Microbac

Laboratory Report Number: L14031621

Mary Lou Rochette
Kemron Environmental Services
2343-A State Rt 821
Marietta, OH 45750

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories. Review and compilation of your report was completed by Microbac's Ohio Valley Division (OVD). If you have any questions, comments, or require further assistance regarding this report, please contact your service representative listed below.

Laboratory Contact:
Stephanie Mossburg – Team Chemist/Data Specialist
(740) 373-4071
Stephanie.Mossburg@microbac.com

I certify that all test results meet all of the requirements of the DoD QSM and other applicable contract terms and conditions. Any exceptions are attached to this cover page or addressed in the method narratives presented in the report. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories, DoD ELAP certification number 2936.01. The reported results are related only to the samples analyzed as received.

This report was certified on April 08 2014

David L. Vandenberg

David Vandenberg – Managing Director

State of Origin: VA
Accrediting Authority: N/A ID:N/A
QAPP: DOD Ver 4.1

Microbac

Lab Report #: L14031621
Lab Project #: 2820.216
Project Name: Radford AAP
Lab Contact: Stephanie Mossburg

Record of Sample Receipt and Inspection

Comments/Discrepancies

This is the record of the shipment conditions and the inspection records for the samples received and reported as a sample delivery group (SDG). All of the samples were inspected and observed to conform to our receipt policies, except as noted below.

The following discrepancies were noted:

Discrepancy	Resolution
40EQR32714: no time sampled listed on the VOAs CLS 40FB32714: no time sampled listed on the VOAs	Please log per the time stated on COC.

Coolers

Cooler #	Temperature Gun	Temperature	COC #	Airbill #	Temp Required?
0018509	I	2.0			X
0018590	I	1.0			X
00110906	I	2.0			X

Inspection Checklist

#	Question	Result
1	Were shipping coolers sealed?	NA
2	Were custody seals intact?	NA
3	Were cooler temperatures in range of 0-6?	Yes
4	Was ice present?	Yes
5	Were COC's received/information complete/signed and dated?	Yes
6	Were sample containers intact and match COC?	Yes
7	Were sample labels intact and match COC?	No
8	Were the correct containers and volumes received?	Yes
9	Were samples received within EPA hold times?	Yes
10	Were correct preservatives used? (water only)	Yes
11	Were pH ranges acceptable? (voa's excluded)	Yes
12	Were VOA samples free of headspace (less than 6mm)?	Yes

Microbac

Lab Report #: L14031621
Lab Project #: 2820.216
Project Name: Radford AAP
Lab Contact: Stephanie Mossburg

Samples Received

Client ID	Laboratory ID	Date Collected	Date Received
40MW7GW32714	L14031621-01	03/27/2014 09:57	03/28/2014 13:24
40EQR32714	L14031621-02	03/27/2014 10:45	03/28/2014 13:24
40FB32714	L14031621-03	03/27/2014 11:00	03/28/2014 13:24
40MW5GW32714	L14031621-04	03/27/2014 14:02	03/28/2014 13:24
40DUPGW32714	L14031621-05	03/27/2014 14:02	03/28/2014 13:24
40MW6GW32714	L14031621-06	03/27/2014 15:42	03/28/2014 13:24
LFMW01GW32714	L14031621-07	03/27/2014 17:50	03/28/2014 13:24
LFMW01MSGW32714	L14031621-08	03/27/2014 18:15	03/28/2014 13:24
LFMW01MSDGW32714	L14031621-09	03/27/2014 18:15	03/28/2014 13:24
40TB32714	L14031621-10	03/27/2014 00:01	03/28/2014 15:03

Microbac REPORT L14031621
PREPARED FOR Kemron Environmental Services
WORK ID:

1.0 Summary Data 5
1.1 Narratives 6
1.2 Certificate of Analysis 17
2.0 Full Sample Data Package 39
2.1 Volatiles Data 40
2.1.1 Volatiles GCMS Data (8260) 41
2.1.1.1 Summary Data 42
2.1.1.2 QC Summary Data 55
2.1.1.3 Sample Data 76
2.1.1.4 Standards Data 120
2.1.1.5 Raw QC Data 164
2.2 Semivolatiles Data 270
2.2.1 Semivolatiles GC/MS Data (827-PAHL) 176
2.2.1.1 Summary Data 177
2.2.1.2 QC Summary Data 189
2.2.1.3 Sample Data 213
2.2.1.4 Standards Data 238
2.2.1.5 Raw QC Data 257
2.2 General Chromatography Data 270
2.2.2 6850 LC/MS Data 271
2.2.2.1 Summary Data 272
2.2.2.2 QC Summary Data 279
2.2.2.3 Sample Data 336
2.2.2.4 Standards Data 355
2.2.2.5 Raw QC Data 408
2.3 Metals Data 415
2.3.1 Metals I C P Data 416
2.3.1.1 Summary Data 417
2.3.1.2 QC Summary Data 433
2.3.1.3 Raw Data 497
2.3.2 Metals ICP-MS Data 1346
2.3.2.1 Summary Data 1347
2.3.2.2 QC Summary Data 1360
2.3.2.3 Raw Data 1396
3.0 Attachments 1986

1.0 Summary Data

1.1 Narratives

Login Number: L14031621
Department: Volatiles
Analyst: Mary Schilling

METHOD

Preparation SW-846 5030C/5035A

Analysis SW-846 8260B

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Other: None.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak. In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak. This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline. There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous. Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 80487
Approved By: Michael Albertson

Login Number: L14031621
Department: Semivolatiles
Analyst: Cassie A. Augenstein

METHOD

Preparation 3510C

Analysis SW-846 8270 SIM

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: The MS/MSD pair exceeded % RPD criteria for all analytes, however the recoveries for both the MS and MSD are within specified limits. Please see the applicable QC report for a detailed presentation of the failures.

SAMPLES

Samples: All acceptance criteria were met.

Internal Standards: All acceptance criteria were met.

Surrogates: Samples 07REF, 08MS and 09MSD were not re-extracted per TSR instructions (marginal failure).

Sample #	Analyte	Date	Result	Lower	Upper	Type
L14031621-09	p-Terphenyl-d14	2014-04-01 15:54:00	49.1	50	135	Recovery

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peakcompletely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low areacounts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene andbenzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

Narrative ID: 80632
Approved By: Eric Lawson

Login Number: L14031621
Department: General Chromatography
Analyst: John W. Richards Jr.

METHOD

Analysis SW-846 6850

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: This failure was due to sample matrix interference.

Sample #	Analyte	Date	Result	Lower	Upper	Type
L14031621-09	Perchlorate	2014-04-02 20:55:36	35.0	80	120	Recovery

SAMPLES

Samples: All acceptance criteria were met.

Internal Standards: All acceptance criteria were met.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

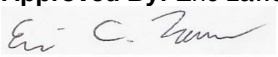
Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Laboratory Director or the QA/QC Supervisor will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 80678
Approved By: Eric Lawson



Login Number: L14031621
Department: Metals
Analyst: Qin Xu
Analyst #2: Ji Hu

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6010

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG469838 - All acceptance criteria were met.

Matrix Spikes: WG469838 - Sample 07 was chosen by the client for MS/MSD analysis. Samples 08(MS) and 09(MSD) yielded noncompliant recoveries for two analytes.

SAMPLES

Samples: WG469838 - Client samples 01, 04, 05, 07, 08 and 09 required dilution analyses in order to obtain results for calcium within the calibration range. Client samples 01, 07, 08 and 09 required dilution analyses in order to obtain results for magnesium within the calibration range.

Narrative ID: 80723
Approved By: Sheri Pfalzgraf

Login Number: L14031621
Department: Metals
Analyst: Ji Hu

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6020

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration: WG469374 - Due to continuing calibration verification internal standard failure for germanium on 04-Apr-2014 at 12:34, client sample 04 was reanalyzed later in the analytical sequence for arsenic, cobalt, manganese and selenium.

Continuing Calibration Blank: All acceptance criteria were met.

Low Level Check: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG469374 - All acceptance criteria were met.

Matrix Spikes: WG469374 - Sample 07 was chosen by the client for MS/MSD analysis. Samples 08(MS) and 09(MSD) met all acceptance criteria.

SAMPLES

Samples: WG469374 - Due to internal standard failure for germanium on 04-Apr-2014 at 12:21, client sample 03 was reanalyzed later in the analytical sequence for arsenic, cobalt, manganese and selenium.

Narrative ID: 80746
Approved By: Sheri Pfalzgraf

1.2 Certificate of Analysis

Certificate of Analysis

Sample #:	L14031621-01	**PrePrep Method:**	N/A	**Instrument:**	HPMS8
Client ID:	40MW7GW32714	**Prep Method:**	5030B/5030C/5035A	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	8260B	**Cal Date:**	03/28/2014 13:48
Workgroup #:	WG469134	**Analyst:**	MES	**Run Date:**	03/29/2014 15:05
Collect Date:	03/27/2014 09:57	**Dilution:**	1	**File ID:**	8M395982
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Acetone	67-64-1		U	10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	104	70	120	
4-Bromofluorobenzene	92.8	75	120	
Dibromofluoromethane	104	85	115	
Toluene-d8	99.2	85	120	

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L14031621-01	**PrePrep Method:**	N/A	**Instrument:**	HPMS7
Client ID:	40MW7GW32714	**Prep Method:**	3510C	**Prep Date:**	03/31/2014 11:16
Matrix:	Water	**Analytical Method:**	8270C	**Cal Date:**	03/05/2014 15:52
Workgroup #:	WG469379	**Analyst:**	CAA	**Run Date:**	04/01/2014 12:32
Collect Date:	03/27/2014 09:57	**Dilution:**	1	**File ID:**	7M60732
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3		U	0.0521	0.0260
Benzo(a)pyrene	50-32-8		U	0.0521	0.0260
Benzo(b)fluoranthene	205-99-2		U	0.0521	0.0260
Benzo(k)fluoranthene	207-08-9		U	0.0521	0.0260
Chrysene	218-01-9		U	0.0521	0.0260

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	83.3	40	110	
2-Fluorobiphenyl	76.5	50	110	
p-Terphenyl-d14	81.7	50	135	

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-01	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	40MW7GW32714	**Prep Method:**	6850	**Prep Date:**	04/02/2014 13:30
Matrix:	Water	**Analytical Method:**	6850	**Cal Date:**	12/18/2013 19:20
Workgroup #:	WG469638	**Analyst:**	JWR	**Run Date:**	04/02/2014 17:27
Collect Date:	03/27/2014 09:57	**Dilution:**	1	**File ID:**	1LM.LM24174
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0	3.74		0.200	0.100

Sample #:	L14031621-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	40MW7GW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/03/2014 09:11
Workgroup #:	WG469838	**Analyst:**	QX	**Run Date:**	04/03/2014 22:49
Collect Date:	03/27/2014 09:57	**Dilution:**	1	**File ID:**	T2.040314.224943
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5		U	0.200	0.100
Iron, Total	7439-89-6	0.213		0.100	0.0500
Potassium, Total	7440-09-7	1.57		1.00	0.500
Sodium, Total	7440-23-5	3.66		0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L14031621-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	40MW7GW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/07/2014 10:08
Workgroup #:	WG469838	**Analyst:**	JYH	**Run Date:**	04/07/2014 15:21
Collect Date:	03/27/2014 09:57	**Dilution:**	10	**File ID:**	T2.040714.152107
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	81.5		5.00	2.50
Magnesium, Total	7439-95-4	32.6		5.00	2.50

Certificate of Analysis

Sample #:	L14031621-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	40MW7GW32714	**Prep Method:**	3015	**Prep Date:**	03/31/2014 09:29
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	04/04/2014 10:40
Workgroup #:	WG469374	**Analyst:**	JYH	**Run Date:**	04/04/2014 11:41
Collect Date:	03/27/2014 09:57	**Dilution:**	1	**File ID:**	NI.040414.114146
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2		U	0.00100	0.000500
Barium, Total	7440-39-3	0.118		0.00300	0.00150
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Lead, Total	7439-92-1		U	0.00100	0.000500
Manganese, Total	7439-96-5	0.00188	J	0.00200	0.00100
Selenium, Total	7782-49-2		U	0.00100	0.000500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L14031621-02	**PrePrep Method:**	N/A	**Instrument:**	HPMS8
Client ID:	40EQR32714	**Prep Method:**	5030B/5030C/5035A	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	8260B	**Cal Date:**	03/28/2014 13:48
Workgroup #:	WG469134	**Analyst:**	MES	**Run Date:**	03/29/2014 15:35
Collect Date:	03/27/2014 10:45	**Dilution:**	1	**File ID:**	8M395983
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Acetone	67-64-1		U	10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	106	70	120	
4-Bromofluorobenzene	95.3	75	120	
Dibromofluoromethane	108	85	115	
Toluene-d8	102	85	120	

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L14031621-02	**PrePrep Method:**	N/A	**Instrument:**	HPMS7
Client ID:	40EQR32714	**Prep Method:**	3510C	**Prep Date:**	03/31/2014 11:16
Matrix:	Water	**Analytical Method:**	8270C	**Cal Date:**	03/05/2014 15:52
Workgroup #:	WG469379	**Analyst:**	CAA	**Run Date:**	04/01/2014 12:57
Collect Date:	03/27/2014 10:45	**Dilution:**	1	**File ID:**	7M60733
Sample Tag:	01	**Units:**	ug/L		

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3		U	0.0515	0.0258
Benzo(a)pyrene	50-32-8		U	0.0515	0.0258
Benzo(b)fluoranthene	205-99-2		U	0.0515	0.0258
Benzo(k)fluoranthene	207-08-9		U	0.0515	0.0258
Chrysene	218-01-9		U	0.0515	0.0258

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	79.6	40	110	
2-Fluorobiphenyl	69.5	50	110	
p-Terphenyl-d14	71.1	50	135	

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L14031621-02 **PrePrep Method:** N/A **Instrument:** LCMS1
Client ID: 40EQR32714 **Prep Method:** 6850 **Prep Date:** 04/02/2014 13:30
Matrix: Water **Analytical Method:** 6850 **Cal Date:** 12/18/2013 19:20
Workgroup #: WG469638 **Analyst:** JWR **Run Date:** 04/02/2014 17:46
Collect Date: 03/27/2014 10:45 **Dilution:** 1 **File ID:** 1LM.LM24175
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0		U	0.200	0.100

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L14031621-02 **PrePrep Method:** N/A **Instrument:** ICP-THERMO2
Client ID: 40EQR32714 **Prep Method:** 3015 **Prep Date:** 04/02/2014 08:21
Matrix: Water **Analytical Method:** 6010B **Cal Date:** 04/03/2014 09:11
Workgroup #: WG469838 **Analyst:** QX **Run Date:** 04/03/2014 22:53
Collect Date: 03/27/2014 10:45 **Dilution:** 1 **File ID:** T2.040314.225317
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5		U	0.200	0.100
Calcium, Total	7440-70-2		U	0.500	0.250
Iron, Total	7439-89-6		U	0.100	0.0500
Magnesium, Total	7439-95-4		U	0.500	0.250
Potassium, Total	7440-09-7		U	1.00	0.500
Sodium, Total	7440-23-5	0.803		0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-02	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	40EQR32714	**Prep Method:**	3015	**Prep Date:**	03/31/2014 09:29
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	04/04/2014 10:40
Workgroup #:	WG469374	**Analyst:**	JYH	**Run Date:**	04/04/2014 11:44
Collect Date:	03/27/2014 10:45	**Dilution:**	1	**File ID:**	NI.040414.114448
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2		U	0.00100	0.000500
Barium, Total	7440-39-3		U	0.00300	0.00150
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Lead, Total	7439-92-1		U	0.00100	0.000500
Manganese, Total	7439-96-5	0.00166	J	0.00200	0.00100
Selenium, Total	7782-49-2		U	0.00100	0.000500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L14031621-03	**PrePrep Method:**	N/A	**Instrument:**	HPMS8
Client ID:	40FB32714	**Prep Method:**	5030B/5030C/5035A	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	8260B	**Cal Date:**	03/28/2014 13:48
Workgroup #:	WG469134	**Analyst:**	MES	**Run Date:**	03/29/2014 16:04
Collect Date:	03/27/2014 11:00	**Dilution:**	1	**File ID:**	8M395984
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Acetone	67-64-1		U	10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	104	70	120	
4-Bromofluorobenzene	92.8	75	120	
Dibromofluoromethane	106	85	115	
Toluene-d8	100	85	120	

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L14031621-03	**PrePrep Method:**	N/A	**Instrument:**	HPMS7
Client ID:	40FB32714	**Prep Method:**	3510C	**Prep Date:**	03/31/2014 11:16
Matrix:	Water	**Analytical Method:**	8270C	**Cal Date:**	03/05/2014 15:52
Workgroup #:	WG469379	**Analyst:**	CAA	**Run Date:**	04/01/2014 13:23
Collect Date:	03/27/2014 11:00	**Dilution:**	1	**File ID:**	7M60734
Sample Tag:	01	**Units:**	ug/L		

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3		U	0.0510	0.0255
Benzo(a)pyrene	50-32-8		U	0.0510	0.0255
Benzo(b)fluoranthene	205-99-2		U	0.0510	0.0255
Benzo(k)fluoranthene	207-08-9		U	0.0510	0.0255
Chrysene	218-01-9		U	0.0510	0.0255

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	78.5	40	110	
2-Fluorobiphenyl	71.5	50	110	
p-Terphenyl-d14	83.9	50	135	

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L14031621-03 **PrePrep Method:** N/A **Instrument:** LCMS1
Client ID: 40FB32714 **Prep Method:** 6850 **Prep Date:** 04/02/2014 13:30
Matrix: Water **Analytical Method:** 6850 **Cal Date:** 12/18/2013 19:20
Workgroup #: WG469638 **Analyst:** JWR **Run Date:** 04/02/2014 18:05
Collect Date: 03/27/2014 11:00 **Dilution:** 1 **File ID:** 1LM.LM24176
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0		U	0.200	0.100

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L14031621-03 **PrePrep Method:** N/A **Instrument:** ICP-THERMO2
Client ID: 40FB32714 **Prep Method:** 3015 **Prep Date:** 04/02/2014 08:21
Matrix: Water **Analytical Method:** 6010B **Cal Date:** 04/03/2014 09:11
Workgroup #: WG469838 **Analyst:** QX **Run Date:** 04/03/2014 22:56
Collect Date: 03/27/2014 11:00 **Dilution:** 1 **File ID:** T2.040314.225652
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5		U	0.200	0.100
Calcium, Total	7440-70-2		U	0.500	0.250
Iron, Total	7439-89-6		U	0.100	0.0500
Magnesium, Total	7439-95-4		U	0.500	0.250
Potassium, Total	7440-09-7		U	1.00	0.500
Sodium, Total	7440-23-5		U	0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-03	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	40FB32714	**Prep Method:**	3015	**Prep Date:**	03/31/2014 09:29
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	04/04/2014 10:40
Workgroup #:	WG469374	**Analyst:**	JYH	**Run Date:**	04/04/2014 13:40
Collect Date:	03/27/2014 11:00	**Dilution:**	1	**File ID:**	NI.040414.134019
Sample Tag:	02	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2		U	0.00100	0.000500
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Manganese, Total	7439-96-5		U	0.00200	0.00100
Selenium, Total	7782-49-2		U	0.00100	0.000500

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L14031621-03	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	40FB32714	**Prep Method:**	3015	**Prep Date:**	03/31/2014 09:29
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	04/04/2014 10:40
Workgroup #:	WG469374	**Analyst:**	JYH	**Run Date:**	04/04/2014 12:18
Collect Date:	03/27/2014 11:00	**Dilution:**	1	**File ID:**	NI.040414.121810
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Barium, Total	7440-39-3		U	0.00300	0.00150
Lead, Total	7439-92-1		U	0.00100	0.000500

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L14031621-04	**PrePrep Method:**	N/A	**Instrument:**	HPMS8
Client ID:	40MW5GW32714	**Prep Method:**	5030B/5030C/5035A	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	8260B	**Cal Date:**	03/28/2014 13:48
Workgroup #:	WG469134	**Analyst:**	MES	**Run Date:**	03/29/2014 16:33
Collect Date:	03/27/2014 14:02	**Dilution:**	1	**File ID:**	8M395985
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Acetone	67-64-1		U	10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	103	70	120	
4-Bromofluorobenzene	92.0	75	120	
Dibromofluoromethane	104	85	115	
Toluene-d8	99.4	85	120	

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L14031621-04 **PrePrep Method:** N/A **Instrument:** HPMS7
Client ID: 40MW5GW32714 **Prep Method:** 3510C **Prep Date:** 03/31/2014 11:16
Matrix: Water **Analytical Method:** 8270C **Cal Date:** 03/05/2014 15:52
Workgroup #: WG469379 **Analyst:** CAA **Run Date:** 04/01/2014 13:48
Collect Date: 03/27/2014 14:02 **Dilution:** 1 **File ID:** 7M60735
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3		U	0.0521	0.0260
Benzo(a)pyrene	50-32-8		U	0.0521	0.0260
Benzo(b)fluoranthene	205-99-2		U	0.0521	0.0260
Benzo(k)fluoranthene	207-08-9		U	0.0521	0.0260
Chrysene	218-01-9		U	0.0521	0.0260

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	74.8	40	110	
2-Fluorobiphenyl	67.4	50	110	
p-Terphenyl-d14	72.3	50	135	

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L14031621-04 **PrePrep Method:** N/A **Instrument:** LCMS1
Client ID: 40MW5GW32714 **Prep Method:** 6850 **Prep Date:** 04/02/2014 13:30
Matrix: Water **Analytical Method:** 6850 **Cal Date:** 12/18/2013 19:20
Workgroup #: WG469638 **Analyst:** JWR **Run Date:** 04/02/2014 18:24
Collect Date: 03/27/2014 14:02 **Dilution:** 1 **File ID:** 1LM.LM24177
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0	0.721		0.200	0.100

Sample #: L14031621-04 **PrePrep Method:** N/A **Instrument:** ICP-THERMO2
Client ID: 40MW5GW32714 **Prep Method:** 3015 **Prep Date:** 04/02/2014 08:21
Matrix: Water **Analytical Method:** 6010B **Cal Date:** 04/03/2014 09:11
Workgroup #: WG469838 **Analyst:** QX **Run Date:** 04/03/2014 23:00
Collect Date: 03/27/2014 14:02 **Dilution:** 1 **File ID:** T2.040314.230027
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5	0.169	J	0.200	0.100
Iron, Total	7439-89-6	0.125		0.100	0.0500

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD
Magnesium, Total	7439-95-4	19.0		0.500	0.250
Potassium, Total	7440-09-7	0.946	J	1.00	0.500
Sodium, Total	7440-23-5	5.37		0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L14031621-04 **PrePrep Method:** N/A **Instrument:** ICP-THERMO2
Client ID: 40MW5GW32714 **Prep Method:** 3015 **Prep Date:** 04/02/2014 08:21
Matrix: Water **Analytical Method:** 6010B **Cal Date:** 04/07/2014 10:08
Workgroup #: WG469838 **Analyst:** JYH **Run Date:** 04/07/2014 15:24
Collect Date: 03/27/2014 14:02 **Dilution:** 10 **File ID:** T2.040714.152442
Sample Tag: DL01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	68.3		5.00	2.50

Sample #: L14031621-04 **PrePrep Method:** N/A **Instrument:** ICP-MS2
Client ID: 40MW5GW32714 **Prep Method:** 3015 **Prep Date:** 03/31/2014 09:29
Matrix: Water **Analytical Method:** 6020 **Cal Date:** 04/04/2014 10:40
Workgroup #: WG469374 **Analyst:** JYH **Run Date:** 04/04/2014 13:43
Collect Date: 03/27/2014 14:02 **Dilution:** 1 **File ID:** NI.040414.134330
Sample Tag: 02 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2		U	0.00100	0.000500
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Manganese, Total	7439-96-5	0.00106	J	0.00200	0.00100
Selenium, Total	7782-49-2		U	0.00100	0.000500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L14031621-04 **PrePrep Method:** N/A **Instrument:** ICP-MS2
Client ID: 40MW5GW32714 **Prep Method:** 3015 **Prep Date:** 03/31/2014 09:29
Matrix: Water **Analytical Method:** 6020 **Cal Date:** 04/04/2014 10:40
Workgroup #: WG469374 **Analyst:** JYH **Run Date:** 04/04/2014 12:21
Collect Date: 03/27/2014 14:02 **Dilution:** 1 **File ID:** NI.040414.122113
Sample Tag: 01 **Units:** mg/L

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD
Barium, Total	7440-39-3	0.0341		0.00300	0.00150
Lead, Total	7439-92-1		U	0.00100	0.000500

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L14031621-05 **PrePrep Method:** N/A **Instrument:** HPMS8
Client ID: 40DUPGW32714 **Prep Method:** 5030B/5030C/5035A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 8260B **Cal Date:** 03/28/2014 13:48
Workgroup #: WG469134 **Analyst:** MES **Run Date:** 03/29/2014 17:02
Collect Date: 03/27/2014 14:02 **Dilution:** 1 **File ID:** 8M395986
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Acetone	67-64-1		U	10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	105	70	120	
4-Bromofluorobenzene	95.1	75	120	
Dibromofluoromethane	107	85	115	
Toluene-d8	99.9	85	120	

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L14031621-05 **PrePrep Method:** N/A **Instrument:** HPMS7
Client ID: 40DUPGW32714 **Prep Method:** 3510C **Prep Date:** 03/31/2014 11:16
Matrix: Water **Analytical Method:** 8270C **Cal Date:** 03/05/2014 15:52
Workgroup #: WG469379 **Analyst:** CAA **Run Date:** 04/01/2014 14:13
Collect Date: 03/27/2014 14:02 **Dilution:** 1 **File ID:** 7M60736
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3		U	0.0521	0.0260
Benzo(a)pyrene	50-32-8		U	0.0521	0.0260
Benzo(b)fluoranthene	205-99-2		U	0.0521	0.0260
Benzo(k)fluoranthene	207-08-9		U	0.0521	0.0260
Chrysene	218-01-9		U	0.0521	0.0260

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	71.9	40	110	
2-Fluorobiphenyl	62.8	50	110	
p-Terphenyl-d14	74.5	50	135	

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-05	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	40DUPGW32714	**Prep Method:**	6850	**Prep Date:**	04/02/2014 13:30
Matrix:	Water	**Analytical Method:**	6850	**Cal Date:**	12/18/2013 19:20
Workgroup #:	WG469638	**Analyst:**	JWR	**Run Date:**	04/02/2014 18:43
Collect Date:	03/27/2014 14:02	**Dilution:**	1	**File ID:**	1LM.LM24178
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0	0.717		0.200	0.100

Sample #:	L14031621-05	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	40DUPGW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/03/2014 09:11
Workgroup #:	WG469838	**Analyst:**	QX	**Run Date:**	04/03/2014 23:03
Collect Date:	03/27/2014 14:02	**Dilution:**	1	**File ID:**	T2.040314.230358
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5	0.366		0.200	0.100
Iron, Total	7439-89-6	0.339		0.100	0.0500
Magnesium, Total	7439-95-4	19.5		0.500	0.250
Potassium, Total	7440-09-7	1.02		1.00	0.500
Sodium, Total	7440-23-5	5.64		0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L14031621-05	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	40DUPGW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/07/2014 10:08
Workgroup #:	WG469838	**Analyst:**	JYH	**Run Date:**	04/07/2014 15:28
Collect Date:	03/27/2014 14:02	**Dilution:**	10	**File ID:**	T2.040714.152817
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	72.7		5.00	2.50

Certificate of Analysis

Sample #:	L14031621-05	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	40DUPGW32714	**Prep Method:**	3015	**Prep Date:**	03/31/2014 09:29
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	04/04/2014 10:40
Workgroup #:	WG469374	**Analyst:**	JYH	**Run Date:**	04/04/2014 13:46
Collect Date:	03/27/2014 14:02	**Dilution:**	1	**File ID:**	NI.040414.134631
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2		U	0.00100	0.000500
Barium, Total	7440-39-3	0.0332		0.00300	0.00150
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Lead, Total	7439-92-1		U	0.00100	0.000500
Manganese, Total	7439-96-5	0.00157	J	0.00200	0.00100
Selenium, Total	7782-49-2		U	0.00100	0.000500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L14031621-06	**PrePrep Method:**	N/A	**Instrument:**	HPMS8
Client ID:	40MW6GW32714	**Prep Method:**	5030B/5030C/5035A	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	8260B	**Cal Date:**	03/28/2014 13:48
Workgroup #:	WG469134	**Analyst:**	MES	**Run Date:**	03/29/2014 18:57
Collect Date:	03/27/2014 15:42	**Dilution:**	1	**File ID:**	8M395990
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Acetone	67-64-1		U	10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	104	70	120	
4-Bromofluorobenzene	93.5	75	120	
Dibromofluoromethane	106	85	115	
Toluene-d8	98.6	85	120	

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L14031621-06	**PrePrep Method:**	N/A	**Instrument:**	HPMS7
Client ID:	40MW6GW32714	**Prep Method:**	3510C	**Prep Date:**	03/31/2014 11:16
Matrix:	Water	**Analytical Method:**	8270C	**Cal Date:**	03/05/2014 15:52
Workgroup #:	WG469379	**Analyst:**	CAA	**Run Date:**	04/01/2014 14:39
Collect Date:	03/27/2014 15:42	**Dilution:**	1	**File ID:**	7M60737
Sample Tag:	01	**Units:**	ug/L		

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3		U	0.0521	0.0260
Benzo(a)pyrene	50-32-8		U	0.0521	0.0260
Benzo(b)fluoranthene	205-99-2		U	0.0521	0.0260
Benzo(k)fluoranthene	207-08-9		U	0.0521	0.0260
Chrysene	218-01-9		U	0.0521	0.0260

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	67.0	40	110	
2-Fluorobiphenyl	61.2	50	110	
p-Terphenyl-d14	67.0	50	135	

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L14031621-06 **PrePrep Method:** N/A **Instrument:** LCMS1
Client ID: 40MW6GW32714 **Prep Method:** 6850 **Prep Date:** 04/02/2014 13:30
Matrix: Water **Analytical Method:** 6850 **Cal Date:** 12/18/2013 19:20
Workgroup #: WG469638 **Analyst:** JWR **Run Date:** 04/02/2014 19:58
Collect Date: 03/27/2014 15:42 **Dilution:** 1 **File ID:** 1LM.LM24182
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0	0.506		0.200	0.100

Sample #: L14031621-06 **PrePrep Method:** N/A **Instrument:** ICP-THERMO2
Client ID: 40MW6GW32714 **Prep Method:** 3015 **Prep Date:** 04/02/2014 08:21
Matrix: Water **Analytical Method:** 6010B **Cal Date:** 04/03/2014 09:11
Workgroup #: WG469838 **Analyst:** QX **Run Date:** 04/03/2014 23:07
Collect Date: 03/27/2014 15:42 **Dilution:** 1 **File ID:** T2.040314.230731
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5	0.288		0.200	0.100
Calcium, Total	7440-70-2	23.5		0.500	0.250
Iron, Total	7439-89-6	0.292		0.100	0.0500
Magnesium, Total	7439-95-4	7.56		0.500	0.250
Potassium, Total	7440-09-7	0.738	J	1.00	0.500
Sodium, Total	7440-23-5	7.74		0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-06	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	40MW6GW32714	**Prep Method:**	3015	**Prep Date:**	03/31/2014 09:29
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	04/04/2014 10:40
Workgroup #:	WG469374	**Analyst:**	JYH	**Run Date:**	04/04/2014 13:49
Collect Date:	03/27/2014 15:42	**Dilution:**	1	**File ID:**	NI.040414.134953
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2		U	0.00100	0.000500
Barium, Total	7440-39-3	0.0127		0.00300	0.00150
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Lead, Total	7439-92-1		U	0.00100	0.000500
Manganese, Total	7439-96-5	0.00166	J	0.00200	0.00100
Selenium, Total	7782-49-2		U	0.00100	0.000500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L14031621-07	**PrePrep Method:**	N/A	**Instrument:**	HPMS8
Client ID:	LFMW01GW32714	**Prep Method:**	5030B/5030C/5035A	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	8260B	**Cal Date:**	03/28/2014 13:48
Workgroup #:	WG469134	**Analyst:**	MES	**Run Date:**	03/29/2014 17:31
Collect Date:	03/27/2014 17:50	**Dilution:**	1	**File ID:**	8M395987
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Acetone	67-64-1		U	10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	103	70	120	
4-Bromofluorobenzene	92.7	75	120	
Dibromofluoromethane	105	85	115	
Toluene-d8	101	85	120	

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L14031621-07	**PrePrep Method:**	N/A	**Instrument:**	HPMS7
Client ID:	LFMW01GW32714	**Prep Method:**	3510C	**Prep Date:**	03/31/2014 11:16
Matrix:	Water	**Analytical Method:**	8270C	**Cal Date:**	03/05/2014 15:52
Workgroup #:	WG469379	**Analyst:**	CAA	**Run Date:**	04/01/2014 15:04
Collect Date:	03/27/2014 17:50	**Dilution:**	1	**File ID:**	7M60738
Sample Tag:	01	**Units:**	ug/L		

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3		U	0.0500	0.0250
Benzo(a)pyrene	50-32-8		U	0.0500	0.0250
Benzo(b)fluoranthene	205-99-2		U	0.0500	0.0250
Benzo(k)fluoranthene	207-08-9		U	0.0500	0.0250
Chrysene	218-01-9		U	0.0500	0.0250

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	91.7	40	110	
2-Fluorobiphenyl	81.4	50	110	
p-Terphenyl-d14	77.7	50	135	

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #: L14031621-07 **PrePrep Method:** N/A **Instrument:** LCMS1
Client ID: LFMW01GW32714 **Prep Method:** 6850 **Prep Date:** 04/02/2014 13:30
Matrix: Water **Analytical Method:** 6850 **Cal Date:** 12/18/2013 19:20
Workgroup #: WG469638 **Analyst:** JWR **Run Date:** 04/02/2014 20:17
Collect Date: 03/27/2014 17:50 **Dilution:** 1 **File ID:** 1LM.LM24183
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0	7.47		0.200	0.100

Sample #: L14031621-07 **PrePrep Method:** N/A **Instrument:** ICP-THERMO2
Client ID: LFMW01GW32714 **Prep Method:** 3015 **Prep Date:** 04/02/2014 08:21
Matrix: Water **Analytical Method:** 6010B **Cal Date:** 04/03/2014 09:11
Workgroup #: WG469838 **Analyst:** QX **Run Date:** 04/03/2014 23:36
Collect Date: 03/27/2014 17:50 **Dilution:** 1 **File ID:** T2.040314.233648
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5	0.124	J	0.200	0.100
Iron, Total	7439-89-6	0.172		0.100	0.0500
Potassium, Total	7440-09-7	1.73		1.00	0.500
Sodium, Total	7440-23-5	5.26		0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-07	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	LFMW01GW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/07/2014 10:08
Workgroup #:	WG469838	**Analyst:**	JYH	**Run Date:**	04/07/2014 15:42
Collect Date:	03/27/2014 17:50	**Dilution:**	10	**File ID:**	T2.040714.154227
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	92.4		5.00	2.50
Magnesium, Total	7439-95-4	34.6		5.00	2.50

Sample #:	L14031621-07	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	LFMW01GW32714	**Prep Method:**	3015	**Prep Date:**	03/31/2014 09:29
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	04/04/2014 10:40
Workgroup #:	WG469374	**Analyst:**	JYH	**Run Date:**	04/04/2014 11:32
Collect Date:	03/27/2014 17:50	**Dilution:**	1	**File ID:**	NI.040414.113240
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2		U	0.00100	0.000500
Barium, Total	7440-39-3	0.0698		0.00300	0.00150
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Lead, Total	7439-92-1		U	0.00100	0.000500
Manganese, Total	7439-96-5	0.00275		0.00200	0.00100
Selenium, Total	7782-49-2	0.00149		0.00100	0.000500

U	Analyte was not detected. The concentration is below the reported LOD.

Sample #:	L14031621-08	**PrePrep Method:**	N/A	**Instrument:**	HPMS8
Client ID:	LFMW01MSGW32714	**Prep Method:**	5030B/5030C/5035A	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	8260B	**Cal Date:**	03/28/2014 13:48
Workgroup #:	WG469134	**Analyst:**	MES	**Run Date:**	03/29/2014 17:59
Collect Date:	03/27/2014 18:15	**Dilution:**	1	**File ID:**	8M395988
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8	20.0		10.0	2.00
Acetone	67-64-1	18.3		10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	102	70	120	
4-Bromofluorobenzene	94.2	75	120	
Dibromofluoromethane	102	85	115	

Toluene-d8	102	85	120	

Sample #: L14031621-08 **PrePrep Method:** N/A **Instrument:** HPMS7
Client ID: LFMW01MSGW32714 **Prep Method:** 3510C **Prep Date:** 03/31/2014 11:16
Matrix: Water **Analytical Method:** 8270C **Cal Date:** 03/05/2014 15:52
Workgroup #: WG469379 **Analyst:** CAA **Run Date:** 04/01/2014 15:29
Collect Date: 03/27/2014 18:15 **Dilution:** 1 **File ID:** 7M60739
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3	0.847		0.0521	0.0260
Benzo(a)pyrene	50-32-8	0.913		0.0521	0.0260
Benzo(b)fluoranthene	205-99-2	0.878		0.0521	0.0260
Benzo(k)fluoranthene	207-08-9	0.860		0.0521	0.0260
Chrysene	218-01-9	0.996		0.0521	0.0260

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	83.5	40	110	
2-Fluorobiphenyl	82.6	50	110	
p-Terphenyl-d14	74.6	50	135	

Sample #: L14031621-08 **PrePrep Method:** N/A **Instrument:** LCMS1
Client ID: LFMW01MSGW32714 **Prep Method:** 6850 **Prep Date:** 04/02/2014 13:30
Matrix: Water **Analytical Method:** 6850 **Cal Date:** 12/18/2013 19:20
Workgroup #: WG469638 **Analyst:** JWR **Run Date:** 04/02/2014 20:36
Collect Date: 03/27/2014 18:15 **Dilution:** 1 **File ID:** 1LM.LM24184
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0	7.69		0.200	0.100

Sample #: L14031621-08 **PrePrep Method:** N/A **Instrument:** ICP-THERMO2
Client ID: LFMW01MSGW32714 **Prep Method:** 3015 **Prep Date:** 04/02/2014 08:21
Matrix: Water **Analytical Method:** 6010B **Cal Date:** 04/03/2014 09:11
Workgroup #: WG469838 **Analyst:** QX **Run Date:** 04/03/2014 23:40
Collect Date: 03/27/2014 18:15 **Dilution:** 1 **File ID:** T2.040314.234022
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5	7.26		0.200	0.100
Iron, Total	7439-89-6	3.37		0.100	0.0500
Potassium, Total	7440-09-7	33.3		1.00	0.500

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD
Sodium, Total	7440-23-5	34.9		0.500	0.250
Vanadium, Total	7440-62-2	0.618		0.0100	0.00500

Sample #: L14031621-08 **PrePrep Method:** N/A **Instrument:** ICP-THERMO2
Client ID: LFMW01MSGW32714 **Prep Method:** 3015 **Prep Date:** 04/02/2014 08:21
Matrix: Water **Analytical Method:** 6010B **Cal Date:** 04/07/2014 10:08
Workgroup #: WG469838 **Analyst:** JYH **Run Date:** 04/07/2014 15:46
Collect Date: 03/27/2014 18:15 **Dilution:** 10 **File ID:** T2.040714.154602
Sample Tag: DL01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	93.8		5.00	2.50
Magnesium, Total	7439-95-4	39.6		5.00	2.50

Sample #: L14031621-08 **PrePrep Method:** N/A **Instrument:** ICP-MS2
Client ID: LFMW01MSGW32714 **Prep Method:** 3015 **Prep Date:** 03/31/2014 09:29
Matrix: Water **Analytical Method:** 6020 **Cal Date:** 04/04/2014 10:40
Workgroup #: WG469374 **Analyst:** JYH **Run Date:** 04/04/2014 11:35
Collect Date: 03/27/2014 18:15 **Dilution:** 1 **File ID:** NI.040414.113542
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2	0.0617		0.00100	0.000500
Barium, Total	7440-39-3	0.124		0.00300	0.00150
Cobalt, Total	7440-48-4	0.0620		0.00100	0.000500
Lead, Total	7439-92-1	0.0628		0.00100	0.000500
Manganese, Total	7439-96-5	0.0683		0.00200	0.00100
Selenium, Total	7782-49-2	0.0610		0.00100	0.000500

Sample #: L14031621-09 **PrePrep Method:** N/A **Instrument:** HPMS8
Client ID: LFMW01MSDGW32714 **Prep Method:** 5030B/5030C/5035A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 8260B **Cal Date:** 03/28/2014 13:48
Workgroup #: WG469134 **Analyst:** MES **Run Date:** 03/29/2014 18:28
Collect Date: 03/27/2014 18:15 **Dilution:** 1 **File ID:** 8M395989
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8	20.8		10.0	2.00
Acetone	67-64-1	18.8		10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q

1,2-Dichloroethane-d4	99.7	70	120	
4-Bromofluorobenzene	96.1	75	120	
Dibromofluoromethane	102	85	115	
Toluene-d8	101	85	120	

Sample #: L14031621-09 **PrePrep Method:** N/A **Instrument:** HPMS7
Client ID: LFMW01MSDGW32714 **Prep Method:** 3510C **Prep Date:** 03/31/2014 11:16
Matrix: Water **Analytical Method:** 8270C **Cal Date:** 03/05/2014 15:52
Workgroup #: WG469379 **Analyst:** CAA **Run Date:** 04/01/2014 15:54
Collect Date: 03/27/2014 18:15 **Dilution:** 1 **File ID:** 7M60740
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3	0.601	J	0.0538	0.0269
Benzo(a)pyrene	50-32-8	0.626	J	0.0538	0.0269
Benzo(b)fluoranthene	205-99-2	0.582	J	0.0538	0.0269
Benzo(k)fluoranthene	207-08-9	0.597	J	0.0538	0.0269
Chrysene	218-01-9	0.700	J	0.0538	0.0269

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	59.2	40	110	
2-Fluorobiphenyl	55.5	50	110	
p-Terphenyl-d14	49.1	50	135	*

J	The reported result is an estimated value.

Sample #: L14031621-09 **PrePrep Method:** N/A **Instrument:** LCMS1
Client ID: LFMW01MSDGW32714 **Prep Method:** 6850 **Prep Date:** 04/02/2014 13:30
Matrix: Water **Analytical Method:** 6850 **Cal Date:** 12/18/2013 19:20
Workgroup #: WG469638 **Analyst:** JWR **Run Date:** 04/02/2014 20:55
Collect Date: 03/27/2014 18:15 **Dilution:** 1 **File ID:** 1LM.LM24185
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0	7.54		0.200	0.100

Sample #: L14031621-09 **PrePrep Method:** N/A **Instrument:** ICP-THERMO2
Client ID: LFMW01MSDGW32714 **Prep Method:** 3015 **Prep Date:** 04/02/2014 08:21
Matrix: Water **Analytical Method:** 6010B **Cal Date:** 04/03/2014 09:11
Workgroup #: WG469838 **Analyst:** QX **Run Date:** 04/03/2014 23:43
Collect Date: 03/27/2014 18:15 **Dilution:** 1 **File ID:** T2.040314.234340
Sample Tag: 01 **Units:** mg/L

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5	6.89		0.200	0.100
Iron, Total	7439-89-6	3.10		0.100	0.0500
Potassium, Total	7440-09-7	33.2		1.00	0.500
Sodium, Total	7440-23-5	34.6		0.500	0.250
Vanadium, Total	7440-62-2	0.633		0.0100	0.00500

Sample #: L14031621-09 **PrePrep Method:** N/A **Instrument:** ICP-THERMO2
Client ID: LFMW01MSDGW32714 **Prep Method:** 3015 **Prep Date:** 04/02/2014 08:21
Matrix: Water **Analytical Method:** 6010B **Cal Date:** 04/07/2014 10:08
Workgroup #: WG469838 **Analyst:** JYH **Run Date:** 04/07/2014 15:49
Collect Date: 03/27/2014 18:15 **Dilution:** 10 **File ID:** T2.040714.154933
Sample Tag: DL01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	97.6		5.00	2.50
Magnesium, Total	7439-95-4	41.0		5.00	2.50

Sample #: L14031621-09 **PrePrep Method:** N/A **Instrument:** ICP-MS2
Client ID: LFMW01MSDGW32714 **Prep Method:** 3015 **Prep Date:** 03/31/2014 09:29
Matrix: Water **Analytical Method:** 6020 **Cal Date:** 04/04/2014 10:40
Workgroup #: WG469374 **Analyst:** JYH **Run Date:** 04/04/2014 11:38
Collect Date: 03/27/2014 18:15 **Dilution:** 1 **File ID:** NI.040414.113844
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2	0.0629		0.00100	0.000500
Barium, Total	7440-39-3	0.124		0.00300	0.00150
Cobalt, Total	7440-48-4	0.0623		0.00100	0.000500
Lead, Total	7439-92-1	0.0626		0.00100	0.000500
Manganese, Total	7439-96-5	0.0671		0.00200	0.00100
Selenium, Total	7782-49-2	0.0627		0.00100	0.000500

Sample #: L14031621-10 **PrePrep Method:** N/A **Instrument:** HPMS8
Client ID: 40TB32714 **Prep Method:** 5030B/5030C/5035A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 8260B **Cal Date:** 03/28/2014 13:48
Workgroup #: WG469134 **Analyst:** MES **Run Date:** 03/29/2014 13:37
Collect Date: 03/27/2014 00:01 **Dilution:** 1 **File ID:** 8M395979
Sample Tag: 01 **Units:** ug/L

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Acetone	67-64-1		U	10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	98.4	70	120	
4-Bromofluorobenzene	93.9	75	120	
Dibromofluoromethane	102	85	115	
Toluene-d8	99.5	85	120	

U	Analyte was not detected. The concentration is below the reported LOD.

2.0 Full Sample Data Package

2.1 Volatiles Data

2.1.1 Volatiles GCMS Data (8260)

2.1.1.1 Summary Data

Login Number: L14031621
Department: Volatiles
Analyst: Mary Schilling

METHOD

Preparation SW-846 5030C/5035A

Analysis SW-846 8260B

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: All acceptance criteria were met.

SAMPLES

Internal Standards: All acceptance criteria were met.

Surrogates: All acceptance criteria were met.

