	i 1.819	2.174	i 8.488	1.817	1.687	1.642	1.906	1.832	1.308
#3	i 1.814	2.185	i 8.435	1.835	1.594	1.632	1.899	1.828	1.298

Sample Name: CHECK1 Acquired: 6/7/2011 15:10:58 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.924	1.925	1.797	1.949	2.009	1.920	1.885	1.844	1.867	1.742
Stddev	.029	.030	.011	.002	.015	.014	.045	.017	.022	.001
%RSD	1.497	1.543	.6227	.1250	.7288	.7510	2.370	.9435	1.166	.0338
#1	1.955	1.935	1.801	1.946	2.011	1.919	1.921	1.836	1.869	1.741
#2	1.920	1.891	1.785	1.950	1.994	1.906	1.835	1.864	1.844	1.742
#3	1.898	1.948	1.806	1.950	2.023	1.935	1.898	1.832	1.888	1.741

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i 1.744	2.402	i 8.076	1.667	1.632	1.506	1.811	1.686	1.256
Stddev	.013	.135	.180	.073	.088	.006	.005	.005	.005
%RSD	.7313	5.625	2.235	4.398	5.422	.3855	.3029	.3160	.3970
#1	i 1.751	2.311	i 8.133	1.723	1.705	1.502	1.814	1.683	1.256
#2	i 1.729	2.557	i 7.874	1.584	1.533	1.503	1.815	1.683	1.251
#3	i 1.752	2.338	i 8.221	1.694	1.657	1.513	1.805	1.692	1.261

Sample Name: 1105705-01A Acquired: 6/7/2011 15:16:44 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0777	.0810	-.0002	.4411	.4614	.1147	-.0349	.0301	.0300	.0018
Stddev	.0139	.0217	.0000	.0016	.0021	.0069	.0940	.0012	.0133	.0000
%RSD	17.84	26.82	31.28	.3681	.4563	6.006	269.6	4.003	44.20	2.336
#1	.0707	.0622	-.0001	.4426	.4636	.1152	-.0818	.0309	.0167	.0018
#2	.0936	.0761	-.0001	.4413	.4594	.1076	-.0962	.0287	.0302	.0018
#3	.0687	.1048	-.0002	.4394	.4612	.1213	.0734	.0308	.0432	.0017

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0016	.1256	i -.0721	-.0101	.1184	.0012	.0094	-.0047	.0002
Stddev	.0004	.2866	.0811	.0505	.0635	.0085	.0036	.0026	.0004
%RSD	25.56	228.1	112.5	500.1	53.66	719.2	38.62	54.46	202.3
#1	i .0012	.3121	i .0141	-.0676	.1836	.0044	.0114	-.0062	-.0001
#2	i .0019	-.2044	i -.1470	.0271	.1150	-.0084	.0052	-.0017	.0001
#3	i .0019	.2692	i -.0835	.0102	.0567	.0075	.0115	-.0061	.0006

Sample Name: 1105705-02A Acquired: 6/7/2011 15:22:33 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0897	.0970	-.0001	.3980	.4148	.0838	-.0818	.0380	.0369	.0010
Stddev	.0136	.0222	.0001	.0015	.0050	.0059	.1389	.0051	.0043	.0000
%RSD	15.20	22.92	134.9	.3809	1.209	6.999	169.9	13.29	11.72	3.034
#1	.0767	.1012	-.0001	.3967	.4197	.0854	.0553	.0345	.0319	.0010
#2	.0885	.1167	-.0001	.3978	.4150	.0887	-.0782	.0357	.0389	.0009
#3	.1039	.0729	.0000	.3997	.4097	.0773	-.2225	.0438	.0398	.0010

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0011	.0054	i -.0516	.0086	.0843	.0061	-.0166	-.0017	.0002
Stddev	.0003	.2069	.0737	.0376	.0317	.0059	.0015	.0031	.0007
%RSD	29.96	3844.	142.8	437.0	37.62	96.03	9.342	180.3	315.5
#1	i .0008	.0970	i -.0696	-.0249	.0494	.0113	-.0152	.0015	.0008
#2	i .0010	.1506	i .0294	.0014	.1114	.0075	-.0183	-.0046	-.0006
#3	i .0014	-.2315	i -.1147	.0493	.0920	-.0003	-.0163	-.0021	.0004