Other: None.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak. In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak. This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline. There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous. Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 80487
Approved By: Michael Albertson

Certificate of Analysis

Sample #:	L14031621-01	**PrePrep Method:**	N/A	**Instrument:**	HPMS8
Client ID:	40MW7GW32714	**Prep Method:**	5030B/5030C/5035A	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	8260B	**Cal Date:**	03/28/2014 13:48
Workgroup #:	WG469134	**Analyst:**	MES	**Run Date:**	03/29/2014 15:05
Collect Date:	03/27/2014 09:57	**Dilution:**	1	**File ID:**	8M395982
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Acetone	67-64-1		U	10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	104	70	120	
4-Bromofluorobenzene	92.8	75	120	
Dibromofluoromethane	104	85	115	
Toluene-d8	99.2	85	120	

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-02	**PrePrep Method:**	N/A	**Instrument:**	HPMS8
Client ID:	40EQR32714	**Prep Method:**	5030B/5030C/5035A	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	8260B	**Cal Date:**	03/28/2014 13:48
Workgroup #:	WG469134	**Analyst:**	MES	**Run Date:**	03/29/2014 15:35
Collect Date:	03/27/2014 10:45	**Dilution:**	1	**File ID:**	8M395983
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Acetone	67-64-1		U	10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	106	70	120	
4-Bromofluorobenzene	95.3	75	120	
Dibromofluoromethane	108	85	115	
Toluene-d8	102	85	120	

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-03	**PrePrep Method:**	N/A	**Instrument:**	HPMS8
Client ID:	40FB32714	**Prep Method:**	5030B/5030C/5035A	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	8260B	**Cal Date:**	03/28/2014 13:48
Workgroup #:	WG469134	**Analyst:**	MES	**Run Date:**	03/29/2014 16:04
Collect Date:	03/27/2014 11:00	**Dilution:**	1	**File ID:**	8M395984
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Acetone	67-64-1		U	10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	104	70	120	
4-Bromofluorobenzene	92.8	75	120	
Dibromofluoromethane	106	85	115	
Toluene-d8	100	85	120	

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-04	**PrePrep Method:**	N/A	**Instrument:**	HPMS8
Client ID:	40MW5GW32714	**Prep Method:**	5030B/5030C/5035A	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	8260B	**Cal Date:**	03/28/2014 13:48
Workgroup #:	WG469134	**Analyst:**	MES	**Run Date:**	03/29/2014 16:33
Collect Date:	03/27/2014 14:02	**Dilution:**	1	**File ID:**	8M395985
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Acetone	67-64-1		U	10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	103	70	120	
4-Bromofluorobenzene	92.0	75	120	
Dibromofluoromethane	104	85	115	
Toluene-d8	99.4	85	120	

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-05	**PrePrep Method:**	N/A	**Instrument:**	HPMS8
Client ID:	40DUPGW32714	**Prep Method:**	5030B/5030C/5035A	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	8260B	**Cal Date:**	03/28/2014 13:48
Workgroup #:	WG469134	**Analyst:**	MES	**Run Date:**	03/29/2014 17:02
Collect Date:	03/27/2014 14:02	**Dilution:**	1	**File ID:**	8M395986
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Acetone	67-64-1		U	10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	105	70	120	
4-Bromofluorobenzene	95.1	75	120	
Dibromofluoromethane	107	85	115	
Toluene-d8	99.9	85	120	

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-06	**PrePrep Method:**	N/A	**Instrument:**	HPMS8
Client ID:	40MW6GW32714	**Prep Method:**	5030B/5030C/5035A	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	8260B	**Cal Date:**	03/28/2014 13:48
Workgroup #:	WG469134	**Analyst:**	MES	**Run Date:**	03/29/2014 18:57
Collect Date:	03/27/2014 15:42	**Dilution:**	1	**File ID:**	8M395990
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Acetone	67-64-1		U	10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	104	70	120	
4-Bromofluorobenzene	93.5	75	120	
Dibromofluoromethane	106	85	115	
Toluene-d8	98.6	85	120	

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-07	**PrePrep Method:**	N/A	**Instrument:**	HPMS8
Client ID:	LFMW01GW32714	**Prep Method:**	5030B/5030C/5035A	**Prep Date:**	N/A
Matrix:	Water	**Analytical Method:**	8260B	**Cal Date:**	03/28/2014 13:48
Workgroup #:	WG469134	**Analyst:**	MES	**Run Date:**	03/29/2014 17:31
Collect Date:	03/27/2014 17:50	**Dilution:**	1	**File ID:**	8M395987
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Acetone	67-64-1		U	10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	103	70	120	
4-Bromofluorobenzene	92.7	75	120	
Dibromofluoromethane	105	85	115	
Toluene-d8	101	85	120	

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #: L14031621-08 **PrePrep Method:** N/A **Instrument:** HPMS8
Client ID: LFMW01MSGW32714 **Prep Method:** 5030B/5030C/5035A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 8260B **Cal Date:** 03/28/2014 13:48
Workgroup #: WG469134 **Analyst:** MES **Run Date:** 03/29/2014 17:59
Collect Date: 03/27/2014 18:15 **Dilution:** 1 **File ID:** 8M395988
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8	20.0		10.0	2.00
Acetone	67-64-1	18.3		10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	102	70	120	
4-Bromofluorobenzene	94.2	75	120	
Dibromofluoromethane	102	85	115	
Toluene-d8	102	85	120	

Sample #: L14031621-09 **PrePrep Method:** N/A **Instrument:** HPMS8
Client ID: LFMW01MSDGW32714 **Prep Method:** 5030B/5030C/5035A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 8260B **Cal Date:** 03/28/2014 13:48
Workgroup #: WG469134 **Analyst:** MES **Run Date:** 03/29/2014 18:28
Collect Date: 03/27/2014 18:15 **Dilution:** 1 **File ID:** 8M395989
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8	20.8		10.0	2.00
Acetone	67-64-1	18.8		10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	99.7	70	120	
4-Bromofluorobenzene	96.1	75	120	
Dibromofluoromethane	102	85	115	
Toluene-d8	101	85	120	

Sample #: L14031621-10 **PrePrep Method:** N/A **Instrument:** HPMS8
Client ID: 40TB32714 **Prep Method:** 5030B/5030C/5035A **Prep Date:** N/A
Matrix: Water **Analytical Method:** 8260B **Cal Date:** 03/28/2014 13:48
Workgroup #: WG469134 **Analyst:** MES **Run Date:** 03/29/2014 13:37
Collect Date: 03/27/2014 00:01 **Dilution:** 1 **File ID:** 8M395979
Sample Tag: 01 **Units:** ug/L

Certificate of Analysis

Analyte	CAS #	Result	Qual	LOQ	LOD
2-Chloroethyl vinyl ether	110-75-8		U	10.0	2.00
Acetone	67-64-1		U	10.0	2.50

Surrogate	Recovery	Lower Limit	Upper Limit	Q
1,2-Dichloroethane-d4	98.4	70	120	
4-Bromofluorobenzene	93.9	75	120	
Dibromofluoromethane	102	85	115	
Toluene-d8	99.5	85	120	

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

2.1.1.2 QC Summary Data

Example 8260 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = [(Ax) (Cis)] / [(Ais) (Cx)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured:	3399156
Cis = Concentration of the specific internal standard (ug/mL)	25
Ais = Area of the characteristic ion of the specific internal standard	846471
Cx = Concentration of the compound in the standard being measured (ug/mL)	100
RF = Calculated Response Factor	**1.0039**

2.0 Calculating the concentration (C) of a compound in water using the average RF: *

Cx = [(Ax) (Cis) (Vn)(D)] / [(Ais) (RF) (Vs)]

where:	**Example**
Ax = Area of the characteristic ion for the compound being measured	**3122498**
Cis = Concentration of the specific internal standard (ug/L)	**25**
D = Dilution factor for sample as a multiplier (10x = 10)	**1**
Ais = Area of the characteristic ion of the specific internal standard	**611048**
RF = Average RF from the ICAL	**1.004**
Vs = Purge volume of sample (mL)	**10**
Vn = Nominal purge volume of sample (mL) (10.0 mL)	**10**
Cx = Concentration of the compound in the sample being measured (ug/L)	**127.2428**

3.0 Calculating the concentration (C) of a compound in soil using the average RF: *

Cx = [(Ax) (Cis) (Wn)(D)] / [(Ais) (RF) (Ws)]

where:	**Example**
Ax = Area of the characteristic ion for the compound being measured	**3122498**
Cis = Concentration of the specific internal standard (ug/L)	**25**
D = Dilution factor for sample as a multiplier (10x = 10)	**1**
Ais = Area of the characteristic ion of the specific internal standard	**611048**
RF = Average RF from the ICAL	**1.004**
Ws = Weight of sample purged (g)	**5**
Wn = Nominal purge weight (g) (5.0 g)	**5**
Cx = Concentration of the compound in the sample being measured (ug/L)	**127.2428**

Dry weight correction:

Percent solids (PCT_S)	**50**
Cd = (Cx) (100)/PCT_S	**254.4856**

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve = 0.213

b = intercept from curve = - 0.00642

Step 2: Calculate y from Quantitation Report

y = 86550/593147 = 0.1459

Step 3: Solve for x

x = (y - b)/m = [(0.1459 -(- 0.00642)]/ 0.213 = 0.7152

Step 4: Solve for analyte concentration Cx

Cx = Cis (x) = (25.0)(0.7152) = 17.88

Example Spreadsheet Calculation:

Slope from curve, m:	**0.213**
Intercept from curve, b:	**-0.00642**
Area of analyte, Ax:	**86550**
Area of Internal Standard , Ais:	**593147**
Concentration of IS, Cis	**25.00**
Response Ratio:	**0.145917**
Amount Ratio:	**0.715195**
Concentration:	**17.87988**
Units of Internal Standard:	**ug/L**

5.0 Concentration from Quadratic Regression

Step 1 - Retrieve Curve Data from Plot, y = Ax^2 + Bx + C
Where:
Ax^2 + Bx + (C - y) = 0
A, B, C = constants from the ICAL quadratic regression
y = Response ratio = Area of analyte/Area of internal standard (IS)
x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

y = Ax/Ais

Step 3: Solve for x using the quadratic formula
Ax^2 + Bx + C - y = 0

$$x = \frac{b \pm \sqrt{\left(b^2 - 4a(c - y)\right)}}{2a}$$ (Two possible solutions)

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(Amount ratio)

Example Spreadsheet Calculation:

Value of A from plot:	**-0.00629**	
Value of B from plot:	**0.511**	
Value of C from plot:	**-0.0276**	
Area of unknown from quantitation report:	**293821**	
Area of IS from quantiation report:	**784848**	
Response ratio, y:	**0.374367**	
C - y:	**-0.40197**	
Root 1 - Computed amount ratio , X1:	**80.44567**	
Root 2 - Computed amount ratio , X2:	**0.794396**	use this solution
Concentration of IS, Cis:	**25.00**	
Concentration of analyte, Cx:	**19.86**	ug/L

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS8 Dataset: 032814
Analyst1: TMB Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 19
Method: 624 SOP: MSV10 Rev: 12
Method: OVAP SOP: MSV01/PAT01 Rev: 0
Maintenance Log ID: 49580

Internal Standard: STD63251 Surrogate Standard: STD63584
CCV: STD63578 LCS: STD63593 MS/MSD: NA

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG468975

Comments:

File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
8M395951	WG468975-01 50ng BFB STD 8260	NA	1	1	STD63150	03/28/14 08:58
8M395952	WG468975-02 0.3ug/L STD 8260	NA	1	1	STD63578	03/28/14 09:23
8M395953	WG468975-03 0.4ug/L STD 8260	NA	1	1	STD63578	03/28/14 09:52
8M395954	WG468975-04 1ug/L STD 8260	NA	1	1	STD63578	03/28/14 10:22
8M395955	WG468975-05 2ug/L STD 8260	NA	1	1	STD63578	03/28/14 10:51
8M395956	WG468975-06 5ug/L STD 8260	NA	1	1	STD63578	03/28/14 11:20
8M395957	WG468975-07 20ug/L STD 8260	NA	1	1	STD63578	03/28/14 11:50
8M395958	WG468975-08 50ug/L STD 8260	NA	1	1	STD63578	03/28/14 12:19
8M395959	WG468975-09 100ug/L STD 8260	NA	1	1	STD63578	03/28/14 12:49
8M395960	WG468975-10 200ug/L STD 8260	NA	1	1	STD63578	03/28/14 13:18
8M395961	WG468975-11 300ug/L STD 8260	NA	1	1	STD63578	03/28/14 13:48
8M395962	RINSE	NA	1	1		03/28/14 14:18
8M395963	RINSE	NA	1	1		03/28/14 14:47
8M395964	WG468975-12 50ug/L ALT SRC STD 8260	NA	1	1	STD63597	03/28/14 15:48

Approved: March 31, 2014

Page: 1

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS8 Dataset: 032914
Analyst1: MES Analyst2: NA
Method: 8260B SOP: MSV01 Rev: 19
Method: 5030B/5030C/5035A SOP: PAT01 Rev: 16

Maintenance Log ID: 49593

Internal Standard: STD63251 Surrogate Standard: STD63593
CCV: STD63578 LCS: STD63597 MS/MSD: STD63597

Column 1 ID: RTX502.2 Column 2 ID: NA
Workgroups: WG469134

Comments:

File ID	Sample Information	pH	Mat	Dil	Reference	Date/Time
8M395974	WG469133-01 50ng BFB STD 8260	NA	1	1	STD63150	03/29/14 11:17
8M395975	WG469133-02 50ug/L WATER CCV 8260	NA	1	1	STD63578	03/29/14 11:40
8M395976	WG469147-01 100ug/L APPIX STD	NA	1	1	STD63100	03/29/14 12:09
8M395977	WG469134-01 BLANK 3/29	NA	1	1		03/29/14 12:38
8M395978	WG469134-02 20ug/L LCS 8260	NA	1	1	STD63597	03/29/14 13:08
8M395979	L14031621-10 A 826-SPE	5	1	1		03/29/14 13:37
8M395980	L14031437-08 A 826-SPE	<2	1	1		03/29/14 14:07
8M395981	L14031498-01 A 826-SPE	<2	1	1		03/29/14 14:36
8M395982	L14031621-01 A 826-SPE	6	1	1		03/29/14 15:05
8M395983	L14031621-02 A 826-SPE	5	1	1		03/29/14 15:35
8M395984	L14031621-03 A 826-SPE	5	1	1		03/29/14 16:04
8M395985	L14031621-04 A 826-SPE	6	1	1		03/29/14 16:33
8M395986	L14031621-05 A 826-SPE	5	1	1		03/29/14 17:02
8M395987	L14031621-07 A 826-SPE	5	1	1		03/29/14 17:31
8M395988	L14031621-08 MS A 826-SPE	6	1	1	STD63597	03/29/14 17:59
8M395989	L14031621-09 MSD A 826-SPE	6	1	1	STD63597	03/29/14 18:28
8M395990	L14031621-06 A 826-SPE	5	1	1		03/29/14 18:57
8M395991	L14031437-01 A 826-SPE	<2	1	1		03/29/14 19:26
8M395992	L14031437-02 A 826-SPE	<2	1	1		03/29/14 19:54
8M395993	L14031437-06 A 826-SPE	<2	1	1		03/29/14 20:23
8M395994	L14031437-07 A 826-SPE	<2	1	1		03/29/14 20:52
8M395995	L14031477-02 10X 826-TC-SPE	NA	17	10		03/29/14 21:21
8M395996	L14031477-03 10X 826-TC-SPE	NA	17	10		03/29/14 21:49
8M395997	L14031538-01 10X 826-TC	NA	17	10		03/29/14 22:17
8M395998	RINSE	NA	1	1		03/29/14 22:46
8M395999	RINSE	NA	1	1		03/29/14 23:14
8M396000	WG468900-01 FBLK 3/27 10X	NA	17	10		03/29/14 23:43
8M396001	WG469055-01 FBLK 3/28 10X	NA	17	10		03/30/14 00:12
8M396002	CCV	NA	1	1		03/30/14 00:41
8M396003	RINSE	NA	1	1		03/30/14 01:09
8M396004	RINSE	NA	1	1		03/30/14 01:38

Approved: March 31, 2014

Page: 1

Microbac Laboratories Inc.

Data Checklist

Date: 28-MAR-2014
Analyst: TMB
Analyst: NA
Method: 8260B/624/OVAP
Instrument: HPMS8
Curve Workgroup: NA
Runlog ID: 59818
Analytical Workgroups: WG468975

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	NA
Samples	X
TCL Hits	X
Spectra of TCL Hits	TMB
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	NA
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
28-MAR-2014
Tiffany Bailey

Secondary Reviewer:
31-MAR-2014

CHECKLIST1 - Modified 03/05/2008
Generated: MAR-31-2014 09:32:46

Microbac Laboratories Inc.

Data Checklist

Date: 29-MAR-2014
Analyst: MES
Analyst: NA
Method: 8260B
Instrument: HPMS8
Curve Workgroup: NA
Runlog ID: 59841
Analytical Workgroups: WG469134

System Performance Check	NA
BFB	X
Initial Calibration	X
Average RF	X
Linear Reg or Higher Order Curve	X
Second Source standard % Difference	X
Continuing Calibration /Check Standards	X
Project/Client Specific Requirements	X
Special Standards	X
Blanks	X
TCL's	X
Surrogates	X
LCS (Laboratory Control Sample)	X
Recoveries	X
Surrogates	X
MS/MSD/Duplicates	X
Samples	X
TCL Hits	X
Spectra of TCL Hits	TMB
Surrogates	X
Internal Standards Criteria	X
Library Searches	NA
Calculations & Correct Factors	X
Dilutions Run	NA
Reruns	NA
Manual Integrations	NA
Case Narrative	X
Results Reporting/Data Qualifiers	X
KOBRA Workgroup Data	X
Check for Completeness	X
Primary Reviewer	TMB
Secondary Reviewer	MDA
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Check the reasonableness of the results	X

Primary Reviewer:
31-MAR-2014
Tiffany Bailey

Secondary Reviewer:
31-MAR-2014

CHECKLIST1 - Modified 03/05/2008
Generated: MAR-31-2014 11:03:23

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8260B **AAB#:** WG469134

Login Number: L14031621

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
40MW7GW32714	01	03/27/14					03/29/2014	2.2	14		03/29/14	2.2	14	
40EQR32714	02	03/27/14					03/29/2014	2.2	14		03/29/14	2.2	14	
40FB32714	03	03/27/14					03/29/2014	2.2	14		03/29/14	2.2	14	
40MW5GW32714	04	03/27/14					03/29/2014	2.1	14		03/29/14	2.1	14	
40DUPGW32714	05	03/27/14					03/29/2014	2.1	14		03/29/14	2.1	14	
40MW6GW32714	06	03/27/14					03/29/2014	2.1	14		03/29/14	2.1	14	
LFMW01GW32714	07	03/27/14					03/29/2014	2	14		03/29/14	2	14	
LFMW01MSGW32714	08	03/27/14					03/29/2014	2	14		03/29/14	2	14	
LFMW01MSDGW32714	09	03/27/14					03/29/2014	2	14		03/29/14	2	14	
40TB32714	10	03/27/14					03/29/2014	2.6	14		03/29/14	2.6	14	

*** = SEE PROJECT QAPP REQUIREMENTS**

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3450472
Report generated 03/31/2014 14:34

Microbac Laboratories Inc.
SURROGATE STANDARDS

Login Number: L14031621 **Method:** 8260
Instrument Id: HPMS8 **CAL ID:** HPMS8-28-MAR-14
Workgroup (AAB#): WG469134 **Matrix:** Water

Sample Number	Dilution	Tag	1	2	3	4
L14031621-01	1.00	01	104	104	92.8	99.2
L14031621-02	1.00	01	106	108	95.3	102
L14031621-03	1.00	01	104	106	92.8	100
L14031621-04	1.00	01	103	104	92.0	99.4
L14031621-05	1.00	01	105	107	95.1	99.9
L14031621-06	1.00	01	104	106	93.5	98.6
L14031621-07	1.00	01	103	105	92.7	101
L14031621-08	1.00	01	102	102	94.2	102
L14031621-09	1.00	01	99.7	102	96.1	101
L14031621-10	1.00	01	98.4	102	93.9	99.5
WG469134-01	1.00	01	100	105	92.1	98.4
WG469134-02	1.00	01	102	101	96.7	101

Surrogates	Surrogate Limits		
1 - 1,2-Dichloroethane-d4	70	-	120
2 - Dibromofluoromethane	85	-	115
3 - 4-Bromofluorobenzene	75	-	120
4 - Toluene-d8	85	-	120

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 3448431
Report generated: 03/31/2014 14:34

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L14031621
Work Group: WG469134
Blank File ID: 8M395977
Blank Sample ID: WG469134-01
Prep Date: 03/29/14 12:38
Instrument ID: HPMS8
Analyzed Date: 03/29/14 12:38
Method: 8260B
Analyst: MES

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG469134-02	8M395978	03/29/14 13:08	01
40TB32714	L14031621-10	8M395979	03/29/14 13:37	01
40MW7GW32714	L14031621-01	8M395982	03/29/14 15:05	01
40EQR32714	L14031621-02	8M395983	03/29/14 15:35	01
40FB32714	L14031621-03	8M395984	03/29/14 16:04	01
40MW5GW32714	L14031621-04	8M395985	03/29/14 16:33	01
40DUPGW32714	L14031621-05	8M395986	03/29/14 17:02	01
LFMW01GW32714	L14031621-07	8M395987	03/29/14 17:31	01
LFMW01MSGW32714	L14031621-08	8M395988	03/29/14 17:59	01
LFMW01MSDGW32714	L14031621-09	8M395989	03/29/14 18:28	01
40MW6GW32714	L14031621-06	8M395990	03/29/14 18:57	01

Report Name: BLANK_SUMMARY
PDF File ID: 3450473
Report generated 03/31/2014 14:34

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L14031621 Prep Date: 03/29/14 12:38 Sample ID: WG469134-01
Instrument ID: HPMS8 Run Date: 03/29/14 12:38 Prep Method: 5030B/5030C/503
File ID: 8M395977 Analyst: MES Method: 8260B
Workgroup (AAB#): WG469134 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS8-28-MAR-14

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
2-Chloroethyl vinyl ether	2.00	10.0	2.00	1	U
Acetone	2.50	10.0	2.50	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	100	70 - 120	PASS
4-Bromofluorobenzene	92.1	75 - 120	PASS
Dibromofluoromethane	105	85 - 115	PASS
Toluene-d8	98.4	85 - 120	PASS

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3450474
31-MAR-2014 14:34

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L14031621	Run Date: 03/29/2014	Sample ID: WG469134-02
Instrument ID: HPMS8	Run Time: 13:08	Prep Method: 5030B/5030C/503
File ID: 8M395978	Analyst: MES	Method: 8260B
Workgroup (AAB#): WG469134	Matrix: Water	Units: ug/L
QC Key: DOD4	Lot#: STD63597	Cal ID: HPMS8-28-MAR-14

Analytes	Expected	Found	% Rec	LCS Limits	Q
2-Chloroethyl vinyl ether	20.0	21.1	106	45 - 160	
Acetone	20.0	20.5	103	40 - 140	

Surrogates	% Recovery	Surrogate Limits	Qualifier
1,2-Dichloroethane-d4	102	70 - 120	PASS
4-Bromofluorobenzene	96.7	75 - 120	PASS
Dibromofluoromethane	101	85 - 115	PASS
Toluene-d8	101	85 - 120	PASS

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 3448427
Report generated: 03/31/2014 14:34

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L14031621 Cal ID: HPMS8- 28-MAR-14 Worknum: WG469134

Instrument ID: HPMS8 Contract #: Prep Method: 5030B/5030C/

Parent ID: L14031621-07 File ID: 8M395987 Dil: 1 Method: 5035A

Sample ID: L14031621-08 MS File ID: 8M395988 Dil: 1 Matrix: 8260B

Sample ID: L14031621-09 MSD File ID: 8M395989 Dil: 1 Units: Water

ug/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
2-Chloroethyl vinyl ether	U	20.0	20.0	100	20.0	20.8	104	3.84	58 - 160	20	
Acetone	U	20.0	18.3	91.5	20.0	18.8	94.1	2.78	40 - 140	30	

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008

PDF File ID: 3448428

Report generated 03/31/2014 14:34

BFB

Login Number: L14031621
Instrument: HPMS8
Analyst: TMB
Workgroup: WG468975

Tune ID: WG468975-01
Run Date: 03/28/2014
Run Time: 08:58
File ID: 8M395951
Cal ID: HPMS8 -

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	20.7	5852	PASS
75.0	95.0	30.0	60.0	42.8	12123	PASS
95.0	95.0	100	100	100	28312	PASS
96.0	95.0	5.00	9.00	6.99	1980	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	89.2	25266	PASS
175	174	5.00	9.00	7.00	1768	PASS
176	174	95.0	101	96.6	24400	PASS
177	176	5.00	9.00	7.06	1722	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG468975-02	STD	01	03/28/2014 09:23	
WG468975-03	STD	01	03/28/2014 09:52	
WG468975-04	STD	01	03/28/2014 10:22	
WG468975-05	STD	01	03/28/2014 10:51	
WG468975-06	STD	01	03/28/2014 11:20	
WG468975-07	STD	01	03/28/2014 11:50	
WG468975-08	STD-CCV	01	03/28/2014 12:19	
WG468975-09	STD	01	03/28/2014 12:49	
WG468975-10	STD	01	03/28/2014 13:18	
WG468975-11	STD	01	03/28/2014 13:48	
WG468975-12	SSCV	01	03/28/2014 15:48	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 3450475
Report generated 03/31/2014 14:34

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

BFB

Login Number: L14031621
Instrument: HPMS8
Analyst: MES
Workgroup: WG469133

Tune ID: WG469133-01
Run Date: 03/29/2014
Run Time: 11:17
File ID: 8M395974
Cal ID: HPMS8-28-MAR-14

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50.0	95.0	15.0	40.0	20.8	5210	PASS
75.0	95.0	30.0	60.0	44.9	11237	PASS
95.0	95.0	100	100	100	25052	PASS
96.0	95.0	5.00	9.00	6.67	1671	PASS
173	174	0	2.00	0	0	PASS
174	95.0	50.0	100	87.1	21812	PASS
175	174	5.00	9.00	7.92	1728	PASS
176	174	95.0	101	96.5	21044	PASS
177	176	5.00	9.00	5.98	1259	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG469133-02	CCV	01	03/29/2014 11:40	
WG469134-01	BLANK	01	03/29/2014 12:38	
WG469134-02	LCS	01	03/29/2014 13:08	
L14031621-10	40TB32714	01	03/29/2014 13:37	
L14031621-01	40MW7GW32714	01	03/29/2014 15:05	
L14031621-02	40EQR32714	01	03/29/2014 15:35	
L14031621-03	40FB32714	01	03/29/2014 16:04	
L14031621-04	40MW5GW32714	01	03/29/2014 16:33	
L14031621-05	40DUPGW32714	01	03/29/2014 17:02	
L14031621-07	LFMW01GW32714	01	03/29/2014 17:31	
L14031621-08	LFMW01MSGW32714	01	03/29/2014 17:59	
L14031621-09	LFMW01MSDGW32714	01	03/29/2014 18:28	
L14031621-06	40MW6GW32714	01	03/29/2014 18:57	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 3450475
Report generated 03/31/2014 14:34

Calibration Table Report
Method: 8260WTR.M
Title: Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Calibration: Fri Mar 28 14:25:01 2014
Curve: WG468975
Calibration Files

	Compound	0.3 8M395952.D	0.4 8M395953.D	1 8M395954.D	2 8M395955.D	5 8M395956.D	20 8M395957.D	50 8M395958.D	100 8M395959.D	200 8M395960.D	300 8M395961.D	Avg	%RSD	Linear	Quad
I	Fluorobenzene	ISTD													
T	Dichlorodifluoromethane			0.228	0.198	0.188	0.238	0.241	0.221	0.225	0.225	0.221	8.358		
P	Chloromethane			0.528	0.482	0.410	0.456	0.435	0.401	0.376	0.337	0.428	14.151		
C	Vinyl Chloride		0.297	0.325	0.299	0.269	0.315	0.291	0.272	0.267	0.243	0.286	9.035		
T	1,3-Butadiene					0.229	0.246	0.178	0.131	0.132	0.122	0.173	31.040		0.998
T	Bromomethane			0.188	0.176	0.167	0.182	0.176	0.178	0.183	0.198	0.181	5.168		
T	Chloroethane			0.180	0.178	0.166	0.195	0.185	0.178	0.177	0.193	0.182	5.100		
T	Trichlorofluoromethane		0.318	0.351	0.345	0.314	0.357	0.340	0.324	0.345	0.367	0.340	5.316		
T	Diethyl ether			0.153	0.157	0.148	0.152	0.145	0.147		0.148	0.150	2.718		
T	Isoprene					0.272	0.282	0.304	0.301	0.309	0.291	0.293	4.765		
T	Acrolein				0.003	0.004	0.004	0.004	0.005		0.007	0.004	31.181		0.999
T	1,1,2-Trichloro-1,2,2-Trifluoroethane			0.226	0.224	0.206	0.227	0.229	0.211	0.219	0.217	0.220	3.765		
T	Acetone					0.032	0.034	0.037	0.035	0.036	0.037	0.035	5.728		
C	1,1-Dichloroethene		0.321	0.352	0.328	0.310	0.351	0.335	0.325	0.331	0.334	0.332	4.041		
T	Tert-Butyl Alcohol				0.010	0.010	0.010	0.010	0.010		0.011	0.010	3.681		
T	Dimethyl Sulfide					0.165	0.185	0.186	0.189	0.190	0.183	0.183	5.024		
T	Iodomethane			0.158	0.171	0.182	0.213	0.226	0.227	0.223	0.213	0.202	13.506		
T	Methyl acetate					0.103	0.100	0.099	0.097	0.099	0.104	0.100	2.720		
T	Methylene Chloride			0.241	0.234	0.213	0.236	0.223	0.217	0.215	0.207	0.223	5.615		
T	Carbon Disulfide			0.760	0.715	0.676	0.708	0.746	0.745	0.733	0.676	0.720	4.408		
T	Acrylonitrile			0.045	0.049	0.046	0.050	0.052	0.054		0.061	0.051	10.605		
T	Methyl Tert Butyl Ether			0.360	0.387	0.372	0.441	0.437	0.432	0.439	0.434	0.413	8.199		
T	trans-1,2-Dichloroethene		0.325	0.345	0.324	0.313	0.347	0.331	0.331	0.334	0.321	0.330	3.345		
T	n-Hexane					0.318	0.315	0.344	0.323	0.323	0.311	0.322	3.602		
T	Diisopropyl ether			0.857	0.891	0.843	0.857	0.855	0.839		0.791	0.848	3.528		
T	Vinyl Acetate					0.345	0.331	0.328	0.323	0.296	0.315	0.323	5.110		
P	1,1-Dichloroethane		0.420	0.411	0.402	0.388	0.431	0.410	0.409	0.411	0.393	0.408	3.155		
T	Ethyl-Tert-Butyl ether			0.669	0.696	0.656	0.682	0.684	0.680		0.669	0.677	1.921		
T	2-Butanone					0.054	0.060	0.065	0.062	0.063	0.063	0.061	5.868		
T	Propionitrile				0.019	0.017	0.018	0.019	0.019		0.021	0.019	6.352		
T	2,2-Dichloropropane		0.323	0.386	0.345	0.330	0.351	0.342	0.334	0.334	0.317	0.340	5.938		
T	cis-1,2-Dichloroethene		0.216	0.233	0.246	0.239	0.269	0.254	0.257	0.258	0.251	0.247	6.410		
C	Chloroform	0.406	0.385	0.438	0.377	0.372	0.403	0.388	0.385	0.385	0.374	0.391	5.027		
T	1-Bromopropane			0.039	0.044	0.043	0.047	0.049	0.049	0.049	0.049	0.046	8.399		
T	Bromochloromethane		0.127	0.136	0.151	0.136	0.150	0.144	0.144	0.147	0.145	0.142	5.449		
T	Tetrahydrofuran			0.033	0.036	0.034	0.037	0.036	0.036		0.038	0.036	4.897		
S	Dibromofluoromethane			0.207	0.235	0.236	0.227	0.232	0.230	0.235	0.233	0.229	4.061		
T	1,1,1-Trichloroethane		0.345	0.380	0.363	0.355	0.396	0.385	0.377	0.380	0.363	0.371	4.280		
T	Cyclohexane			0.449	0.442	0.418	0.428	0.472	0.445	0.449	0.422	0.440	3.968		
T	1,1-Dichloropropene			0.313	0.292	0.279	0.328	0.324	0.314	0.313	0.297	0.307	5.384		
T	Tert-Amyl-Methyl ether			0.474	0.504	0.473	0.492	0.490	0.488		0.485	0.487	2.184		
T	Carbon Tetrachloride		0.309	0.334	0.331	0.305	0.357	0.35	0.345	0.35	0.334	0.3349	5.43737		
S	1,2-Dichloroethane-d4			0.184	0.189	0.19	0.188	0.187	0.185	0.189	0.185	0.187	1.16809		
T	Heptane											0	0		
T	1,2-Dichloroethane		0.248	0.262	0.257	0.245	0.265	0.259	0.254	0.254	0.246	0.2545	2.75397		
T	Benzene		0.943	0.993	0.935	0.893	0.966	0.945	0.91	0.868	0.802	0.9173	6.2586		
T	Trichloroethene		0.239	0.28	0.258	0.243	0.288	0.283	0.28	0.28	0.268	0.2687	6.79173		
T	Methylcyclohexane					0.311	0.326	0.36	0.338	0.341	0.334	0.3352	4.85953		
C	1,2-Dichloropropane		0.213	0.25	0.233	0.23	0.259	0.252	0.248	0.242	0.231	0.2398	5.91603		
T	Bromodichloromethane		0.254	0.267	0.276	0.277	0.309	0.311	0.305	0.303	0.292	0.2882	7.12113		
T	1,4-Dioxane				0.001	0.001	0.001	0.001	0.001		0.001	0.0011	10.9241		
T	Dibromomethane		0.112	0.099	0.111	0.108	0.12	0.121	0.117	0.119	0.116	0.1135	6.23009		
T	2-Chloroethyl Vinyl Ether				0.087	0.088	0.109	0.118	0.113	0.113	0.111	0.1057	11.9365		
T	4-Methyl-2-Pentanone					0.048	0.056	0.063	0.057	0.057	0.057	0.0564	8.84497		
T	cis-1,3-Dichloropropene		0.311	0.304	0.317	0.314	0.366	0.364	0.355	0.351	0.338	0.3356	7.24636		

T	Dimethyl Disulfide					0.278	0.358	0.409	0.406	0.41	0.402	0.377	13.8333	
I	Chlorobenzene-d5	ISTD												
S	Toluene-d8			0.98	1.023	1.045	1.007	1.025	1	0.999	0.933	1.0015	3.3714	
C	Toluene		1.153	1.26	1.23	1.229	1.319	1.268	1.225	1.171	1.044	1.2109	6.60695	
T	Ethyl Methacrylate			0.189	0.198	0.198	0.239	0.275	0.248	0.251	0.242	0.2301	13.5396	
T	Paraldehyde											0	0	
T	trans-1,3-Dichloropropene			0.315	0.342	0.335	0.368	0.37	0.363	0.364	0.343	0.3499	5.54834	
T	1,1,2-Trichloroethane		0.165	0.183	0.201	0.187	0.207	0.209	0.202	0.203	0.195	0.1946	7.21144	
T	2-Hexanone					0.049	0.065	0.072	0.066	0.066	0.063	0.0632	12.1565	
T	1,3-Dichloropropane		0.27	0.31	0.319	0.318	0.338	0.34	0.327	0.327	0.309	0.3177	6.54976	
T	Tetrachloroethene		0.246	0.289	0.283	0.27	0.295	0.289	0.283	0.286	0.27	0.2789	5.34454	
T	Dibromochloromethane		0.193	0.221	0.23	0.236	0.278	0.279	0.276	0.282	0.27	0.2517	12.9119	
T	1,2-Dibromoethane		0.173	0.185	0.197	0.183	0.211	0.208	0.205	0.209	0.2	0.1967	6.79795	
T	1-Chlorohexane		0.333	0.342	0.37	0.365	0.394	0.426	0.406	0.41	0.381	0.3806	8.24256	
P	Chlorobenzene		0.912	0.899	0.893	0.855	0.906	0.877	0.856	0.829	0.758	0.8651	5.60232	
T	1,1,1,2-Tetrachloroethane		0.276	0.298	0.296	0.29	0.327	0.322	0.32	0.325	0.303	0.3064	5.89123	
C	Ethylbenzene		0.417	0.464	0.443	0.45	0.48	0.468	0.46	0.449	0.413	0.4492	4.96575	
T	m-,p-Xylene		0.506	0.573	0.565	0.536	0.577	0.556	0.541	0.512	0.456	0.5358	7.28959	
T	o-Xylene			0.521	0.495	0.513	0.573	0.562	0.546	0.536	0.5	0.5308	5.35161	
T	Styrene		0.735	0.804	0.824	0.839	0.952	0.942	0.915	0.885	0.81	0.8563	8.40717	
P	Bromoform			0.138	0.159	0.156	0.187	0.194	0.19	0.197	0.195	0.1768	12.7698	
T	Isopropylbenzene		1.102	1.286	1.269	1.274	1.405	1.384	1.323	1.254	1.129	1.2696	8.00202	
I	1,4-Dichlorobenzene-d4	ISTD												
P	1,1,2,2-Tetrachloroethane		0.362	0.347	0.36	0.344	0.372	0.376	0.358	0.358	0.34	0.3573	3.37907	
S	p-Bromofluorobenzene			0.629	0.724	0.702	0.698	0.727	0.71	0.725	0.668	0.6979	4.86511	
T	1,2,3-Trichloropropane			0.089	0.092	0.101	0.112	0.113	0.11	0.113	0.103	0.104	9.11845	
T	trans-1,4-Dichloro-2-Butene			0.074	0.096	0.097	0.11	0.145	0.124	0.116	0.102	0.1077	19.6371	0.998
T	n-Propylbenzene		2.482	2.655	2.685	2.683	2.937	2.894	2.723	2.529	2.03	2.6243	10.1835	
T	Bromobenzene	0.717	0.562	0.688	0.694	0.657	0.711	0.709	0.686	0.687	0.604	0.6715	7.55704	
T	1,3,5-Trimethylbenzene		1.628	1.767	1.85	1.848	2.035	2.036	1.953	1.875	1.579	1.8413	8.77237	
T	2-Chlorotoluene		1.719	1.856	1.811	1.808	1.903	1.884	1.793	1.622	1.335	1.7479	10.1356	
T	4-Chlorotoluene		1.653	1.612	1.708	1.606	1.719	1.678	1.636	1.673	1.408	1.6327	5.68579	
T	a-Methylstyrene					1.004	1.099	1.258	1.165	1.134	0.976	1.106	9.44453	
T	tert-Butylbenzene			0.405	0.417	0.42	0.454	0.456	0.442	0.445	0.388	0.4284	5.73932	
T	1,2,4-Trimethylbenzene			1.848	1.938	1.945	2.07	2.071	1.984	1.891	1.588	1.9169	8.03915	
T	sec-Butylbenzene			2.23	2.214	2.184	2.397	2.374	2.246	2.121	1.921	2.211	6.75024	
T	p-Isopropyltoluene			1.867	1.917	1.905	2.098	2.09	1.995	1.902	1.711	1.9357	6.52244	
T	1,3-Dichlorobenzene		1.214	1.295	1.288	1.193	1.289	1.282	1.235	1.199	1.121	1.2351	4.79751	
T	1,4-Dichlorobenzene	1.46	1.29	1.303	1.31	1.233	1.303	1.285	1.235	1.192	1.129	1.274	6.85721	
T	n-Butylbenzene			1.678	1.642	1.653	1.774	1.769	1.68	1.598	1.499	1.6615	5.36845	
T	1,2-Dichlorobenzene	1.209	1.223	1.145	1.111	1.091	1.171	1.159	1.108	1.082	1.014	1.1312	5.563	
T	1,2-Dibromo-3-Chloropropane				0.053	0.049	0.057	0.062	0.059	0.06	0.061	0.0573	8.25003	
T	1,2,4-Trichlorobenzene		0.815	0.806	0.78	0.752	0.823	0.843	0.81	0.798	0.759	0.7985	3.72689	
T	Hexachlorobutadiene		0.307	0.328	0.314	0.295	0.333	0.328	0.317	0.319	0.298	0.3157	4.25432	
T	Naphthalene		0.927	0.979	1.016	1.004	1.187	1.232	1.176	1.171	1.123	1.0907	10.0642	
T	1,2,3-Trichlorobenzene	0.745	0.658	0.678	0.715	0.653	0.714	0.72	0.687	0.679	0.653	0.6901	4.65069	

Fri Mar 28 14:37:06 2014

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L14031621 Run Date: 03/28/2014 Sample ID: WG468975-12
Instrument ID: HPMS8 Run Time: 15:48 Method: 8260B
File ID: 8M395964 Analyst: TMB QC Key: DOD4
ICal Workgroup: WG468975 Cal ID: HPMS8 - 28-MAR-14

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Chloromethane	SPCC	50.0	44.6	ug/L	0.382	10.8	20	
1,1-Dichloroethane	SPCC	50.0	49.9	ug/L	0.408	0.100	20	
Chlorobenzene	SPCC	50.0	47.4	ug/L	0.819	5.30	20	
Bromoform	SPCC	50.0	52.1	ug/L	0.184	4.10	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	50.3	ug/L	0.359	0.500	20	
2-Chloroethyl Vinyl Ether		50.0	51.7	ug/L	0.109	3.30	30	
Acetone		50.0	50.7	ug/L	0.0357	1.40	20	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 3448429
Report generated 03/31/2014 14:34

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 03/29/2014 Sample ID: WG469133-02
Instrument ID: HPMS8 Run Time: 11:40 Method: 8260B
File ID: 8M395975 Analyst: MES QC Key: DOD4
Workgroup (AAB#): WG469134 Cal ID: HPMS8 - 28-MAR-14
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
1,1-Dichloroethene	CCC	50.0	55.0	ug/L	0.365	9.91	20	
1,2-Dichloropropane	CCC	50.0	53.7	ug/L	0.258	7.43	20	
Chloroform	CCC	50.0	51.9	ug/L	0.406	3.85	20	
Ethylbenzene	CCC	50.0	55.8	ug/L	0.502	11.7	20	
Toluene	CCC	50.0	56.1	ug/L	1.36	12.1	20	
Vinyl Chloride	CCC	50.0	54.7	ug/L	0.314	9.50	20	
1,1,2,2-Tetrachloroethane	SPCC	50.0	50.2	ug/L	0.359	0.344	20	
1,1-Dichloroethane	SPCC	50.0	53.1	ug/L	0.433	6.14	20	
Bromoform	SPCC	50.0	50.2	ug/L	0.178	0.458	20	
Chlorobenzene	SPCC	50.0	53.7	ug/L	0.928	7.33	20	
Chloromethane	SPCC	50.0	52.8	ug/L	0.453	5.69	20	
2-Chloroethyl Vinyl Ether		50.0	48.7	ug/L	0.103	2.53	40	
Acetone		50.0	43.2	ug/L	0.0305	13.5	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 3448430
Report generated 03/31/2014 14:34

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L14031621
Instrument ID: HPMS8
Workgroup (AAB#): WG469134

ICAL CCV Number: WG468975-08
CAL ID: HPMS8-28-MAR-14
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG468975-08	NA	NA	385818	668923	798177
Upper Limit	NA	NA	771636	1337846	1596354
Lower Limit	NA	NA	192909	334462	399089
L14031621-01	1.00	01	355976	607090	690241
L14031621-02	1.00	01	348107	594895	674452
L14031621-03	1.00	01	349665	597822	681012
L14031621-04	1.00	01	349066	594439	676612
L14031621-05	1.00	01	339266	584888	660317
L14031621-06	1.00	01	352946	605339	685605
L14031621-07	1.00	01	340170	581647	651905
L14031621-08	1.00	01	354112	603535	689695
L14031621-09	1.00	01	358979	615782	692799
L14031621-10	1.00	01	359608	619123	703480
WG469134-01	1.00	01	372224	629220	705375
WG469134-02	1.00	01	381110	660574	767445

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 3450476
Report generated 03/31/2014 14:34

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L14031621
Instrument ID: HPMS8
Workgroup (AAB#): WG469134

ICAL CCV Number: WG468975-08
CAL ID: HPMS8-28-MAR-14
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3
WG468975-08	NA	NA	17.9	14.87	11
Upper Limit	NA	NA	18.4	15.37	11.5
Lower Limit	NA	NA	17.4	14.37	10.5
L14031621-01	1.00	01	17.91	14.88	11
L14031621-02	1.00	01	17.9	14.87	11
L14031621-03	1.00	01	17.9	14.87	11
L14031621-04	1.00	01	17.9	14.88	11
L14031621-05	1.00	01	17.9	14.88	11
L14031621-06	1.00	01	17.91	14.88	11
L14031621-07	1.00	01	17.91	14.88	11
L14031621-08	1.00	01	17.9	14.88	11
L14031621-09	1.00	01	17.9	14.88	11
L14031621-10	1.00	01	17.91	14.88	11
WG469134-01	1.00	01	17.91	14.88	11
WG469134-02	1.00	01	17.91	14.88	11

IS-1 - 1,4-Dichlorobenzene-d4
IS-2 - Chlorobenzene-d5
IS-3 - Fluorobenzene

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 3450477
Report generated: 03/31/2014 14:34

2.1.1.3 Sample Data

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395982.D Vial: 9
Acq On : 29 Mar 2014 15:05 Operator: MES
Sample : L14031621-01 A 826-SPE Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 08:20:12 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

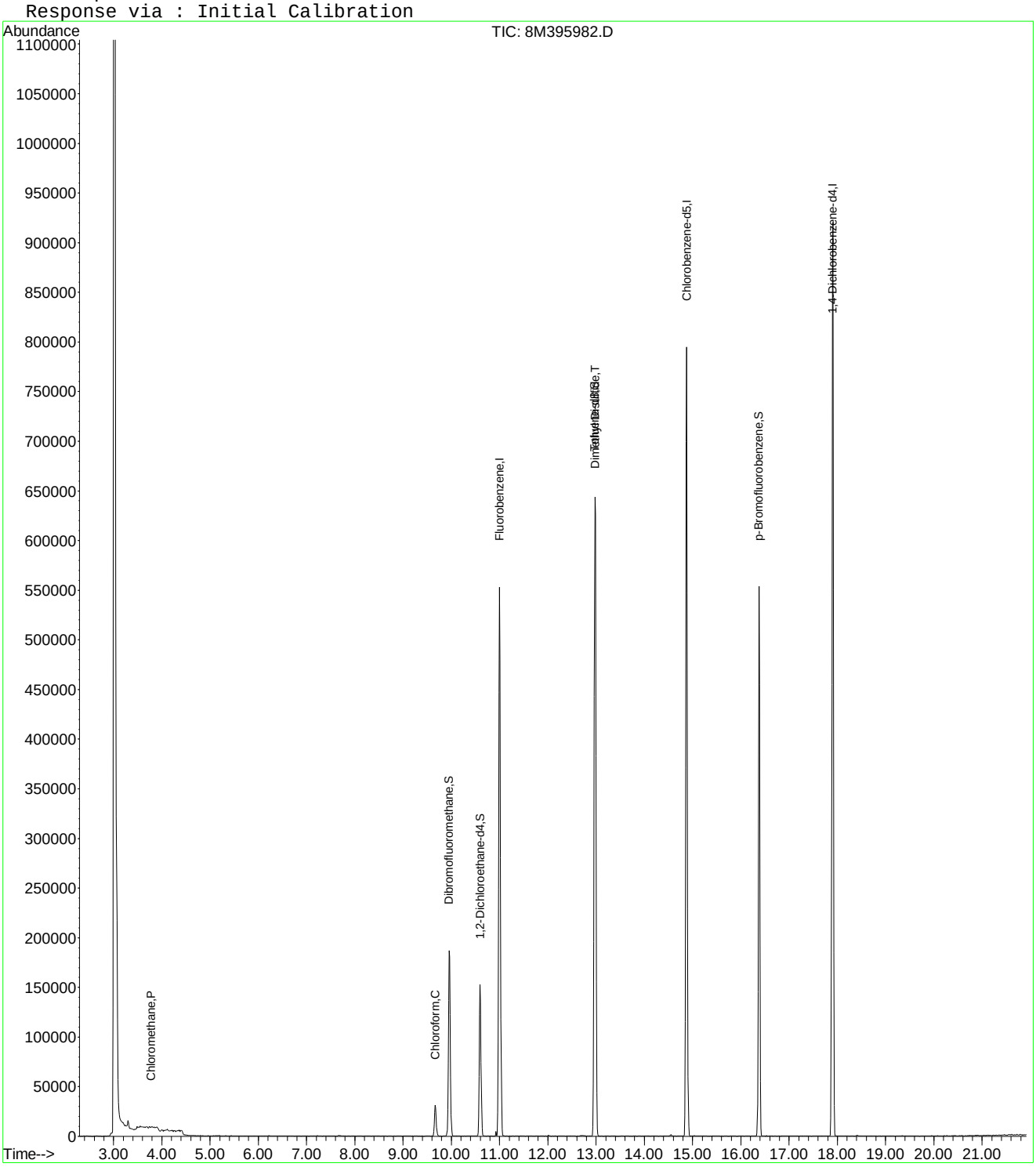
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.00	96	690241	25.00	ug/L	0.00
57) Chlorobenzene-d5	14.88	117	607090	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.91	152	355976	25.00	ug/L	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	9.95	111	164039	25.8922	ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 103.56%			
43) 1,2-Dichloroethane-d4	10.60	65	134006	25.9529	ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 103.80%			
58) Toluene-d8	12.97	98	603444	24.8123	ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 99.24%			
80) p-Bromofluorobenzene	16.38	95	230653	23.2115	ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 92.84%			
Target Compounds						Qvalue
3) Chloromethane	3.78	50	1551	0.1312	ug/L #	75
33) Chloroform	9.67	83	35296	3.2663	ug/L	95
56) Dimethyl Disulfide	12.98	94	17015	1.6347	ug/L #	27

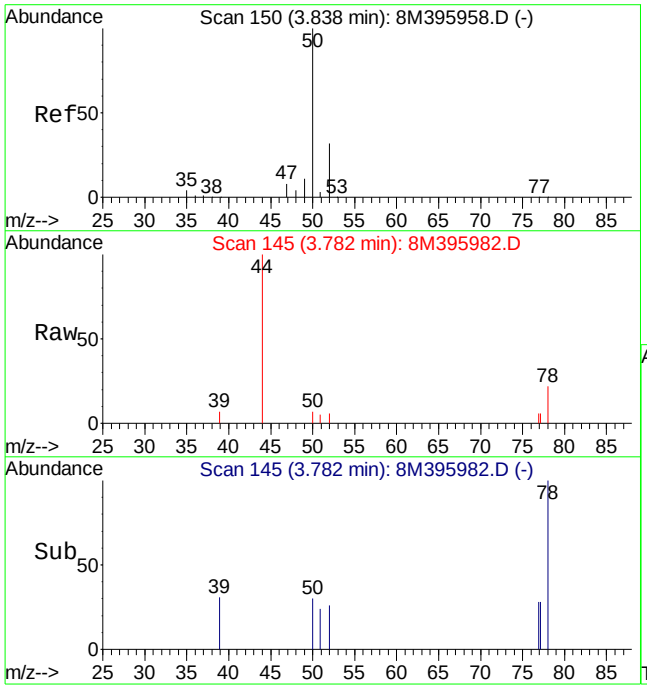
(#) = qualifier out of range (m) = manual integration
8M395982.D 8260WTR.M Mon Mar 31 08:20:13 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395982.D Vial: 9
Acq On : 29 Mar 2014 15:05 Operator: MES
Sample : L14031621-01 A 826-SPE Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 8:20 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration

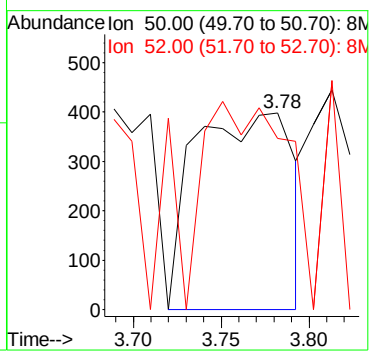


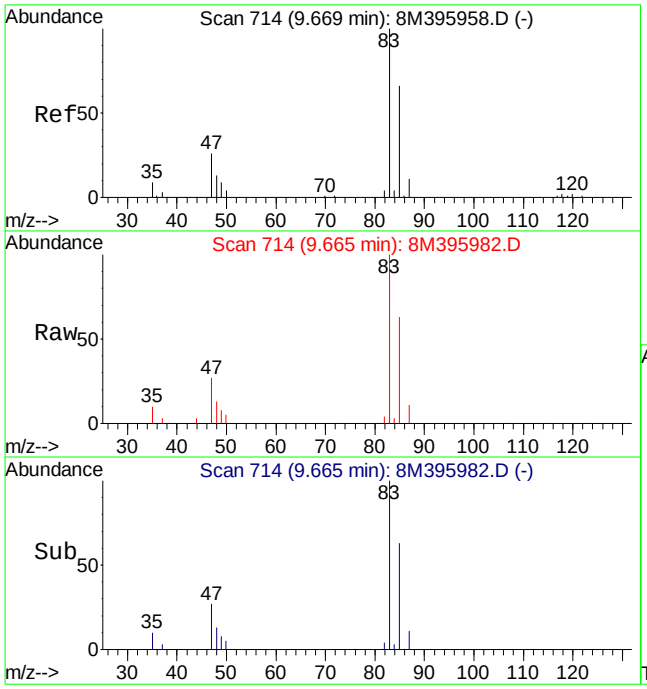


#3
Chloromethane
Concen: 0.13 ug/L
RT: 3.78 min Scan# 145
Delta R.T. -0.06 min
Lab File: 8M395982.D
Acq: 29 Mar 2014 15:05

Tgt Ion: 50 Resp: 1551

Ion	Ratio	Lower	Upper
50	100		
52	18.6	19.6	45.6#

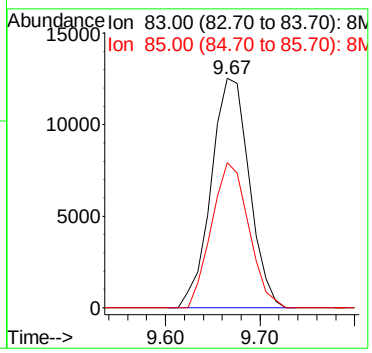


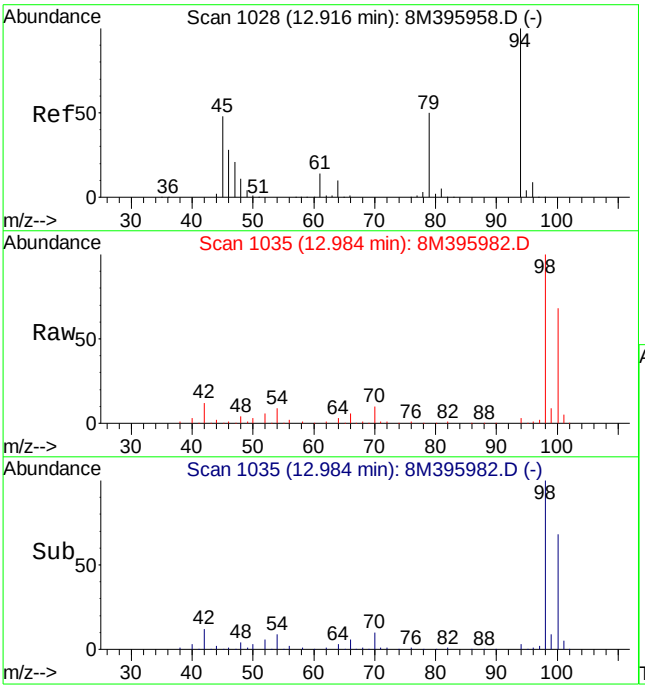


#33
Chloroform
Concen: 3.27 ug/L
RT: 9.67 min Scan# 714
Delta R.T. -0.00 min
Lab File: 8M395982.D
Acq: 29 Mar 2014 15:05

Tgt Ion: 83 Resp: 35296

Ion	Ratio	Lower	Upper
83	100		
85	61.7	39.5	92.3

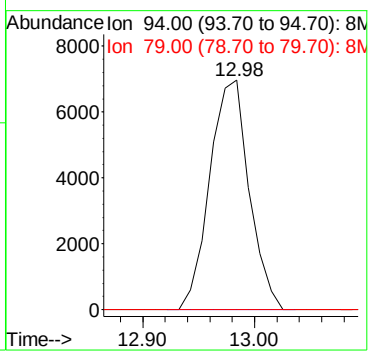




#56
Dimethyl Disulfide
Concen: 1.63 ug/L
RT: 12.98 min Scan# 1035
Delta R.T. 0.06 min
Lab File: 8M395982.D
Acq: 29 Mar 2014 15:05

Tgt Ion: 94 Resp: 17015

Ion	Ratio	Lower	Upper
94	100		
79	0.0	30.4	70.8#



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395983.D Vial: 10
Acq On : 29 Mar 2014 15:35 Operator: MES
Sample : L14031621-02 A 826-SPE Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 08:20:13 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

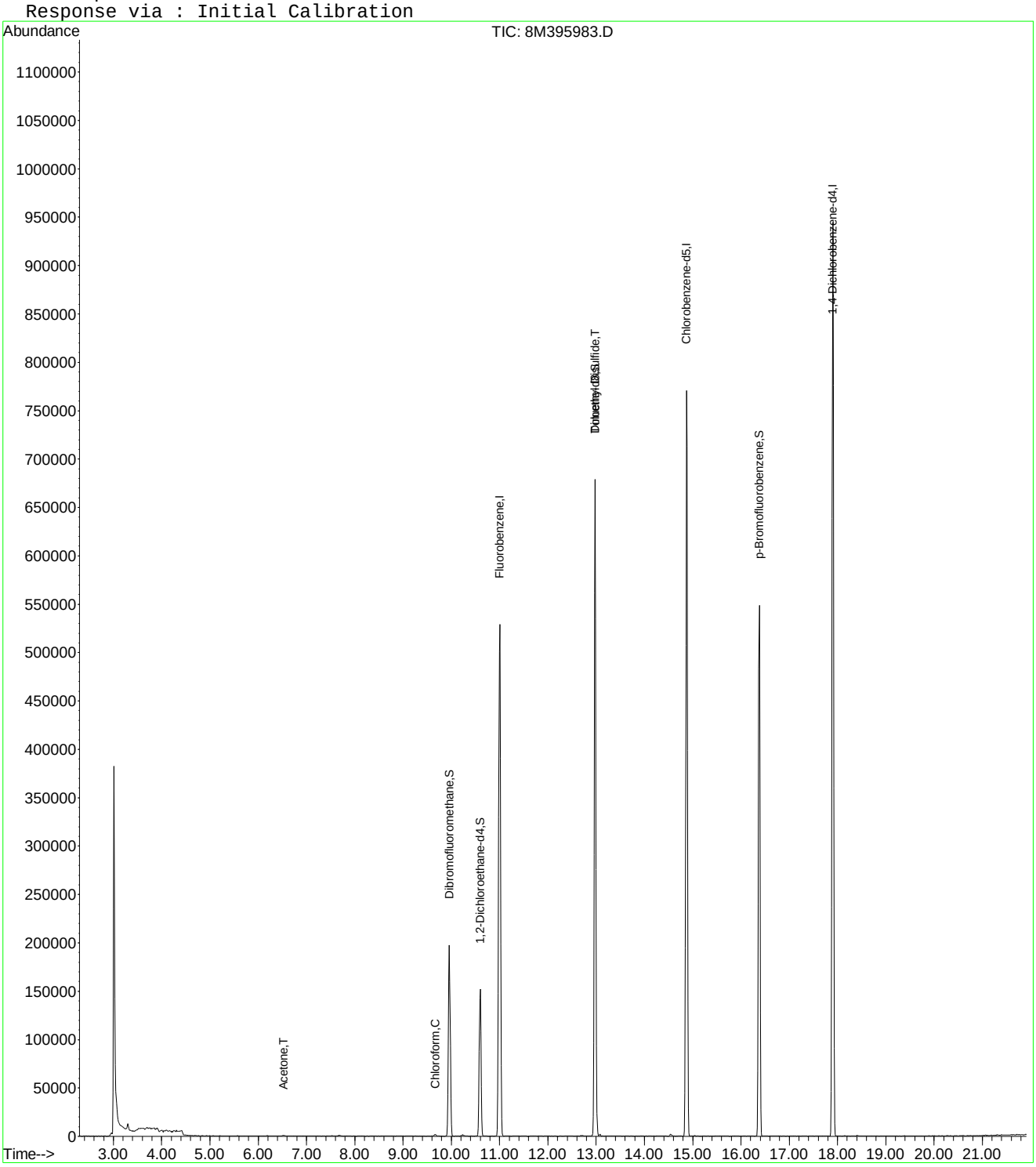
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.00	96	674452	25.00	ug/L	0.00
57) Chlorobenzene-d5	14.87	117	594895	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.90	152	348107	25.00	ug/L	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	9.96	111	166817	26.9471	ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 107.80%			
43) 1,2-Dichloroethane-d4	10.60	65	133645	26.4889	ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 105.96%			
58) Toluene-d8	12.98	98	606384	25.4443	ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 101.76%			
80) p-Bromofluorobenzene	16.38	95	231538	23.8273	ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 95.32%			
Target Compounds						Qvalue
13) Acetone	6.53	43	1373	1.4443	ug/L #	46
33) Chloroform	9.67	83	2707	0.2564	ug/L	78
56) Dimethyl Disulfide	12.98	94	16386	1.6111	ug/L #	27

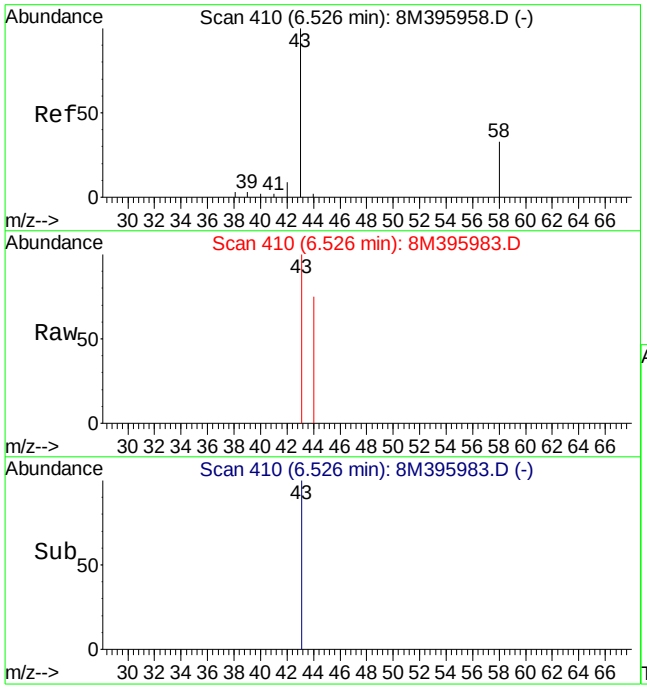
(#) = qualifier out of range (m) = manual integration
8M395983.D 8260WTR.M Mon Mar 31 08:20:14 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395983.D Vial: 10
Acq On : 29 Mar 2014 15:35 Operator: MES
Sample : L14031621-02 A 826-SPE Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 8:20 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration

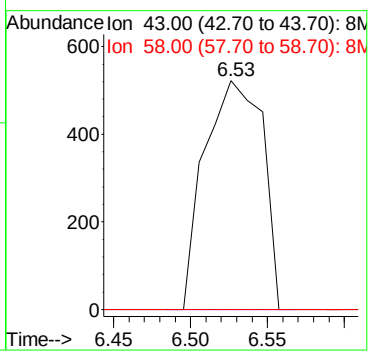


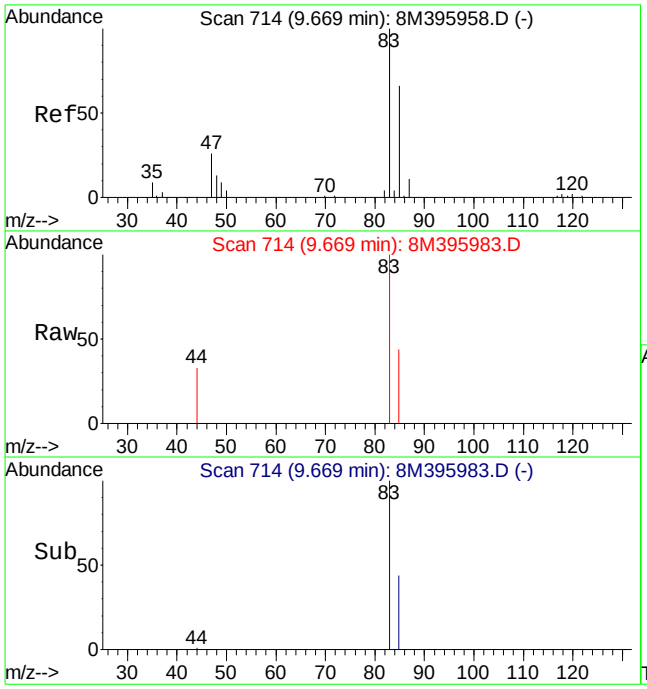


#13
Acetone
Concen: 1.44 ug/L
RT: 6.53 min Scan# 410
Delta R.T. 0.00 min
Lab File: 8M395983.D
Acq: 29 Mar 2014 15:35

Tgt Ion: 43 Resp: 1373

Ion	Ratio	Lower	Upper
43	100		
58	0.0	17.0	39.6#

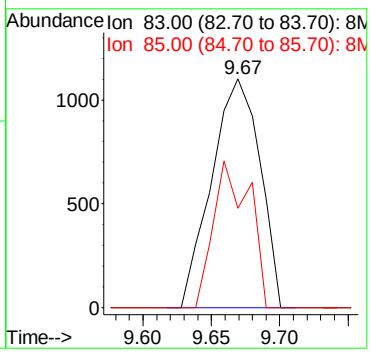


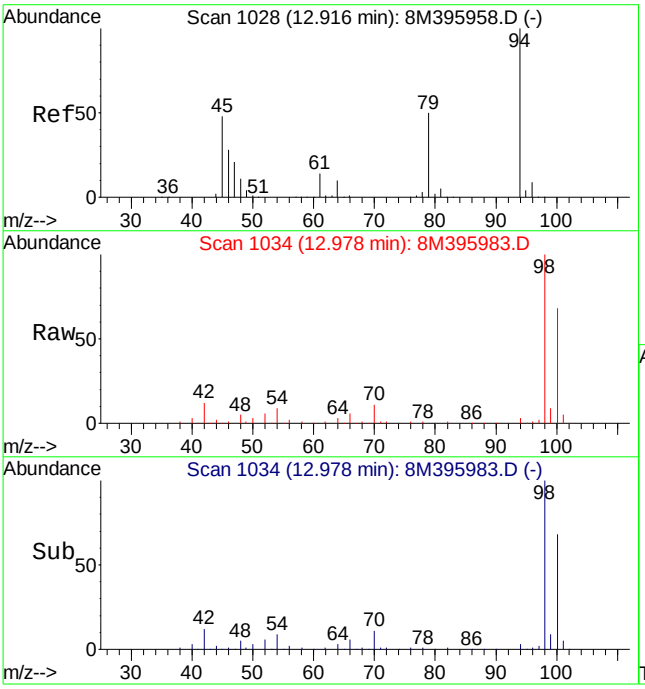


#33
Chloroform
Concen: 0.26 ug/L
RT: 9.67 min Scan# 714
Delta R.T. 0.00 min
Lab File: 8M395983.D
Acq: 29 Mar 2014 15:35

Tgt Ion: 83 Resp: 2707

Ion	Ratio	Lower	Upper
83	100		
85	48.1	39.5	92.3

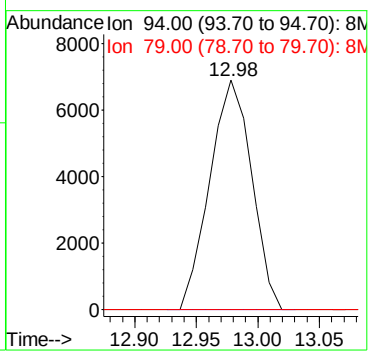




#56
Dimethyl Disulfide
Concen: 1.61 ug/L
RT: 12.98 min Scan# 1034
Delta R.T. 0.05 min
Lab File: 8M395983.D
Acq: 29 Mar 2014 15:35

Tgt Ion: 94 Resp: 16386

Ion	Ratio	Lower	Upper
94	100		
79	0.0	30.4	70.8#



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395984.D Vial: 11
Acq On : 29 Mar 2014 16:04 Operator: MES
Sample : L14031621-03 A 826-SPE Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 08:20:15 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

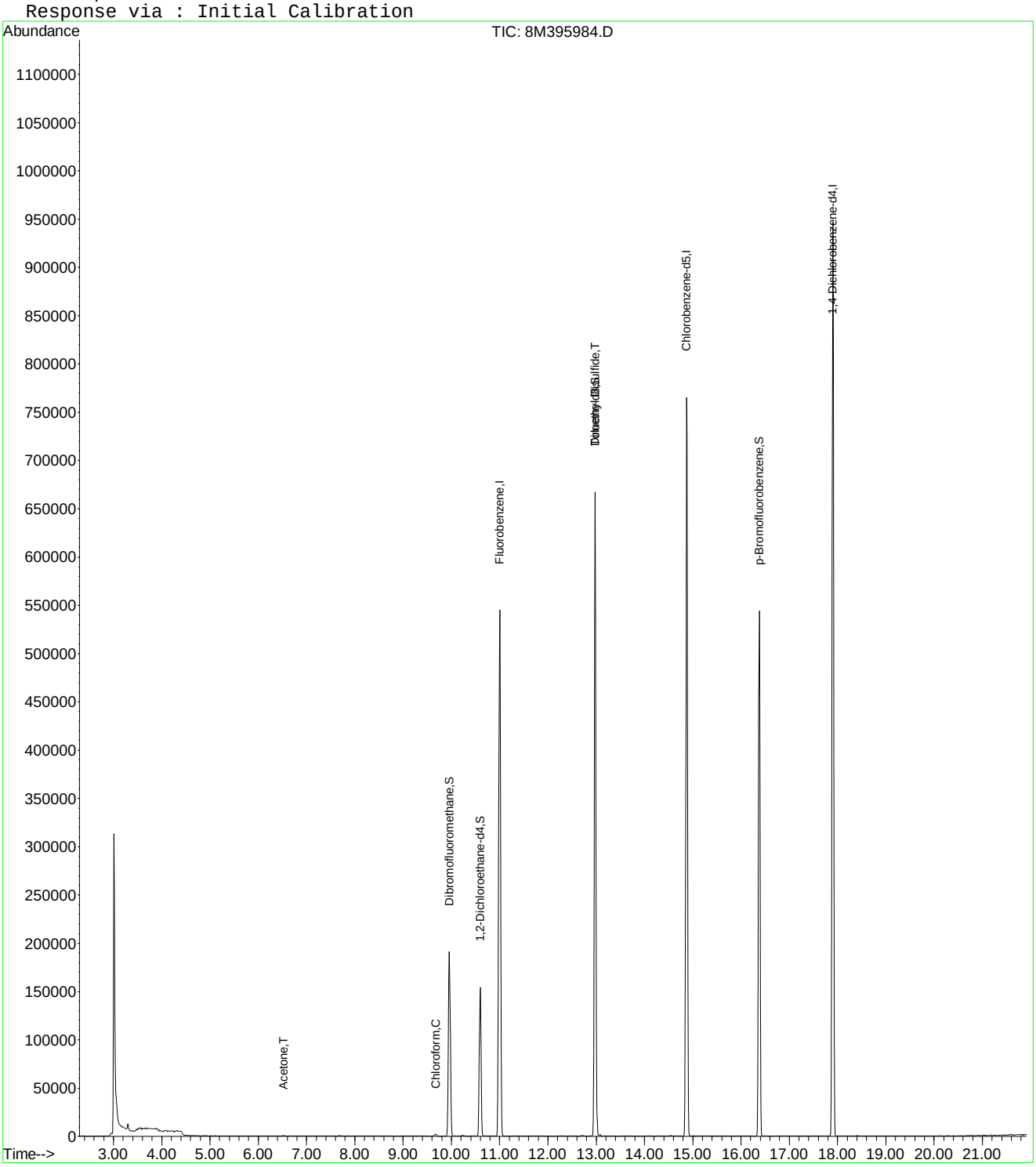
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.00	96	681012	25.00	ug/L	0.00
57) Chlorobenzene-d5	14.87	117	597822	25.00	ug/L	-0.01
78) 1,4-Dichlorobenzene-d4	17.90	152	349665	25.00	ug/L	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	9.96	111	165203	26.4293	ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 105.72%			
43) 1,2-Dichloroethane-d4	10.60	65	132848	26.0773	ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 104.32%			
58) Toluene-d8	12.98	98	598907	25.0075	ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 100.04%			
80) p-Bromofluorobenzene	16.38	95	226515	23.2065	ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 92.84%			
Target Compounds						Qvalue
13) Acetone	6.53	43	1156	1.2043	ug/L #	46
33) Chloroform	9.68	83	3001	0.2815	ug/L	92
56) Dimethyl Disulfide	12.98	94	17076	1.6628	ug/L #	27

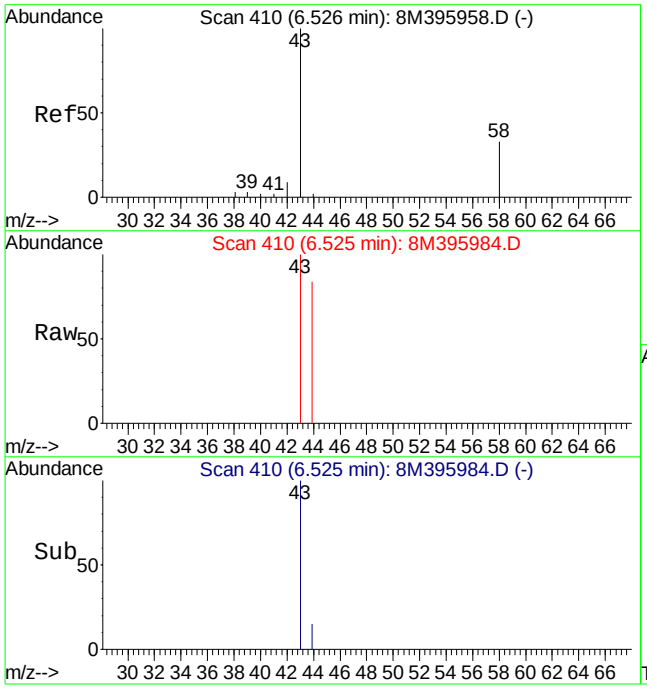
(#) = qualifier out of range (m) = manual integration
8M395984.D 8260WTR.M Mon Mar 31 08:20:15 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395984.D Vial: 11
Acq On : 29 Mar 2014 16:04 Operator: MES
Sample : L14031621-03 A 826-SPE Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 8:20 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration

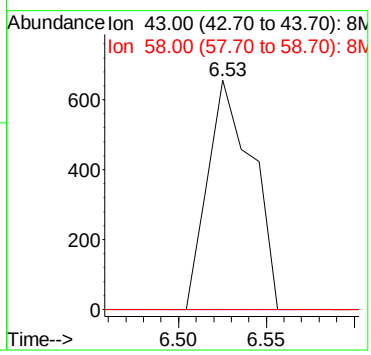


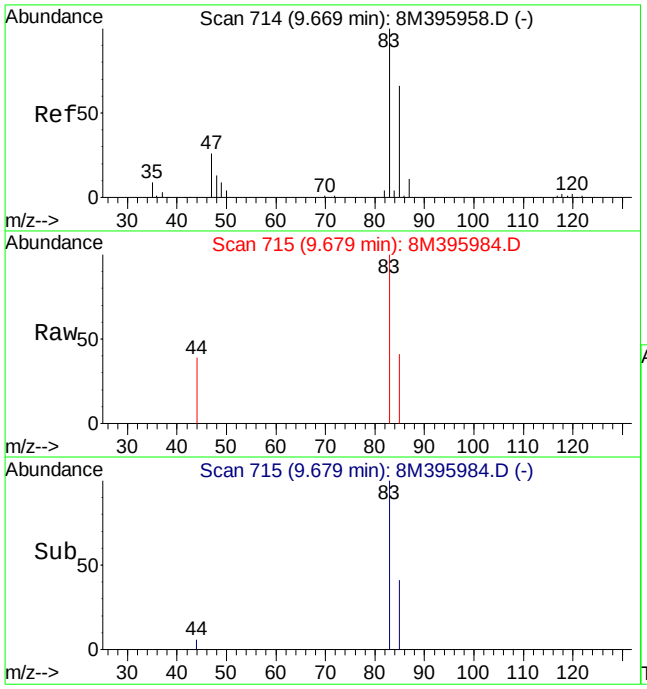


#13
Acetone
Concen: 1.20 ug/L
RT: 6.53 min Scan# 410
Delta R.T. 0.00 min
Lab File: 8M395984.D
Acq: 29 Mar 2014 16:04

Tgt Ion: 43 Resp: 1156

Ion	Ratio	Lower	Upper
43	100		
58	0.0	17.0	39.6#

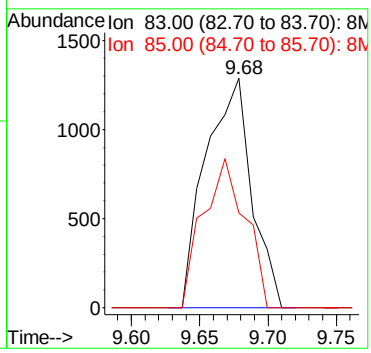


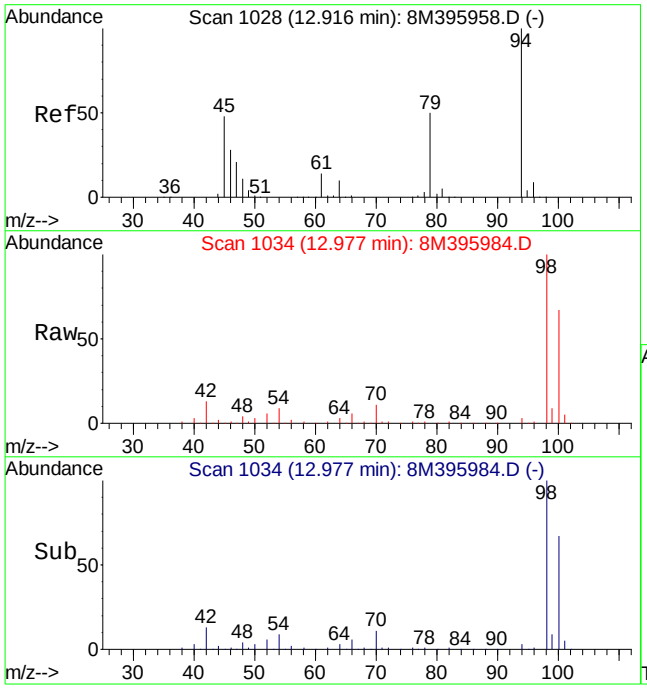


#33
Chloroform
Concen: 0.28 ug/L
RT: 9.68 min Scan# 715
Delta R.T. 0.01 min
Lab File: 8M395984.D
Acq: 29 Mar 2014 16:04

Tgt Ion: 83 Resp: 3001

Ion	Ratio	Lower	Upper
83	100		
85	59.9	39.5	92.3

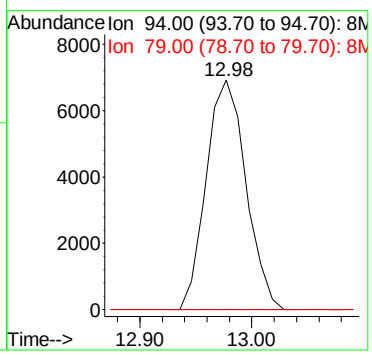




#56
Dimethyl Disulfide
Concen: 1.66 ug/L
RT: 12.98 min Scan# 1034
Delta R.T. 0.05 min
Lab File: 8M395984.D
Acq: 29 Mar 2014 16:04

Tgt Ion: 94 Resp: 17076

Ion	Ratio	Lower	Upper
94	100		
79	0.0	30.4	70.8#



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395985.D Vial: 12
Acq On : 29 Mar 2014 16:33 Operator: MES
Sample : L14031621-04 A 826-SPE Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 08:20:16 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

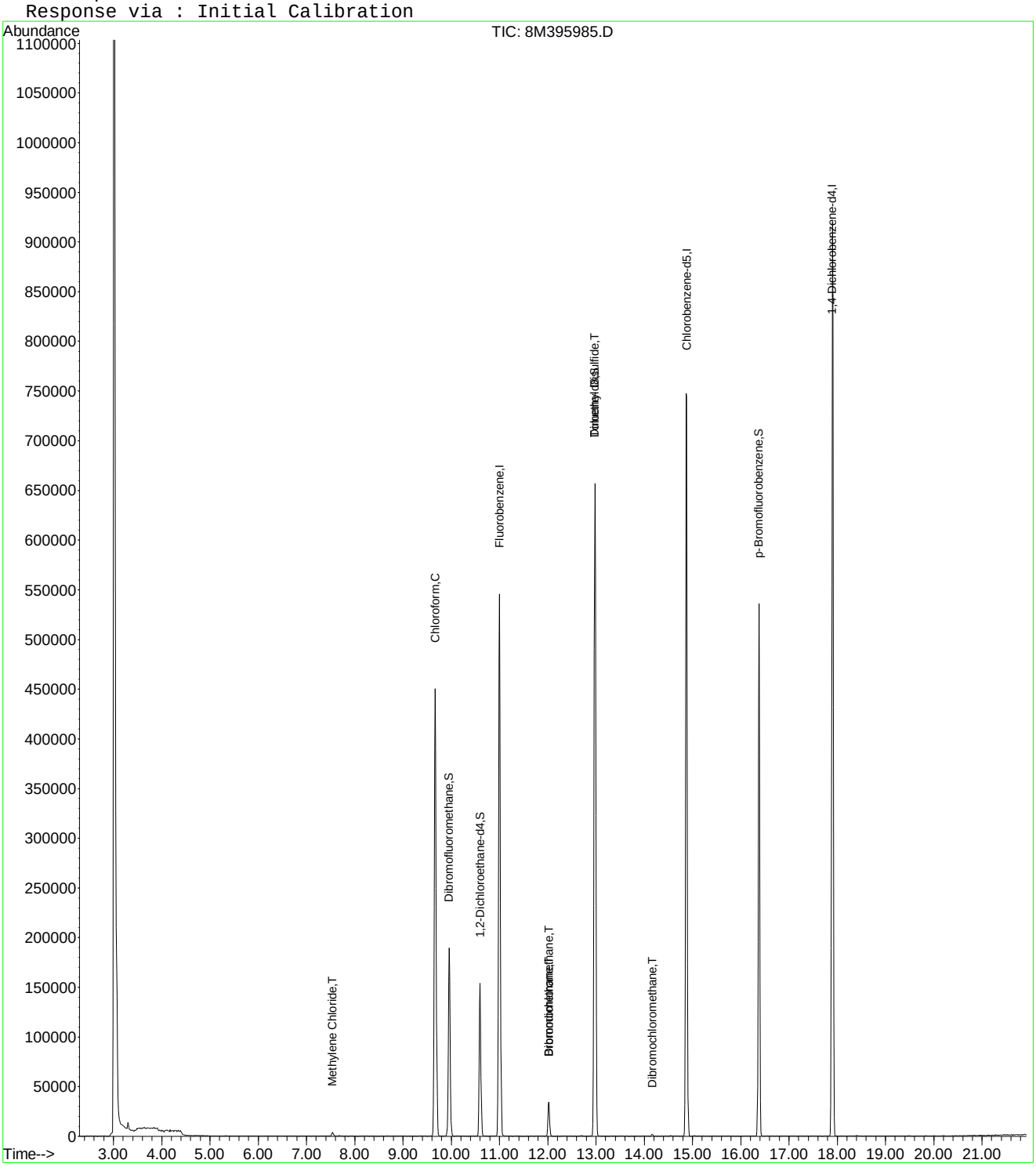
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.00	96	676612	25.00	ug/L	0.00
57) Chlorobenzene-d5	14.88	117	594439	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.90	152	349066	25.00	ug/L	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	9.96	111	162077	26.0978	ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 104.40%			
43) 1,2-Dichloroethane-d4	10.60	65	130741	25.8306	ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 103.32%			
58) Toluene-d8	12.98	98	591529	24.8400	ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 99.36%			
80) p-Bromofluorobenzene	16.38	95	224117	23.0002	ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 92.00%			
Target Compounds						Qvalue
19) Methylene Chloride	7.54	84	2371	0.3925	ug/L	96
33) Chloroform	9.67	83	475770	44.9148	ug/L	100
50) Bromodichloromethane	12.02	83	31368	4.0209	ug/L	100
52) Dibromomethane	12.02	93	694	0.2258	ug/L #	2
56) Dimethyl Disulfide	12.98	94	16629	1.6298	ug/L #	27
67) Dibromochloromethane	14.16	129	2161	0.3611	ug/L	97

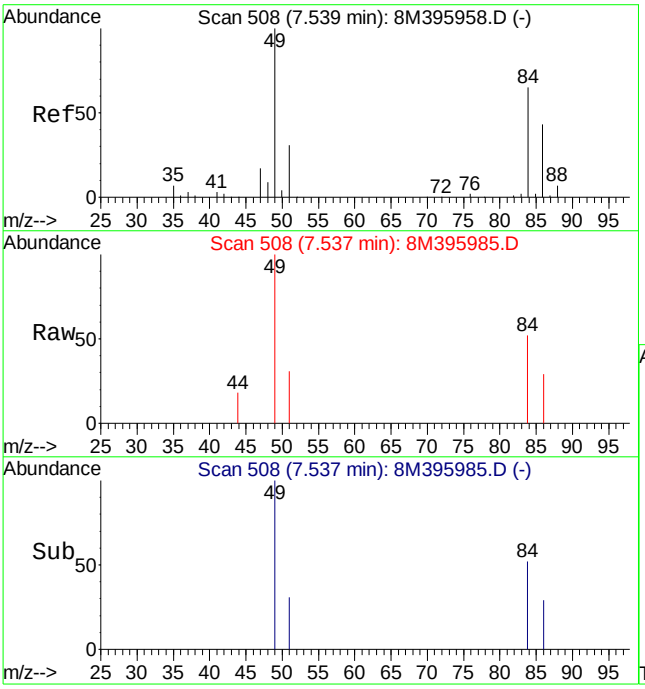
(#) = qualifier out of range (m) = manual integration
8M395985.D 8260WTR.M Mon Mar 31 08:20:16 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395985.D Vial: 12
Acq On : 29 Mar 2014 16:33 Operator: MES
Sample : L14031621-04 A 826-SPE Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 8:20 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration

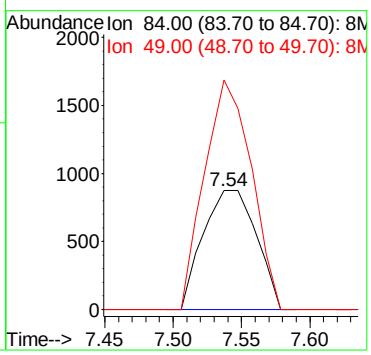


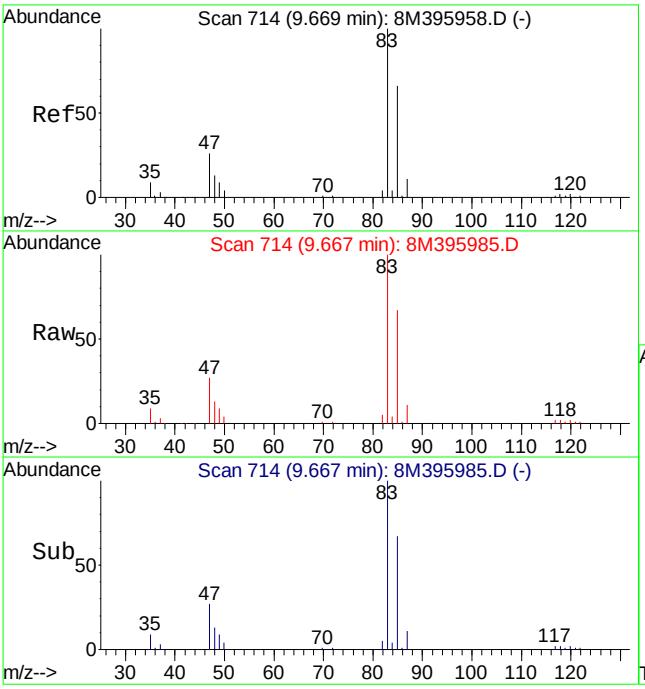


#19
Methylene Chloride
Concen: 0.39 ug/L
RT: 7.54 min Scan# 508
Delta R.T. -0.00 min
Lab File: 8M395985.D
Acq: 29 Mar 2014 16:33

Tgt Ion: 84 Resp: 2371

Ion	Ratio	Lower	Upper
84	100		
49	169.4	98.4	229.6

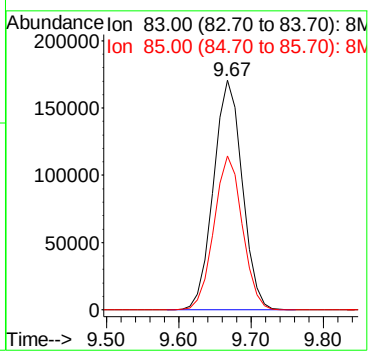


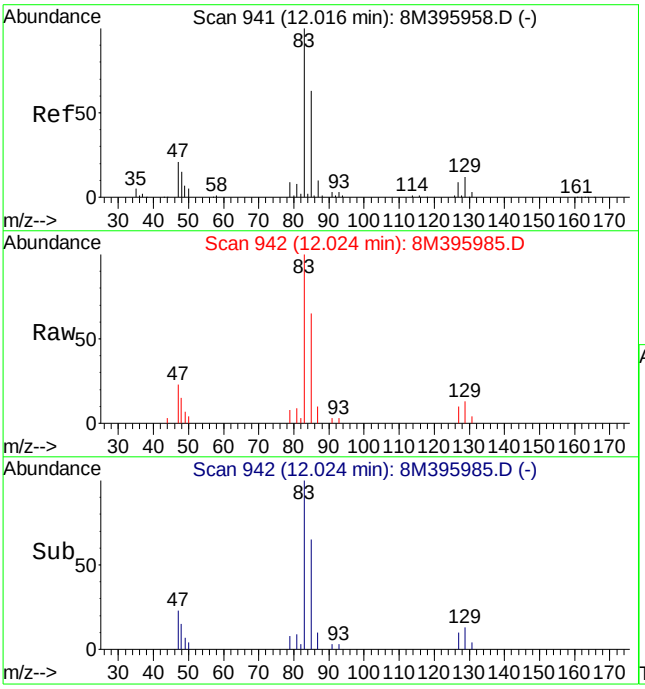


#33
Chloroform
Concen: 44.91 ug/L
RT: 9.67 min Scan# 714
Delta R.T. -0.00 min
Lab File: 8M395985.D
Acq: 29 Mar 2014 16:33

Tgt Ion: 83 Resp: 475770

Ion	Ratio	Lower	Upper
83	100		
85	66.1	39.5	92.3

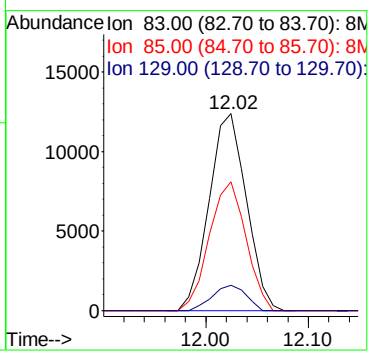


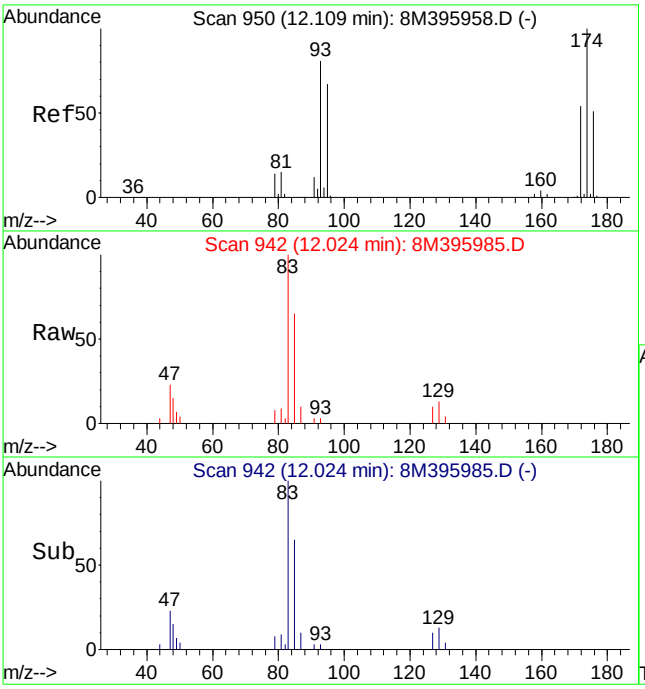


#50
Bromodichloromethane
Concen: 4.02 ug/L
RT: 12.02 min Scan# 942
Delta R.T. -0.00 min
Lab File: 8M395985.D
Acq: 29 Mar 2014 16:33