Sample Name: 1105705-03A Acquired: 6/7/2011 15:28:22 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0430	.0651	.0000	.3316	.3429	.0273	-.1275	.0209	.0187	.0005
Stddev	.0182	.0142	.000	.0006	.0060	.0026	.1711	.0098	.0051	.0001
%RSD	42.34	21.75	34.63	.1838	1.750	9.443	134.3	46.75	27.44	11.77
#1	.0635	.0591	-.0000	.3312	.3360	.0277	-.2153	.0096	.0242	.0005
#2	.0290	.0812	.0000	.3313	.3471	.0245	.0697	.0263	.0140	.0006
#3	.0364	.0549	-.0001	.3323	.3457	.0296	-.2369	.0269	.0180	.0006

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0005	.2061	i -.0057	.0226	.0917	-.0004	.0035	-.0023	.0000
Stddev	.0000	.6951	.1268	.0643	.0417	.0071	.0057	.0040	.001
%RSD	6.265	337.2	2236.	285.1	45.42	1996.	164.0	168.7	3133.
#1	i .0005	.3172	i -.0503	-.0516	.1398	-.0063	-.0005	-.0064	-.0005
#2	i .0005	-.5378	i -.1042	.0629	.0668	-.0023	.0010	.0015	.0007
#3	i .0005	.8389	i .1375	.0564	.0686	.0075	.0100	-.0021	-.0002

Sample Name: 1105705-04A Acquired: 6/7/2011 15:34:13 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0390	.0592	-.0001	.3718	.3830	.0299	-.1335	.0238	.0222	.0002
Stddev	.0178	.0278	.0001	.0011	.0026	.0027	.0454	.0127	.0114	.0001
%RSD	45.55	46.93	134.7	.2963	.6662	9.103	34.01	53.56	51.05	35.11
#1	.0425	.0742	.0000	.3716	.3819	.0283	-.1395	.0361	.0334	.0002
#2	.0548	.0272	.0000	.3707	.3812	.0330	-.1756	.0107	.0227	.0001
#3	.0198	.0764	-.0002	.3729	.3859	.0283	-.0854	.0245	.0107	.0002

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	.1900	i -.0963	-.0112	.0100	.0068	-.0092	-.0002	-.0003
Stddev	.0002	.2421	.1501	.0375	.0832	.0063	.0071	.0013	.0006
%RSD	118.9	127.5	155.8	334.9	829.1	92.14	76.91	604.1	186.4
#1	i .0000	-.0485	i -.0931	.0321	.0396	.0122	-.0041	-.0009	.0004
#2	i .0003	.4356	i .0521	-.0322	.0744	-.0001	-.0173	.0013	-.0007
#3	i .0001	.1829	i -.2480	-.0335	-.0839	.0083	-.0063	-.0011	-.0007

Sample Name: 1105705-05A Acquired: 6/7/2011 15:40:02 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0425	.0530	-.0001	.0899	.0913	-.0026	-.0974	.0001	.0093	.0001
Stddev	.0145	.0146	.0001	.0005	.0011	.0042	.1225	.0216	.0085	.0000
%RSD	34.17	27.46	92.08	.5536	1.172	163.0	125.7	28990.	91.53	38.65
#1	.0593	.0420	-.0002	.0898	.0901	-.0049	-.0746	-.0249	.0186	.0001
#2	.0348	.0696	.0000	.0904	.0919	-.0051	-.2297	.0135	.0078	.0001
#3	.0335	.0475	-.0001	.0894	.0919	.0023	.0120	-.0116	.0017	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	.0106	i .0241	-.0358	.0565	.0035	-.0047	-.0027	-.0007
Stddev	.0003	.1586	.0484	.0613	.0265	.0039	.0089	.0062	.0004
%RSD	200.5	1490.	200.8	171.2	46.96	109.2	191.4	232.2	59.17
#1	i .0002	.1129	i -.0007	-.0961	.0306	.0005	-.0144	-.0016	-.0003
#2	i -.0003	.0912	i -.0069	.0264	.0836	.0079	-.0027	.0029	-.0011
#3	i -.0002	-.1721	i .0799	-.0377	.0552	.0023	.0031	-.0094	-.0008