Tgt Ion: 83 Resp: 31368

Ion	Ratio	Lower	Upper
83	100		
85	64.2	38.6	90.2
129	11.6	6.9	16.1

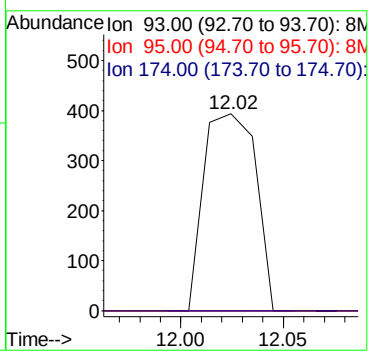


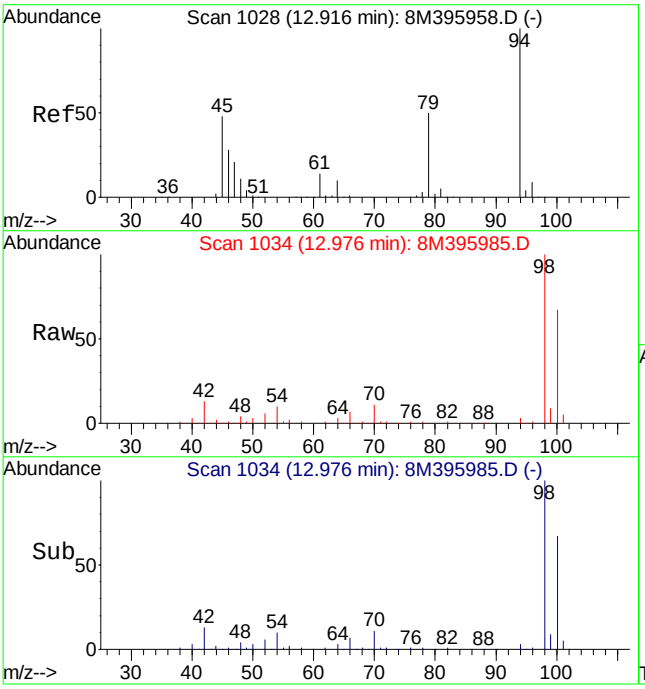


#52
Dibromomethane
Concen: 0.23 ug/L
RT: 12.02 min Scan# 942
Delta R.T. -0.08 min
Lab File: 8M395985.D
Acq: 29 Mar 2014 16:33

Tgt Ion: 93 Resp: 694

Ion	Ratio	Lower	Upper
93	100		
95	0.0	50.3	117.3#
174	0.0	62.6	146.0#

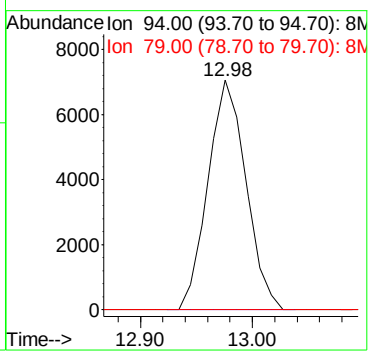


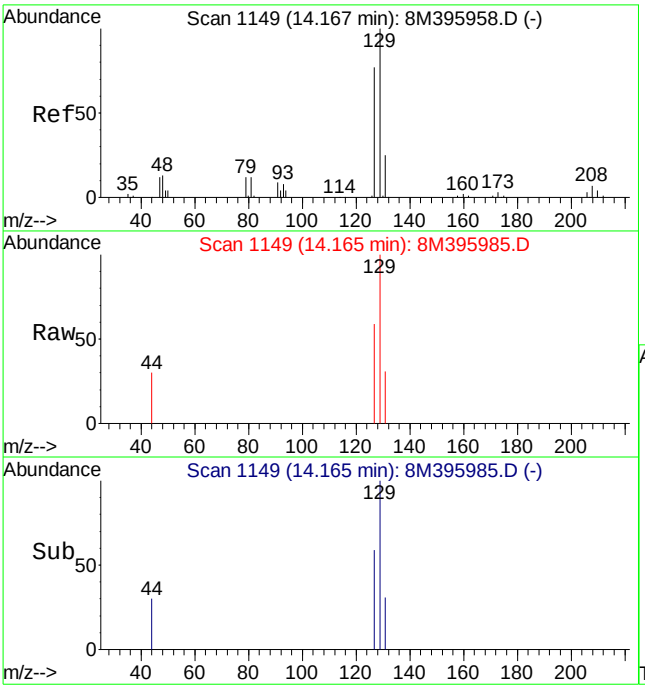


#56
Dimethyl Disulfide
Concen: 1.63 ug/L
RT: 12.98 min Scan# 1034
Delta R.T. 0.05 min
Lab File: 8M395985.D
Acq: 29 Mar 2014 16:33

Tgt Ion: 94 Resp: 16629

Ion	Ratio	Lower	Upper
94	100		
79	0.0	30.4	70.8#

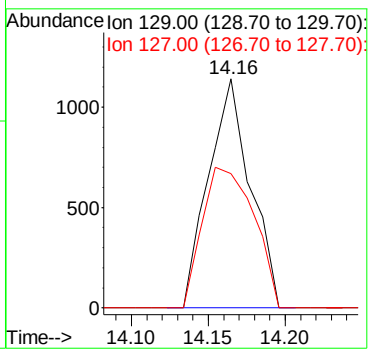




#67
Dibromochloromethane
Concen: 0.36 ug/L
RT: 14.16 min Scan# 1149
Delta R.T. -0.00 min
Lab File: 8M395985.D
Acq: 29 Mar 2014 16:33

Tgt Ion:129 Resp: 2161

Ion	Ratio	Lower	Upper
129	100		
127	75.8	46.9	109.5



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395986.D Vial: 13
Acq On : 29 Mar 2014 17:02 Operator: MES
Sample : L14031621-05 A 826-SPE Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 08:20:17 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

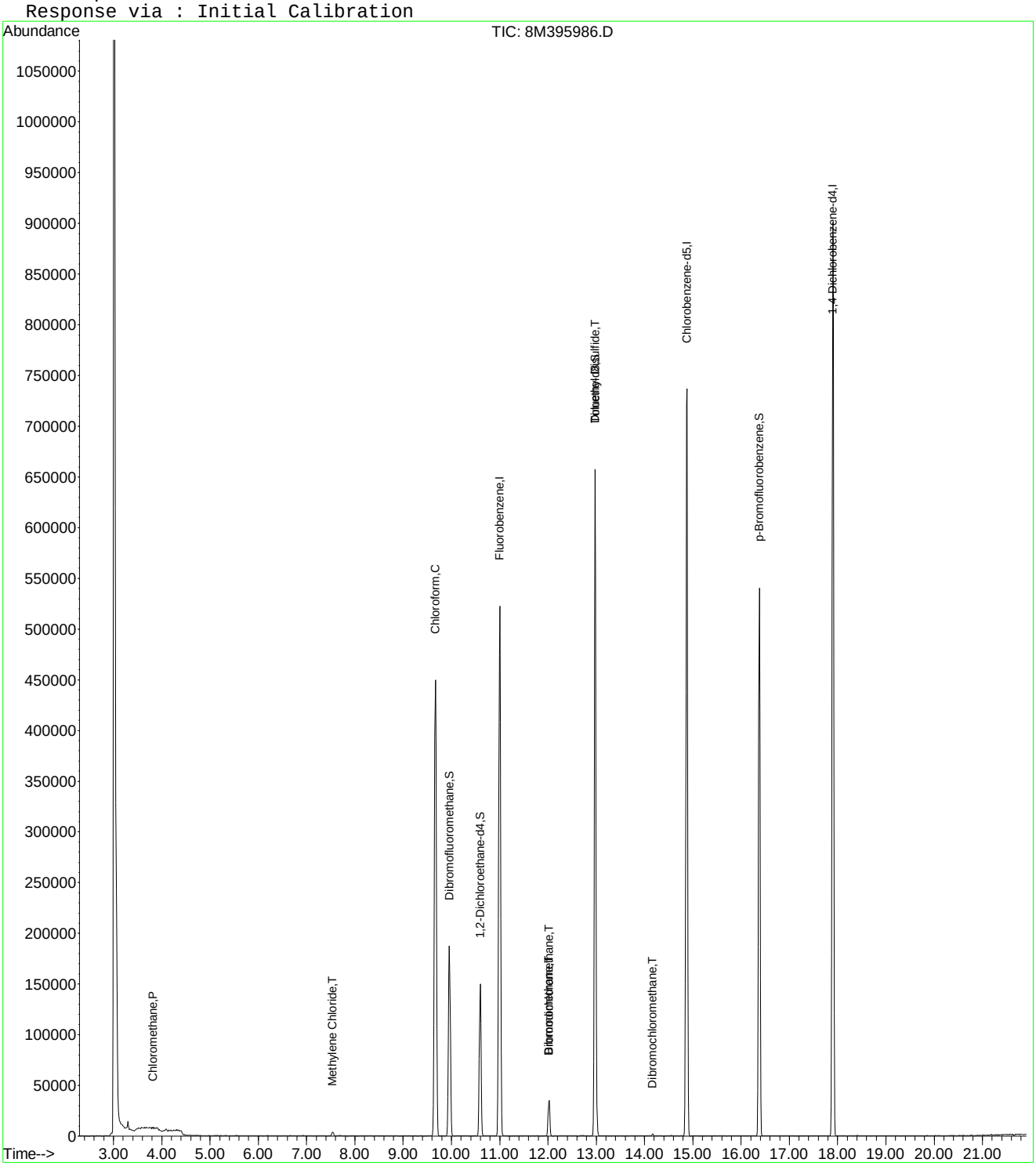
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.00	96	660317	25.00 ug/L	0.00
57) Chlorobenzene-d5	14.88	117	584888	25.00 ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.90	152	339266	25.00 ug/L	-0.01
System Monitoring Compounds					
37) Dibromofluoromethane	9.96	111	162057	26.7386 ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 106.96%		
43) 1,2-Dichloroethane-d4	10.60	65	129109	26.1377 ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 104.56%		
58) Toluene-d8	12.98	98	585365	24.9825 ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 99.92%		
80) p-Bromofluorobenzene	16.38	95	225263	23.7856 ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 95.16%		
Target Compounds					Qvalue
3) Chloromethane	3.83	50	1604	0.1418 ug/L #	61
19) Methylene Chloride	7.54	84	2287	0.3879 ug/L	99
33) Chloroform	9.67	83	477865	46.2258 ug/L	99
50) Bromodichloromethane	12.02	83	30625	4.0225 ug/L	98
52) Dibromomethane	12.01	93	475	0.1584 ug/L #	2
56) Dimethyl Disulfide	12.98	94	16392	1.6462 ug/L #	27
67) Dibromochloromethane	14.16	129	2318	0.3936 ug/L	99

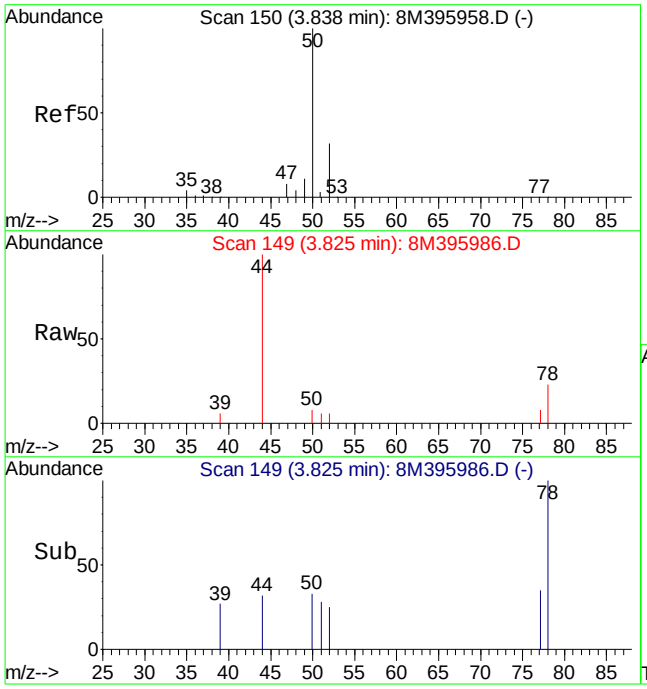
(#) = qualifier out of range (m) = manual integration
8M395986.D 8260WTR.M Mon Mar 31 08:20:18 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395986.D Vial: 13
Acq On : 29 Mar 2014 17:02 Operator: MES
Sample : L14031621-05 A 826-SPE Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 8:20 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration

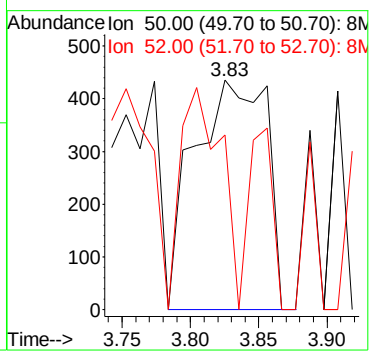


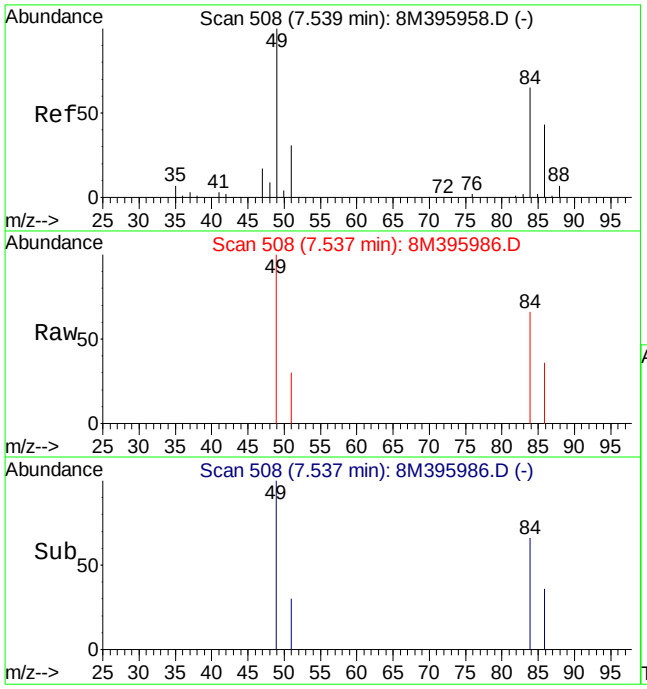


#3
Chloromethane
Concen: 0.14 ug/L
RT: 3.83 min Scan# 149
Delta R.T. -0.01 min
Lab File: 8M395986.D
Acq: 29 Mar 2014 17:02

Tgt Ion: 50 Resp: 1604

Ion	Ratio	Lower	Upper
50	100		
52	54.4	19.6	45.6#

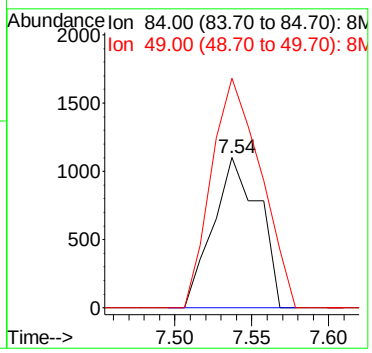


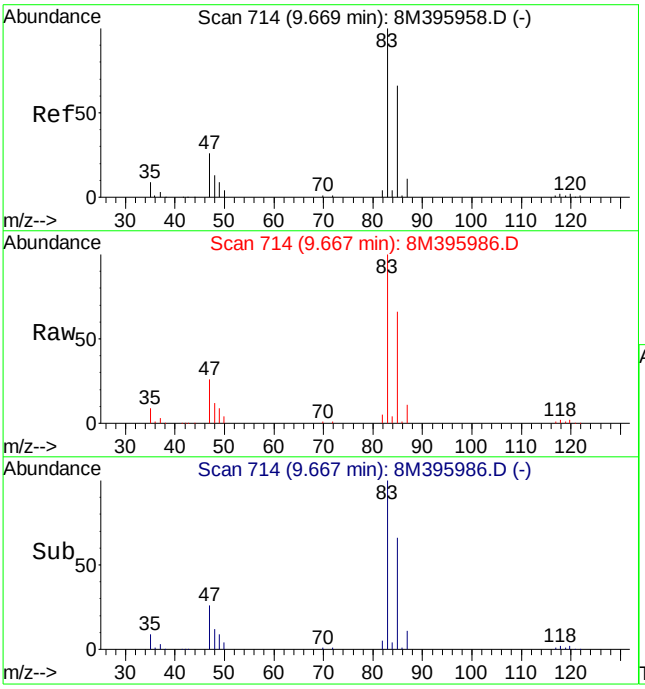


#19
Methylene Chloride
Concen: 0.39 ug/L
RT: 7.54 min Scan# 508
Delta R.T. -0.00 min
Lab File: 8M395986.D
Acq: 29 Mar 2014 17:02

Tgt Ion: 84 Resp: 2287

Ion	Ratio	Lower	Upper
84	100		
49	164.8	98.4	229.6

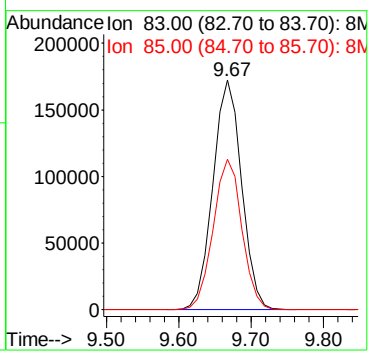


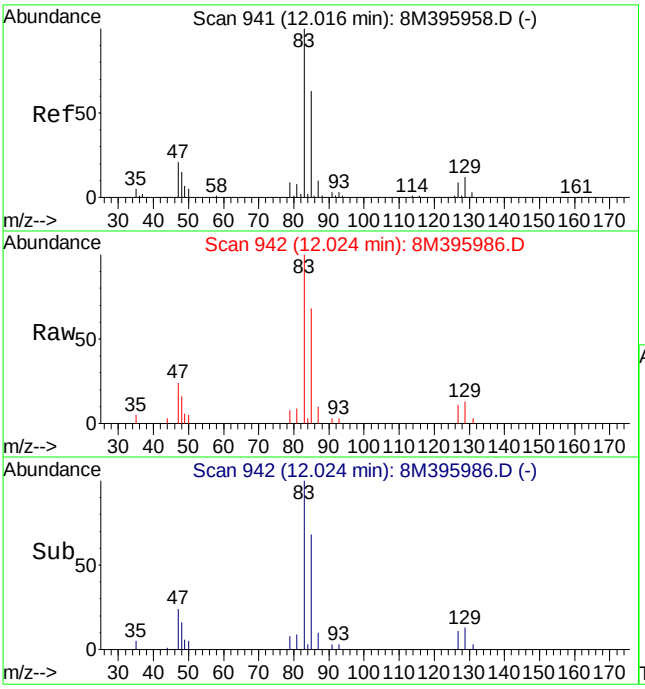


#33
Chloroform
Concen: 46.23 ug/L
RT: 9.67 min Scan# 714
Delta R.T. -0.00 min
Lab File: 8M395986.D
Acq: 29 Mar 2014 17:02

Tgt Ion: 83 Resp: 477865

Ion	Ratio	Lower	Upper
83	100		
85	65.4	39.5	92.3

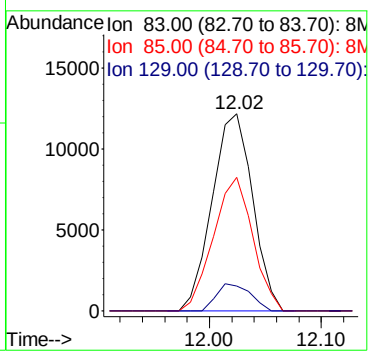


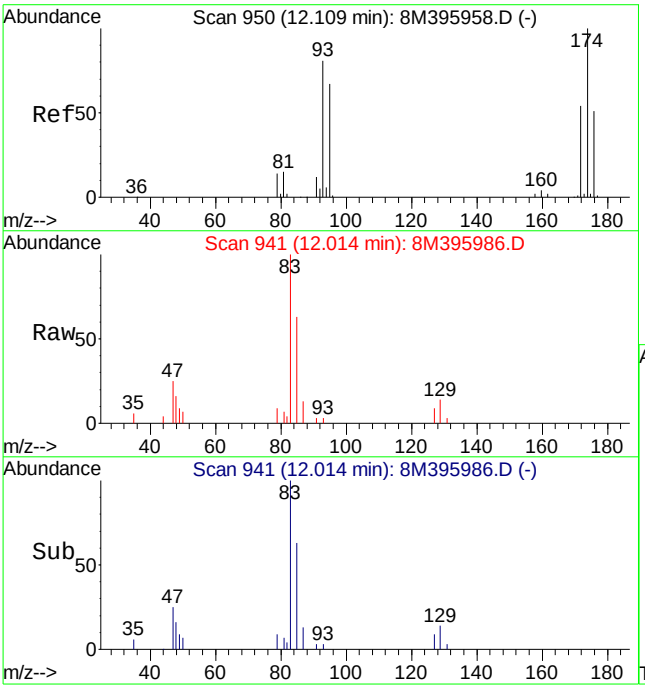


#50
Bromodichloromethane
Concen: 4.02 ug/L
RT: 12.02 min Scan# 942
Delta R.T. -0.00 min
Lab File: 8M395986.D
Acq: 29 Mar 2014 17:02

Tgt Ion: 83 Resp: 30625

Ion	Ratio	Lower	Upper
83	100		
85	65.8	38.6	90.2
129	11.4	6.9	16.1

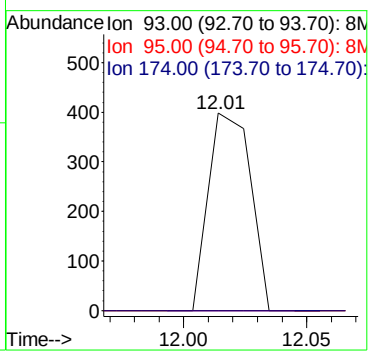


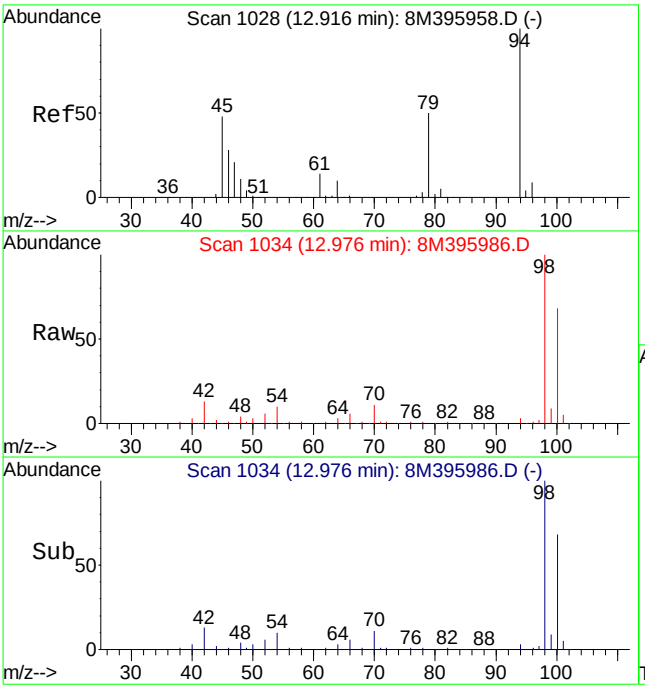


#52
Dibromomethane
Concen: 0.16 ug/L
RT: 12.01 min Scan# 941
Delta R.T. -0.09 min
Lab File: 8M395986.D
Acq: 29 Mar 2014 17:02

Tgt Ion: 93 Resp: 475

Ion	Ratio	Lower	Upper
93	100		
95	0.0	50.3	117.3#
174	0.0	62.6	146.0#

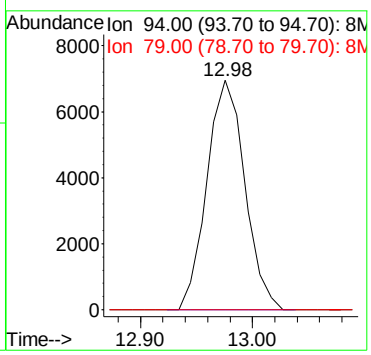


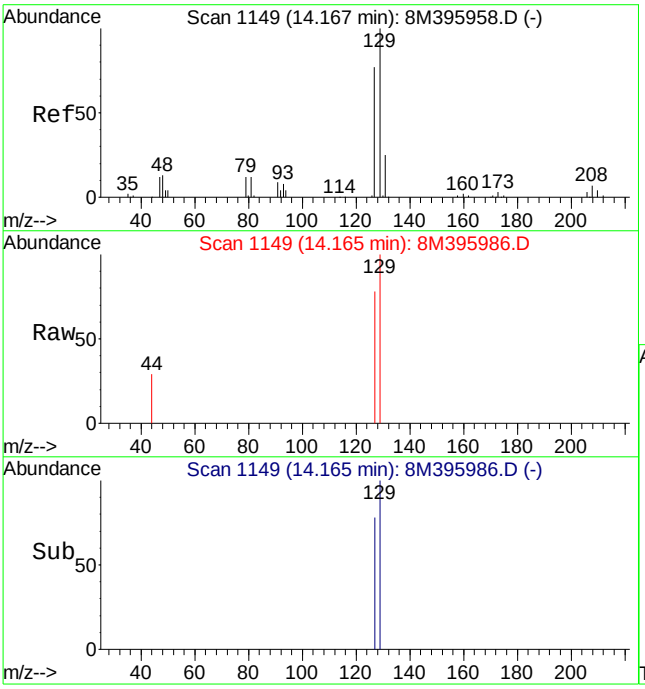


#56
Dimethyl Disulfide
Concen: 1.65 ug/L
RT: 12.98 min Scan# 1034
Delta R.T. 0.05 min
Lab File: 8M395986.D
Acq: 29 Mar 2014 17:02

Tgt Ion: 94 Resp: 16392

Ion	Ratio	Lower	Upper
94	100		
79	0.0	30.4	70.8#

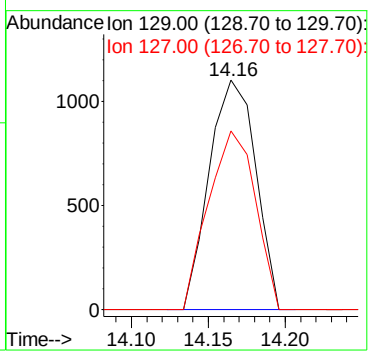




#67
Dibromochloromethane
Concen: 0.39 ug/L
RT: 14.16 min Scan# 1149
Delta R.T. -0.00 min
Lab File: 8M395986.D
Acq: 29 Mar 2014 17:02

Tgt Ion:129 Resp: 2318

Ion	Ratio	Lower	Upper
129	100		
127	78.6	46.9	109.5



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395990.D Vial: 17
Acq On : 29 Mar 2014 18:57 Operator: MES
Sample : L14031621-06 A 826-SPE Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 08:20:20 2014 Quant Results File: 8260WTR.RES

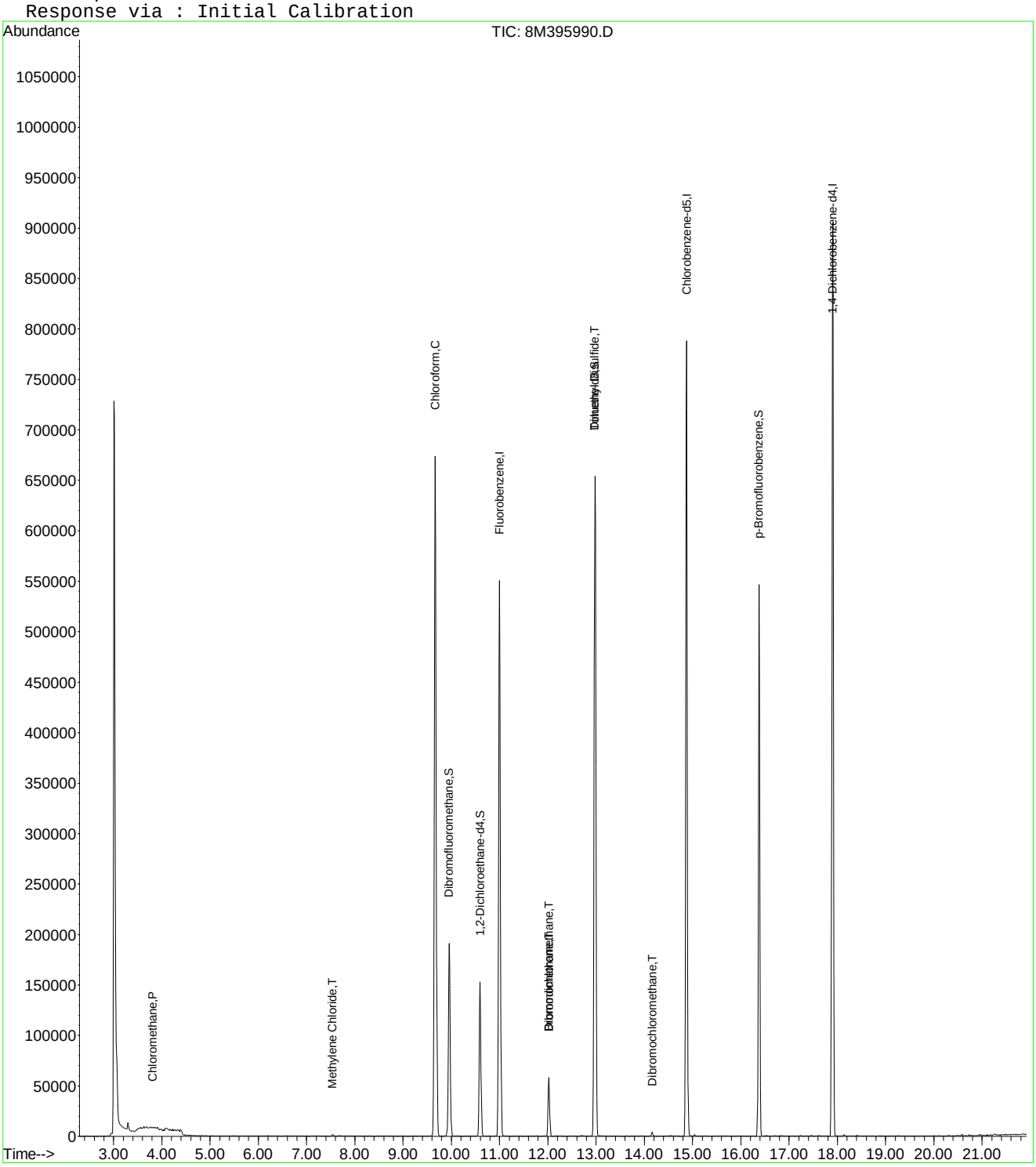
Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

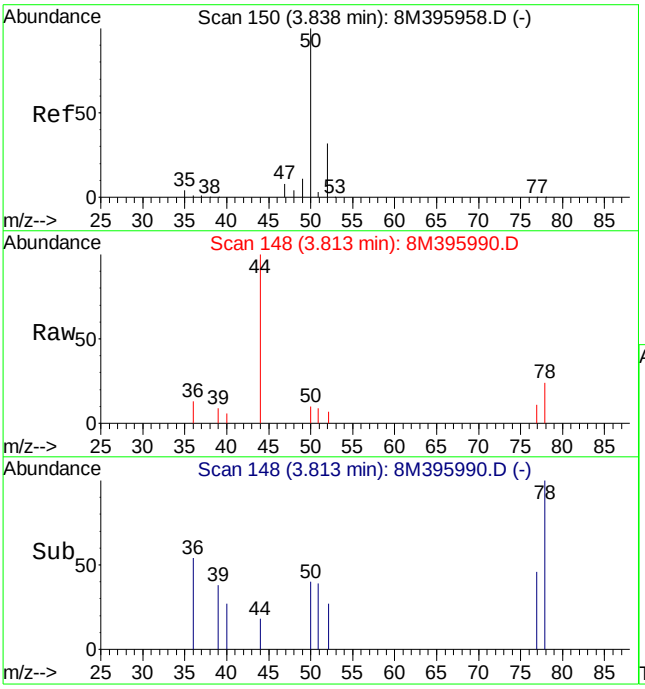
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.00	96	685605	25.00	ug/L	0.00
57) Chlorobenzene-d5	14.88	117	605339	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.91	152	352946	25.00	ug/L	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	9.95	111	166173	26.4064	ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 105.64%			
43) 1,2-Dichloroethane-d4	10.60	65	133766	26.0816	ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 104.32%			
58) Toluene-d8	12.97	98	597932	24.6567	ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 98.64%			
80) p-Bromofluorobenzene	16.38	95	230317	23.3767	ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 93.52%			
Target Compounds						Qvalue
3) Chloromethane	3.81	50	1516	0.1291	ug/L #	1
19) Methylene Chloride	7.54	84	838	0.1369	ug/L	92
33) Chloroform	9.67	83	703133	65.5082	ug/L	100
50) Bromodichloromethane	12.02	83	50125	6.3410	ug/L	98
52) Dibromomethane	12.02	93	1358	0.4361	ug/L #	2
56) Dimethyl Disulfide	12.97	94	16590	1.6046	ug/L #	27
67) Dibromochloromethane	14.16	129	3874	0.6356	ug/L	99

(#) = qualifier out of range (m) = manual integration
8M395990.D 8260WTR.M Mon Mar 31 08:20:20 2014 Page 1

Data File : C:\MSDCHEM\2\DATA\032914\8M395990.D Vial: 17
Acq On : 29 Mar 2014 18:57 Operator: MES
Sample : L14031621-06 A 826-SPE Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 8:20 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration

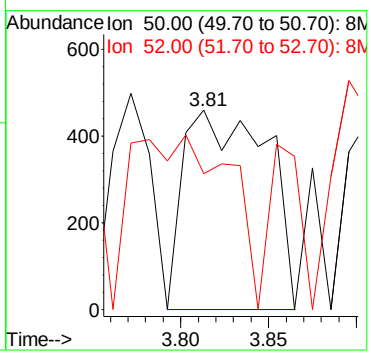


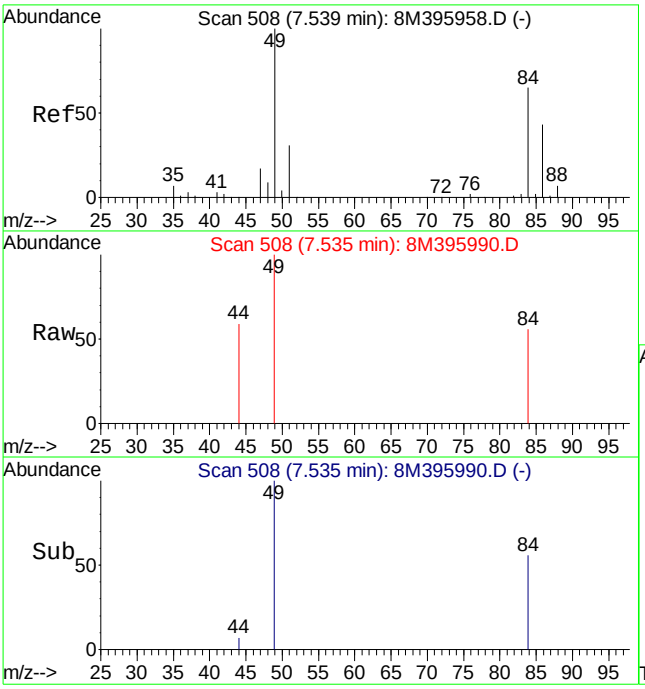


#3
Chloromethane
Concen: 0.13 ug/L
RT: 3.81 min Scan# 148
Delta R.T. -0.02 min
Lab File: 8M395990.D
Acq: 29 Mar 2014 18:57

Tgt Ion: 50 Resp: 1516

Ion	Ratio	Lower	Upper
50	100		
52	118.2	19.6	45.6#

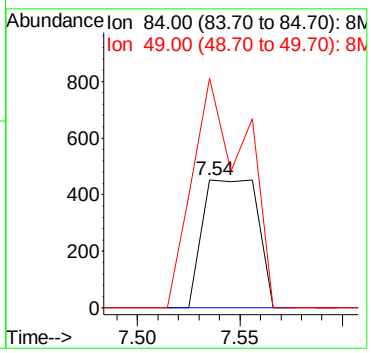


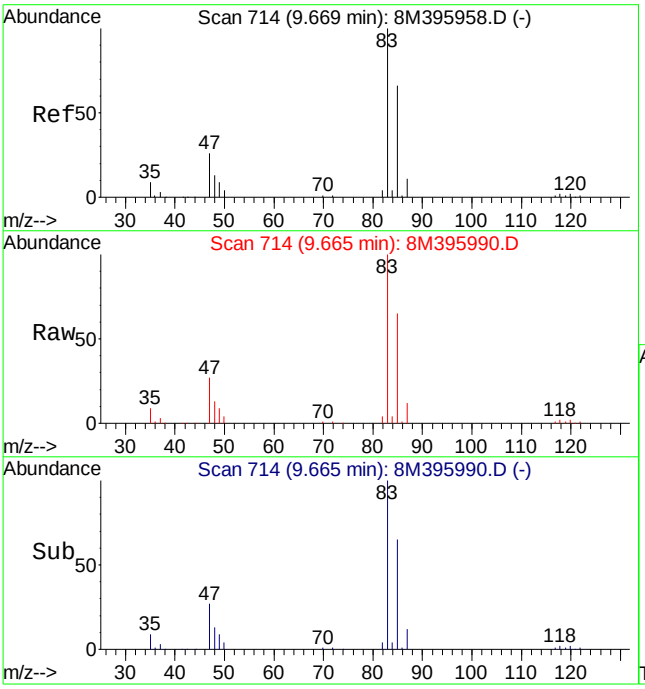


#19
Methylene Chloride
Concen: 0.14 ug/L
RT: 7.54 min Scan# 508
Delta R.T. -0.00 min
Lab File: 8M395990.D
Acq: 29 Mar 2014 18:57

Tgt Ion: 84 Resp: 838

Ion	Ratio	Lower	Upper
84	100		
49	174.5	98.4	229.6

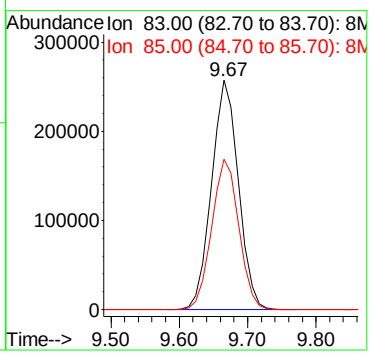


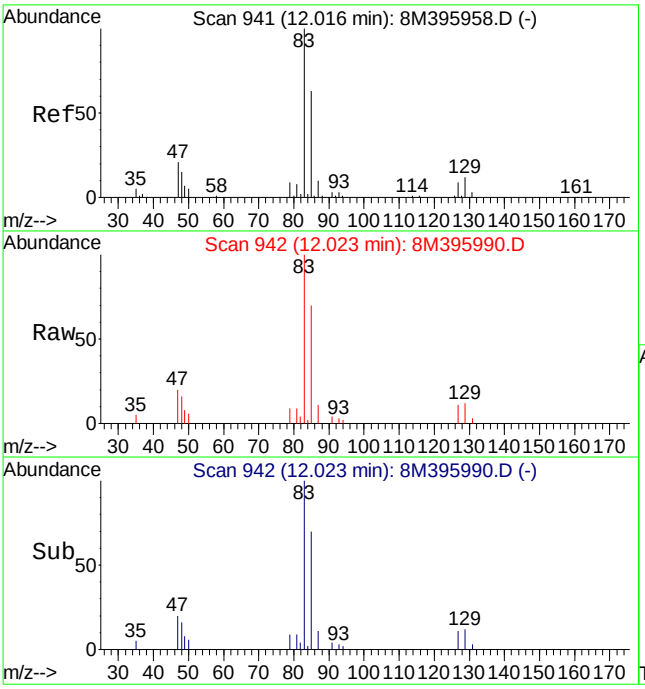


#33
Chloroform
Concen: 65.51 ug/L
RT: 9.67 min Scan# 714
Delta R.T. -0.00 min
Lab File: 8M395990.D
Acq: 29 Mar 2014 18:57

Tgt Ion: 83 Resp: 703133

Ion	Ratio	Lower	Upper
83	100		
85	66.1	39.5	92.3

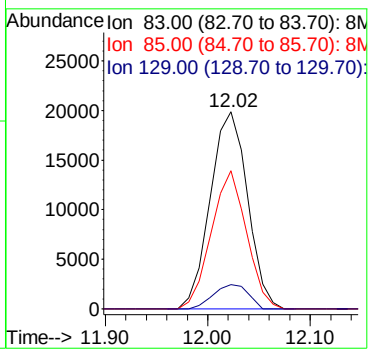


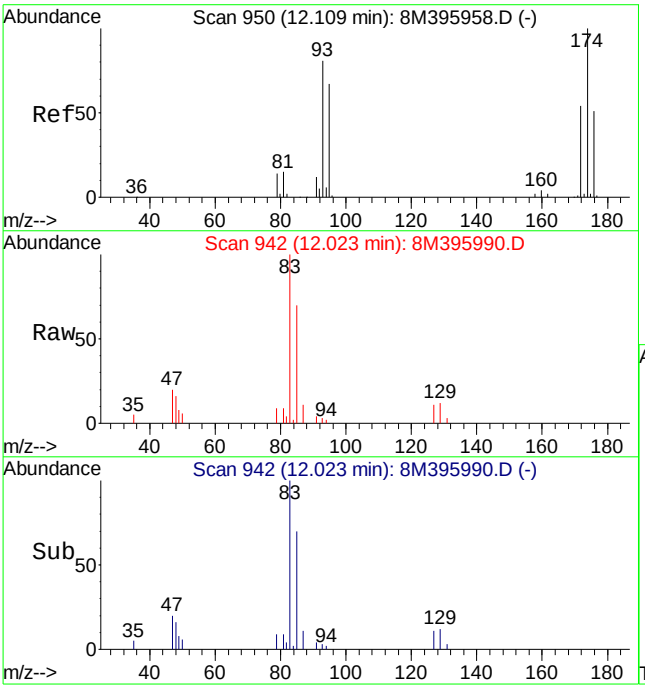


#50
Bromodichloromethane
Concen: 6.34 ug/L
RT: 12.02 min Scan# 942
Delta R.T. -0.00 min
Lab File: 8M395990.D
Acq: 29 Mar 2014 18:57

Tgt Ion: 83 Resp: 50125

Ion	Ratio	Lower	Upper
83	100		
85	66.2	38.6	90.2
129	11.5	6.9	16.1

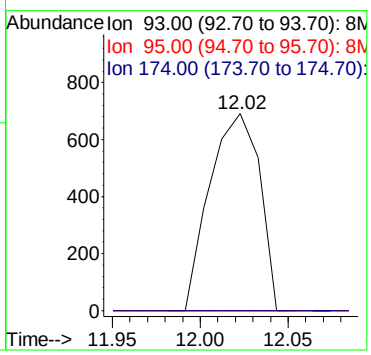


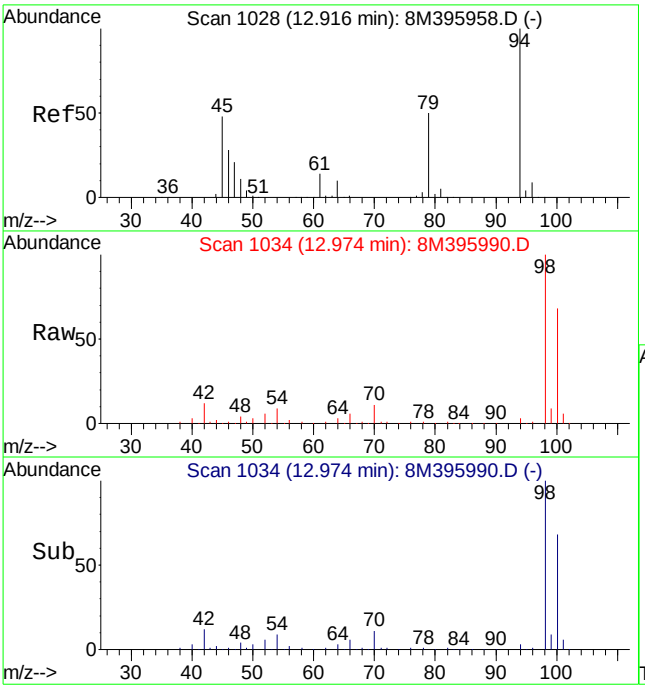


#52
Dibromomethane
Concen: 0.44 ug/L
RT: 12.02 min Scan# 942
Delta R.T. -0.09 min
Lab File: 8M395990.D
Acq: 29 Mar 2014 18:57

Tgt Ion: 93 Resp: 1358

Ion	Ratio	Lower	Upper
93	100		
95	0.0	50.3	117.3#
174	0.0	62.6	146.0#

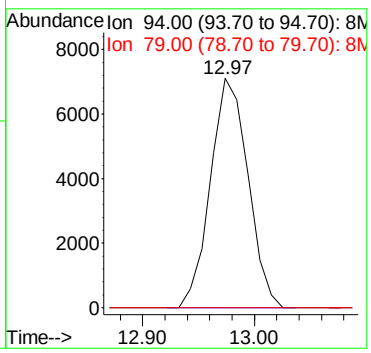


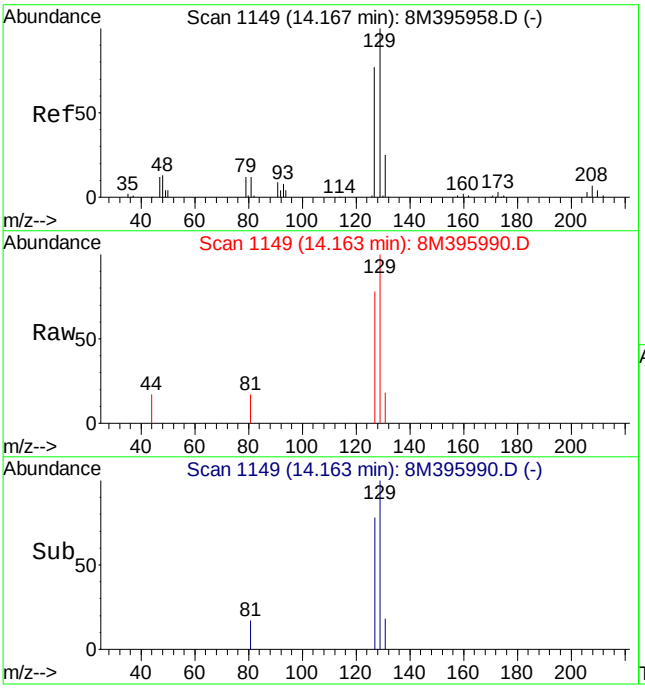


#56
Dimethyl Disulfide
Concen: 1.60 ug/L
RT: 12.97 min Scan# 1034
Delta R.T. 0.05 min
Lab File: 8M395990.D
Acq: 29 Mar 2014 18:57

Tgt Ion: 94 Resp: 16590

Ion	Ratio	Lower	Upper
94	100		
79	0.0	30.4	70.8#

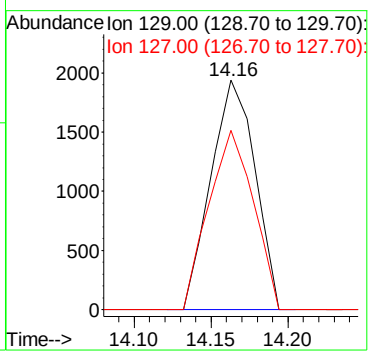




#67
Dibromochloromethane
Concen: 0.64 ug/L
RT: 14.16 min Scan# 1149
Delta R.T. -0.00 min
Lab File: 8M395990.D
Acq: 29 Mar 2014 18:57

Tgt Ion:129 Resp: 3874

Ion	Ratio	Lower	Upper
129	100		
127	78.9	46.9	109.5



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395987.D Vial: 14
Acq On : 29 Mar 2014 17:31 Operator: MES
Sample : L14031621-07 A 826-SPE Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 08:20:19 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

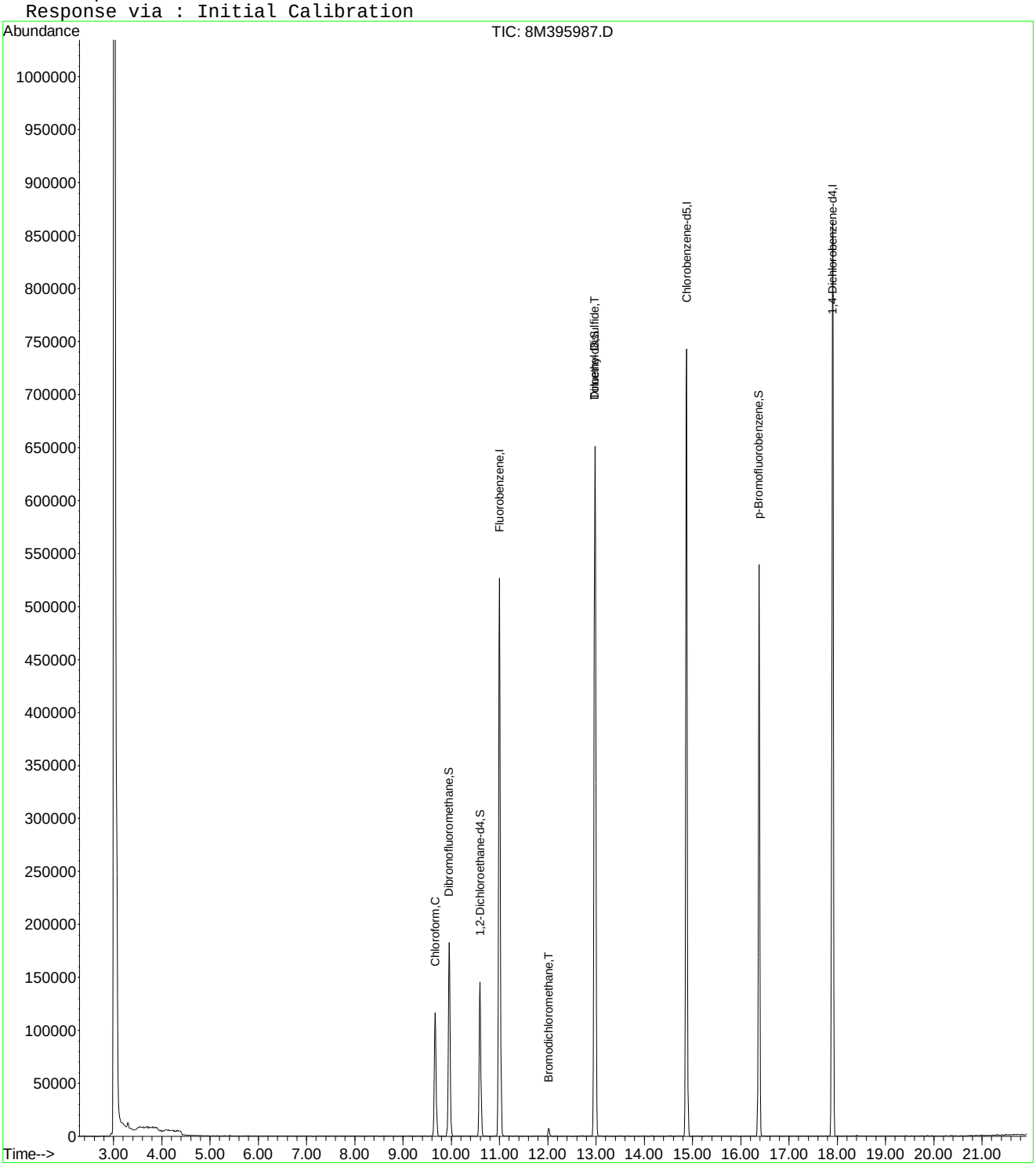
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.00	96	651905	25.00	ug/L	0.00
57) Chlorobenzene-d5	14.88	117	581647	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.91	152	340170	25.00	ug/L	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	9.96	111	157500	26.3220	ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 105.28%			
43) 1,2-Dichloroethane-d4	10.60	65	125241	25.6818	ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 102.72%			
58) Toluene-d8	12.98	98	586898	25.1875	ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 100.76%			
80) p-Bromofluorobenzene	16.38	95	220181	23.1872	ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 92.76%			
Target Compounds						Qvalue
33) Chloroform	9.67	83	122826	12.0348	ug/L	100
50) Bromodichloromethane	12.01	83	8110	1.0790	ug/L	94
56) Dimethyl Disulfide	12.98	94	16131	1.6409	ug/L #	27

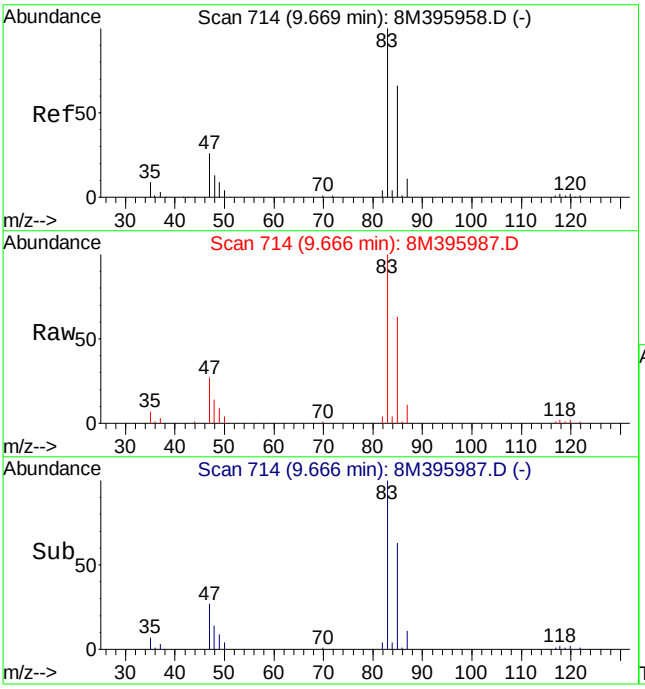
(#) = qualifier out of range (m) = manual integration
8M395987.D 8260WTR.M Mon Mar 31 08:20:19 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395987.D Vial: 14
Acq On : 29 Mar 2014 17:31 Operator: MES
Sample : L14031621-07 A 826-SPE Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 8:20 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration

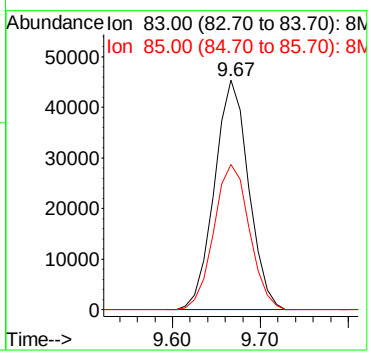


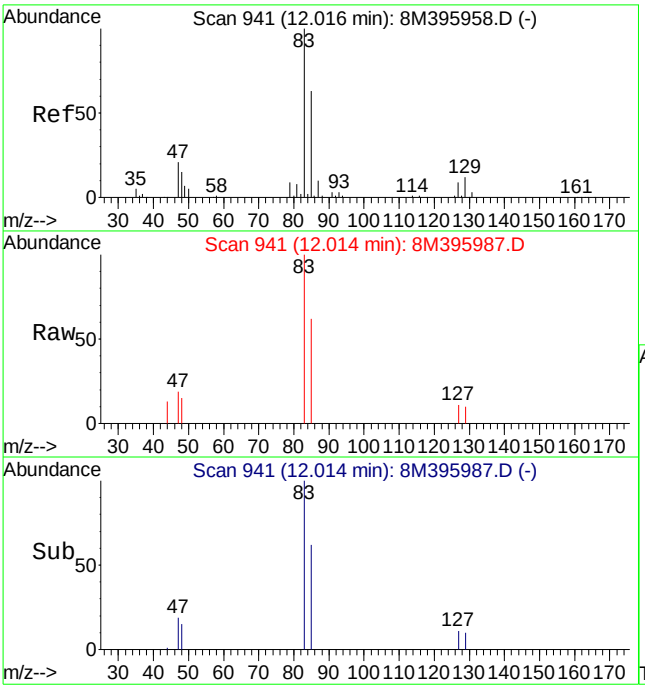


#33
Chloroform
Concen: 12.03 ug/L
RT: 9.67 min Scan# 714
Delta R.T. -0.00 min
Lab File: 8M395987.D
Acq: 29 Mar 2014 17:31

Tgt Ion: 83 Resp: 122826

Ion	Ratio	Lower	Upper
83	100		
85	65.6	39.5	92.3

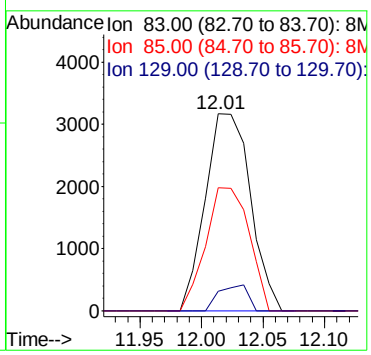


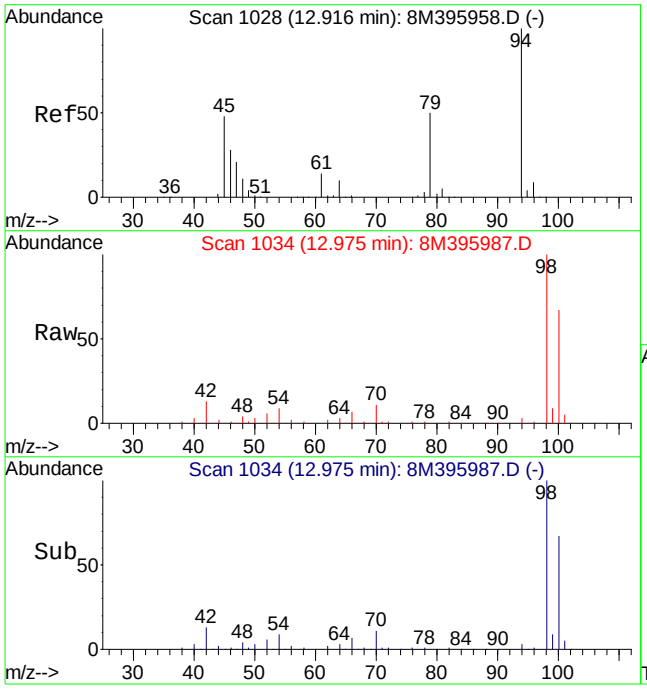


#50
Bromodichloromethane
Concen: 1.08 ug/L
RT: 12.01 min Scan# 941
Delta R.T. -0.01 min
Lab File: 8M395987.D
Acq: 29 Mar 2014 17:31

Tgt Ion: 83 Resp: 8110

Ion	Ratio	Lower	Upper
83	100		
85	59.8	38.6	90.2
129	8.4	6.9	16.1

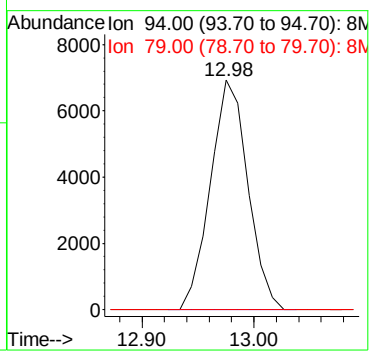




#56
Dimethyl Disulfide
Concen: 1.64 ug/L
RT: 12.98 min Scan# 1034
Delta R.T. 0.05 min
Lab File: 8M395987.D
Acq: 29 Mar 2014 17:31

Tgt Ion: 94 Resp: 16131

Ion	Ratio	Lower	Upper
94	100		
79	0.0	30.4	70.8#



Quantitation Report (Not Reviewed)

Data File : C:\MSDchem\2\data\032914\8M395988.D Vial: 15
Acq On : 29 Mar 2014 17:59 Operator: MES
Sample : L14031621-08 MS A 826-SPE Inst : HPMS8
Misc : 1,1 STD63597 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 29 18:21:53 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.00	96	689695	25.00 ug/L	0.00
57) Chlorobenzene-d5	14.88	117	603535	25.00 ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.90	152	354112	25.00 ug/L	-0.01
System Monitoring Compounds					
37) Dibromofluoromethane	9.96	111	161943	25.5816 ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 102.32%		
43) 1,2-Dichloroethane-d4	10.60	65	131960	25.5769 ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 102.32%		
58) Toluene-d8	12.98	98	615568	25.4599 ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 101.84%		
80) p-Bromofluorobenzene	16.38	95	232766	23.5474 ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 94.20%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.35	85	193015	31.7166 ug/L	98
3) Chloromethane	3.84	50	273559	23.1545 ug/L	100
4) Vinyl Chloride	4.07	62	176927	22.3918 ug/L	99
6) Bromomethane	4.99	94	112843	22.6058 ug/L	100
7) Chloroethane	5.16	64	105648	21.0953 ug/L	97
8) Trichlorofluoromethane	5.65	101	210740	22.4506 ug/L	98
10) Isoprene	6.22	67	172109	21.2769 ug/L	99
12) 1,1,2-Trichloro-1,2,2-Trif	6.44	101	141833	23.3857 ug/L	95
13) Acetone	6.51	43	17787	18.2967 ug/L	94
14) 1,1-Dichloroethene	6.75	61	184624	20.1622 ug/L	92
16) Dimethyl Sulfide	7.02	62	160627	31.8146 ug/L	99
17) Iodomethane	7.28	142	207416	37.2473 ug/L	92
18) Methyl acetate	7.28	43	50078	18.0801 ug/L	99
19) Methylene Chloride	7.54	84	133613	21.6978 ug/L	94
20) Carbon Disulfide	7.59	76	377622	19.0137 ug/L	99
21) Acrylonitrile	7.72	53	28674	20.3115 ug/L	97
22) Methyl Tert Butyl Ether	7.75	73	238477	20.9553 ug/L	100
23) trans-1,2-Dichloroethene	7.99	61	193430	21.2301 ug/L	89
24) n-Hexane	8.07	57	189739	21.3277 ug/L	99
27) 1,1-Dichloroethane	8.61	63	235748	20.9356 ug/L	99
29) 2-Butanone	9.17	43	30398	17.9921 ug/L	99
31) 2,2-Dichloropropane	9.40	77	192060	20.4637 ug/L	100
32) cis-1,2-Dichloroethene	9.46	96	149251	21.8933 ug/L	86
33) Chloroform	9.67	83	339137	31.4087 ug/L	99
35) Bromochloromethane	9.89	130	82325	21.0071 ug/L	89
38) 1,1,1-Trichloroethane	10.20	97	220969	21.5612 ug/L	100
39) Cyclohexane	10.24	56	255539	21.0286 ug/L	98
40) 1,1-Dichloropropene	10.39	75	180149	21.2448 ug/L	92
41) Tert-Amyl-Methyl ether	10.40	73	25085	1.8685 ug/L #	50
42) Carbon Tetrachloride	10.55	117	195742	21.1834 ug/L	98
45) 1,2-Dichloroethane	10.71	62	150425	21.4252 ug/L	98
46) Benzene	10.75	78	548458	21.6732 ug/L	97
47) Trichloroethene	11.51	130	157601	21.2587 ug/L	96
48) Methylcyclohexane	11.59	83	199966	21.6271 ug/L	97
49) 1,2-Dichloropropane	11.71	63	142209	21.4940 ug/L	99
50) Bromodichloromethane	12.02	83	182993	23.0119 ug/L	99
52) Dibromomethane	12.11	93	68128	21.7485 ug/L	90
53) 2-Chloroethyl Vinyl Ether	12.30	63	58301	19.9954 ug/L	93
54) 4-Methyl-2-Pentanone	12.33	58	29958	19.2443 ug/L	97
55) cis-1,3-Dichloropropene	12.65	75	210376	22.7238 ug/L	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\MSDchem\2\data\032914\8M395988.D Vial: 15
Acq On : 29 Mar 2014 17:59 Operator: MES
Sample : L14031621-08 MS A 826-SPE Inst : HPMS8
Misc : 1,1 STD63597 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 29 18:21:53 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

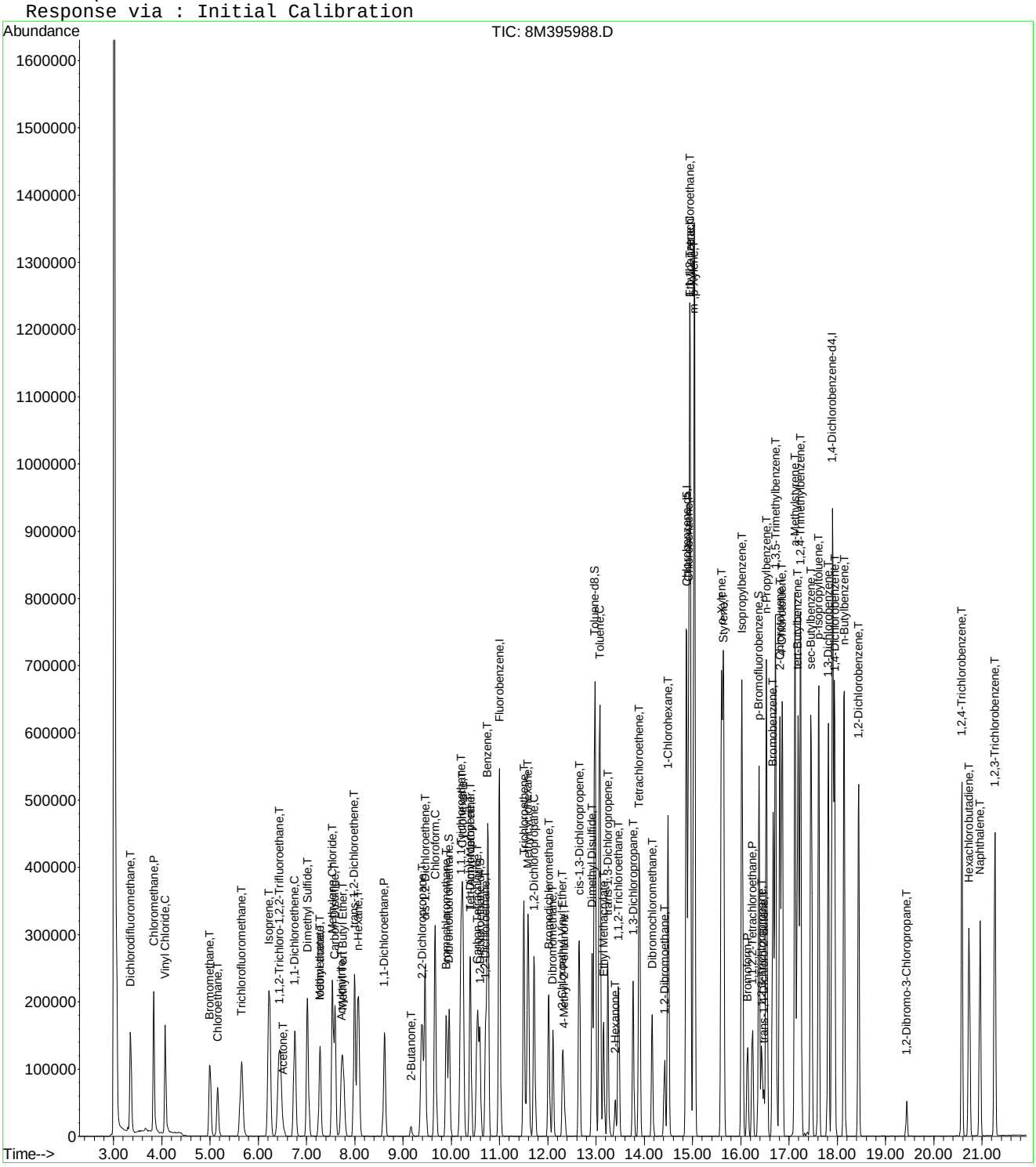
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
56)	Dimethyl Disulfide	12.92	94	228104	21.9319	ug/L		92
59)	Toluene	13.08	91	640065	21.8956	ug/L		99
60)	Ethyl Methacrylate	13.16	69	120209	21.6370	ug/L		91
62)	trans-1,3-Dichloropropene	13.24	75	166476	19.7064	ug/L		99
63)	1,1,2-Trichloroethane	13.46	97	98535	20.9748	ug/L		97
64)	2-Hexanone	13.40	58	26168	17.1450	ug/L		98
65)	1,3-Dichloropropane	13.77	76	164857	21.4944	ug/L		89
66)	Tetrachloroethene	13.90	164	140566	20.8737	ug/L		89
67)	Dibromochloromethane	14.16	129	129904	21.3779	ug/L		99
68)	1,2-Dibromoethane	14.42	107	96688	20.3622	ug/L		97
69)	1-Chlorohexane	14.50	91	207259	22.5565	ug/L		93
70)	Chlorobenzene	14.92	112	416049	19.9223	ug/L		93
71)	1,1,1,2-Tetrachloroethane	14.95	131	156592	21.1706	ug/L		99
72)	Ethylbenzene	14.95	106	234661	21.6392	ug/L		98
73)	m-,p-Xylene	15.03	106	549507	42.4826	ug/L		97
74)	o-Xylene	15.60	106	258244	20.1533	ug/L		98
75)	Styrene	15.64	104	467382	22.6086	ug/L		90
76)	Bromoform	16.14	173	85914	20.1251	ug/L		99
77)	Isopropylbenzene	16.03	105	648224	21.1491	ug/L		99
79)	1,1,2,2-Tetrachloroethane	16.24	83	103668	20.4863	ug/L		98
81)	1,2,3-Trichloropropane	16.44	110	30710	20.8488	ug/L		70
82)	trans-1,4-Dichloro-2-Buten	16.48	53	20616	11.2522	ug/L	#	39
83)	n-Propylbenzene	16.53	91	781363	21.0207	ug/L		99
84)	Bromobenzene	16.67	156	202887	21.3311	ug/L		98
85)	1,3,5-Trimethylbenzene	16.72	105	608569	23.3344	ug/L		100
86)	2-Chlorotoluene	16.81	91	513932	20.7585	ug/L		96
87)	4-Chlorotoluene	16.85	91	471896	20.4048	ug/L		97
88)	a-Methylstyrene	17.12	118	345446	22.0514	ug/L		97
89)	tert-Butylbenzene	17.18	134	124248	20.4766	ug/L		95
90)	1,2,4-Trimethylbenzene	17.24	105	621055	22.8737	ug/L		98
91)	sec-Butylbenzene	17.45	105	656458	20.9613	ug/L		100
92)	p-Isopropyltoluene	17.62	119	580499	21.1716	ug/L		98
93)	1,3-Dichlorobenzene	17.81	146	353791	20.2225	ug/L		92
94)	1,4-Dichlorobenzene	17.95	146	378239	20.9611	ug/L		94
95)	n-Butylbenzene	18.15	91	536777	22.8090	ug/L		99
96)	1,2-Dichlorobenzene	18.44	146	313690	19.5780	ug/L		93
97)	1,2-Dibromo-3-Chloropropan	19.44	75	16853	20.7806	ug/L		80
98)	1,2,4-Trichlorobenzene	20.59	180	243504	21.5296	ug/L		98
99)	Hexachlorobutadiene	20.73	225	97395	21.7829	ug/L		98
100)	Naphthalene	20.96	128	332067	21.4942	ug/L		100
101)	1,2,3-Trichlorobenzene	21.27	180	205348	21.0066	ug/L		98

(#) = qualifier out of range (m) = manual integration
8M395988.D 8260WTR.M Sat Mar 29 18:21:55 2014 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\MSDchem\2\data\032914\8M395988.D Vial: 15
Acq On : 29 Mar 2014 17:59 Operator: MES
Sample : L14031621-08 MS A 826-SPE Inst : HPMS8
Misc : 1,1 STD63597 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 29 18:21 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDchem\2\data\032914\8M395989.D Vial: 16
Acq On : 29 Mar 2014 18:28 Operator: MES
Sample : L14031621-09 MSD A 826-SPE Inst : HPMS8
Misc : 1,1 STD63597 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 29 18:50:36 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.00	96	692799	25.00 ug/L	0.00
57) Chlorobenzene-d5	14.88	117	615782	25.00 ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.90	152	358979	25.00 ug/L	-0.01
System Monitoring Compounds					
37) Dibromofluoromethane	9.96	111	162929	25.6221 ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 102.48%		
43) 1,2-Dichloroethane-d4	10.60	65	129127	24.9157 ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 99.68%		
58) Toluene-d8	12.98	98	625507	25.3564 ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 101.44%		
80) p-Bromofluorobenzene	16.38	95	240748	24.0247 ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 96.08%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.35	85	190795	31.2113 ug/L	100
3) Chloromethane	3.84	50	272945	22.9990 ug/L	99
4) Vinyl Chloride	4.07	62	173776	21.8945 ug/L	100
6) Bromomethane	5.01	94	116376	23.2091 ug/L	99
7) Chloroethane	5.16	64	107180	21.3053 ug/L	98
8) Trichlorofluoromethane	5.66	101	205864	21.8329 ug/L	99
10) Isoprene	6.23	67	173932	21.4059 ug/L	98
12) 1,1,2-Trichloro-1,2,2-Trif	6.45	101	142963	23.4664 ug/L	98
13) Acetone	6.52	43	18371	18.8128 ug/L	96
14) 1,1-Dichloroethene	6.76	61	180220	19.5931 ug/L	91
15) Tert-Butyl Alcohol	6.76	59	6036	21.4079 ug/L #	59
16) Dimethyl Sulfide	7.02	62	161212	31.7874 ug/L	100
17) Iodomethane	7.28	142	214369	38.3234 ug/L	93
18) Methyl acetate	7.28	43	50537	18.1640 ug/L	99
19) Methylene Chloride	7.54	84	132853	21.4777 ug/L	95
20) Carbon Disulfide	7.59	76	382757	19.1859 ug/L	99
21) Acrylonitrile	7.71	53	28621	20.1831 ug/L	98
22) Methyl Tert Butyl Ether	7.76	73	237550	20.7804 ug/L	99
23) trans-1,2-Dichloroethene	7.99	61	198110	21.6464 ug/L	90
24) n-Hexane	8.08	57	187629	20.9960 ug/L	99
27) 1,1-Dichloroethane	8.61	63	240034	21.2208 ug/L	99
29) 2-Butanone	9.17	43	30960	18.2426 ug/L	99
31) 2,2-Dichloropropane	9.40	77	190575	20.2145 ug/L	100
32) cis-1,2-Dichloroethene	9.46	96	149532	21.8362 ug/L	86
33) Chloroform	9.67	83	341857	31.5188 ug/L	100
35) Bromochloromethane	9.91	130	80934	20.5597 ug/L	89
38) 1,1,1-Trichloroethane	10.21	97	223462	21.7068 ug/L	99
39) Cyclohexane	10.24	56	251236	20.5818 ug/L	98
40) 1,1-Dichloropropene	10.39	75	179031	21.0183 ug/L	94
42) Carbon Tetrachloride	10.55	117	194287	20.9317 ug/L	98
45) 1,2-Dichloroethane	10.71	62	150156	21.2911 ug/L	99
46) Benzene	10.75	78	550341	21.6502 ug/L	97
47) Trichloroethene	11.51	130	159762	21.4537 ug/L	95
48) Methylcyclohexane	11.59	83	201005	21.6421 ug/L	97
49) 1,2-Dichloropropane	11.72	63	140740	21.1766 ug/L	98
50) Bromodichloromethane	12.03	83	182116	22.7990 ug/L	99
52) Dibromomethane	12.11	93	66791	21.2262 ug/L	87
53) 2-Chloroethyl Vinyl Ether	12.30	63	60857	20.7785 ug/L	96
54) 4-Methyl-2-Pentanone	12.34	58	30631	19.5885 ug/L	99
55) cis-1,3-Dichloropropene	12.66	75	208430	22.4127 ug/L	99

(#) = qualifier out of range (m) = manual integration
8M395989.D 8260WTR.M Sat Mar 29 18:50:37 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDchem\2\data\032914\8M395989.D Vial: 16
Acq On : 29 Mar 2014 18:28 Operator: MES
Sample : L14031621-09 MSD A 826-SPE Inst : HPMS8
Misc : 1,1 STD63597 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 29 18:50:36 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

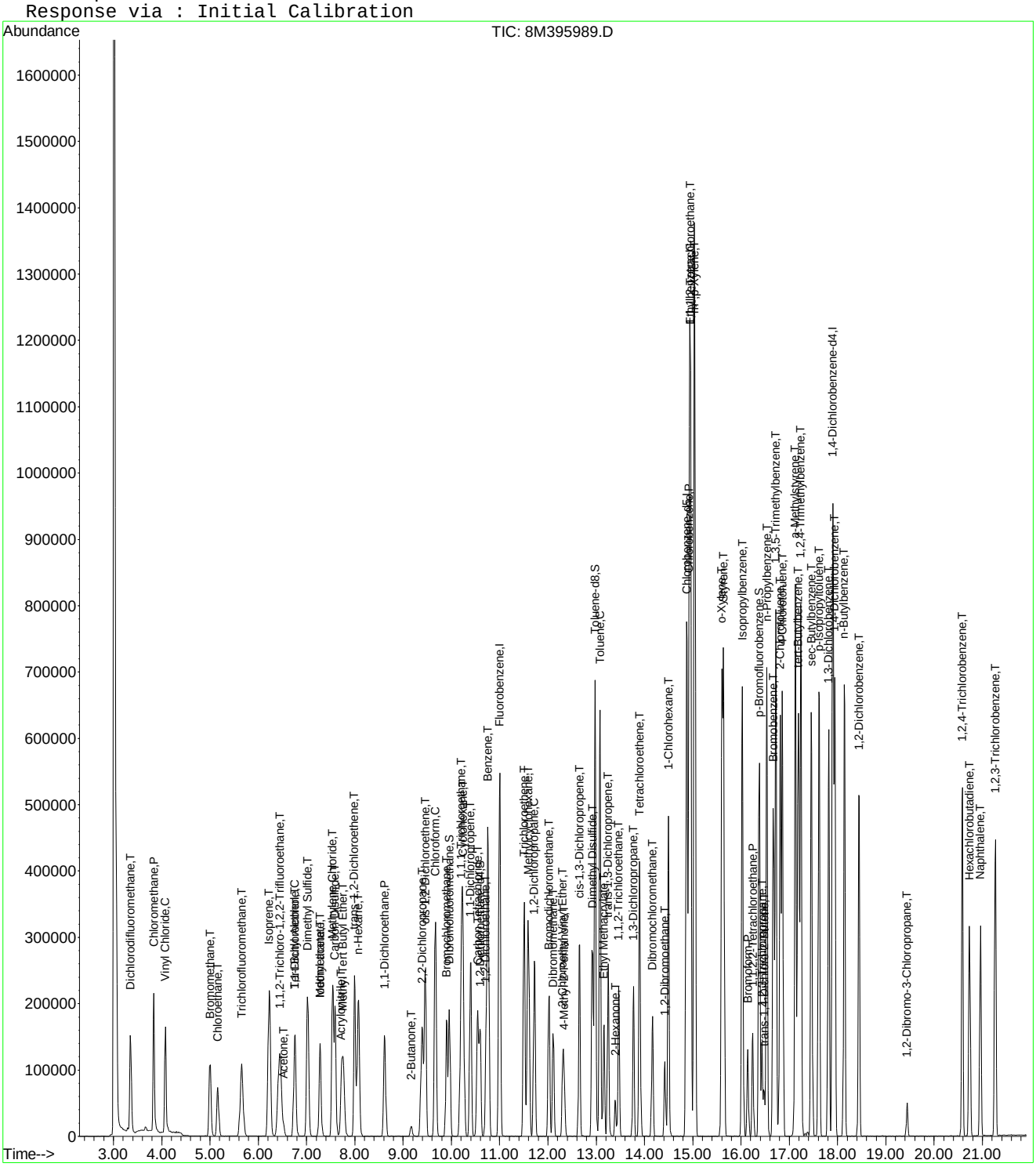
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
56)	Dimethyl Disulfide	12.93	94	229850	22.0007 ug/L		94
59)	Toluene	13.08	91	643780	21.5847 ug/L		99
60)	Ethyl Methacrylate	13.16	69	121579	21.4484 ug/L		91
62)	trans-1,3-Dichloropropene	13.25	75	165638	19.2173 ug/L		99
63)	1,1,2-Trichloroethane	13.46	97	97931	20.4316 ug/L		98
64)	2-Hexanone	13.40	58	26212	16.8323 ug/L		95
65)	1,3-Dichloropropane	13.77	76	159389	20.3682 ug/L		91
66)	Tetrachloroethene	13.90	164	138296	20.1281 ug/L		91
67)	Dibromochloromethane	14.17	129	132353	21.3477 ug/L		98
68)	1,2-Dibromoethane	14.42	107	97702	20.1665 ug/L		99
69)	1-Chlorohexane	14.50	91	210509	22.4545 ug/L		95
70)	Chlorobenzene	14.92	112	419889	19.7063 ug/L		92
71)	1,1,1,2-Tetrachloroethane	14.95	131	157376	20.8534 ug/L		99
72)	Ethylbenzene	14.95	106	234396	21.1849 ug/L		99
73)	m-,p-Xylene	15.03	106	550137	41.6854 ug/L		97
74)	o-Xylene	15.60	106	261289	19.9854 ug/L		97
75)	Styrene	15.63	104	466274	22.1064 ug/L		92
76)	Bromoform	16.14	173	87328	20.0494 ug/L		98
77)	Isopropylbenzene	16.03	105	654831	20.9397 ug/L		99
79)	1,1,2,2-Tetrachloroethane	16.24	83	105741	20.6127 ug/L		98
81)	1,2,3-Trichloropropane	16.44	110	30964	20.7363 ug/L		70
82)	trans-1,4-Dichloro-2-Buten	16.48	53	20842	11.2229 ug/L	#	40
83)	n-Propylbenzene	16.53	91	790525	20.9788 ug/L		100
84)	Bromobenzene	16.67	156	202738	21.0264 ug/L		98
85)	1,3,5-Trimethylbenzene	16.72	105	616895	23.3330 ug/L		100
86)	2-Chlorotoluene	16.81	91	525208	20.9264 ug/L		95
87)	4-Chlorotoluene	16.85	91	471071	20.0930 ug/L		96
88)	a-Methylstyrene	17.12	118	355127	22.3620 ug/L		97
89)	tert-Butylbenzene	17.18	134	126383	20.5461 ug/L		94
90)	1,2,4-Trimethylbenzene	17.24	105	627715	22.8055 ug/L		99
91)	sec-Butylbenzene	17.45	105	661815	20.8459 ug/L		100
92)	p-Isopropyltoluene	17.62	119	584527	21.0295 ug/L		99
93)	1,3-Dichlorobenzene	17.82	146	355112	20.0228 ug/L		93
94)	1,4-Dichlorobenzene	17.94	146	382488	20.9092 ug/L		94
95)	n-Butylbenzene	18.14	91	540397	22.6515 ug/L		98
96)	1,2-Dichlorobenzene	18.45	146	315555	19.4273 ug/L		94
97)	1,2-Dibromo-3-Chloropropan	19.44	75	15712	19.1110 ug/L		72
98)	1,2,4-Trichlorobenzene	20.59	180	245210	21.3865 ug/L		99
99)	Hexachlorobutadiene	20.73	225	97895	21.5979 ug/L		99
100)	Naphthalene	20.96	128	329871	21.0626 ug/L		100
101)	1,2,3-Trichlorobenzene	21.27	180	206208	20.8085 ug/L		98

(#) = qualifier out of range (m) = manual integration
8M395989.D 8260WTR.M Sat Mar 29 18:50:37 2014 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\MSDchem\2\data\032914\8M395989.D Vial: 16
Acq On : 29 Mar 2014 18:28 Operator: MES
Sample : L14031621-09 MSD A 826-SPE Inst : HPMS8
Misc : 1,1 STD63597 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 29 18:50 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395979.D Vial: 6
Acq On : 29 Mar 2014 13:37 Operator: MES
Sample : L14031621-10 A 826-SPE Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 08:20:08 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

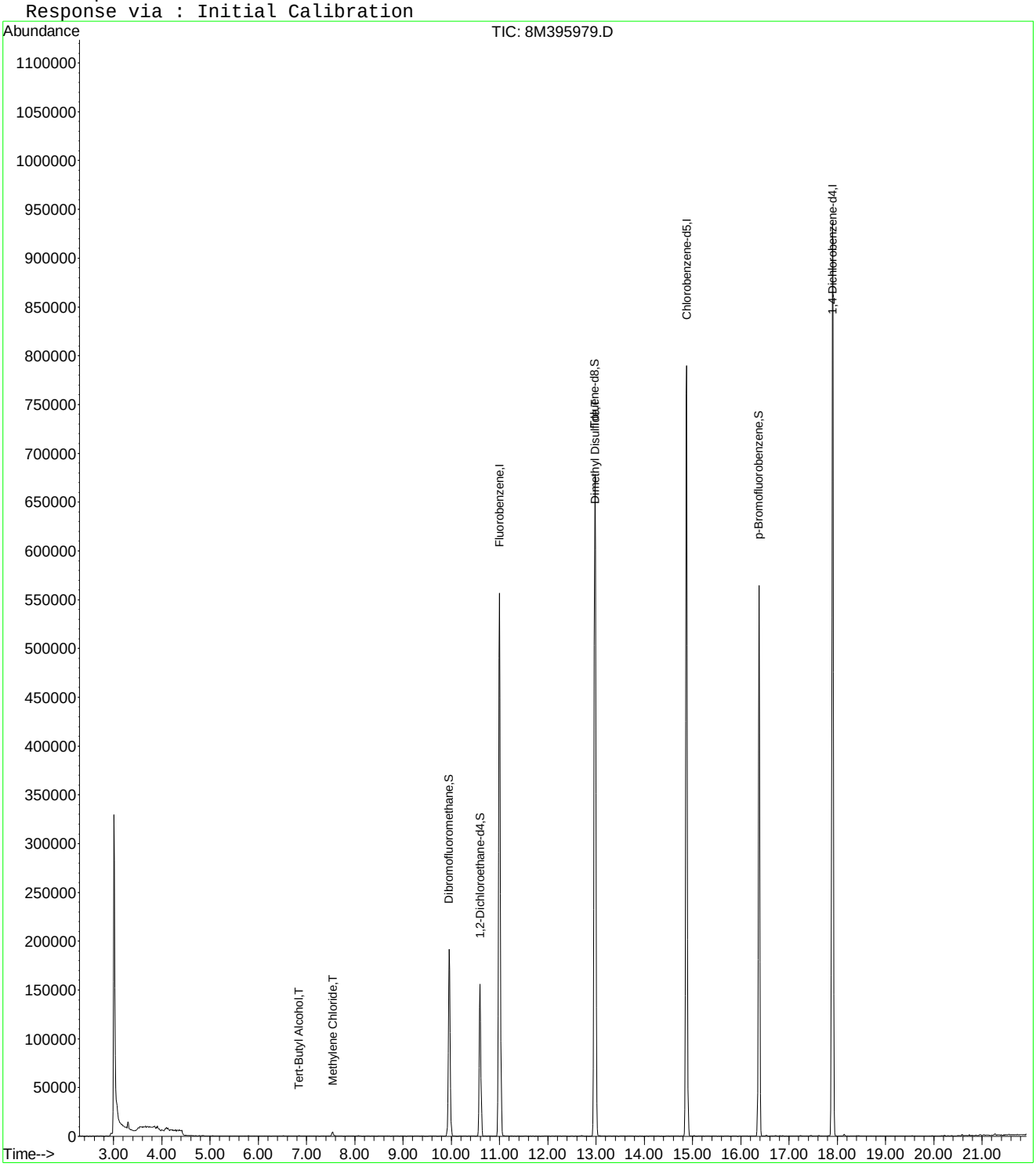
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.00	96	703480	25.00	ug/L	0.00
57) Chlorobenzene-d5	14.88	117	619123	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.91	152	359608	25.00	ug/L	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	9.96	111	163984	25.3964	ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 101.60%			
43) 1,2-Dichloroethane-d4	10.60	65	129420	24.5931	ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 98.36%			
58) Toluene-d8	12.98	98	616707	24.8648	ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 99.44%			
80) p-Bromofluorobenzene	16.38	95	235704	23.4802	ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 93.92%			
Target Compounds						Qvalue
15) Tert-Butyl Alcohol	6.84	59	469	1.6381	ug/L #	59
19) Methylene Chloride	7.55	84	2502	0.3983	ug/L	87
56) Dimethyl Disulfide	12.99	94	16617	1.5664	ug/L #	27

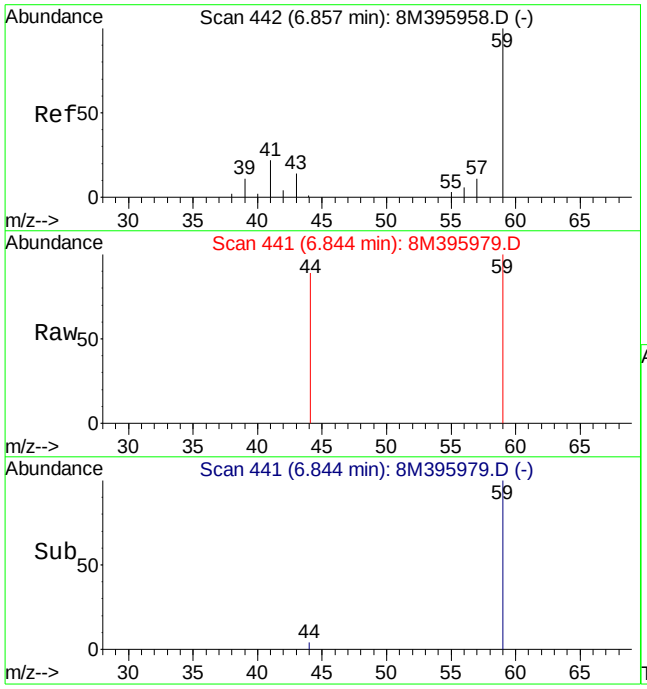
(#) = qualifier out of range (m) = manual integration
8M395979.D 8260WTR.M Mon Mar 31 08:20:09 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395979.D Vial: 6
Acq On : 29 Mar 2014 13:37 Operator: MES
Sample : L14031621-10 A 826-SPE Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 8:20 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration

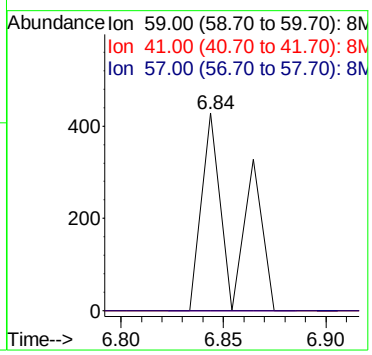


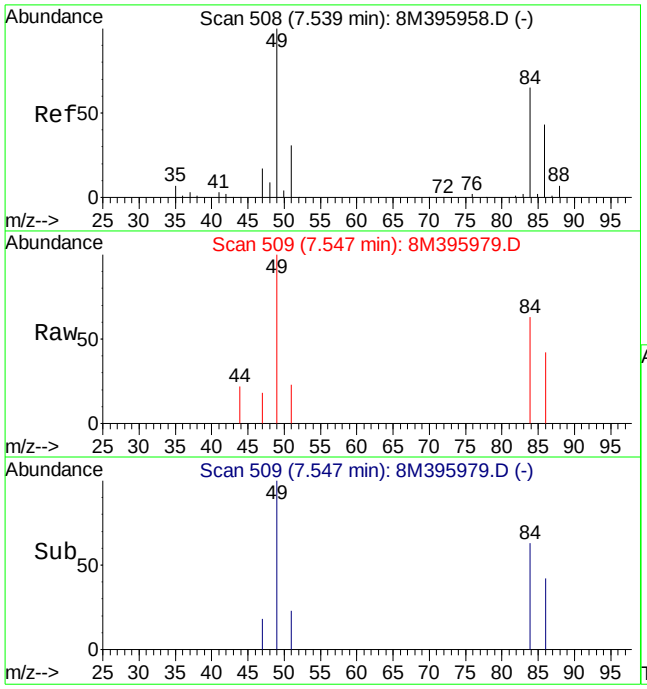


#15
Tert-Butyl Alcohol
Concen: 1.64 ug/L
RT: 6.84 min Scan# 441
Delta R.T. -0.01 min
Lab File: 8M395979.D
Acq: 29 Mar 2014 13:37