Sample Name: 1105705-06A Acquired: 6/7/2011 15:45:53 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0173	.0475	.0000	.2328	.2446	.0052	.0986	.0087	.0166	.0001
Stddev	.0111	.0065	.000	.0010	.0035	.0006	.2582	.0064	.0078	.0000
%RSD	64.37	13.67	133.0	.4281	1.442	12.33	261.9	73.61	47.07	27.79
#1	.0131	.0412	-.0001	.2323	.2420	.0045	.3078	.0032	.0217	.0001
#2	.0088	.0542	.0000	.2323	.2486	.0057	-.1900	.0157	.0203	.0001
#3	.0299	.0472	.0000	.2340	.2432	.0055	.1780	.0071	.0076	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	.3444	i -.0213	.0106	.0478	.0016	-.0088	.0015	-.0002
Stddev	.0001	.3578	.0468	.0501	.0586	.0011	.0039	.0031	.0009
%RSD	143.6	103.9	220.1	474.4	122.6	65.66	43.71	205.5	351.1
#1	i .0000	-.0534	i .0127	.0433	.1106	.0028	-.0044	.0035	.0007
#2	i .0002	.6399	i -.0018	.0355	.0380	.0009	-.0105	-.0021	-.0010
#3	i .0000	.4467	i -.0747	-.0471	-.0053	.0011	-.0116	.0031	-.0004

Sample Name: CCV Acquired: 6/7/2011 15:51:46 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.253	5.269	.4881	5.266	5.172	5.127	4.888	5.022	5.111	.4916
Stddev	.061	.041	.0019	.015	.010	.030	.167	.005	.009	.0002
%RSD	1.171	.7818	.3848	.2811	.1917	.5841	3.412	.1006	.1668	.0380
#1	5.216	5.284	.4867	5.283	5.163	5.104	4.738	5.022	5.101	.4917
#2	5.219	5.222	.4874	5.260	5.169	5.116	4.858	5.017	5.116	.4918
#3	5.324	5.300	.4902	5.255	5.183	5.161	5.068	5.028	5.115	.4914
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .4936	5.093	iF 6.647	4.790	4.756	4.633	4.694	4.723	.4856
Stddev	.0026	.233	.072	.070	.114	.010	.033	.003	.0015
%RSD	.5314	4.568	1.080	1.469	2.389	.2093	.6935	.0534	.3020
#1	i .4914	4.878	i 6.623	4.715	4.700	4.642	4.701	4.720	.4839
#2	i .4929	5.060	i 6.590	4.855	4.681	4.623	4.722	4.722	.4864
#3	i .4965	5.340	i 6.727	4.799	4.887	4.634	4.658	4.725	.4865
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5.000						
Range			10.00%						

Sample Name: CCB Acquired: 6/7/2011 15:57:32 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0180	.0251	-.0001	.0052	.0061	-.0076	.0228	-.0127	-.0029	.0000
Stddev	.0004	.0142	.0000	.0005	.0006	.0037	.0596	.0076	.0079	.0001
%RSD	2.397	56.53	25.79	9.574	10.27	48.07	260.9	59.43	271.5	465.6
#1	.0176	.0359	-.0002	.0048	.0059	-.0057	.0265	-.0114	-.0112	.0000
#2	.0179	.0303	-.0001	.0057	.0056	-.0119	.0806	-.0209	.0046	.0001
#3	.0184	.0090	-.0002	.0050	.0068	-.0053	-.0385	-.0059	-.0022	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0002	F .3353	i -.0544	-.0187	.0012	-.0030	-.0035	.0001	.0004
Stddev	.0004	.2888	.0629	.0543	.0535	.0059	.0132	.0030	.0008
%RSD	166.1	86.13	115.7	290.8	4652.	198.6	380.7	5529.	218.0
#1	i .0002	.6671	i -.1084	-.0280	.0621	.0011	.0111	.0021	.0008
#2	i -.0004	.1991	i .0147	.0397	-.0383	-.0098	-.0149	-.0034	.0008
#3	i -.0004	.1398	i -.0693	-.0676	-.0203	-.0003	-.0066	.0015	-.0005
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.1500							
Low Limit		-.1500							