Tgt Ion: 59 Resp: 469

Ion	Ratio	Lower	Upper
59	100		
41	0.0	13.7	32.1#
57	0.0	6.1	14.3#

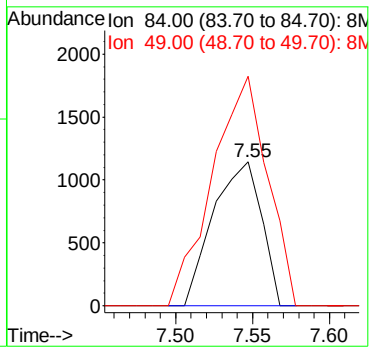


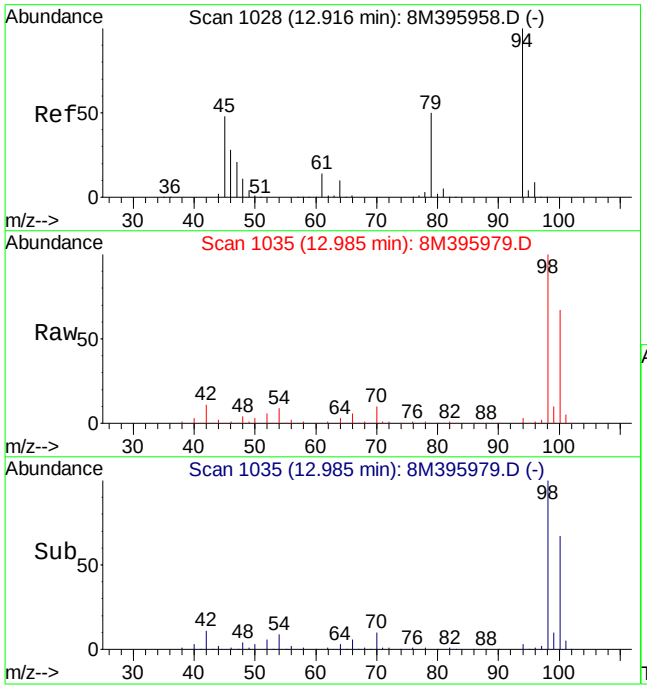


#19
Methylene Chloride
Concen: 0.40 ug/L
RT: 7.55 min Scan# 509
Delta R.T. 0.01 min
Lab File: 8M395979.D
Acq: 29 Mar 2014 13:37

Tgt Ion: 84 Resp: 2502

Ion	Ratio	Lower	Upper
84	100		
49	181.4	98.4	229.6

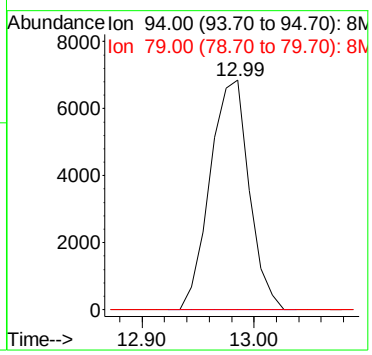




#56
Dimethyl Disulfide
Concen: 1.57 ug/L
RT: 12.99 min Scan# 1035
Delta R.T. 0.06 min
Lab File: 8M395979.D
Acq: 29 Mar 2014 13:37

Tgt Ion: 94 Resp: 16617

Ion	Ratio	Lower	Upper
94	100		
79	0.0	30.4	70.8#



2.1.1.4 Standards Data

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395952.D Vial: 2
Acq On : 28 Mar 2014 9:23 Operator: TMB
Sample : WG468975-02 0.3ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:50 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.00	96	770836	25.00 ug/L	0.00
57) Chlorobenzene-d5	14.88	117	637984	25.00 ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.91	152	369274	25.00 ug/L	0.00
System Monitoring Compounds					
37) Dibromofluoromethane	0.00	111	0	0.0000 ug/L	
Spiked Amount 25.000	Range 86 - 118		Recovery =	0.00%#	
43) 1,2-Dichloroethane-d4	0.00	65	0	0.0000 ug/L	
Spiked Amount 25.000	Range 80 - 120		Recovery =	0.00%#	
58) Toluene-d8	12.97	98	538	0.0211 ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery =	0.08%#	
80) p-Bromofluorobenzene	0.00	95	0	0.0000 ug/L	
Spiked Amount 25.000	Range 86 - 115		Recovery =	0.00%#	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.36	85	1606	0.2361 ug/L #	73
3) Chloromethane	3.83	50	7500	0.5680 ug/L	92
4) Vinyl Chloride	4.08	62	3065	0.3471 ug/L	88
5) 1,3-Butadiene	4.14	54	3132	Below Cal	85
6) Bromomethane	5.00	94	1565	0.2805 ug/L	88
7) Chloroethane	5.16	64	1618	0.2891 ug/L #	44
8) Trichlorofluoromethane	5.65	101	2845	0.2712 ug/L #	91
10) Isoprene	6.22	67	2138	0.2365 ug/L	99
12) 1,1,2-Trichloro-1,2,2-Trif	6.45	101	1429	0.2108 ug/L	80
13) Acetone	6.52	43	1377	1.2674 ug/L #	46
14) 1,1-Dichloroethene	6.76	61	2588	0.2529 ug/L	87
16) Dimethyl Sulfide	7.01	62	1460	0.2587 ug/L	96
17) Iodomethane	7.28	142	1032	0.1658 ug/L #	32
18) Methyl acetate	7.28	43	924	0.2985 ug/L #	65
19) Methylene Chloride	7.55	84	2381	0.3460 ug/L	90
20) Carbon Disulfide	7.60	76	7522	0.3389 ug/L	90
22) Methyl Tert Butyl Ether	7.74	73	2607	0.2050 ug/L #	49
23) trans-1,2-Dichloroethene	8.00	61	2994	0.2940 ug/L	85
24) n-Hexane	8.07	57	3959	0.3982 ug/L	97
26) Vinyl Acetate	8.57	43	2902	0.2914 ug/L #	78
27) 1,1-Dichloroethane	8.61	63	3634	0.2887 ug/L #	75
31) 2,2-Dichloropropane	9.39	77	2951	0.2813 ug/L #	42
32) cis-1,2-Dichloroethene	9.46	96	2530	0.3321 ug/L	63
33) Chloroform	9.67	83	3755	0.3112 ug/L	90
35) Bromochloromethane	9.90	130	1165	0.2660 ug/L	72
36) Tetrahydrofuran	9.92	42	23735	21.5567 ug/L	98
38) 1,1,1-Trichloroethane	10.21	97	3420	0.2986 ug/L	85
39) Cyclohexane	10.23	56	10650	0.7841 ug/L #	48
40) 1,1-Dichloropropene	10.39	75	2481	0.2618 ug/L	95
42) Carbon Tetrachloride	10.53	117	2694	0.2609 ug/L #	85
45) 1,2-Dichloroethane	10.72	62	2313	0.2948 ug/L #	70
46) Benzene	10.75	78	9249	0.3270 ug/L	85
47) Trichloroethene	11.51	130	2651	0.3200 ug/L	89
48) Methylcyclohexane	11.60	83	2889	0.2796 ug/L	91
49) 1,2-Dichloropropane	11.72	63	2324	0.3143 ug/L #	61
50) Bromodichloromethane	12.02	83	2421	0.2724 ug/L #	65
52) Dibromomethane	12.11	93	841	0.2402 ug/L	77
53) 2-Chloroethyl Vinyl Ether	12.30	63	484	0.1485 ug/L #	50
55) cis-1,3-Dichloropropene	12.65	75	2725	0.2634 ug/L	86
56) Dimethyl Disulfide	12.92	94	1857	0.1598 ug/L #	66

(#) = qualifier out of range (m) = manual integration
8M395952.D 8260WTR.M Fri Mar 28 14:25:50 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395952.D Vial: 2
Acq On : 28 Mar 2014 9:23 Operator: TMB
Sample : WG468975-02 0.3ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:50 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

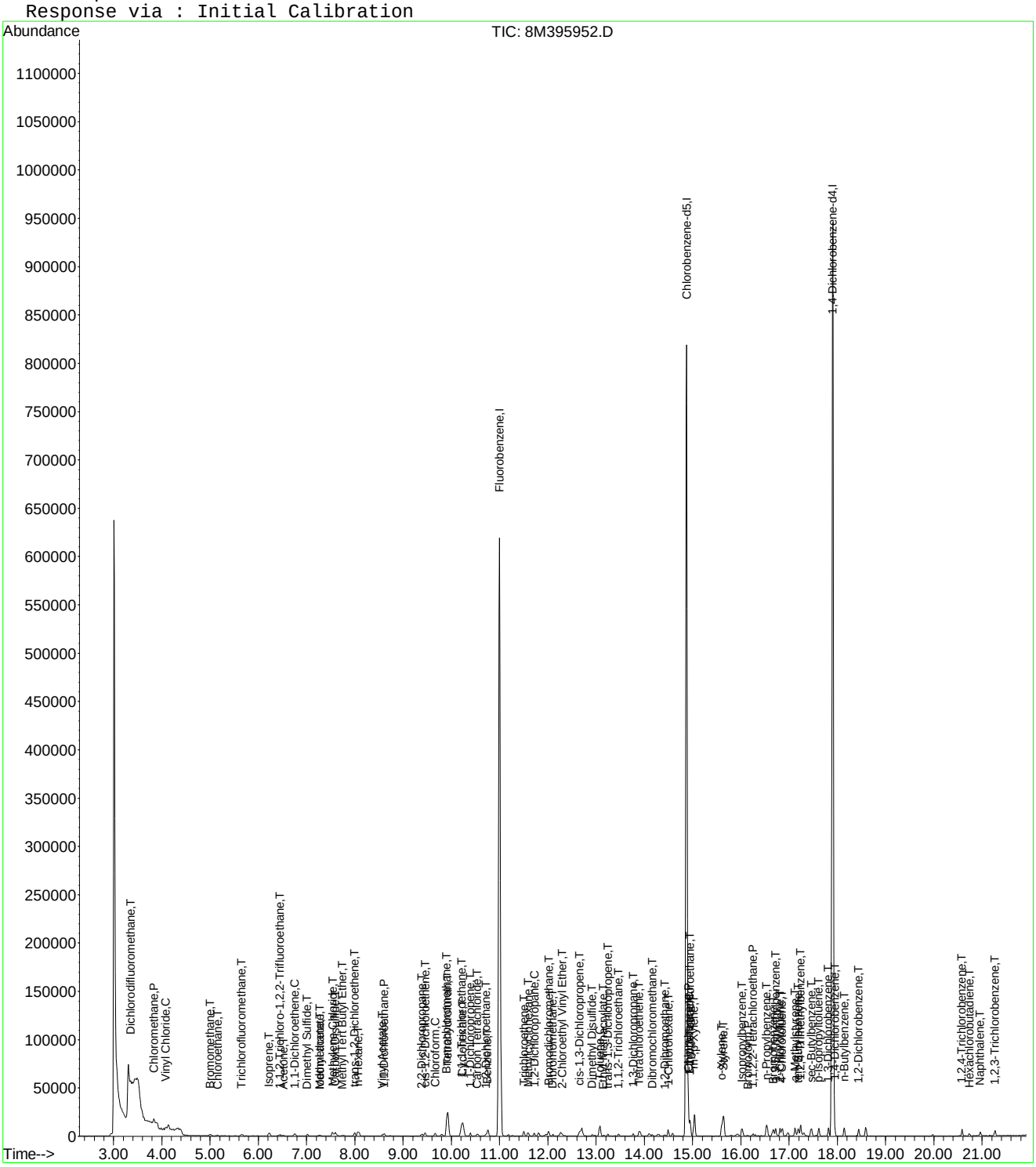
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
59)	Toluene	13.08	91	11629	0.3763 ug/L		95
60)	Ethyl Methacrylate	13.15	69	939	0.1599 ug/L		98
62)	trans-1,3-Dichloropropene	13.24	75	2154	0.2412 ug/L	#	64
63)	1,1,2-Trichloroethane	13.46	97	909	0.1830 ug/L		64
65)	1,3-Dichloropropane	13.77	76	2593	0.3198 ug/L		70
66)	Tetrachloroethene	13.89	164	2433	0.3418 ug/L		79
67)	Dibromochloromethane	14.16	129	1738	0.2706 ug/L		66
68)	1,2-Dibromoethane	14.43	107	1137	0.2265 ug/L		88
69)	1-Chlorohexane	14.50	91	2842	0.2926 ug/L		93
70)	Chlorobenzene	14.92	112	7485	0.3391 ug/L		72
71)	1,1,1,2-Tetrachloroethane	14.95	131	2052	0.2624 ug/L		88
72)	Ethylbenzene	14.94	106	3453	0.3012 ug/L		84
73)	m-,p-Xylene	15.03	106	10373	0.7586 ug/L		89
74)	o-Xylene	15.60	106	5150	0.3802 ug/L		78
75)	Styrene	15.64	104	6289	0.2878 ug/L		90
76)	Bromoform	16.15	173	682	0.1511 ug/L	#	28
77)	Isopropylbenzene	16.02	105	10055	0.3103 ug/L		98
79)	1,1,2,2-Tetrachloroethane	16.25	83	1575	0.2985 ug/L	#	94
83)	n-Propylbenzene	16.53	91	13287	0.3428 ug/L		93
84)	Bromobenzene	16.68	156	3179	0.3205 ug/L		85
85)	1,3,5-Trimethylbenzene	16.72	105	8610	0.3166 ug/L		95
86)	2-Chlorotoluene	16.81	91	8017	0.3105 ug/L		99
87)	4-Chlorotoluene	16.85	91	6165	0.2556 ug/L		77
88)	a-Methylstyrene	17.12	118	4401	0.2694 ug/L		95
89)	tert-Butylbenzene	17.19	134	1649	0.2606 ug/L		82
90)	1,2,4-Trimethylbenzene	17.23	105	10527	0.3718 ug/L		89
91)	sec-Butylbenzene	17.46	105	10431	0.3194 ug/L		94
92)	p-Isopropyltoluene	17.62	119	9201	0.3218 ug/L		94
93)	1,3-Dichlorobenzene	17.81	146	6234	0.3417 ug/L		96
94)	1,4-Dichlorobenzene	17.95	146	6469	0.3438 ug/L	#	57
95)	n-Butylbenzene	18.14	91	8818	0.3593 ug/L		96
96)	1,2-Dichlorobenzene	18.44	146	5356	0.3206 ug/L		91
98)	1,2,4-Trichlorobenzene	20.58	180	4075	0.3455 ug/L		95
99)	Hexachlorobutadiene	20.74	225	1477	0.3168 ug/L		84
100)	Naphthalene	20.96	128	5834	0.3621 ug/L		94
101)	1,2,3-Trichlorobenzene	21.27	180	3302	0.3239 ug/L		95

(#) = qualifier out of range (m) = manual integration
8M395952.D 8260WTR.M Fri Mar 28 14:25:50 2014 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395952.D Vial: 2
Acq On : 28 Mar 2014 9:23 Operator: TMB
Sample : WG468975-02 0.3ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395953.D Vial: 3
Acq On : 28 Mar 2014 9:52 Operator: TMB
Sample : WG468975-03 0.4ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:51 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.00	96	750615	25.00 ug/L	0.00
57) Chlorobenzene-d5	14.88	117	626752	25.00 ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.90	152	364971	25.00 ug/L	-0.01
System Monitoring Compounds					
37) Dibromofluoromethane	0.00	111	0	0.0000 ug/L	
Spiked Amount 25.000	Range 86 - 118		Recovery =	0.00%#	
43) 1,2-Dichloroethane-d4	0.00	65	0	0.0000 ug/L	
Spiked Amount 25.000	Range 80 - 120		Recovery =	0.00%#	
58) Toluene-d8	0.00	98	0	0.0000 ug/L	
Spiked Amount 25.000	Range 88 - 110		Recovery =	0.00%#	
80) p-Bromofluorobenzene	0.00	95	0	0.0000 ug/L	
Spiked Amount 25.000	Range 86 - 115		Recovery =	0.00%#	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.36	85	1967	0.2970 ug/L #	63
3) Chloromethane	3.84	50	7358	0.5722 ug/L #	75
4) Vinyl Chloride	4.07	62	3569	0.4150 ug/L	90
5) 1,3-Butadiene	4.15	54	3322	Below Cal	86
6) Bromomethane	4.99	94	2451	0.4512 ug/L	86
7) Chloroethane	5.16	64	1814	0.3328 ug/L #	64
8) Trichlorofluoromethane	5.66	101	3815	0.3734 ug/L #	88
10) Isoprene	6.23	67	2595	0.2948 ug/L	83
12) 1,1,2-Trichloro-1,2,2-Trif	6.43	101	2189	0.3316 ug/L	93
13) Acetone	6.53	43	455	0.4301 ug/L #	46
14) 1,1-Dichloroethene	6.75	61	3858	0.3871 ug/L	98
16) Dimethyl Sulfide	7.02	62	1795	0.3267 ug/L	75
17) Iodomethane	7.28	142	1220	0.2013 ug/L #	32
18) Methyl acetate	7.27	43	511	0.1695 ug/L #	65
19) Methylene Chloride	7.55	84	2650	0.3954 ug/L	91
20) Carbon Disulfide	7.60	76	9261	0.4285 ug/L #	87
22) Methyl Tert Butyl Ether	7.73	73	3920	0.3165 ug/L #	61
23) trans-1,2-Dichloroethene	7.99	61	3909	0.3942 ug/L	99
24) n-Hexane	8.07	57	3838	0.3964 ug/L	97
26) Vinyl Acetate	8.57	43	2883	0.2972 ug/L #	78
27) 1,1-Dichloroethane	8.62	63	5039	0.4112 ug/L #	77
31) 2,2-Dichloropropane	9.39	77	3879	0.3798 ug/L #	75
32) cis-1,2-Dichloroethene	9.46	96	2595	0.3498 ug/L	80
33) Chloroform	9.67	83	4625	0.3936 ug/L	99
35) Bromochloromethane	9.90	130	1527	0.3580 ug/L	87
38) 1,1,1-Trichloroethane	10.19	97	4148	0.3719 ug/L	97
39) Cyclohexane	10.23	56	5385	0.4072 ug/L #	75
40) 1,1-Dichloropropene	10.39	75	3402	0.3686 ug/L	92
42) Carbon Tetrachloride	10.54	117	3715	0.3694 ug/L #	81
45) 1,2-Dichloroethane	10.71	62	2981	0.3901 ug/L #	84
46) Benzene	10.75	78	11331	0.4114 ug/L	86
47) Trichloroethene	11.51	130	2868	0.3555 ug/L	96
48) Methylcyclohexane	11.59	83	3547	0.3525 ug/L	92
49) 1,2-Dichloropropane	11.71	63	2560	0.3555 ug/L	95
50) Bromodichloromethane	12.01	83	3050	0.3524 ug/L #	91
52) Dibromomethane	12.11	93	1341	0.3933 ug/L	85
53) 2-Chloroethyl Vinyl Ether	12.31	63	641	0.2020 ug/L #	50
55) cis-1,3-Dichloropropene	12.65	75	3738	0.3710 ug/L	91
56) Dimethyl Disulfide	12.91	94	2429	0.2146 ug/L	85
59) Toluene	13.08	91	11559	0.3808 ug/L	100

(#) = qualifier out of range (m) = manual integration
8M395953.D 8260WTR.M Fri Mar 28 14:25:51 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395953.D Vial: 3
Acq On : 28 Mar 2014 9:52 Operator: TMB
Sample : WG468975-03 0.4ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:51 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

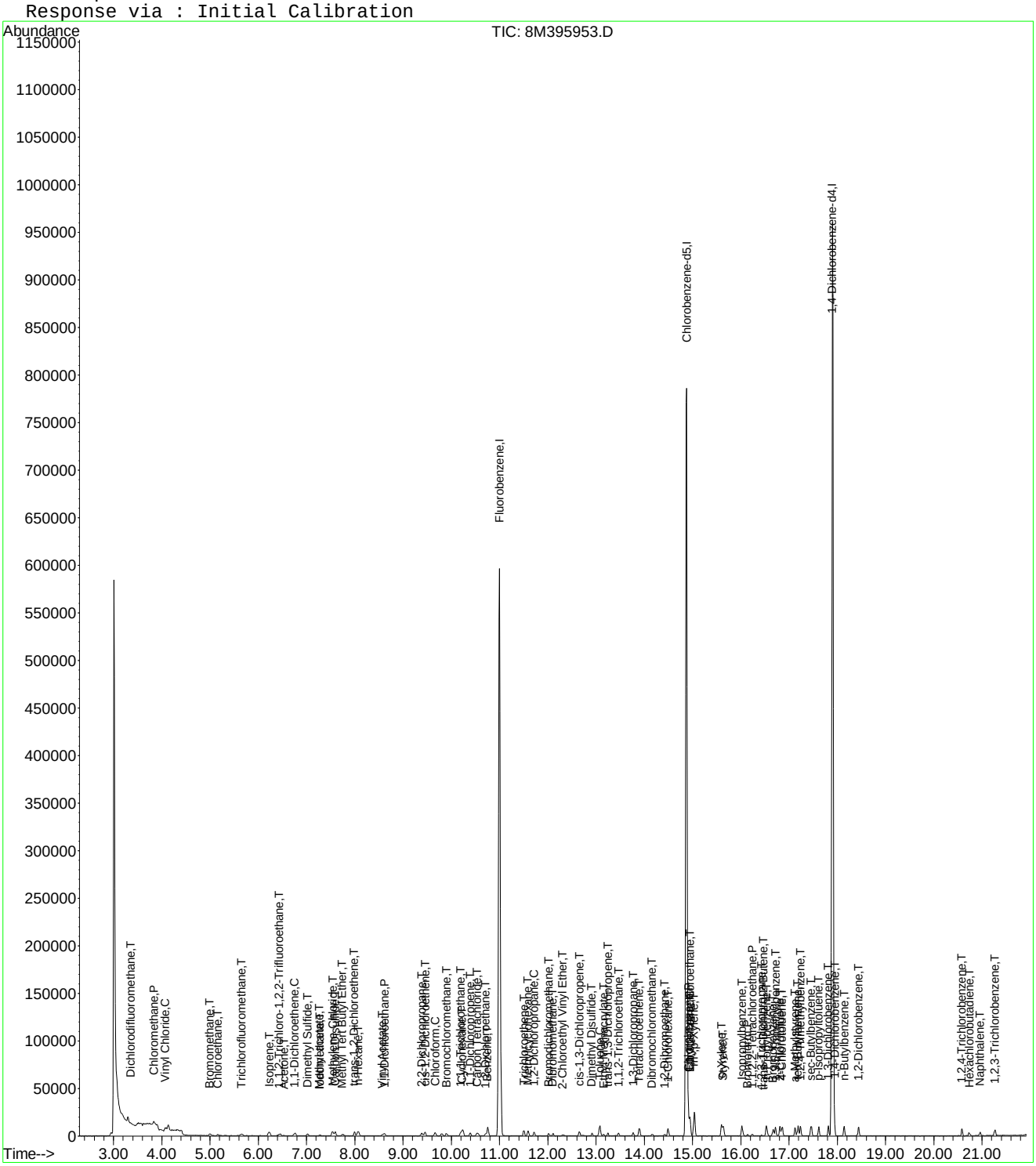
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
60)	Ethyl Methacrylate	13.16	69	1532	0.2655	ug/L		95
62)	trans-1,3-Dichloropropene	13.24	75	2696	0.3073	ug/L		78
63)	1,1,2-Trichloroethane	13.47	97	1659	0.3401	ug/L		98
65)	1,3-Dichloropropane	13.77	76	2710	0.3402	ug/L		98
66)	Tetrachloroethene	13.90	164	2469	0.3531	ug/L		86
67)	Dibromochloromethane	14.15	129	1936	0.3068	ug/L		88
68)	1,2-Dibromoethane	14.42	107	1737	0.3523	ug/L		96
69)	1-Chlorohexane	14.50	91	3338	0.3498	ug/L		95
70)	Chlorobenzene	14.92	112	9143	0.4216	ug/L		80
71)	1,1,1,2-Tetrachloroethane	14.95	131	2768	0.3604	ug/L		98
72)	Ethylbenzene	14.95	106	4181	0.3713	ug/L		92
73)	m-,p-Xylene	15.03	106	10157	0.7562	ug/L		95
74)	o-Xylene	15.60	106	4679	0.3516	ug/L		97
75)	Styrene	15.63	104	7374	0.3435	ug/L		91
76)	Bromoform	16.14	173	1287	0.2903	ug/L	#	39
77)	Isopropylbenzene	16.03	105	11051	0.3472	ug/L		94
79)	1,1,2,2-Tetrachloroethane	16.24	83	2111	0.4048	ug/L	#	87
81)	1,2,3-Trichloropropane	16.43	110	215	0.1416	ug/L	#	1
82)	trans-1,4-Dichloro-2-Buten	16.47	53	203	0.7785	ug/L	#	1
83)	n-Propylbenzene	16.53	91	14493	0.3783	ug/L		94
84)	Bromobenzene	16.67	156	3281	0.3347	ug/L		87
85)	1,3,5-Trimethylbenzene	16.72	105	9507	0.3537	ug/L		96
86)	2-Chlorotoluene	16.81	91	10037	0.3933	ug/L		93
87)	4-Chlorotoluene	16.85	91	9655	0.4051	ug/L		86
88)	a-Methylstyrene	17.12	118	4711	0.2918	ug/L		99
89)	tert-Butylbenzene	17.18	134	1993	0.3187	ug/L		92
90)	1,2,4-Trimethylbenzene	17.24	105	9867	0.3526	ug/L		91
91)	sec-Butylbenzene	17.45	105	12198	0.3779	ug/L		100
92)	p-Isopropyltoluene	17.62	119	9559	0.3383	ug/L		99
93)	1,3-Dichlorobenzene	17.81	146	7089	0.3931	ug/L		90
94)	1,4-Dichlorobenzene	17.95	146	7531	0.4049	ug/L	#	72
95)	n-Butylbenzene	18.15	91	9861	0.4066	ug/L	#	96
96)	1,2-Dichlorobenzene	18.45	146	7143	0.4325	ug/L		85
98)	1,2,4-Trichlorobenzene	20.59	180	4760	0.4083	ug/L		96
99)	Hexachlorobutadiene	20.74	225	1790	0.3884	ug/L		91
100)	Naphthalene	20.96	128	5414	0.3400	ug/L		88
101)	1,2,3-Trichlorobenzene	21.27	180	3841	0.3812	ug/L		93

(#) = qualifier out of range (m) = manual integration
8M395953.D 8260WTR.M Fri Mar 28 14:25:51 2014 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395953.D Vial: 3
Acq On : 28 Mar 2014 9:52 Operator: TMB
Sample : WG468975-03 0.4ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395954.D Vial: 4
Acq On : 28 Mar 2014 10:22 Operator: TMB
Sample : WG468975-04 1ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:52 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.00	96	753028	25.00 ug/L	0.00
57) Chlorobenzene-d5	14.87	117	640424	25.00 ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.90	152	376829	25.00 ug/L	0.00
System Monitoring Compounds					
37) Dibromofluoromethane	9.96	111	3125	0.4521 ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery =	1.80%#	
43) 1,2-Dichloroethane-d4	10.59	65	2773	0.4923 ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery =	1.96%#	
58) Toluene-d8	12.98	98	12558	0.4895 ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery =	1.96%#	
80) p-Bromofluorobenzene	16.37	95	4740	0.4506 ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery =	1.80%#	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.35	85	6869	1.0338 ug/L	98
3) Chloromethane	3.84	50	15919	1.2341 ug/L	90
4) Vinyl Chloride	4.08	62	9784	1.1341 ug/L	97
5) 1,3-Butadiene	4.14	54	8809	Below Cal #	74
6) Bromomethane	5.00	94	5657	1.0380 ug/L	94
7) Chloroethane	5.16	64	5416	0.9905 ug/L	92
8) Trichlorofluoromethane	5.66	101	10579	1.0322 ug/L #	94
9) Diethyl ether	6.19	59	22990	5.0932 ug/L	97
10) Isoprene	6.24	67	8515	0.9641 ug/L	98
12) 1,1,2-Trichloro-1,2,2-Trif	6.43	101	6816	1.0293 ug/L	94
13) Acetone	6.53	43	842	0.7933 ug/L #	46
14) 1,1-Dichloroethene	6.76	61	10598	1.0600 ug/L	95
15) Tert-Butyl Alcohol	6.87	59	3378	11.0225 ug/L #	59
16) Dimethyl Sulfide	7.02	62	4850	0.8798 ug/L	92
17) Iodomethane	7.28	142	4773	0.7850 ug/L	85
18) Methyl acetate	7.28	43	2782	0.9199 ug/L #	65
19) Methylene Chloride	7.54	84	7273	1.0817 ug/L	92
20) Carbon Disulfide	7.59	76	22892	1.0557 ug/L	98
21) Acrylonitrile	7.73	53	3411	2.2130 ug/L	99
22) Methyl Tert Butyl Ether	7.76	73	10842	0.8726 ug/L	98
23) trans-1,2-Dichloroethene	7.99	61	10394	1.0449 ug/L	91
24) n-Hexane	8.08	57	10856	1.1176 ug/L	95
25) Diisopropyl ether	8.41	45	129091	5.0556 ug/L	99
26) Vinyl Acetate	8.57	43	8745	0.8987 ug/L	92
27) 1,1-Dichloroethane	8.62	63	12371	1.0062 ug/L	93
28) Ethyl-Tert-Butyl ether	8.99	59	100730	4.9429 ug/L	98
29) 2-Butanone	9.16	43	1193	0.6467 ug/L #	58
30) Propionitrile	9.28	54	2464	4.3585 ug/L #	55
31) 2,2-Dichloropropane	9.39	77	11630	1.1349 ug/L	95
32) cis-1,2-Dichloroethene	9.46	96	7033	0.9449 ug/L	100
33) Chloroform	9.67	83	13187	1.1186 ug/L	94
34) 1-Bromopropane	9.79	122	1174	0.8447 ug/L	89
35) Bromochloromethane	9.90	130	4086	0.9549 ug/L	85
36) Tetrahydrofuran	9.93	42	4917	4.5713 ug/L	91
38) 1,1,1-Trichloroethane	10.20	97	11437	1.0221 ug/L	96
39) Cyclohexane	10.24	56	13517	1.0188 ug/L	95
40) 1,1-Dichloropropene	10.39	75	9413	1.0167 ug/L	98
41) Tert-Amyl-Methyl ether	10.50	73	71386	4.8700 ug/L	92
42) Carbon Tetrachloride	10.55	117	10054	0.9965 ug/L	97
45) 1,2-Dichloroethane	10.71	62	7886	1.0287 ug/L	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395954.D Vial: 4
Acq On : 28 Mar 2014 10:22 Operator: TMB
Sample : WG468975-04 1ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:52 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

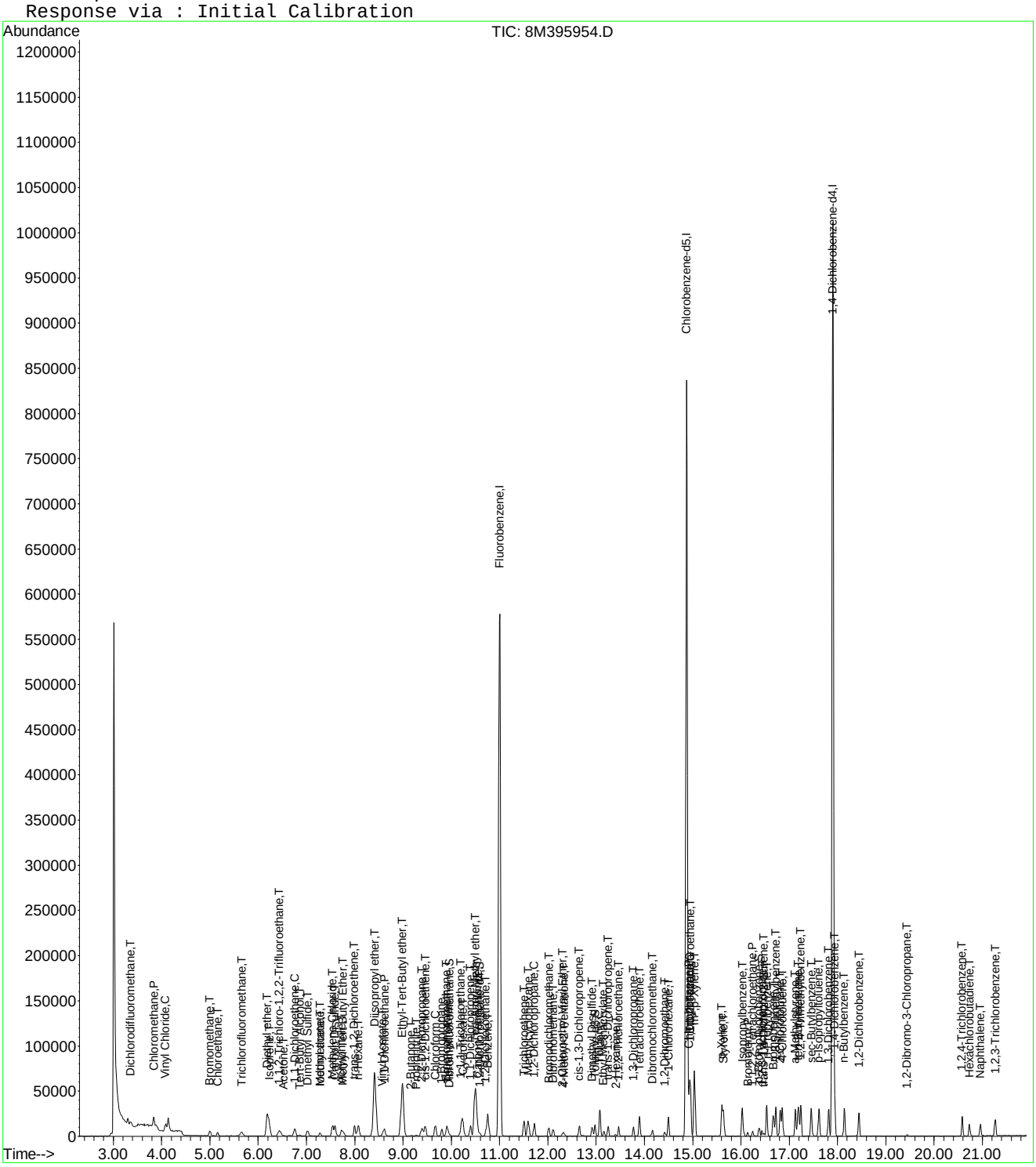
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
46)	Benzene	10.76	78	29921	1.0829 ug/L		95
47)	Trichloroethene	11.51	130	8436	1.0422 ug/L		92
48)	Methylcyclohexane	11.59	83	10894	1.0791 ug/L		95
49)	1,2-Dichloropropane	11.72	63	7522	1.0413 ug/L		95
50)	Bromodichloromethane	12.03	83	8046	0.9267 ug/L		96
52)	Dibromomethane	12.11	93	2968	0.8678 ug/L	#	73
53)	2-Chloroethyl Vinyl Ether	12.31	63	2349	0.7379 ug/L	#	50
54)	4-Methyl-2-Pentanone	12.34	58	1101	0.6478 ug/L	#	40
55)	cis-1,3-Dichloropropene	12.65	75	9156	0.9058 ug/L		100
56)	Dimethyl Disulfide	12.92	94	6993	0.6158 ug/L		94
59)	Toluene	13.07	91	32280	1.0406 ug/L		98
60)	Ethyl Methacrylate	13.15	69	4837	0.8205 ug/L		86
62)	trans-1,3-Dichloropropene	13.25	75	8067	0.8999 ug/L		99
63)	1,1,2-Trichloroethane	13.46	97	4677	0.9382 ug/L		92
64)	2-Hexanone	13.41	58	1084	0.6693 ug/L	#	53
65)	1,3-Dichloropropane	13.77	76	7950	0.9768 ug/L		87
66)	Tetrachloroethene	13.90	164	7415	1.0377 ug/L		92
67)	Dibromochloromethane	14.17	129	5661	0.8780 ug/L		95
68)	1,2-Dibromoethane	14.42	107	4731	0.9389 ug/L		95
69)	1-Chlorohexane	14.50	91	8750	0.8974 ug/L		95
70)	Chlorobenzene	14.92	112	23036	1.0395 ug/L		91
71)	1,1,1,2-Tetrachloroethane	14.95	131	7623	0.9712 ug/L		99
72)	Ethylbenzene	14.94	106	11883	1.0327 ug/L		100
73)	m-,p-Xylene	15.04	106	29332	2.1370 ug/L		95
74)	o-Xylene	15.60	106	13345	0.9815 ug/L		96
75)	Styrene	15.64	104	20594	0.9388 ug/L		89
76)	Bromoform	16.14	173	3526	0.7784 ug/L		97
77)	Isopropylbenzene	16.03	105	32941	1.0128 ug/L		98
79)	1,1,2,2-Tetrachloroethane	16.24	83	5225	0.9703 ug/L	#	95
81)	1,2,3-Trichloropropane	16.44	110	1334	0.8510 ug/L		88
82)	trans-1,4-Dichloro-2-Buten	16.47	53	1112	1.2097 ug/L	#	19
83)	n-Propylbenzene	16.54	91	40020	1.0117 ug/L		97
84)	Bromobenzene	16.67	156	10366	1.0242 ug/L		93
85)	1,3,5-Trimethylbenzene	16.72	105	26635	0.9597 ug/L		99
86)	2-Chlorotoluene	16.81	91	27976	1.0619 ug/L		96
87)	4-Chlorotoluene	16.86	91	24295	0.9872 ug/L		99
88)	a-Methylstyrene	17.12	118	13414	0.8047 ug/L		100
89)	tert-Butylbenzene	17.19	134	6102	0.9450 ug/L		93
90)	1,2,4-Trimethylbenzene	17.24	105	27853	0.9640 ug/L		98
91)	sec-Butylbenzene	17.46	105	33620	1.0088 ug/L		98
92)	p-Isopropyltoluene	17.61	119	28136	0.9643 ug/L		98
93)	1,3-Dichlorobenzene	17.82	146	19526	1.0488 ug/L		93
94)	1,4-Dichlorobenzene	17.94	146	19636	1.0226 ug/L		76
95)	n-Butylbenzene	18.14	91	25292	1.0099 ug/L		99
96)	1,2-Dichlorobenzene	18.45	146	17256	1.0121 ug/L		92
97)	1,2-Dibromo-3-Chloropropan	19.44	75	545	0.6315 ug/L	#	47
98)	1,2,4-Trichlorobenzene	20.58	180	12149	1.0094 ug/L		97
99)	Hexachlorobutadiene	20.73	225	4941	1.0385 ug/L		92
100)	Naphthalene	20.96	128	14755	0.8975 ug/L		96
101)	1,2,3-Trichlorobenzene	21.27	180	10214	0.9819 ug/L		94

(#) = qualifier out of range (m) = manual integration
8M395954.D 8260WTR.M Fri Mar 28 14:25:52 2014 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395954.D Vial: 4
Acq On : 28 Mar 2014 10:22 Operator: TMB
Sample : WG468975-04 1ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395955.D Vial: 5
Acq On : 28 Mar 2014 10:51 Operator: TMB
Sample : WG468975-05 2ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:53 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.00	96	760009	25.00 ug/L	0.00
57) Chlorobenzene-d5	14.88	117	639587	25.00 ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.91	152	375591	25.00 ug/L	0.00
System Monitoring Compounds					
37) Dibromofluoromethane	9.96	111	7149	1.0248 ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery =	4.08%#	
43) 1,2-Dichloroethane-d4	10.60	65	5737	1.0091 ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery =	4.04%#	
58) Toluene-d8	12.97	98	26169	1.0213 ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery =	4.08%#	
80) p-Bromofluorobenzene	16.38	95	10872	1.0370 ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery =	4.16%#	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.36	85	12060	1.7984 ug/L	97
3) Chloromethane	3.83	50	29290	2.2498 ug/L	93
4) Vinyl Chloride	4.07	62	18197	2.0899 ug/L	98
5) 1,3-Butadiene	4.13	54	16915	Below Cal	87
6) Bromomethane	4.99	94	10672	1.9401 ug/L	98
7) Chloroethane	5.16	64	10824	1.9613 ug/L	94
8) Trichlorofluoromethane	5.66	101	20956	2.0259 ug/L #	96
9) Diethyl ether	6.18	59	119092	26.1411 ug/L	100
10) Isoprene	6.23	67	18010	2.0205 ug/L	92
11) Acrolein	6.42	56	1012	8.0498 ug/L #	60
12) 1,1,2-Trichloro-1,2,2-Trif	6.45	101	13640	2.0409 ug/L	91
13) Acetone	6.52	43	2219	2.0714 ug/L #	46
14) 1,1-Dichloroethene	6.75	61	19955	1.9776 ug/L	94
15) Tert-Butyl Alcohol	6.85	59	14872	48.0819 ug/L	94
16) Dimethyl Sulfide	7.02	62	9752	1.7528 ug/L	99
17) Iodomethane	7.28	142	10371	1.6901 ug/L	92
18) Methyl acetate	7.29	43	6174	2.0228 ug/L #	82
19) Methylene Chloride	7.54	84	14202	2.0929 ug/L	90
20) Carbon Disulfide	7.60	76	43444	1.9851 ug/L	97
21) Acrylonitrile	7.72	53	18582	11.9449 ug/L	98
22) Methyl Tert Butyl Ether	7.75	73	23510	1.8747 ug/L	96
23) trans-1,2-Dichloroethene	7.99	61	19677	1.9599 ug/L	84
24) n-Hexane	8.07	57	20544	2.0956 ug/L	99
25) Diisopropyl ether	8.40	45	677163	26.2762 ug/L	98
26) Vinyl Acetate	8.58	43	20773	2.1153 ug/L #	91
27) 1,1-Dichloroethane	8.62	63	24446	1.9701 ug/L	98
28) Ethyl-Tert-Butyl ether	8.98	59	529236	25.7315 ug/L	98
29) 2-Butanone	9.17	43	2990	1.6060 ug/L #	73
30) Propionitrile	9.27	54	14449	25.3236 ug/L	93
31) 2,2-Dichloropropane	9.40	77	20952	2.0259 ug/L	96
32) cis-1,2-Dichloroethene	9.46	96	14935	1.9881 ug/L	90
33) Chloroform	9.67	83	22937	1.9277 ug/L	98
34) 1-Bromopropane	9.81	122	2652	1.8905 ug/L	97
35) Bromochloromethane	9.90	130	9184	2.1267 ug/L	82
36) Tetrahydrofuran	9.92	42	27275	25.1247 ug/L	99
38) 1,1,1-Trichloroethane	10.20	97	22069	1.9542 ug/L	98
39) Cyclohexane	10.23	56	26888	2.0079 ug/L	97
40) 1,1-Dichloropropene	10.40	75	17728	1.8972 ug/L	96
41) Tert-Amyl-Methyl ether	10.49	73	383016	25.8895 ug/L	98
42) Carbon Tetrachloride	10.54	117	20104	1.9744 ug/L	96

(#) = qualifier out of range (m) = manual integration
8M395955.D 8260WTR.M Fri Mar 28 14:25:53 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395955.D Vial: 5
Acq On : 28 Mar 2014 10:51 Operator: TMB
Sample : WG468975-05 2ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:53 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

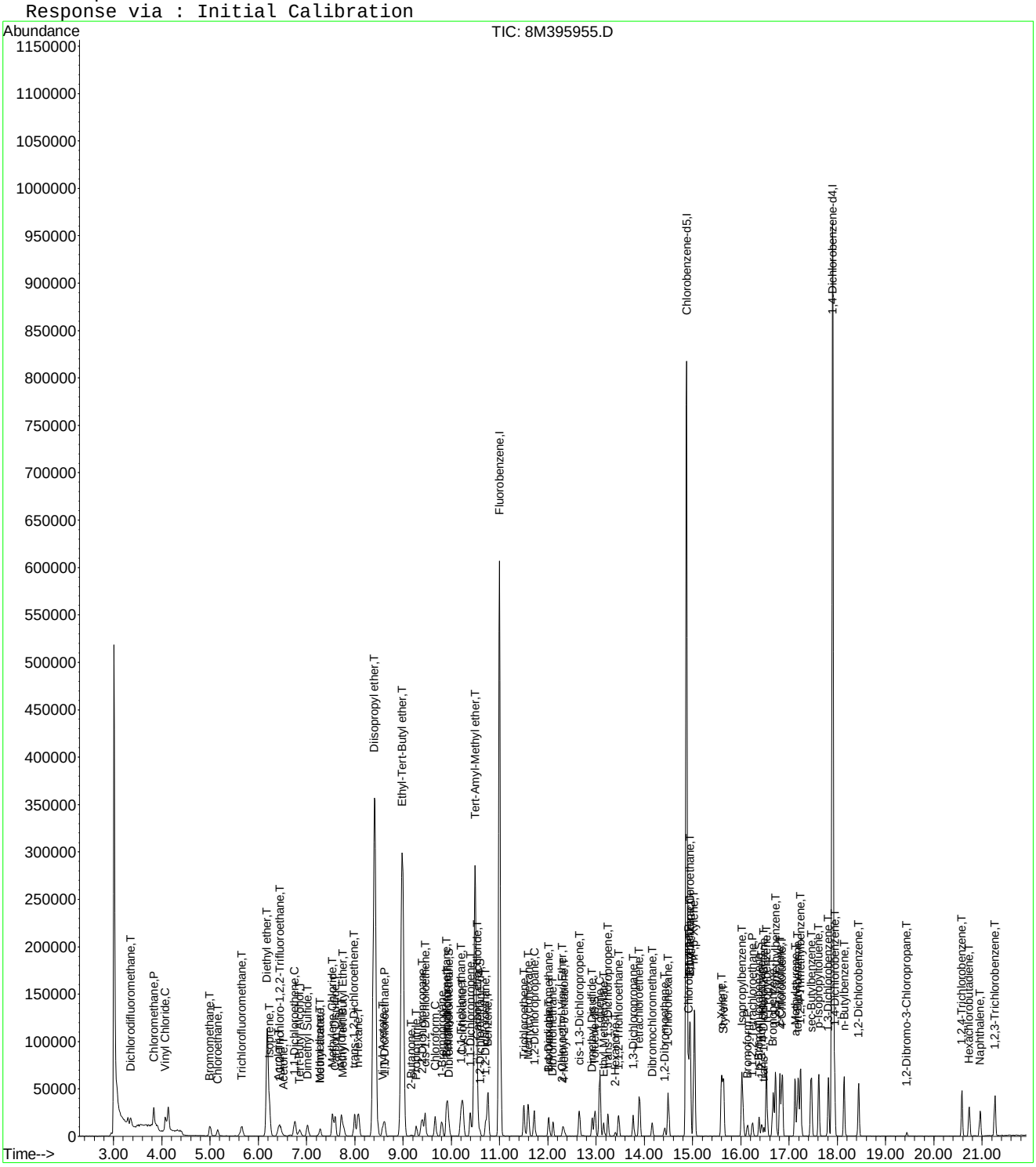
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
45)	1,2-Dichloroethane	10.71	62	15608	2.0174 ug/L		96
46)	Benzene	10.76	78	56853	2.0388 ug/L		96
47)	Trichloroethene	11.51	130	15678	1.9191 ug/L		94
48)	Methylcyclohexane	11.60	83	19948	1.9579 ug/L		97
49)	1,2-Dichloropropane	11.72	63	14195	1.9470 ug/L		96
50)	Bromodichloromethane	12.01	83	16772	1.9140 ug/L		98
51)	1,4-Dioxane	12.01	88	1380	41.3793 ug/L		74
52)	Dibromomethane	12.11	93	6756	1.9572 ug/L		89
53)	2-Chloroethyl Vinyl Ether	12.30	63	5303	1.6505 ug/L		93
54)	4-Methyl-2-Pentanone	12.33	58	2449	1.4276 ug/L	#	76
55)	cis-1,3-Dichloropropene	12.65	75	19293	1.8911 ug/L		100
56)	Dimethyl Disulfide	12.92	94	15359	1.3401 ug/L		92
59)	Toluene	13.08	91	62920	2.0311 ug/L		98
60)	Ethyl Methacrylate	13.16	69	10146	1.7233 ug/L		98
62)	trans-1,3-Dichloropropene	13.24	75	17515	1.9565 ug/L		96
63)	1,1,2-Trichloroethane	13.47	97	10278	2.0645 ug/L		92
64)	2-Hexanone	13.40	58	2513	1.5537 ug/L	#	68
65)	1,3-Dichloropropane	13.77	76	16347	2.0112 ug/L		91
66)	Tetrachloroethene	13.89	164	14457	2.0258 ug/L		87
67)	Dibromochloromethane	14.16	129	11757	1.8258 ug/L		99
68)	1,2-Dibromoethane	14.42	107	10062	1.9996 ug/L		93
69)	1-Chlorohexane	14.49	91	18918	1.9428 ug/L		97
70)	Chlorobenzene	14.92	112	45687	2.0644 ug/L		99
71)	1,1,1,2-Tetrachloroethane	14.95	131	15152	1.9330 ug/L		99
72)	Ethylbenzene	14.95	106	22686	1.9741 ug/L		95
73)	m-,p-Xylene	15.03	106	57839	4.2195 ug/L		94
74)	o-Xylene	15.60	106	25334	1.8656 ug/L		99
75)	Styrene	15.64	104	42186	1.9256 ug/L		90
76)	Bromoform	16.14	173	8144	1.8002 ug/L		99
77)	Isopropylbenzene	16.02	105	64953	1.9997 ug/L		98
79)	1,1,2,2-Tetrachloroethane	16.24	83	10819	2.0157 ug/L		99
81)	1,2,3-Trichloropropane	16.43	110	2778	1.7781 ug/L		75
82)	trans-1,4-Dichloro-2-Buten	16.48	53	2876	2.0580 ug/L	#	44
83)	n-Propylbenzene	16.53	91	80684	2.0465 ug/L		99
84)	Bromobenzene	16.67	156	20867	2.0684 ug/L		81
85)	1,3,5-Trimethylbenzene	16.72	105	55585	2.0094 ug/L		100
86)	2-Chlorotoluene	16.81	91	54404	2.0718 ug/L		95
87)	4-Chlorotoluene	16.85	91	51332	2.0927 ug/L		97
88)	a-Methylstyrene	17.13	118	28490	1.7146 ug/L		97
89)	tert-Butylbenzene	17.18	134	12538	1.9482 ug/L		97
90)	1,2,4-Trimethylbenzene	17.23	105	58235	2.0222 ug/L		99
91)	sec-Butylbenzene	17.46	105	66538	2.0031 ug/L		99
92)	p-Isopropyltoluene	17.62	119	57594	1.9804 ug/L		99
93)	1,3-Dichlorobenzene	17.81	146	38695	2.0853 ug/L		92
94)	1,4-Dichlorobenzene	17.95	146	39364	2.0567 ug/L		91
95)	n-Butylbenzene	18.14	91	49352	1.9772 ug/L		98
96)	1,2-Dichlorobenzene	18.44	146	33380	1.9642 ug/L		94
97)	1,2-Dibromo-3-Chloropropan	19.44	75	1594	1.8531 ug/L		81
98)	1,2,4-Trichlorobenzene	20.58	180	23446	1.9545 ug/L		97
99)	Hexachlorobutadiene	20.73	225	9447	1.9920 ug/L		96
100)	Naphthalene	20.96	128	30541	1.8638 ug/L		98
101)	1,2,3-Trichlorobenzene	21.27	180	21491	2.0727 ug/L		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395955.D Vial: 5
Acq On : 28 Mar 2014 10:51 Operator: TMB
Sample : WG468975-05 2ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395956.D Vial: 6
Acq On : 28 Mar 2014 11:20 Operator: TMB
Sample : WG468975-06 5ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:54 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.00	96	771351	25.00	ug/L	0.00
57) Chlorobenzene-d5	14.87	117	636208	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.90	152	374848	25.00	ug/L	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	9.96	111	18189	2.5691	ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 10.28%#			
43) 1,2-Dichloroethane-d4	10.60	65	14659	2.5405	ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 10.16%#			
58) Toluene-d8	12.98	98	66467	2.6079	ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 10.44%#			
80) p-Bromofluorobenzene	16.38	95	26326	2.5159	ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 10.08%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.35	85	29026	4.2647	ug/L	98
3) Chloromethane	3.84	50	63299	4.7906	ug/L	97
4) Vinyl Chloride	4.08	62	41553	4.7022	ug/L	95
5) 1,3-Butadiene	4.14	54	35269	3.2616	ug/L	95
6) Bromomethane	5.01	94	25723	4.6076	ug/L	99
7) Chloroethane	5.16	64	25656	4.5806	ug/L	99
8) Trichlorofluoromethane	5.66	101	48497	4.6196	ug/L	97
9) Diethyl ether	6.18	59	228291	49.3738	ug/L	99
10) Isoprene	6.23	67	42034	4.6463	ug/L	97
11) Acrolein	6.43	56	2867	26.5094	ug/L	70
12) 1,1,2-Trichloro-1,2,2-Trif	6.44	101	31707	4.6745	ug/L	87
13) Acetone	6.53	43	4885	4.4930	ug/L	86
14) 1,1-Dichloroethene	6.75	61	47838	4.6712	ug/L	87
15) Tert-Butyl Alcohol	6.86	59	29775	94.8486	ug/L	98
16) Dimethyl Sulfide	7.02	62	25434	4.5043	ug/L	95
17) Iodomethane	7.28	142	28137	4.5179	ug/L	91
18) Methyl acetate	7.29	43	15947	5.1480	ug/L #	90
19) Methylene Chloride	7.54	84	32797	4.7622	ug/L	97
20) Carbon Disulfide	7.59	76	104335	4.6973	ug/L	99
21) Acrylonitrile	7.73	53	35612	22.5556	ug/L	92
22) Methyl Tert Butyl Ether	7.75	73	57320	4.5036	ug/L	99
23) trans-1,2-Dichloroethene	7.99	61	48330	4.7430	ug/L	90
24) n-Hexane	8.08	57	49041	4.9289	ug/L	99
25) Diisopropyl ether	8.41	45	1301067	49.7434	ug/L	97
26) Vinyl Acetate	8.58	43	53180	5.3356	ug/L	98
27) 1,1-Dichloroethane	8.61	63	59857	4.7529	ug/L	99
28) Ethyl-Tert-Butyl ether	8.99	59	1012397	48.4990	ug/L	98
29) 2-Butanone	9.16	43	8404	4.4476	ug/L	90
30) Propionitrile	9.28	54	26024	44.9395	ug/L	96
31) 2,2-Dichloropropane	9.40	77	50973	4.8562	ug/L	99
32) cis-1,2-Dichloroethene	9.46	96	36821	4.8294	ug/L	87
33) Chloroform	9.67	83	57453	4.7577	ug/L	99
34) 1-Bromopropane	9.80	122	6641	4.6645	ug/L	90
35) Bromochloromethane	9.91	130	20937	4.7770	ug/L	87
36) Tetrahydrofuran	9.92	42	52769	47.8941	ug/L	100
38) 1,1,1-Trichloroethane	10.21	97	54790	4.7802	ug/L	100
39) Cyclohexane	10.24	56	64519	4.7473	ug/L	99
40) 1,1-Dichloropropene	10.40	75	43100	4.5447	ug/L	92
41) Tert-Amyl-Methyl ether	10.50	73	730294	48.6374	ug/L	100
42) Carbon Tetrachloride	10.55	117	47006	4.5485	ug/L	97

(#) = qualifier out of range (m) = manual integration
8M395956.D 8260WTR.M Fri Mar 28 14:25:55 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395956.D Vial: 6
Acq On : 28 Mar 2014 11:20 Operator: TMB
Sample : WG468975-06 5ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:54 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

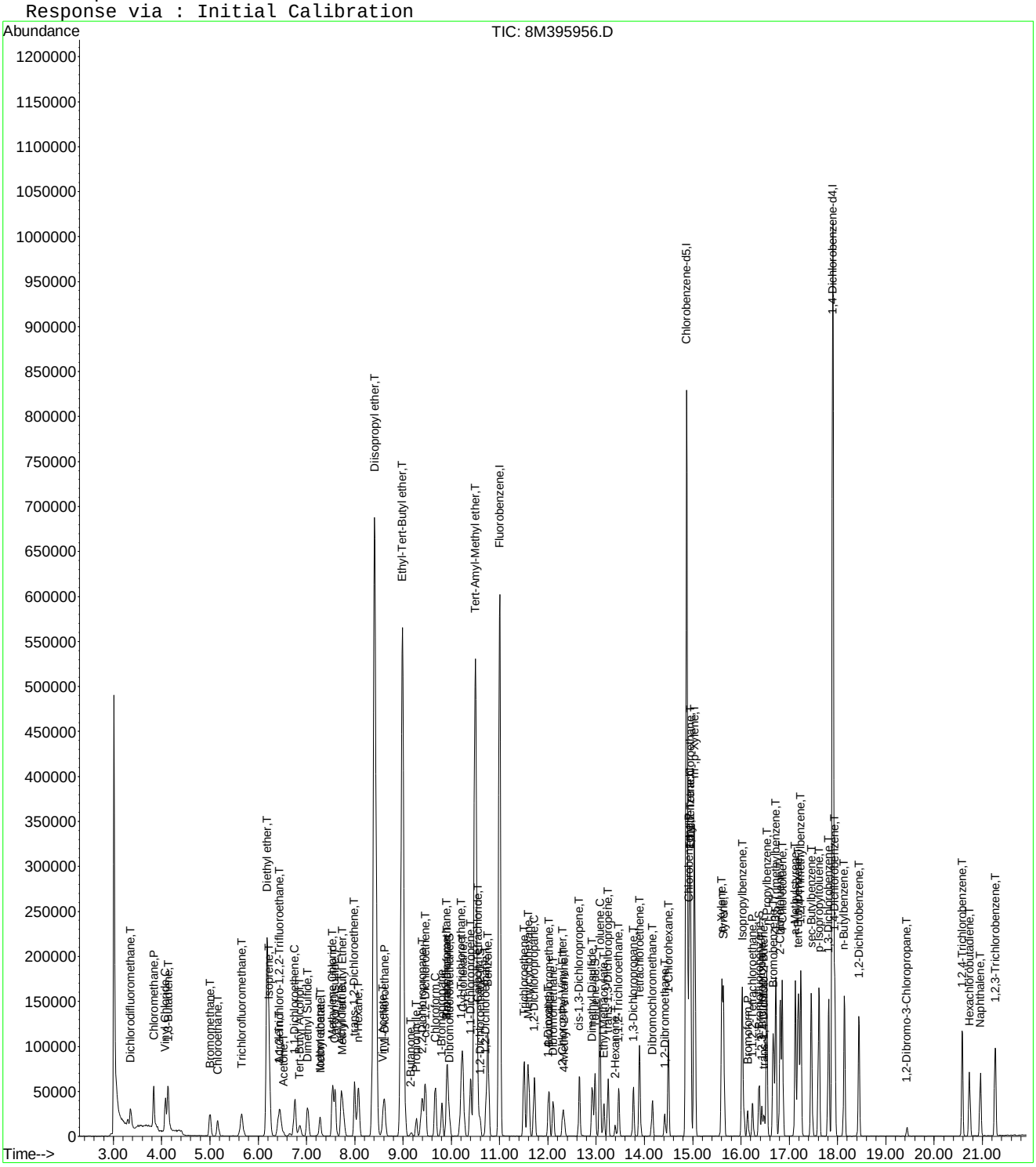
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
45)	1,2-Dichloroethane	10.71	62	37770	4.8101 ug/L		99
46)	Benzene	10.76	78	137798	4.8689 ug/L		96
47)	Trichloroethene	11.51	130	37421	4.5133 ug/L		96
48)	Methylcyclohexane	11.59	83	48051	4.6468 ug/L		97
49)	1,2-Dichloropropane	11.72	63	35428	4.7879 ug/L		97
50)	Bromodichloromethane	12.03	83	42710	4.8023 ug/L		98
51)	1,4-Dioxane	12.01	88	3115	92.0298 ug/L		97
52)	Dibromomethane	12.11	93	16681	4.7614 ug/L		88
53)	2-Chloroethyl Vinyl Ether	12.31	63	13600	4.1706 ug/L		94
54)	4-Methyl-2-Pentanone	12.34	58	7350	4.2216 ug/L		92
55)	cis-1,3-Dichloropropene	12.65	75	48473	4.6815 ug/L		100
56)	Dimethyl Disulfide	12.92	94	42949	3.6923 ug/L		95
59)	Toluene	13.08	91	156333	5.0733 ug/L		97
60)	Ethyl Methacrylate	13.16	69	25177	4.2990 ug/L		99
62)	trans-1,3-Dichloropropene	13.25	75	42588	4.7824 ug/L		99
63)	1,1,2-Trichloroethane	13.46	97	23792	4.8044 ug/L		96
64)	2-Hexanone	13.39	58	6199	3.8529 ug/L	#	97
65)	1,3-Dichloropropane	13.77	76	40486	5.0076 ug/L		88
66)	Tetrachloroethene	13.90	164	34367	4.8413 ug/L		87
67)	Dibromochloromethane	14.17	129	29972	4.6791 ug/L		97
68)	1,2-Dibromoethane	14.43	107	23308	4.6565 ug/L		99
69)	1-Chlorohexane	14.50	91	46407	4.7912 ug/L		95
70)	Chlorobenzene	14.92	112	108808	4.9427 ug/L		95
71)	1,1,1,2-Tetrachloroethane	14.95	131	36892	4.7315 ug/L		98
72)	Ethylbenzene	14.95	106	57214	5.0050 ug/L		96
73)	m-,p-Xylene	15.04	106	136522	10.0125 ug/L		97
74)	o-Xylene	15.60	106	65337	4.8370 ug/L		99
75)	Styrene	15.64	104	106819	4.9018 ug/L		90
76)	Bromoform	16.14	173	19817	4.4037 ug/L		99
77)	Isopropylbenzene	16.03	105	162152	5.0187 ug/L		100
79)	1,1,2,2-Tetrachloroethane	16.23	83	25810	4.8183 ug/L		98
81)	1,2,3-Trichloropropane	16.43	110	7593	4.8697 ug/L		91
82)	trans-1,4-Dichloro-2-Buten	16.47	53	7238	4.1636 ug/L		68
83)	n-Propylbenzene	16.53	91	201171	5.1126 ug/L		99
84)	Bromobenzene	16.67	156	49233	4.8899 ug/L		97
85)	1,3,5-Trimethylbenzene	16.72	105	138529	5.0178 ug/L		99
86)	2-Chlorotoluene	16.81	91	135552	5.1723 ug/L		97
87)	4-Chlorotoluene	16.86	91	120422	4.9190 ug/L		98
88)	a-Methylstyrene	17.12	118	75264	4.5387 ug/L		97
89)	tert-Butylbenzene	17.19	134	31497	4.9037 ug/L		95
90)	1,2,4-Trimethylbenzene	17.24	105	145809	5.0731 ug/L		99
91)	sec-Butylbenzene	17.45	105	163760	4.9398 ug/L		98
92)	p-Isopropyltoluene	17.62	119	142838	4.9213 ug/L		99
93)	1,3-Dichlorobenzene	17.82	146	89410	4.8279 ug/L		93
94)	1,4-Dichlorobenzene	17.94	146	92467	4.8408 ug/L		99
95)	n-Butylbenzene	18.14	91	123914	4.9741 ug/L		99
96)	1,2-Dichlorobenzene	18.45	146	81761	4.8206 ug/L		92
97)	1,2-Dibromo-3-Chloropropan	19.43	75	3666	4.2703 ug/L		80
98)	1,2,4-Trichlorobenzene	20.59	180	56359	4.7074 ug/L		98
99)	Hexachlorobutadiene	20.73	225	22123	4.6742 ug/L		95
100)	Naphthalene	20.96	128	75264	4.6022 ug/L		98
101)	1,2,3-Trichlorobenzene	21.27	180	48931	4.7286 ug/L		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395956.D Vial: 6
Acq On : 28 Mar 2014 11:20 Operator: TMB
Sample : WG468975-06 5ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395957.D Vial: 7
Acq On : 28 Mar 2014 11:50 Operator: TMB
Sample : WG468975-07 20ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:55 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.00	96	783694	25.00	ug/L	0.00
57) Chlorobenzene-d5	14.87	117	655044	25.00	ug/L	-0.01
78) 1,4-Dichlorobenzene-d4	17.90	152	383201	25.00	ug/L	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	9.96	111	71265	9.9072	ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 39.64%#			
43) 1,2-Dichloroethane-d4	10.60	65	59015	10.0665	ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 40.28%#			
58) Toluene-d8	12.98	98	263724	10.0499	ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 40.20%#			
80) p-Bromofluorobenzene	16.38	95	106920	9.9953	ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 40.00%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.35	85	149383	21.6027	ug/L	99
3) Chloromethane	3.84	50	285662	21.2788	ug/L	99
4) Vinyl Chloride	4.07	62	197255	21.9702	ug/L	100
5) 1,3-Butadiene	4.13	54	154117	27.8528	ug/L	100
6) Bromomethane	5.00	94	114084	20.1132	ug/L	100
7) Chloroethane	5.16	64	122399	21.5087	ug/L	97
8) Trichlorofluoromethane	5.66	101	223838	20.9858	ug/L	99
9) Diethyl ether	6.18	59	380614	81.0211	ug/L	100
10) Isoprene	6.23	67	176727	19.2273	ug/L	99
11) Acrolein	6.42	56	5176	43.5486	ug/L	92
12) 1,1,2-Trichloro-1,2,2-Trif	6.45	101	142277	20.6452	ug/L	90
13) Acetone	6.52	43	21535	19.4951	ug/L	93
14) 1,1-Dichloroethene	6.75	61	220341	21.1766	ug/L	91
15) Tert-Butyl Alcohol	6.87	59	51855	162.5831	ug/L	97
16) Dimethyl Sulfide	7.02	62	116117	20.2402	ug/L	97
17) Iodomethane	7.28	142	133687	21.1277	ug/L	92
18) Methyl acetate	7.28	43	62945	19.9997	ug/L	97
19) Methylene Chloride	7.54	84	148165	21.1750	ug/L	93
20) Carbon Disulfide	7.59	76	444103	19.6791	ug/L	99
21) Acrylonitrile	7.71	53	62832	39.1692	ug/L	95
22) Methyl Tert Butyl Ether	7.76	73	276200	21.3591	ug/L	100
23) trans-1,2-Dichloroethene	7.99	61	217866	21.0440	ug/L	91
24) n-Hexane	8.08	57	197447	19.5321	ug/L	98
25) Diisopropyl ether	8.41	45	2148723	80.8578	ug/L	97
26) Vinyl Acetate	8.58	43	207768	20.5173	ug/L	99
27) 1,1-Dichloroethane	8.61	63	270112	21.1102	ug/L	99
28) Ethyl-Tert-Butyl ether	8.99	59	1711312	80.6894	ug/L	98
29) 2-Butanone	9.16	43	37923	19.7537	ug/L	100
30) Propionitrile	9.28	54	46095	78.3454	ug/L	96
31) 2,2-Dichloropropane	9.40	77	220189	20.6469	ug/L	99
32) cis-1,2-Dichloroethene	9.46	96	168776	21.7878	ug/L	84
33) Chloroform	9.67	83	252725	20.5984	ug/L	100
34) 1-Bromopropane	9.80	122	29309	20.2617	ug/L	97
35) Bromochloromethane	9.91	130	93887	21.0839	ug/L	88
36) Tetrahydrofuran	9.92	42	92302	82.4555	ug/L	99
38) 1,1,1-Trichloroethane	10.21	97	248021	21.2981	ug/L	100
39) Cyclohexane	10.24	56	268050	19.4124	ug/L	98
40) 1,1-Dichloropropene	10.39	75	205572	21.3351	ug/L	91
41) Tert-Amyl-Methyl ether	10.50	73	1232864	80.8153	ug/L	100
42) Carbon Tetrachloride	10.55	117	224117	21.3451	ug/L	99

(#) = qualifier out of range (m) = manual integration
8M395957.D 8260WTR.M Fri Mar 28 14:25:56 2014 Page 1

Data File : C:\MSDCHEM\2\DATA\032814\8M395957.D Vial: 7
Acq On : 28 Mar 2014 11:50 Operator: TMB
Sample : WG468975-07 20ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:55 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

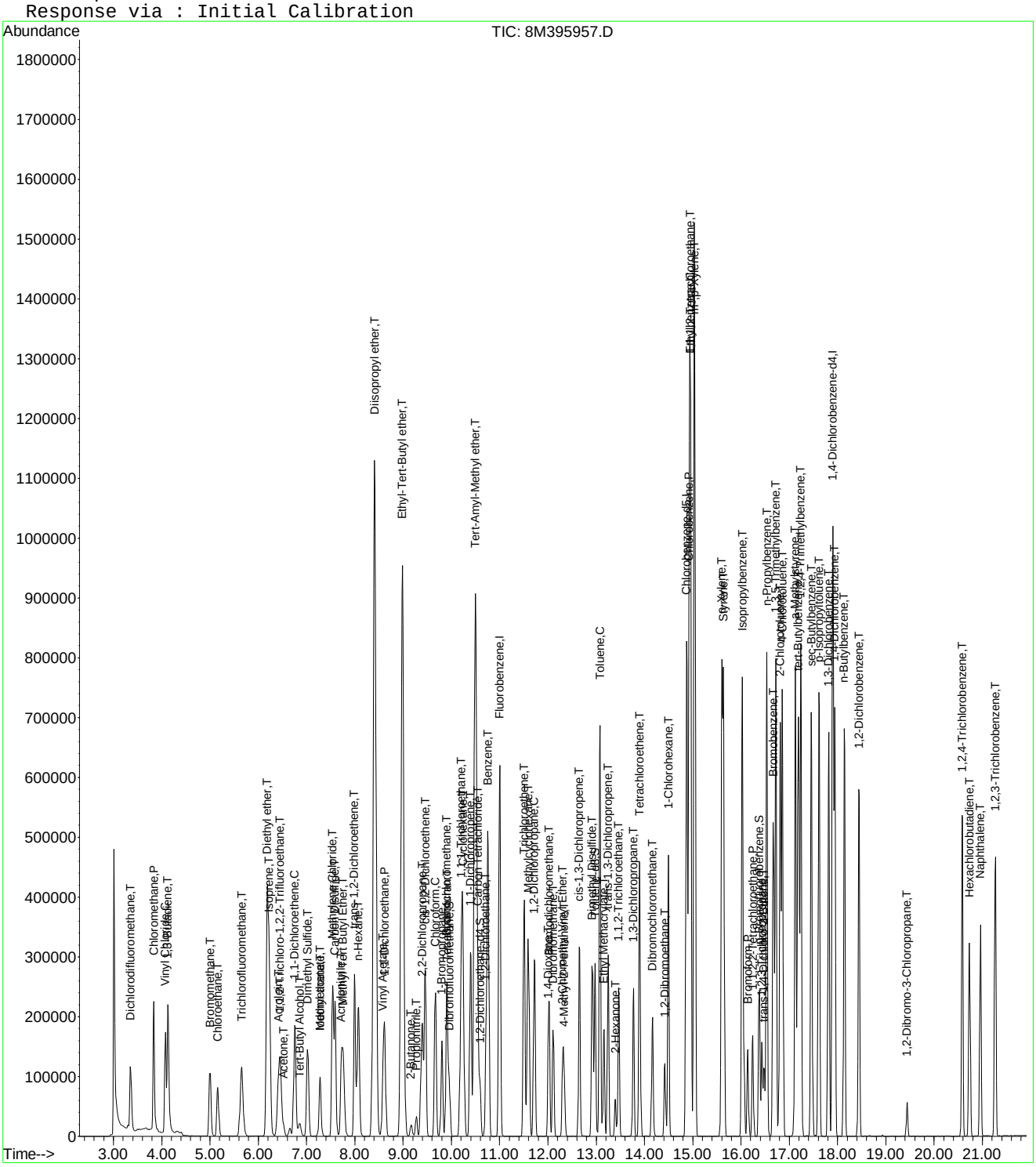
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
45)	1,2-Dichloroethane	10.71	62	166303	20.8457 ug/L	99
46)	Benzene	10.75	78	605739	21.0657 ug/L	97
47)	Trichloroethene	11.51	130	180539	21.4319 ug/L	95
48)	Methylcyclohexane	11.59	83	204269	19.4426 ug/L	96
49)	1,2-Dichloropropane	11.72	63	162392	21.6005 ug/L	97
50)	Bromodichloromethane	12.03	83	193813	21.4492 ug/L	99
51)	1,4-Dioxane	12.00	88	5558	161.6197 ug/L	93
52)	Dibromomethane	12.11	93	75034	21.0801 ug/L	86
53)	2-Chloroethyl Vinyl Ether	12.30	63	68525	20.6830 ug/L	93
54)	4-Methyl-2-Pentanone	12.34	58	35374	19.9979 ug/L	98
55)	cis-1,3-Dichloropropene	12.65	75	229182	21.7859 ug/L	99
56)	Dimethyl Disulfide	12.91	94	224307	18.9800 ug/L	97
59)	Toluene	13.08	91	691324	21.7894 ug/L	99
60)	Ethyl Methacrylate	13.16	69	125360	20.7898 ug/L	94
62)	trans-1,3-Dichloropropene	13.25	75	192623	21.0085 ug/L	99
63)	1,1,2-Trichloroethane	13.46	97	108271	21.2350 ug/L	98
64)	2-Hexanone	13.40	58	33861	20.4409 ug/L	92
65)	1,3-Dichloropropane	13.77	76	177327	21.3023 ug/L	91
66)	Tetrachloroethene	13.90	164	154688	21.1645 ug/L	89
67)	Dibromochloromethane	14.17	129	145813	22.1091 ug/L	97
68)	1,2-Dibromoethane	14.42	107	110582	21.4570 ug/L	99
69)	1-Chlorohexane	14.50	91	206593	20.7160 ug/L	93
70)	Chlorobenzene	14.92	112	474625	20.9401 ug/L	92
71)	1,1,1,2-Tetrachloroethane	14.95	131	171379	21.3478 ug/L	99
72)	Ethylbenzene	14.95	106	251372	21.3574 ug/L	98
73)	m-,p-Xylene	15.03	106	604861	43.0849 ug/L	97
74)	o-Xylene	15.60	106	300351	21.5962 ug/L	95
75)	Styrene	15.63	104	498627	22.2233 ug/L	93
76)	Bromoform	16.14	173	97961	21.1426 ug/L	99
77)	Isopropylbenzene	16.03	105	736058	22.1264 ug/L	100
79)	1,1,2,2-Tetrachloroethane	16.24	83	114036	20.8245 ug/L	98
81)	1,2,3-Trichloropropane	16.43	110	34237	21.4789 ug/L	91
82)	trans-1,4-Dichloro-2-Buten	16.47	53	33795	16.7741 ug/L	74
83)	n-Propylbenzene	16.53	91	900221	22.3798 ug/L	99
84)	Bromobenzene	16.67	156	218110	21.1908 ug/L	96
85)	1,3,5-Trimethylbenzene	16.72	105	623887	22.1059 ug/L	99
86)	2-Chlorotoluene	16.81	91	583320	21.7727 ug/L	96
87)	4-Chlorotoluene	16.85	91	526870	21.0525 ug/L	96
88)	a-Methylstyrene	17.12	118	336847	19.8702 ug/L	97
89)	tert-Butylbenzene	17.18	134	139248	21.2067 ug/L	95
90)	1,2,4-Trimethylbenzene	17.24	105	634557	21.5968 ug/L	99
91)	sec-Butylbenzene	17.45	105	734821	21.6824 ug/L	99
92)	p-Isopropyltoluene	17.62	119	643280	21.6803 ug/L	99
93)	1,3-Dichlorobenzene	17.82	146	395188	20.8740 ug/L	94
94)	1,4-Dichlorobenzene	17.94	146	399319	20.4494 ug/L	94
95)	n-Butylbenzene	18.14	91	543702	21.3495 ug/L	99
96)	1,2-Dichlorobenzene	18.45	146	358857	20.6968 ug/L	93
97)	1,2-Dibromo-3-Chloropropan	19.44	75	17374	19.7968 ug/L	70
98)	1,2,4-Trichlorobenzene	20.59	180	252386	20.6210 ug/L	98
99)	Hexachlorobutadiene	20.73	225	102192	21.1208 ug/L	97
100)	Naphthalene	20.96	128	364007	21.7731 ug/L	98
101)	1,2,3-Trichlorobenzene	21.27	180	218835	20.6869 ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395957.D Vial: 7
Acq On : 28 Mar 2014 11:50 Operator: TMB
Sample : WG468975-07 20ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration



8M395957.D 8260WTR.M Fri Mar 28 14:25:56 2014 Page 3

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395958.D Vial: 8
Acq On : 28 Mar 2014 12:19 Operator: TMB
Sample : WG468975-08 50ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:56 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.00	96	798177	25.00	ug/L	0.00
57) Chlorobenzene-d5	14.87	117	668923	25.00	ug/L	-0.01
78) 1,4-Dichlorobenzene-d4	17.90	152	385818	25.00	ug/L	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	9.96	111	185118	25.2681	ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 101.08%			
43) 1,2-Dichloroethane-d4	10.60	65	148919	24.9410	ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 99.76%			
58) Toluene-d8	12.98	98	685363	25.5757	ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 102.32%			
80) p-Bromofluorobenzene	16.38	95	280432	26.0381	ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 104.16%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.35	85	385319	54.7109	ug/L	100
3) Chloromethane	3.84	50	694094	50.7646	ug/L	100
4) Vinyl Chloride	4.08	62	464039	50.7467	ug/L	100
5) 1,3-Butadiene	4.12	54	283442	54.8774	ug/L	99
6) Bromomethane	5.00	94	281680	48.7595	ug/L	99
7) Chloroethane	5.16	64	294797	50.8635	ug/L	98
8) Trichlorofluoromethane	5.66	101	543518	50.0326	ug/L	99
9) Diethyl ether	6.18	59	462362	96.6368	ug/L	99
10) Isoprene	6.23	67	484581	51.7642	ug/L	98
11) Acrolein	6.42	56	6224	49.6449	ug/L	95
12) 1,1,2-Trichloro-1,2,2-Trif	6.44	101	364782	51.9714	ug/L	92
13) Acetone	6.53	43	58377	51.8884	ug/L	96
14) 1,1-Dichloroethene	6.75	61	533993	50.3899	ug/L	90
15) Tert-Butyl Alcohol	6.86	59	66311	204.1350	ug/L	99
16) Dimethyl Sulfide	7.02	62	297486	50.9134	ug/L	99
17) Iodomethane	7.28	142	361390	56.0772	ug/L	91
18) Methyl acetate	7.28	43	158337	49.3961	ug/L	99
19) Methylene Chloride	7.54	84	356308	49.9978	ug/L	93
20) Carbon Disulfide	7.59	76	1191648	51.8461	ug/L	100
21) Acrylonitrile	7.71	53	83639	51.1941	ug/L	98
22) Methyl Tert Butyl Ether	7.76	73	697965	52.9956	ug/L	99
23) trans-1,2-Dichloroethene	7.99	61	528158	50.0899	ug/L	91
24) n-Hexane	8.08	57	549499	53.3718	ug/L	98
25) Diisopropyl ether	8.41	45	2731228	100.9129	ug/L	97
26) Vinyl Acetate	8.58	43	523610	50.7689	ug/L	99
27) 1,1-Dichloroethane	8.61	63	654356	50.2123	ug/L	99
28) Ethyl-Tert-Butyl ether	8.99	59	2182295	101.0294	ug/L	97
29) 2-Butanone	9.16	43	103177	52.7687	ug/L	97
30) Propionitrile	9.28	54	59632	99.5145	ug/L	100
31) 2,2-Dichloropropane	9.39	77	545920	50.2615	ug/L	99
32) cis-1,2-Dichloroethene	9.46	96	406015	51.4627	ug/L	85
33) Chloroform	9.67	83	619156	49.5488	ug/L	100
34) 1-Bromopropane	9.80	122	78529	53.3031	ug/L	99
35) Bromochloromethane	9.90	130	229488	50.6003	ug/L	88
36) Tetrahydrofuran	9.92	42	115130	100.9821	ug/L	99
38) 1,1,1-Trichloroethane	10.21	97	614908	51.8454	ug/L	99
39) Cyclohexane	10.24	56	752885	53.5351	ug/L	98
40) 1,1-Dichloropropene	10.39	75	516611	52.6431	ug/L	92
41) Tert-Amyl-Methyl ether	10.50	73	1565819	100.7783	ug/L	99
42) Carbon Tetrachloride	10.55	117	558882	52.2625	ug/L	98

(#) = qualifier out of range (m) = manual integration
8M395958.D 8260WTR.M Fri Mar 28 14:25:57 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395958.D Vial: 8
Acq On : 28 Mar 2014 12:19 Operator: TMB
Sample : WG468975-08 50ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:56 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

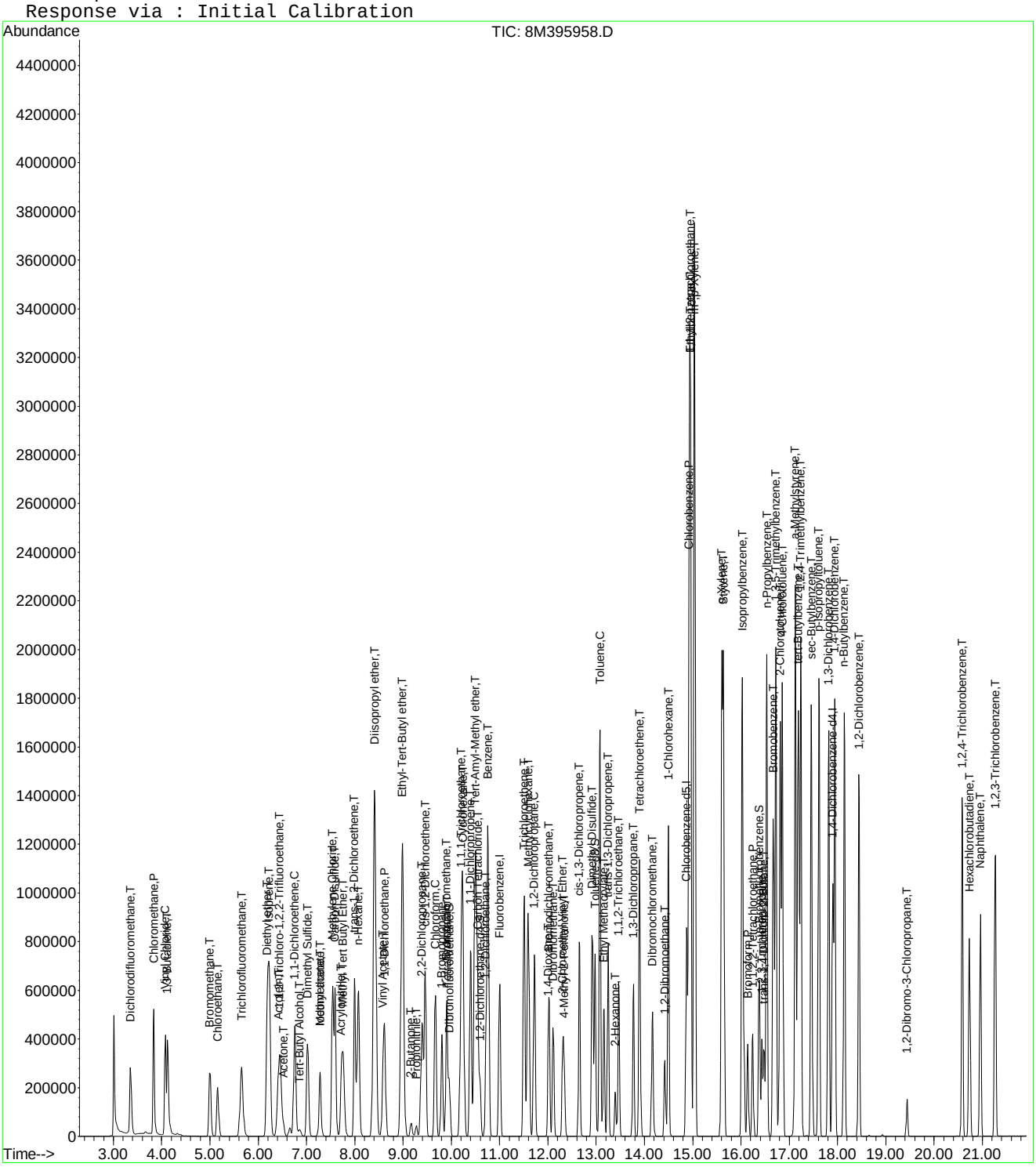
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
45)	1,2-Dichloroethane	10.71	62	413022	50.8319	ug/L		99
46)	Benzene	10.75	78	1508432	51.5067	ug/L		97
47)	Trichloroethene	11.51	130	451632	52.6406	ug/L		95
48)	Methylcyclohexane	11.59	83	575018	53.7380	ug/L		95
49)	1,2-Dichloropropane	11.72	63	401706	52.4633	ug/L		98
50)	Bromodichloromethane	12.02	83	496515	53.9521	ug/L		99
51)	1,4-Dioxane	12.01	88	7437	212.3347	ug/L		87
52)	Dibromomethane	12.11	93	192666	53.1456	ug/L		89
53)	2-Chloroethyl Vinyl Ether	12.31	63	188905	55.9830	ug/L		95
54)	4-Methyl-2-Pentanone	12.34	58	100866	55.9876	ug/L		96
55)	cis-1,3-Dichloropropene	12.65	75	581702	54.2928	ug/L		99
56)	Dimethyl Disulfide	12.92	94	652389	54.2010	ug/L		97
59)	Toluene	13.08	91	1696634	52.3657	ug/L		99
60)	Ethyl Methacrylate	13.16	69	368257	59.8050	ug/L		94
62)	trans-1,3-Dichloropropene	13.25	75	495119	52.8800	ug/L		100
63)	1,1,2-Trichloroethane	13.46	97	279789	53.7359	ug/L		96
64)	2-Hexanone	13.39	58	95847	56.6595	ug/L		95
65)	1,3-Dichloropropane	13.77	76	454268	53.4389	ug/L		88
66)	Tetrachloroethene	13.90	164	386348	51.7635	ug/L		90
67)	Dibromochloromethane	14.17	129	373364	55.4372	ug/L		99
68)	1,2-Dibromoethane	14.43	107	277946	52.8128	ug/L		99
69)	1-Chlorohexane	14.50	91	569648	55.9359	ug/L		92
70)	Chlorobenzene	14.92	112	1173624	50.7051	ug/L		91
71)	1,1,1,2-Tetrachloroethane	14.95	131	430796	52.5485	ug/L		99
72)	Ethylbenzene	14.95	106	625480	52.0403	ug/L		97
73)	m-,p-Xylene	15.04	106	1487569	103.7627	ug/L		96
74)	o-Xylene	15.60	106	751829	52.9372	ug/L		95
75)	Styrene	15.64	104	1260707	55.0227	ug/L		92
76)	Bromoform	16.14	173	259279	54.7983	ug/L		100
77)	Isopropylbenzene	16.03	105	1851617	54.5059	ug/L		100
79)	1,1,2,2-Tetrachloroethane	16.25	83	289764	52.5559	ug/L		99
81)	1,2,3-Trichloropropane	16.43	110	87339	54.4212	ug/L	#	34
82)	trans-1,4-Dichloro-2-Buten	16.47	53	111541	55.3035	ug/L	#	41
83)	n-Propylbenzene	16.53	91	2233324	55.1447	ug/L		98
84)	Bromobenzene	16.67	156	546767	52.7617	ug/L		96
85)	1,3,5-Trimethylbenzene	16.72	105	1570887	55.2829	ug/L		99
86)	2-Chlorotoluene	16.81	91	1453863	53.8980	ug/L		95
87)	4-Chlorotoluene	16.86	91	1295128	51.3993	ug/L		95
88)	a-Methylstyrene	17.12	118	970476	56.8589	ug/L		98
89)	tert-Butylbenzene	17.19	134	352013	53.2459	ug/L		94
90)	1,2,4-Trimethylbenzene	17.24	105	1597861	54.0135	ug/L		100
91)	sec-Butylbenzene	17.45	105	1831984	53.6898	ug/L		99
92)	p-Isopropyltoluene	17.61	119	1613066	53.9961	ug/L		100
93)	1,3-Dichlorobenzene	17.82	146	989209	51.8960	ug/L		93
94)	1,4-Dichlorobenzene	17.94	146	991636	50.4380	ug/L		94
95)	n-Butylbenzene	18.14	91	1364745	53.2258	ug/L		97
96)	1,2-Dichlorobenzene	18.45	146	894080	51.2155	ug/L		93
97)	1,2-Dibromo-3-Chloropropan	19.44	75	47490	53.7453	ug/L		73
98)	1,2,4-Trichlorobenzene	20.59	180	650250	52.7678	ug/L		99
99)	Hexachlorobutadiene	20.73	225	253377	52.0121	ug/L		98
100)	Naphthalene	20.96	128	950503	56.4687	ug/L		100
101)	1,2,3-Trichlorobenzene	21.27	180	555754	52.1801	ug/L		98

(#) = qualifier out of range (m) = manual integration
8M395958.D 8260WTR.M Fri Mar 28 14:25:57 2014 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395958.D Vial: 8
Acq On : 28 Mar 2014 12:19 Operator: TMB
Sample : WG468975-08 50ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration



8M395958.D 8260WTR.M Fri Mar 28 14:25:57 2014 Page 3

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395959.D Vial: 9
Acq On : 28 Mar 2014 12:49 Operator: TMB
Sample : WG468975-09 100ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:57 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.00	96	830805	25.00	ug/L	0.00
57) Chlorobenzene-d5	14.87	117	686872	25.00	ug/L	-0.01
78) 1,4-Dichlorobenzene-d4	17.90	152	397016	25.00	ug/L	-0.01
System Monitoring Compounds						
37) Dibromofluoromethane	9.96	111	382600	50.1728	ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 200.68%#			
43) 1,2-Dichloroethane-d4	10.60	65	306758	49.3582	ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 197.44%#			
58) Toluene-d8	12.98	98	1374400	49.9482	ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 199.80%#			
80) p-Bromofluorobenzene	16.38	95	563762	50.8689	ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 203.48%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.35	85	735679	100.3556	ug/L	99
3) Chloromethane	3.84	50	1334022	93.7359	ug/L	100
4) Vinyl Chloride	4.08	62	903836	94.9606	ug/L	99
5) 1,3-Butadiene	4.12	54	435944	85.3956	ug/L	93
6) Bromomethane	5.00	94	591736	98.4082	ug/L	99
7) Chloroethane	5.16	64	591457	98.0406	ug/L	98
8) Trichlorofluoromethane	5.66	101	1077586	95.2996	ug/L	99
9) Diethyl ether	6.18	59	974599	195.6981	ug/L	100
10) Isoprene	6.23	67	1000747	102.7040	ug/L	98
11) Acrolein	6.42	56	16953	98.5036	ug/L	93
12) 1,1,2-Trichloro-1,2,2-Trif	6.44	101	701426	96.0092	ug/L	91
13) Acetone	6.53	43	117530	100.3639	ug/L	94
14) 1,1-Dichloroethene	6.75	61	1080631	97.9684	ug/L	89
15) Tert-Butyl Alcohol	6.87	59	136587	403.9629	ug/L	99
16) Dimethyl Sulfide	7.02	62	627065	103.1047	ug/L	96
17) Iodomethane	7.28	142	755399	112.6124	ug/L	91
18) Methyl acetate	7.28	43	322367	96.6187	ug/L	99
19) Methylene Chloride	7.54	84	719622	97.0129	ug/L	92
20) Carbon Disulfide	7.59	76	2474428	103.4291	ug/L	100
21) Acrylonitrile	7.73	53	179894	105.7860	ug/L	99
22) Methyl Tert Butyl Ether	7.76	73	1434579	104.6480	ug/L	99
23) trans-1,2-Dichloroethene	7.99	61	1100710	100.2905	ug/L	90
24) n-Hexane	8.08	57	1073853	100.2052	ug/L	97
25) Diisopropyl ether	8.41	45	5574904	197.8912	ug/L	97
26) Vinyl Acetate	8.58	43	1074513	100.0924	ug/L	98
27) 1,1-Dichloroethane	8.61	63	1357940	100.1099	ug/L	99
28) Ethyl-Tert-Butyl ether	8.99	59	4516794	200.8930	ug/L	97
29) 2-Butanone	9.16	43	205375	100.9117	ug/L	95
30) Propionitrile	9.28	54	127145	203.8480	ug/L	97
31) 2,2-Dichloropropane	9.39	77	1109413	98.1295	ug/L	99
32) cis-1,2-Dichloroethene	9.46	96	854976	104.1130	ug/L	84
33) Chloroform	9.67	83	1277821	98.2433	ug/L	100
34) 1-Bromopropane	9.80	122	163969	106.9262	ug/L	99
35) Bromochloromethane	9.91	130	477051	101.0550	ug/L	87
36) Tetrahydrofuran	9.93	42	242333	204.2061	ug/L	99
38) 1,1,1-Trichloroethane	10.21	97	1251927	101.4096	ug/L	99
39) Cyclohexane	10.24	56	1478694	101.0156	ug/L	98
40) 1,1-Dichloropropene	10.40	75	1042938	102.1026	ug/L	91
41) Tert-Amyl-Methyl ether	10.50	73	3242386	200.4889	ug/L	99
42) Carbon Tetrachloride	10.55	117	1146726	103.0219	ug/L	99

(#) = qualifier out of range (m) = manual integration
8M395959.D 8260WTR.M Fri Mar 28 14:25:58 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395959.D Vial: 9
Acq On : 28 Mar 2014 12:49 Operator: TMB
Sample : WG468975-09 100ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:57 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