Sample Name: 1105705-07A Acquired: 6/7/2011 16:03:25 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0263	.0366	-.0001	.2249	.2340	.0345	.0397	.0311	.0215	.0000
Stddev	.0175	.0039	.0000	.0012	.0026	.0039	.0928	.0229	.0180	.0001
%RSD	66.57	10.75	17.87	.5403	1.128	11.38	233.8	73.72	83.50	157.6
#1	.0090	.0358	-.0001	.2246	.2336	.0346	.1455	.0515	.0009	.0000
#2	.0259	.0332	-.0001	.2238	.2316	.0384	.0012	.0063	.0340	.0001
#3	.0441	.0409	-.0001	.2262	.2369	.0306	-.0277	.0355	.0298	.0000

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0002	-.1147	i -.0083	-.0475	.0889	.0056	.0007	-.0005	-.0013
Stddev	.0002	.3741	.0998	.0564	.0606	.0024	.0029	.0033	.0011
%RSD	79.30	326.2	1199.	118.6	68.23	42.63	392.8	688.3	83.82
#1	i -.0004	.2530	i .0385	-.0442	.0747	.0032	.0039	.0020	-.0024
#2	i -.0002	-.4948	i -.1229	.0071	.1553	.0080	.0002	-.0042	-.0011
#3	i -.0001	-.1022	i .0595	-.1055	.0365	.0056	-.0018	.0008	-.0003

Sample Name: 1105705-08A Acquired: 6/7/2011 16:09:15 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0189	.0191	-.0002	.0928	.0929	.0559	.1455	.0037	.0000	.0000
Stddev	.0052	.0121	.0001	.0004	.0031	.0052	.0844	.0054	.019	.000
%RSD	27.69	63.20	48.38	.4101	3.342	9.257	57.99	148.1	66370.	187.2
#1	.0143	.0299	-.0002	.0931	.0895	.0509	.2429	.0012	-.0212	-.0001
#2	.0177	.0215	-.0002	.0923	.0956	.0612	.0950	-.0001	.0154	.0000
#3	.0246	.0060	-.0001	.0929	.0935	.0557	.0986	.0099	.0057	.0000

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0004	-.0984	i -.1008	.0083	-.0092	.0027	.0023	.0030	.0000
Stddev	.0004	.0887	.0282	.0444	.0031	.0031	.0064	.0004	.000
%RSD	103.9	90.21	27.99	533.1	33.47	115.0	278.6	11.83	939.7
#1	i .0006	-.1234	i -.1331	-.0297	-.0087	.0021	-.0047	.0033	.0000
#2	i .0005	.0002	i -.0812	-.0024	-.0125	-.0001	.0080	.0026	.0002
#3	i -.0001	-.1720	i -.0880	.0571	-.0064	.0061	.0036	.0032	-.0002

Sample Name: 1105705-09A Acquired: 6/7/2011 16:15:08 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0544	.0653	-.0001	.2681	.2785	.0446	.0253	.0245	.0131	.0002
Stddev	.0052	.0044	.0001	.0003	.0020	.0034	.1420	.0118	.0076	.0001
%RSD	9.582	6.801	125.6	.1136	.7035	7.543	562.5	48.27	58.06	64.71
#1	.0492	.0602	.0000	.2678	.2786	.0477	-.0457	.0141	.0080	.0001
#2	.0596	.0673	.0000	.2683	.2765	.0410	-.0673	.0219	.0095	.0003
#3	.0545	.0684	-.0001	.2683	.2805	.0451	.1888	.0374	.0219	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0002	-.1989	i -.0068	.0045	.1042	.0016	-.0013	.0044	.0002
Stddev	.0003	.0144	.1636	.0247	.0674	.0055	.0114	.0022	.0003
%RSD	127.4	7.231	2403.	550.8	64.62	346.9	881.0	50.05	184.2
#1	i .0002	-.2044	i -.1067	.0330	.1819	.0011	-.0134	.0021	.0005
#2	i -.0001	-.2098	i .1820	-.0101	.0686	.0073	.0005	.0065	.0000
#3	i .0005	-.1826	i -.0957	-.0094	.0622	-.0037	.0091	.0048	.0000

Sample Name: 1105705-10A Acquired: 6/7/2011 16:20:59 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0601	.0627	-.0001	.5410	.5563	.0701	-.1239	.0245	.0425	.0001
Stddev	.0029	.0137	.0001	.0003	.0022	.0049	.2604	.0157	.0045	.0000
%RSD	4.784	21.77	73.87	.0600	.3920	6.957	210.2	64.00	10.64	41.58
#1	.0612	.0785	-.0001	.5407	.5570	.0663	.0228	.0426	.0477	.0002
#2	.0623	.0557	.0000	.5413	.5581	.0756	-.4245	.0168	.0400	.0001
#3	.0569	.0540	-.0002	.5412	.5539	.0684	.0301	.0141	.0399	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0002	.0753	i -.0385	-.0393	.0489	.0026	-.0018	-.0036	-.0003
Stddev	.0003	.1350	.1154	.0601	.0579	.0092	.0084	.0046	.0004
%RSD	125.8	179.4	299.8	152.9	118.5	354.1	477.8	128.1	135.2
#1	i .0001	-.0106	i .0612	.0281	.1018	-.0076	.0011	-.0055	.0001
#2	i .0000	.2309	i -.1649	-.0871	.0578	.0053	-.0112	.0016	-.0002
#3	i .0005	.0055	i -.0117	-.0589	-.0130	.0101	.0048	-.0069	-.0008

Sample Name: 1105705-11A Acquired: 6/7/2011 16:26:49 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0614	.0653	-.0001	.3273	.3395	.1364	.0313	.0364	.0370	.0001
Stddev	.0026	.0129	.0001	.0010	.0015	.0047	.0776	.0239	.0040	.0001
%RSD	4.260	19.70	53.31	.3073	.4414	3.458	248.1	65.75	10.82	111.8
#1	.0605	.0737	-.0001	.3265	.3391	.1313	.1166	.0130	.0412	.0000
#2	.0594	.0505	-.0001	.3284	.3411	.1373	.0120	.0354	.0333	.0002
#3	.0644	.0717	-.0002	.3270	.3382	.1406	-.0349	.0608	.0365	.0002

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	.3319	i .0073	-.0482	-.0053	.0019	-.0028	.0027	-.0011
Stddev	.0002	.0764	.0505	.0240	.1006	.0074	.0132	.0070	.0003
%RSD	381.6	23.03	693.7	49.76	1906.	389.2	467.6	259.0	25.09
#1	i .0002	.2962	i -.0180	-.0540	-.1117	-.0051	-.0122	-.0025	-.0009
#2	i -.0002	.2799	i .0654	-.0218	.0883	.0097	.0122	.0000	-.0010
#3	i .0002	.4197	i -.0256	-.0687	.0076	.0011	-.0085	.0106	-.0014

Sample Name: 1105705-12A Acquired: 6/7/2011 16:32:40 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057	.0310	-.0001	.1427	.1473	.0307	-.0902	.0109	.0103	.0001
Stddev	.0267	.0056	.0000	.0002	.0016	.0025	.0604	.0049	.0024	.0000
%RSD	467.8	18.08	54.29	.1613	1.070	8.131	66.97	45.20	23.41	13.10
#1	.0360	.0314	.0000	.1425	.1490	.0321	-.1251	.0079	.0105	.0001
#2	-.0048	.0252	-.0001	.1427	.1459	.0321	-.0204	.0166	.0078	.0001
#3	-.0141	.0363	-.0001	.1429	.1470	.0278	-.1251	.0083	.0126	.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	.0932	i -.0012	.0434	.0731	.0016	.0017	.0003	-.0003
Stddev	.0003	.1314	.0064	.1168	.0309	.0062	.0217	.0023	.0007
%RSD	350.1	141.0	519.6	269.3	42.33	388.0	1288.	733.9	200.3
#1	i .0001	.1344	i -.0009	.1777	.1077	-.0042	.0267	-.0022	.0004
#2	i -.0004	.1990	i .0050	-.0341	.0483	.0008	-.0117	.0023	-.0009
#3	i .0000	-.0539	i -.0078	-.0136	.0631	.0082	-.0099	.0008	-.0006

Sample Name: CCV Acquired: 6/7/2011 17:01:51 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.135	5.216	.4822	5.232	5.109	5.097	4.963	4.946	5.020	.4877
Stddev	.028	.018	.0019	.005	.029	.014	.004	.061	.037	.0014
%RSD	.5441	.3438	.3912	.0933	.5598	.2721	.0793	1.235	.7341	.2843
#1	5.162	5.201	.4839	5.227	5.141	5.111	4.962	5.010	5.055	.4874
#2	5.138	5.212	.4823	5.235	5.101	5.096	4.959	4.939	5.024	.4865
#3	5.106	5.236	.4802	5.235	5.085	5.083	4.967	4.888	4.981	.4892
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value										
Range										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .4877	4.869	iF 6.556	4.830	4.699	4.597	4.634	4.680	.4776
Stddev	.0014	.173	.131	.026	.113	.014	.010	.028	.0024
%RSD	.2777	3.560	1.997	.5413	2.410	.2936	.2088	.6007	.5022
#1	i .4890	4.685	i 6.542	4.803	4.806	4.584	4.626	4.668	.4803
#2	i .4879	4.893	i 6.433	4.856	4.580	4.595	4.631	4.660	.4768
#3	i .4863	5.029	i 6.694	4.832	4.709	4.611	4.644	4.712	.4757
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value			5.000						
Range			10.00%						

Sample Name: CCB Acquired: 6/7/2011 17:07:37 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0005	.0142	-.0001	.0052	.0036	-.0053	-.1178	.0023	.0069	.0000
Stddev	.0142	.0159	.0001	.0004	.0010	.0026	.1134	.0179	.0133	.0001
%RSD	2766.	112.2	47.24	7.092	28.37	48.48	96.22	767.8	193.8	793.2
#1	-.0095	.0169	-.0001	.0049	.0044	-.0051	.0120	.0225	.0198	.0000
#2	-.0079	.0285	-.0002	.0056	.0024	-.0079	-.1972	-.0042	-.0068	-.0001
#3	.0158	-.0029	-.0001	.0050	.0039	-.0028	-.1684	-.0113	.0076	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit										
Low Limit										

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	-.0790	i -.0085	.0273	-.0080	-.0022	.0034	.0004	.0002
Stddev	.0001	.1244	.1215	.1052	.0735	.0072	.0131	.0021	.0010
%RSD	51.09	157.4	1428.	385.8	924.8	335.5	384.6	572.5	575.7
#1	i -.0001	.0376	i .0447	-.0546	.0762	.0028	.0030	-.0019	-.0010
#2	i -.0001	-.0648	i -.1476	.1460	-.0595	-.0104	-.0095	.0022	.0009
#3	i -.0002	-.2100	i .0773	-.0096	-.0406	.0012	.0167	.0008	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 6/7/2011 17:13:31 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	243.4	243.1	-.0002	F 189.2	228.6	92.25	89.36	234.0	234.4	-.0002
Stddev	1.6	1.3	.0001	1.6	1.9	.57	1.02	1.2	1.4	.0000
%RSD	.6746	.5513	48.78	.8451	.8510	.6153	1.136	.4960	.5836	23.83
#1	245.2	244.6	-.0002	187.4	228.6	92.86	90.40	235.3	235.9	-.0002
#2	242.0	242.2	-.0001	189.9	226.7	91.75	89.30	233.5	233.9	-.0002
#3	242.9	242.4	-.0002	190.4	230.6	92.13	88.37	233.1	233.3	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				300.0						
Low Limit				200.0						

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i -.0001	F -.2391	iF .3226	F -1.041	.1093	.0243	-.0173	.0033	.0002
Stddev	.0004	.4847	.0514	.027	.0692	.0049	.0102	.0117	.0007
%RSD	434.1	202.7	15.93	2.628	63.26	20.20	58.77	350.2	451.0
#1	i -.0003	-.2032	i .3360	-1.054	.1129	.0226	-.0252	-.0008	-.0005
#2	i .0004	-.7407	i .2658	-1.010	.1766	.0204	-.0208	.0165	.0001
#3	i -.0003	.2266	i .3659	-1.060	.0384	.0298	-.0058	-.0057	.0009
Check ?	Chk Pass	Chk Fail	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.1500	.1500	.1500					
Low Limit		-.1500	-.1500	-.1500					

Sample Name: ICSAB Acquired: 6/7/2011 17:18:59 Type: QC
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	243.3	243.2	.4551	F 191.9	228.9	92.14	89.23	234.6	234.8	-.0002
Stddev	1.9	1.7	.0031	.6	1.3	.73	.11	1.1	1.3	.0000
%RSD	.7960	.7106	.6756	.3024	.5709	.7903	.1256	.4714	.5423	12.88
#1	241.2	241.3	.4517	191.9	227.4	91.31	89.11	233.3	233.4	-.0002
#2	243.5	243.8	.4562	191.3	229.8	92.42	89.24	234.9	235.2	-.0002
#3	245.0	244.6	.4575	192.5	229.4	92.69	89.34	235.5	235.8	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				300.0						
Low Limit				200.0						

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0000	.0110	iF .4083	F -1.073	.0815	-.0194	-.0228	-.0058	-.0002
Stddev	.000	.1375	.1268	.041	.0365	.0059	.0044	.0119	.0009
%RSD	268.8	1246.	31.05	3.830	44.85	30.22	19.52	206.8	371.1
#1	i -.0001	.1513	i .2748	-1.054	.1220	-.0259	-.0178	-.0145	.0004
#2	i -.0001	.0053	i .5271	-1.120	.0716	-.0144	-.0241	-.0106	-.0013
#3	i .0001	-.1235	i .4231	-1.044	.0509	-.0180	-.0264	.0078	.0002
Check ?	Chk Pass	Chk Pass	Chk Fail	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit			.1500	.1500					
Low Limit			-.1500	-.1500					

Sample Name: Blank Acquired: 6/8/2011 13:37:51 Type: Cal
Method: BeUY(v42) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8.318	-15.23	15.86	-4.613	-6.448	129.3	9.885	-2.047	2.762	-41.14
Stddev	2.877	.31	3.11	.177	2.095	2.3	.189	2.817	1.600	4.18
%RSD	34.59	2.030	19.60	3.832	32.48	1.758	1.915	137.6	57.95	10.15
#1	10.35	-15.37	17.60	-4.709	-8.840	131.7	9.752	-2.116	1.167	-45.81
#2	5.026	-14.88	17.70	-4.409	-4.943	128.9	9.802	-4.828	2.751	-37.76
#3	9.577	-15.45	12.27	-4.720	-5.561	127.2	10.10	.8043	4.368	-39.86

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	i -28.04	4.184	i 3.556	-6.146	-7.827	-31.09	8.318	-2.867	-11.52
Stddev	4.29	1.907	2.941	4.025	5.967	10.31	4.576	6.952	6.79
%RSD	15.31	45.58	82.70	65.50	76.24	33.17	55.02	242.5	58.90
#1	-27.61	2.601	1.567	-6.985	-11.14	-24.76	9.102	-10.42	-4.051
#2	-32.53	6.301	2.167	-1.767	-.9385	-25.51	3.401	3.267	-13.20
#3	-23.98	3.651	6.935	-9.685	-11.40	-42.98	12.45	-1.450	-17.30

Sample Name: HighStd Acquired: 6/8/2011 13:47:51 Type: Cal
Method: BeUY(v42) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1502.	2895.	19390.	13930.	2715.	144.7	1126.	1965.
Stddev	8.	11.	57.	15.	4.	3.9	3.	4.
%RSD	.5125	.3777	.2932	.1095	.1389	2.671	.2303	.1914
#1	1497.	2903.	19320.	13920.	2717.	148.3	1129.	1961.
#2	1510.	2899.	19420.	13950.	2711.	140.6	1125.	1967.
#3	1497.	2882.	19420.	13920.	2717.	145.2	1124.	1968.

Sample Name: U 10 ppm Acquired: 6/8/2011 13:56:49 Type: Cal
Method: BeUY(v42) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	93.32	612.0	994.6	859.7	17280.	4260.	21270.
Stddev	5.22	4.7	11.7	10.9	90.	8.	104.
%RSD	5.595	.7657	1.179	1.265	.5197	.1795	.4907
#1	90.82	609.4	981.3	847.7	17240.	4255.	21220.
#2	89.82	617.4	1004.	869.0	17210.	4256.	21210.
#3	99.32	609.1	998.8	862.5	17380.	4269.	21390.

Sample Name: BeY 1ppm Acquired: 6/8/2011 14:03:34 Type: Cal
Method: BeUY(v42) Mode: IR Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Be3130	Y_3242	Y_3710	Y_3242-2
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	47270.	103200.	16330.	6011.
Stddev	493.	491.	141.	45.
%RSD	1.043	.4752	.8656	.7553
#1	47600.	103000.	16430.	6034.
#2	46700.	103800.	16170.	5959.
#3	47500.	102900.	16400.	6041.

Sample Name: icv Acquired: 6/8/2011 14:11:05 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.262	5.304	.5034	5.344	5.259	5.183	5.367	5.197	5.210	.4962
Stddev	.050	.049	.0044	.010	.042	.060	.081	.038	.029	.0018
%RSD	.9538	.9156	.8759	.1798	.7902	1.152	1.511	.7228	.5506	.3652
#1	5.210	5.256	.4997	5.352	5.217	5.116	5.398	5.179	5.177	.4946
#2	5.265	5.303	.5022	5.333	5.260	5.200	5.428	5.173	5.223	.4959
#3	5.311	5.353	.5082	5.345	5.300	5.231	5.275	5.240	5.230	.4982

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .5029	4.657	i 6.726	4.818	4.731	4.687	4.767	4.758	.4982
Stddev	.0063	.236	.097	.077	.005	.020	.032	.021	.0043
%RSD	1.256	5.071	1.437	1.596	.1039	.4205	.6690	.4331	.8628
#1	i .4961	4.919	i 6.635	4.775	4.735	4.665	4.730	4.749	.4941
#2	i .5041	4.462	i 6.715	4.771	4.731	4.695	4.787	4.744	.4980
#3	i .5086	4.589	i 6.827	4.907	4.726	4.702	4.784	4.782	.5027

Sample Name: Al 100 ppm Acquired: 6/8/2011 14:17:37 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	107.0	107.1	.0000	.0068	.0099	-.0056	.0052	.0040	.0004	.0000
Stddev	1.1	1.0	.0001	.0001	.0016	.0062	.1349	.0148	.0105	.000
%RSD	.9994	.9136	370.2	1.889	16.25	110.8	2596.	374.6	2818.	386.5
#1	108.0	107.9	-.0001	.0068	.0087	.0014	.1323	-.0129	.0102	.0001
#2	107.2	107.3	.0000	.0067	.0118	-.0079	-.1362	.0095	-.0106	-.0001
#3	105.9	106.0	.0001	.0070	.0093	-.0103	.0195	.0152	.0015	-.0001

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0001	-.2601	i .1317	.0379	-.0201	-.0002	.0049	-.0016	.0006
Stddev	.0004	.3343	.0453	.0585	.0310	.0021	.0016	.0047	.0006
%RSD	259.1	128.5	34.39	154.4	154.4	990.5	32.22	302.5	112.8
#1	i .0005	-.4301	i .1839	-.0228	-.0036	-.0021	.0041	.0038	.0004
#2	i -.0002	-.4752	i .1029	.0426	-.0558	-.0006	.0067	-.0034	.0000
#3	i .0001	.1251	i .1083	.0939	-.0008	.0021	.0038	-.0051	.0012

Sample Name: Fe 100 ppm Acquired: 6/8/2011 14:26:07 Type: Unk
Method: BeUY(v42) Mode: CONC Corr. Factor: 1.000000
User: admin Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Al3082	Al3944	Be3130	Ca1840	Ca3179	Fe2598	Fe2730	Mg2790	Mg2798	Y_3242
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.0077	.0072	-.0001	.0085	.0001	102.1	106.3	-.0168	.0311	.0000
Stddev	.0128	.0093	.0000	.0002	.0012	.7	1.3	.0044	.0066	.0002
%RSD	166.4	129.2	59.05	2.178	1208.	.6757	1.239	25.90	21.21	4378.
#1	-.0034	-.0004	-.0001	.0086	-.0007	101.7	104.9	-.0125	.0238	.0001
#2	.0024	.0045	.0000	.0086	.0015	101.6	106.6	-.0212	.0365	-.0002
#3	-.0221	.0176	-.0001	.0083	-.0005	102.9	107.5	-.0167	.0329	.0002

Elem	Y_3710	U_2635	U_3670	U_3859	U_4090	U_4090-2	U_2635-2	U_3859-2	Y_3242-2
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	i .0006	-.1294	i .6669	-1.009	.0052	.0144	-.0113	.0490	-.0001
Stddev	.0004	.1859	.0899	.010	.0522	.0052	.0097	.0037	.0002
%RSD	55.93	143.7	13.48	1.023	1012.	36.16	86.16	7.499	399.5
#1	i .0009	-.0495	i .7502	-.9975	-.0544	.0184	-.0007	.0475	.0001
#2	i .0002	.0032	i .6790	-1.018	.0271	.0085	-.0132	.0532	-.0003
#3	i .0007	-.3419	i .5716	-1.012	.0428	.0164	-.0199	.0463	.0001