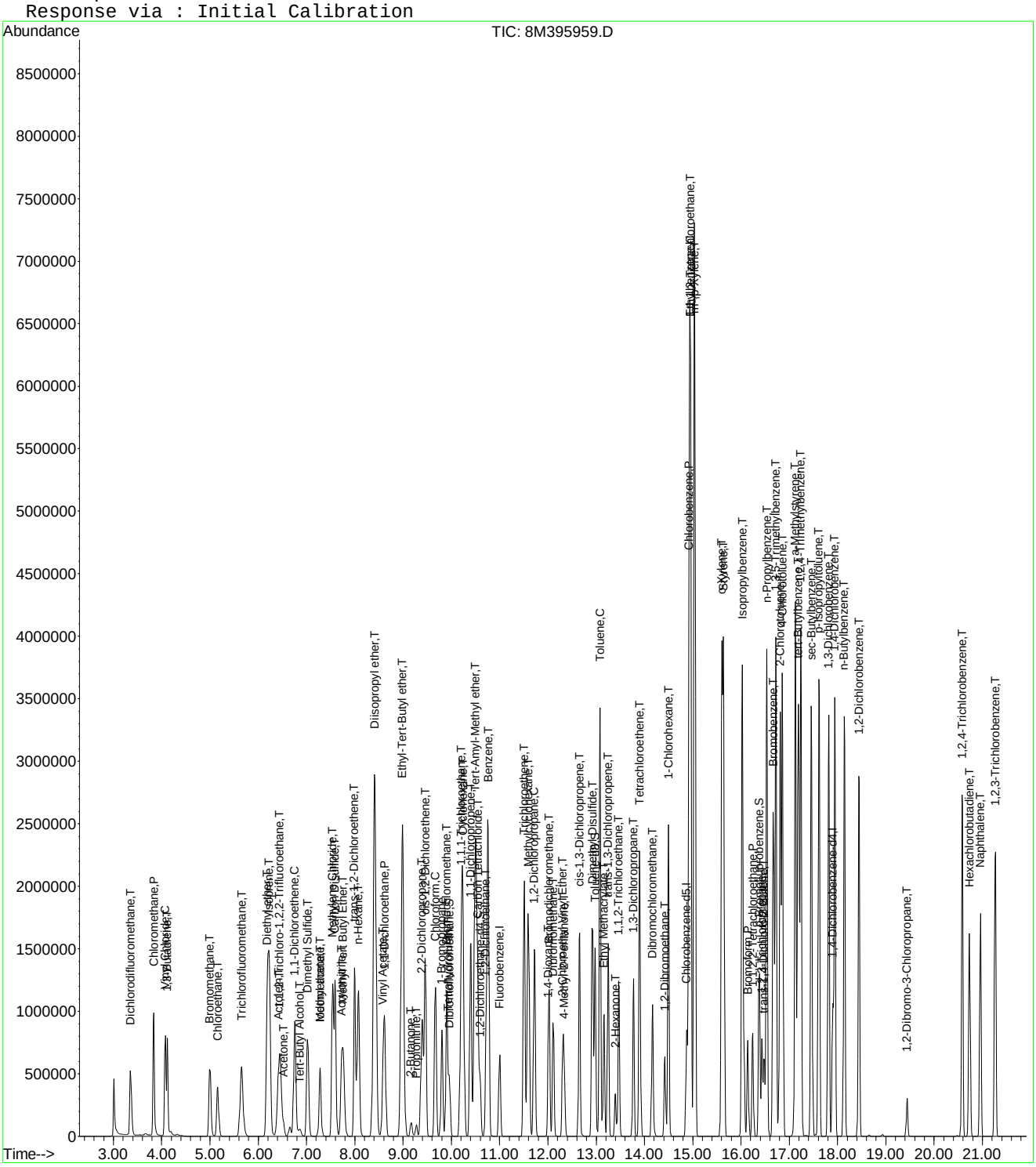
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
45)	1,2-Dichloroethane	10.71	62	845008	99.9134	ug/L		99
46)	Benzene	10.77	78	3023156	99.1743	ug/L		97
47)	Trichloroethene	11.51	130	930955	104.2474	ug/L		95
48)	Methylcyclohexane	11.59	83	1124350	100.9489	ug/L		95
49)	1,2-Dichloropropane	11.72	63	825097	103.5267	ug/L		97
50)	Bromodichloromethane	12.03	83	1012524	105.7015	ug/L		99
51)	1,4-Dioxane	12.01	88	15294	419.5120	ug/L		93
52)	Dibromomethane	12.11	93	388676	103.0030	ug/L		88
53)	2-Chloroethyl Vinyl Ether	12.31	63	375428	106.8905	ug/L		94
54)	4-Methyl-2-Pentanone	12.34	58	190801	101.7485	ug/L		97
55)	cis-1,3-Dichloropropene	12.66	75	1180755	105.8770	ug/L		100
56)	Dimethyl Disulfide	12.93	94	1348324	107.6204	ug/L		97
59)	Toluene	13.08	91	3365137	101.1490	ug/L		100
60)	Ethyl Methacrylate	13.16	69	682543	107.9486	ug/L		92
62)	trans-1,3-Dichloropropene	13.25	75	997576	103.7596	ug/L		99
63)	1,1,2-Trichloroethane	13.46	97	554958	103.7992	ug/L		95
64)	2-Hexanone	13.40	58	180038	103.6475	ug/L		95
65)	1,3-Dichloropropane	13.77	76	897551	102.8264	ug/L		89
66)	Tetrachloroethene	13.90	164	777494	101.4477	ug/L		89
67)	Dibromochloromethane	14.17	129	758275	109.6468	ug/L		99
68)	1,2-Dibromoethane	14.43	107	563859	104.3398	ug/L		100
69)	1-Chlorohexane	14.50	91	1114277	106.5559	ug/L		93
70)	Chlorobenzene	14.92	112	2351539	98.9407	ug/L		91
71)	1,1,1,2-Tetrachloroethane	14.95	131	880394	104.5843	ug/L		100
72)	Ethylbenzene	14.95	106	1263198	102.3525	ug/L		93
73)	m-,p-Xylene	15.04	106	2973538	201.9937	ug/L		93
74)	o-Xylene	15.60	106	1499813	102.8442	ug/L		95
75)	Styrene	15.63	104	2512772	106.8023	ug/L		93
76)	Bromoform	16.14	173	521870	107.4144	ug/L		99
77)	Isopropylbenzene	16.03	105	3636059	104.2374	ug/L		99
79)	1,1,2,2-Tetrachloroethane	16.24	83	568420	100.1892	ug/L		98
81)	1,2,3-Trichloropropane	16.43	110	174004	105.3643	ug/L	#	32
82)	trans-1,4-Dichloro-2-Buten	16.47	53	196223	97.8500	ug/L	#	48
83)	n-Propylbenzene	16.53	91	4324682	103.7721	ug/L		97
84)	Bromobenzene	16.67	156	1089833	102.2001	ug/L		96
85)	1,3,5-Trimethylbenzene	16.72	105	3101567	106.0721	ug/L		99
86)	2-Chlorotoluene	16.81	91	2847807	102.5969	ug/L		94
87)	4-Chlorotoluene	16.85	91	2598442	100.2148	ug/L		94
88)	a-Methylstyrene	17.12	118	1850793	105.3770	ug/L		98
89)	tert-Butylbenzene	17.19	134	701132	103.0628	ug/L		93
90)	1,2,4-Trimethylbenzene	17.24	105	3151161	103.5163	ug/L		98
91)	sec-Butylbenzene	17.45	105	3566332	101.5702	ug/L		98
92)	p-Isopropyltoluene	17.61	119	3168843	103.0825	ug/L		99
93)	1,3-Dichlorobenzene	17.82	146	1961945	100.0246	ug/L		94
94)	1,4-Dichlorobenzene	17.94	146	1960682	96.9141	ug/L		94
95)	n-Butylbenzene	18.14	91	2667760	101.1094	ug/L		97
96)	1,2-Dichlorobenzene	18.45	146	1759583	97.9511	ug/L		95
97)	1,2-Dibromo-3-Chloropropan	19.44	75	94074	103.4624	ug/L		71
98)	1,2,4-Trichlorobenzene	20.59	180	1286823	101.4804	ug/L		99
99)	Hexachlorobutadiene	20.73	225	504169	100.5745	ug/L		98
100)	Naphthalene	20.96	128	1867253	107.8032	ug/L		100
101)	1,2,3-Trichlorobenzene	21.27	180	1091718	99.6110	ug/L		98

(#) = qualifier out of range (m) = manual integration
8M395959.D 8260WTR.M Fri Mar 28 14:25:58 2014 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395959.D Vial: 9
Acq On : 28 Mar 2014 12:49 Operator: TMB
Sample : WG468975-09 100ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395960.D Vial: 10
Acq On : 28 Mar 2014 13:18 Operator: TMB
Sample : WG468975-10 200ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:59 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.00	96	846655	25.00 ug/L	0.00
57) Chlorobenzene-d5	14.88	117	689649	25.00 ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.91	152	396737	25.00 ug/L	0.00
System Monitoring Compounds					
37) Dibromofluoromethane	9.95	111	795815	102.4067 ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 409.64%#		
43) 1,2-Dichloroethane-d4	10.60	65	638539	100.8194 ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 403.28%#		
58) Toluene-d8	12.97	98	2756244	99.7636 ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 399.04%#		
80) p-Bromofluorobenzene	16.38	95	1151323	103.9583 ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 415.84%#		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.36	85	1521404	203.6528 ug/L	99
3) Chloromethane	3.83	50	2548116	175.6931 ug/L	98
4) Vinyl Chloride	4.07	62	1809114	186.5144 ug/L	99
5) 1,3-Butadiene	4.11	54	895509	196.2778 ug/L	97
6) Bromomethane	5.00	94	1237321	201.9195 ug/L	99
7) Chloroethane	5.16	64	1202126	195.5355 ug/L	99
8) Trichlorofluoromethane	5.65	101	2338529	202.9433 ug/L	99
9) Diethyl ether	6.19	59	2530	0.4985 ug/L	80
10) Isoprene	6.22	67	2091864	210.6634 ug/L	98
12) 1,1,2-Trichloro-1,2,2-Trif	6.44	101	1486360	199.6399 ug/L	90
13) Acetone	6.52	43	245414	205.6462 ug/L	95
14) 1,1-Dichloroethene	6.76	61	2241474	199.4044 ug/L	88
15) Tert-Butyl Alcohol	6.85	59	4192	12.1659 ug/L #	74
16) Dimethyl Sulfide	7.02	62	1285118	207.3487 ug/L	96
17) Iodomethane	7.28	142	1510886	221.0214 ug/L	92
18) Methyl acetate	7.29	43	667574	196.3373 ug/L	98
19) Methylene Chloride	7.55	84	1455971	192.6063 ug/L	90
20) Carbon Disulfide	7.60	76	4962316	203.5377 ug/L	99
21) Acrylonitrile	7.75	53	30813	17.7803 ug/L #	30
22) Methyl Tert Butyl Ether	7.75	73	2970526	212.6338 ug/L	99
23) trans-1,2-Dichloroethene	7.99	61	2264578	202.4728 ug/L	88
24) n-Hexane	8.07	57	2189580	200.4928 ug/L	97
26) Vinyl Acetate	8.58	43	2005208	183.2912 ug/L	98
27) 1,1-Dichloroethane	8.62	63	2781244	201.2001 ug/L	99
29) 2-Butanone	9.17	43	427900	206.3140 ug/L	96
30) Propionitrile	9.28	54	424	0.6671 ug/L #	55
31) 2,2-Dichloropropane	9.40	77	2259982	196.1570 ug/L	98
32) cis-1,2-Dichloroethene	9.46	96	1750065	209.1211 ug/L	84
33) Chloroform	9.67	83	2610706	196.9624 ug/L	100
34) 1-Bromopropane	9.81	122	335133	214.4530 ug/L	97
35) Bromochloromethane	9.90	130	992401	206.2874 ug/L	86
38) 1,1,1-Trichloroethane	10.20	97	2571276	204.3814 ug/L	99
39) Cyclohexane	10.23	56	3038980	203.7186 ug/L	98
40) 1,1-Dichloropropene	10.40	75	2118895	203.5542 ug/L	91
42) Carbon Tetrachloride	10.54	117	2369453	208.8866 ug/L	99
45) 1,2-Dichloroethane	10.72	62	1722968	199.9092 ug/L	99
46) Benzene	10.76	78	5878090	189.2201 ug/L	99
47) Trichloroethene	11.51	130	1899153	208.6839 ug/L	96
48) Methylcyclohexane	11.59	83	2312070	203.7013 ug/L	95
49) 1,2-Dichloropropane	11.72	63	1640244	201.9522 ug/L	98

(#) = qualifier out of range (m) = manual integration
8M395960.D 8260WTR.M Fri Mar 28 14:25:59 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395960.D Vial: 10
Acq On : 28 Mar 2014 13:18 Operator: TMB
Sample : WG468975-10 200ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25:59 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

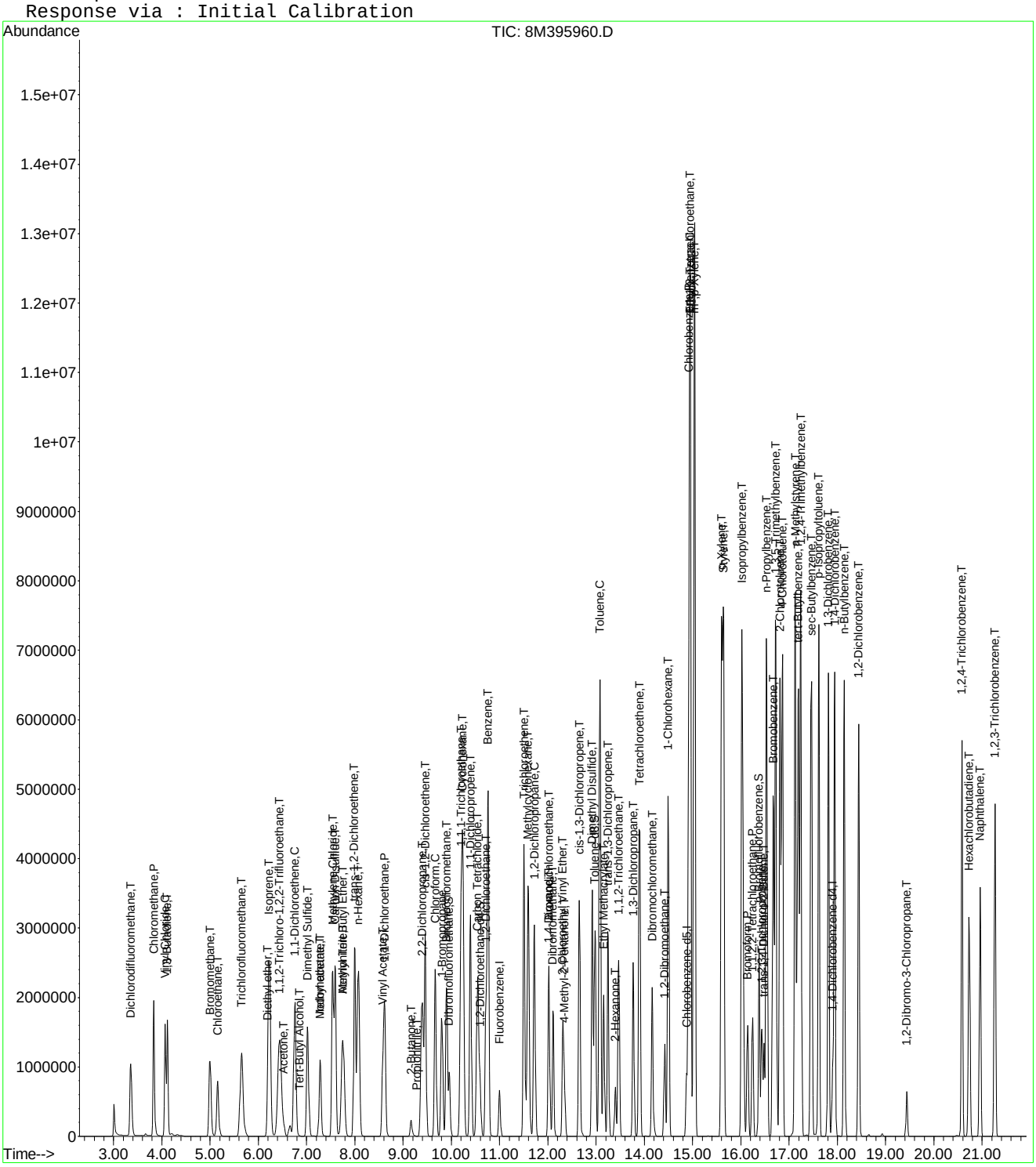
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
50)	Bromodichloromethane	12.02	83	2053321	210.3417 ug/L		98
51)	1,4-Dioxane	12.01	88	3599	96.8719 ug/L	#	20
52)	Dibromomethane	12.11	93	805157	209.3802 ug/L		88
53)	2-Chloroethyl Vinyl Ether	12.31	63	766050	214.0239 ug/L		93
54)	4-Methyl-2-Pentanone	12.34	58	387922	202.9946 ug/L		98
55)	cis-1,3-Dichloropropene	12.65	75	2375191	208.9936 ug/L		98
56)	Dimethyl Disulfide	12.92	94	2774324	217.2953 ug/L		98
59)	Toluene	13.08	91	6459882	193.3888 ug/L		98
60)	Ethyl Methacrylate	13.16	69	1384968	218.1596 ug/L		92
62)	trans-1,3-Dichloropropene	13.24	75	2005905	207.7976 ug/L		98
63)	1,1,2-Trichloroethane	13.47	97	1120740	208.7789 ug/L		96
64)	2-Hexanone	13.40	58	363160	208.2286 ug/L		92
65)	1,3-Dichloropropane	13.77	76	1806182	206.0889 ug/L		87
66)	Tetrachloroethene	13.90	164	1575202	204.7053 ug/L		90
67)	Dibromochloromethane	14.16	129	1556856	224.2154 ug/L		99
68)	1,2-Dibromoethane	14.42	107	1150771	212.0879 ug/L		99
69)	1-Chlorohexane	14.49	91	2260637	215.3093 ug/L		91
70)	Chlorobenzene	14.93	112	4575514	191.7389 ug/L		92
71)	1,1,1,2-Tetrachloroethane	14.95	131	1794078	212.2650 ug/L		100
72)	Ethylbenzene	14.95	106	2477261	199.9155 ug/L		86
73)	m-,p-Xylene	15.04	106	5644454	381.8863 ug/L		86
74)	o-Xylene	15.60	106	2956808	201.9358 ug/L		91
75)	Styrene	15.64	104	4882061	206.6706 ug/L		95
76)	Bromoform	16.14	173	1084657	222.3516 ug/L		98
77)	Isopropylbenzene	16.02	105	6916535	197.4826 ug/L		96
79)	1,1,2,2-Tetrachloroethane	16.24	83	1135219	200.2335 ug/L		98
81)	1,2,3-Trichloropropane	16.44	110	357113	216.3941 ug/L	#	22
82)	trans-1,4-Dichloro-2-Buten	16.48	53	367286	202.9415 ug/L	#	41
83)	n-Propylbenzene	16.53	91	8027257	192.7519 ug/L		94
84)	Bromobenzene	16.68	156	2180014	204.5765 ug/L		84
85)	1,3,5-Trimethylbenzene	16.72	105	5951188	203.6710 ug/L		97
86)	2-Chlorotoluene	16.81	91	5148726	185.6218 ug/L		81
87)	4-Chlorotoluene	16.86	91	5311290	204.9859 ug/L		97
88)	a-Methylstyrene	17.13	118	3597713	204.9839 ug/L		99
89)	tert-Butylbenzene	17.19	134	1411165	207.5798 ug/L		88
90)	1,2,4-Trimethylbenzene	17.24	105	6001195	197.2791 ug/L		96
91)	sec-Butylbenzene	17.46	105	6732828	191.8877 ug/L		95
92)	p-Isopropyltoluene	17.62	119	6036228	196.4967 ug/L		97
93)	1,3-Dichlorobenzene	17.81	146	3804592	194.1035 ug/L		96
94)	1,4-Dichlorobenzene	17.95	146	3784012	187.1706 ug/L		96
95)	n-Butylbenzene	18.14	91	5070657	192.3155 ug/L		95
96)	1,2-Dichlorobenzene	18.44	146	3434157	191.3044 ug/L		96
97)	1,2-Dibromo-3-Chloropropan	19.44	75	191979	211.2866 ug/L		65
98)	1,2,4-Trichlorobenzene	20.58	180	2531233	199.7564 ug/L		99
99)	Hexachlorobutadiene	20.73	225	1013919	202.4045 ug/L		99
100)	Naphthalene	20.96	128	3718064	214.8081 ug/L		99
101)	1,2,3-Trichlorobenzene	21.27	180	2154033	196.6774 ug/L		98

(#) = qualifier out of range (m) = manual integration
8M395960.D 8260WTR.M Fri Mar 28 14:25:59 2014 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395960.D Vial: 10
Acq On : 28 Mar 2014 13:18 Operator: TMB
Sample : WG468975-10 200ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:25 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration



8M395960.D 8260WTR.M Fri Mar 28 14:25:59 2014 Page 3

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395961.D Vial: 11
Acq On : 28 Mar 2014 13:48 Operator: TMB
Sample : WG468975-11 300ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:26:00 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.00	96	867852	25.00	ug/L	0.00
57) Chlorobenzene-d5	14.88	117	728177	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.91	152	451724	25.00	ug/L	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	9.96	111	1211953	152.1468	ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 608.60%#			
43) 1,2-Dichloroethane-d4	10.60	65	964593	148.5804	ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 594.32%#			
58) Toluene-d8	12.97	98	4077809	139.7888	ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 559.16%#			
80) p-Bromofluorobenzene	16.38	95	1810983	143.6171	ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 574.48%#			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.36	85	2338421	305.3721	ug/L	99
3) Chloromethane	3.83	50	3513698	236.3528	ug/L	98
4) Vinyl Chloride	4.07	62	2527153	254.1785	ug/L	98
5) 1,3-Butadiene	4.11	54	1272861	309.3439	ug/L	96
6) Bromomethane	4.99	94	2065153	328.7827	ug/L	99
7) Chloroethane	5.15	64	2007646	318.5837	ug/L	98
8) Trichlorofluoromethane	5.65	101	3825705	323.8950	ug/L	99
9) Diethyl ether	6.18	59	1546026	297.1877	ug/L	98
10) Isoprene	6.22	67	3034394	298.1181	ug/L	98
11) Acrolein	6.42	56	34474	150.3907	ug/L	100
12) 1,1,2-Trichloro-1,2,2-Trif	6.44	101	2255951	295.6064	ug/L	89
13) Acetone	6.52	43	387894	317.0992	ug/L	92
14) 1,1-Dichloroethene	6.75	61	3476629	301.7312	ug/L	87
15) Tert-Butyl Alcohol	6.87	59	221061	625.8895	ug/L	99
16) Dimethyl Sulfide	7.02	62	1907953	300.3218	ug/L	94
17) Iodomethane	7.28	142	2222327	317.1548	ug/L	91
18) Methyl acetate	7.28	43	1081778	310.3861	ug/L	97
19) Methylene Chloride	7.54	84	2156001	278.2450	ug/L	87
20) Carbon Disulfide	7.59	76	7043306	281.8369	ug/L	98
21) Acrylonitrile	7.72	53	318684	179.4011	ug/L	95
22) Methyl Tert Butyl Ether	7.75	73	4518595	315.5464	ug/L	99
23) trans-1,2-Dichloroethene	7.99	61	3342415	291.5416	ug/L	88
24) n-Hexane	8.07	57	3242996	289.6978	ug/L	96
25) Diisopropyl ether	8.41	45	8242618	280.0965	ug/L	97
26) Vinyl Acetate	8.58	43	3277549	292.2754	ug/L	97
27) 1,1-Dichloroethane	8.61	63	4095155	289.0149	ug/L	98
28) Ethyl-Tert-Butyl ether	8.98	59	6966980	296.6420	ug/L	96
29) 2-Butanone	9.17	43	654832	308.0188	ug/L	95
30) Propionitrile	9.27	54	213945	328.3694	ug/L	97
31) 2,2-Dichloropropane	9.40	77	3301432	279.5516	ug/L	98
32) cis-1,2-Dichloroethene	9.46	96	2613098	304.6212	ug/L	82
33) Chloroform	9.67	83	3899731	287.0257	ug/L	99
34) 1-Bromopropane	9.80	122	507723	316.9587	ug/L	98
35) Bromochloromethane	9.90	130	1513472	306.9169	ug/L	83
36) Tetrahydrofuran	9.92	42	394689	318.3938	ug/L	96
38) 1,1,1-Trichloroethane	10.20	97	3780501	293.1588	ug/L	98
39) Cyclohexane	10.23	56	4393404	287.3193	ug/L	97
40) 1,1-Dichloropropene	10.40	75	3096476	290.2012	ug/L	90
41) Tert-Amyl-Methyl ether	10.49	73	5054177	299.1779	ug/L	98
42) Carbon Tetrachloride	10.54	117	3473775	298.7618	ug/L	98

(#) = qualifier out of range (m) = manual integration
8M395961.D 8260WTR.M Fri Mar 28 14:26:00 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395961.D Vial: 11
Acq On : 28 Mar 2014 13:48 Operator: TMB
Sample : WG468975-11 300ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:26:00 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

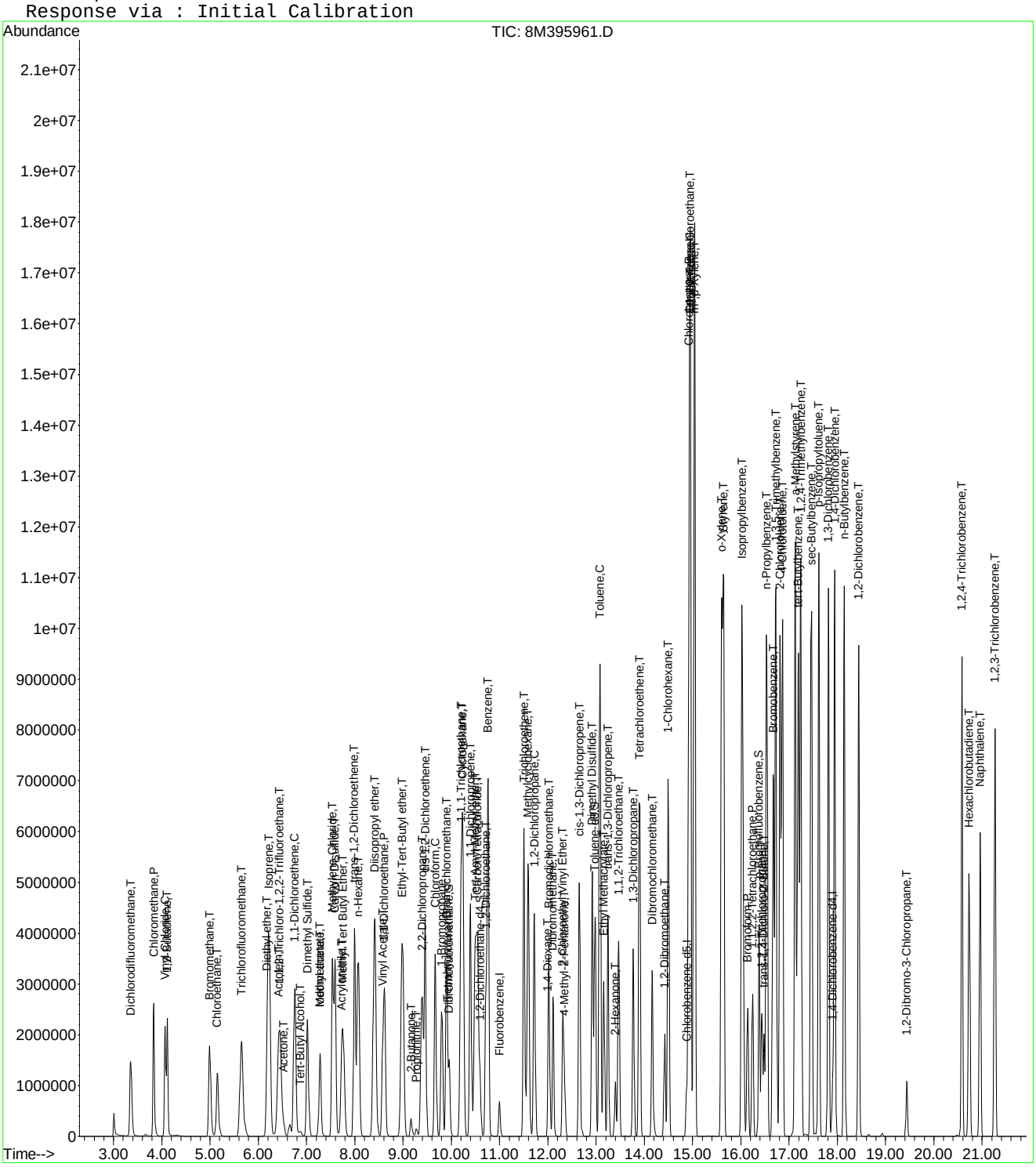
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
45)	1,2-Dichloroethane	10.72	62	2564526	290.2842 ug/L		99
46)	Benzene	10.76	78	8349826	262.2221 ug/L		99
47)	Trichloroethene	11.51	130	2788945	298.9715 ug/L		95
48)	Methylcyclohexane	11.59	83	3475543	298.7283 ug/L		94
49)	1,2-Dichloropropane	11.72	63	2408970	289.3559 ug/L		99
50)	Bromodichloromethane	12.02	83	3045565	304.3667 ug/L		98
51)	1,4-Dioxane	12.00	88	25855	678.9241 ug/L		88
52)	Dibromomethane	12.11	93	1211051	307.2403 ug/L		87
53)	2-Chloroethyl Vinyl Ether	12.31	63	1153274	314.3391 ug/L		92
54)	4-Methyl-2-Pentanone	12.34	58	589747	301.0694 ug/L		97
55)	cis-1,3-Dichloropropene	12.65	75	3515637	301.7862 ug/L		98
56)	Dimethyl Disulfide	12.92	94	4184633	319.7505 ug/L		98
59)	Toluene	13.08	91	9121158	258.6115 ug/L		95
60)	Ethyl Methacrylate	13.16	69	2115883	315.6584 ug/L		89
62)	trans-1,3-Dichloropropene	13.24	75	2998918	294.2293 ug/L		98
63)	1,1,2-Trichloroethane	13.47	97	1700579	300.0335 ug/L		95
64)	2-Hexanone	13.40	58	550542	298.9675 ug/L		91
65)	1,3-Dichloropropane	13.77	76	2700673	291.8477 ug/L		85
66)	Tetrachloroethene	13.91	164	2357041	290.1022 ug/L		90
67)	Dibromochloromethane	14.16	129	2363546	322.3831 ug/L		100
68)	1,2-Dibromoethane	14.42	107	1746854	304.9122 ug/L		99
69)	1-Chlorohexane	14.49	91	3331564	300.5186 ug/L		90
70)	Chlorobenzene	14.93	112	6625838	262.9676 ug/L		93
71)	1,1,1,2-Tetrachloroethane	14.95	131	2649262	296.8609 ug/L		100
72)	Ethylbenzene	14.95	106	3608555	275.8031 ug/L		79
73)	m-,p-Xylene	15.04	106	7965902	510.4324 ug/L		78
74)	o-Xylene	15.60	106	4367508	282.4978 ug/L		87
75)	Styrene	15.64	104	7080901	283.8933 ug/L		97
76)	Bromoform	16.14	173	1702499	330.5413 ug/L		98
77)	Isopropylbenzene	16.02	105	9866580	266.8075 ug/L		93
79)	1,1,2,2-Tetrachloroethane	16.24	83	1841499	285.2713 ug/L		98
81)	1,2,3-Trichloropropane	16.44	110	556928	296.3933 ug/L		88
82)	trans-1,4-Dichloro-2-Buten	16.48	53	552100	297.3702 ug/L		77
83)	n-Propylbenzene	16.53	91	11001661	232.0168 ug/L		89
84)	Bromobenzene	16.68	156	3271884	269.6646 ug/L		82
85)	1,3,5-Trimethylbenzene	16.73	105	8561497	257.3385 ug/L		93
86)	2-Chlorotoluene	16.81	91	7236015	229.1174 ug/L	#	77
87)	4-Chlorotoluene	16.86	91	7632129	258.7017 ug/L		100
88)	a-Methylstyrene	17.13	118	5293049	264.8675 ug/L		98
89)	tert-Butylbenzene	17.19	134	2104749	271.9175 ug/L		86
90)	1,2,4-Trimethylbenzene	17.24	105	8610142	248.5898 ug/L		93
91)	sec-Butylbenzene	17.46	105	10410666	260.5900 ug/L		92
92)	p-Isopropyltoluene	17.62	119	9275773	265.1974 ug/L		93
93)	1,3-Dichlorobenzene	17.81	146	6077367	272.3142 ug/L		98
94)	1,4-Dichlorobenzene	17.95	146	6121406	265.9290 ug/L		98
95)	n-Butylbenzene	18.14	91	8123584	270.5997 ug/L		92
96)	1,2-Dichlorobenzene	18.44	146	5498375	269.0102 ug/L		98
97)	1,2-Dibromo-3-Chloropropan	19.44	75	330105	319.0801 ug/L		70
98)	1,2,4-Trichlorobenzene	20.58	180	4116494	285.3156 ug/L		100
99)	Hexachlorobutadiene	20.73	225	1617925	283.6645 ug/L		98
100)	Naphthalene	20.96	128	6089772	309.0042 ug/L		98
101)	1,2,3-Trichlorobenzene	21.27	180	3538174	283.7337 ug/L		99

(#) = qualifier out of range (m) = manual integration
8M395961.D 8260WTR.M Fri Mar 28 14:26:00 2014 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395961.D Vial: 11
Acq On : 28 Mar 2014 13:48 Operator: TMB
Sample : WG468975-11 300ug/L STD 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 14:26 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration



8M395961.D 8260WTR.M Fri Mar 28 14:26:00 2014 Page 3

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395964.D Vial: 14
Acq On : 28 Mar 2014 15:48 Operator: TMB
Sample : WG468975-12 50ug/L ALT SRC STD 8260 Inst : HPMS8
Misc : 1,1 STD63597 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 16:11:51 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.00	96	870939	25.00 ug/L	0.00
57) Chlorobenzene-d5	14.88	117	681440	25.00 ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.91	152	398362	25.00 ug/L	0.00
System Monitoring Compounds					
37) Dibromofluoromethane	9.96	111	199115	24.9080 ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 99.64%		
43) 1,2-Dichloroethane-d4	10.60	65	154985	23.7884 ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 95.16%		
58) Toluene-d8	12.97	98	736012	26.9612 ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 107.84%		
80) p-Bromofluorobenzene	16.38	95	267225	24.0306 ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 96.12%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.36	85	542549	70.5998 ug/L	99
3) Chloromethane	3.83	50	665238	44.5894 ug/L	99
4) Vinyl Chloride	4.07	62	444478	44.5467 ug/L	99
5) 1,3-Butadiene	4.11	54	195667	32.5347 ug/L	97
6) Bromomethane	4.99	94	325044	51.5652 ug/L	99
7) Chloroethane	5.15	64	338103	53.4618 ug/L	97
8) Trichlorofluoromethane	5.64	101	615648	51.9378 ug/L	99
9) Diethyl ether	6.18	59	537716	102.9971 ug/L	99
10) Isoprene	6.22	67	583967	57.1693 ug/L	96
11) Acrolein	6.43	56	24308	120.6675 ug/L	89
12) 1,1,2-Trichloro-1,2,2-Trif	6.44	101	430072	56.1543 ug/L	98
13) Acetone	6.52	43	62249	50.7075 ug/L	92
14) 1,1-Dichloroethene	6.75	61	561615	48.5689 ug/L	90
15) Tert-Butyl Alcohol	6.87	59	83614	235.8970 ug/L	98
16) Dimethyl Sulfide	7.02	62	539004	84.5413 ug/L	96
17) Iodomethane	7.28	142	607422	86.3797 ug/L	91
18) Methyl acetate	7.28	43	178763	51.1093 ug/L	100
19) Methylene Chloride	7.54	84	397479	51.1153 ug/L	92
20) Carbon Disulfide	7.59	76	1289136	51.4018 ug/L	99
21) Acrylonitrile	7.72	53	103625	58.1283 ug/L	100
22) Methyl Tert Butyl Ether	7.75	73	778614	54.1801 ug/L	99
23) trans-1,2-Dichloroethene	7.99	61	593990	51.6270 ug/L	89
24) n-Hexane	8.07	57	631239	56.1889 ug/L	97
25) Diisopropyl ether	8.40	45	3060912	103.6457 ug/L	96
26) Vinyl Acetate	8.58	43	724795	64.4045 ug/L	99
27) 1,1-Dichloroethane	8.61	63	710160	49.9418 ug/L	99
28) Ethyl-Tert-Butyl ether	8.98	59	2388040	101.3182 ug/L	97
29) 2-Butanone	9.17	43	112272	52.6231 ug/L	96
30) Propionitrile	9.27	54	75712	115.7932 ug/L	94
31) 2,2-Dichloropropane	9.39	77	596168	50.3021 ug/L	99
32) cis-1,2-Dichloroethene	9.46	96	456370	53.0126 ug/L	85
33) Chloroform	9.67	83	667252	48.9366 ug/L	99
34) 1-Bromopropane	9.80	122	106837	66.4592 ug/L	98
35) Bromochloromethane	9.90	130	244361	49.3783 ug/L	88
36) Tetrahydrofuran	9.92	42	140650	113.0596 ug/L	99
38) 1,1,1-Trichloroethane	10.20	97	632104	48.8427 ug/L	99
39) Cyclohexane	10.23	56	803994	52.3931 ug/L	98
40) 1,1-Dichloropropene	10.39	75	545401	50.9337 ug/L	92
41) Tert-Amyl-Methyl ether	10.49	73	1772090	104.5256 ug/L	98
42) Carbon Tetrachloride	10.54	117	559160	47.9201 ug/L	99

(#) = qualifier out of range (m) = manual integration
8M395964.D 8260WTR.M Fri Mar 28 16:11:51 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395964.D Vial: 14
Acq On : 28 Mar 2014 15:48 Operator: TMB
Sample : WG468975-12 50ug/L ALT SRC STD 8260 Inst : HPMS8
Misc : 1,1 STD63597 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 16:11:51 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

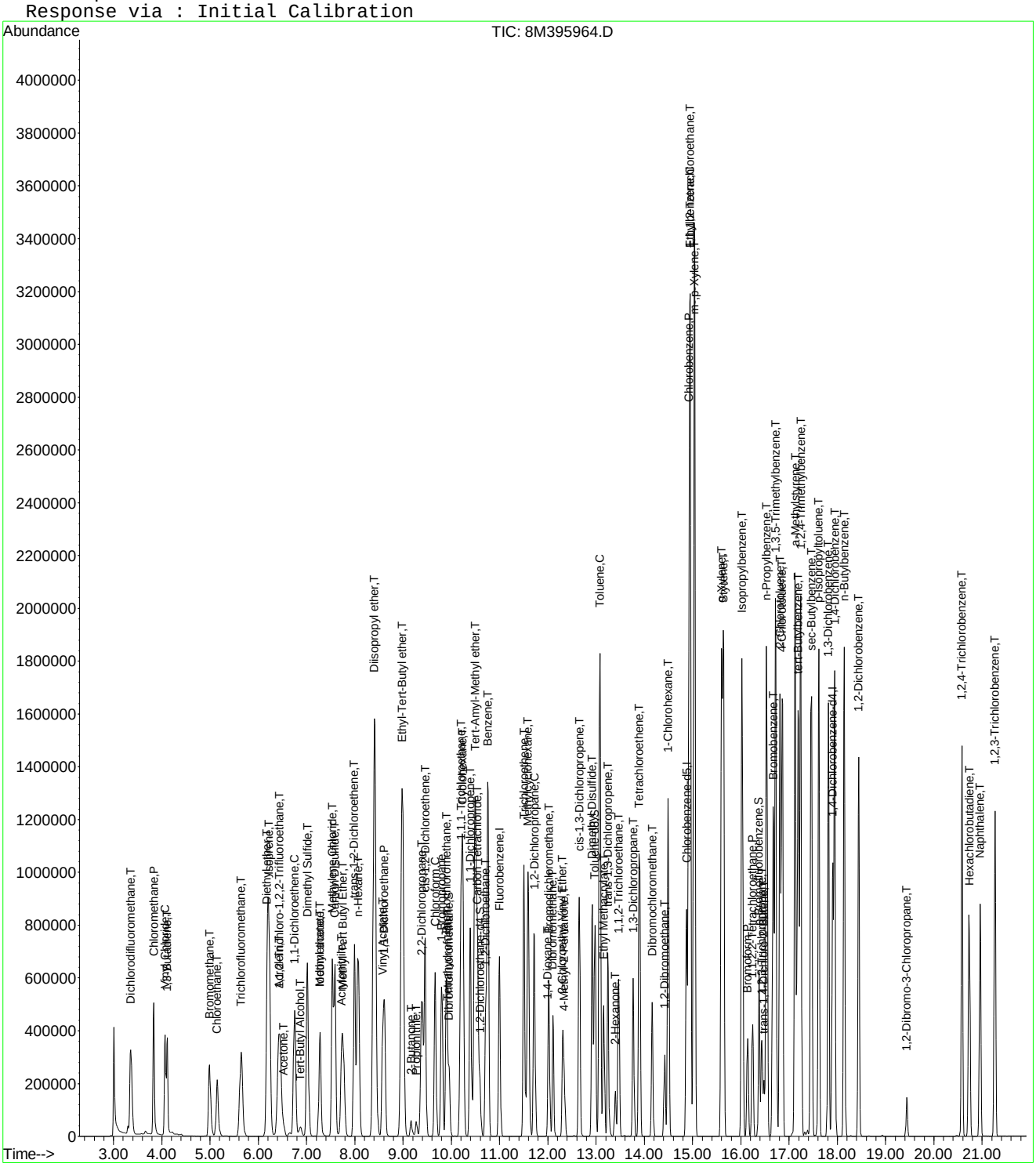
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
45)	1,2-Dichloroethane	10.71	62	432168	48.7446	ug/L	98
46)	Benzene	10.76	78	1637387	51.2391	ug/L	96
47)	Trichloroethene	11.51	130	468465	50.0409	ug/L	96
48)	Methylcyclohexane	11.59	83	633052	54.2189	ug/L	96
49)	1,2-Dichloropropane	11.72	63	437898	52.4121	ug/L	94
50)	Bromodichloromethane	12.02	83	501793	49.9703	ug/L	99
51)	1,4-Dioxane	12.00	88	9106	238.2661	ug/L	99
52)	Dibromomethane	12.11	93	200944	50.7982	ug/L	90
53)	2-Chloroethyl Vinyl Ether	12.30	63	190242	51.6690	ug/L	95
54)	4-Methyl-2-Pentanone	12.33	58	99473	50.6016	ug/L	97
55)	cis-1,3-Dichloropropene	12.65	75	641938	54.9094	ug/L	99
56)	Dimethyl Disulfide	12.92	94	699394	53.2517	ug/L	96
59)	Toluene	13.08	91	1813879	54.9561	ug/L	100
60)	Ethyl Methacrylate	13.16	69	354931	56.5821	ug/L	89
62)	trans-1,3-Dichloropropene	13.24	75	454329	47.6322	ug/L	99
63)	1,1,2-Trichloroethane	13.47	97	267053	50.3477	ug/L	96
64)	2-Hexanone	13.40	58	80472	46.6969	ug/L	98
65)	1,3-Dichloropropane	13.77	76	429211	49.5638	ug/L	87
66)	Tetrachloroethene	13.89	164	376468	49.5132	ug/L	89
67)	Dibromochloromethane	14.16	129	366164	53.3695	ug/L	98
68)	1,2-Dibromoethane	14.42	107	266116	49.6362	ug/L	98
69)	1-Chlorohexane	14.49	91	581243	56.0261	ug/L	90
70)	Chlorobenzene	14.93	112	1116809	47.3641	ug/L	90
71)	1,1,1,2-Tetrachloroethane	14.95	131	422077	50.5393	ug/L	99
72)	Ethylbenzene	14.95	106	624737	51.0238	ug/L	96
73)	m-,p-Xylene	15.04	106	1464817	100.2989	ug/L	95
74)	o-Xylene	15.60	106	705452	48.7594	ug/L	95
75)	Styrene	15.64	104	1272288	54.5081	ug/L	90
76)	Bromoform	16.14	173	250987	52.0714	ug/L	99
77)	Isopropylbenzene	16.02	105	1759632	50.8467	ug/L	99
79)	1,1,2,2-Tetrachloroethane	16.24	83	286142	50.2647	ug/L	98
81)	1,2,3-Trichloropropane	16.44	110	85580	51.6460	ug/L	76
82)	trans-1,4-Dichloro-2-Buten	16.48	53	61144	28.9975	ug/L #	41
83)	n-Propylbenzene	16.53	91	2081369	49.7743	ug/L	97
84)	Bromobenzene	16.68	156	551368	51.5303	ug/L	84
85)	1,3,5-Trimethylbenzene	16.72	105	1641864	55.9613	ug/L	99
86)	2-Chlorotoluene	16.81	91	1329579	47.7384	ug/L	95
87)	4-Chlorotoluene	16.85	91	1305065	50.1627	ug/L	94
88)	a-Methylstyrene	17.13	118	980094	55.6142	ug/L	98
89)	tert-Butylbenzene	17.19	134	343464	50.3168	ug/L	93
90)	1,2,4-Trimethylbenzene	17.24	105	1660113	54.3508	ug/L	100
91)	sec-Butylbenzene	17.46	105	1765961	50.1251	ug/L	98
92)	p-Isopropyltoluene	17.62	119	1571458	50.9468	ug/L	100
93)	1,3-Dichlorobenzene	17.81	146	951195	48.3303	ug/L	93
94)	1,4-Dichlorobenzene	17.95	146	1030270	50.7529	ug/L	93
95)	n-Butylbenzene	18.14	91	1448643	54.7188	ug/L	97
96)	1,2-Dichlorobenzene	18.44	146	851296	47.2292	ug/L	93
97)	1,2-Dibromo-3-Chloropropan	19.44	75	45810	50.2115	ug/L	67
98)	1,2,4-Trichlorobenzene	20.58	180	664532	52.2287	ug/L	99
99)	Hexachlorobutadiene	20.74	225	273110	54.2974	ug/L	98
100)	Naphthalene	20.96	128	931282	53.5846	ug/L	99
101)	1,2,3-Trichlorobenzene	21.27	180	558257	50.7646	ug/L	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032814\8M395964.D Vial: 14
Acq On : 28 Mar 2014 15:48 Operator: TMB
Sample : WG468975-12 50ug/L ALT SRC STD 8260 Inst : HPMS8
Misc : 1,1 STD63597 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 28 16:11 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration



Data File : C:\MSDCHEM\2\DATA\032814\8M395964.D Vial: 14
Acq On : 28 Mar 2014 15:48 Operator: TMB
Sample : WG468975-12 50ug/L ALT SRC STD 8260 Inst : HPMS8
Misc : 1,1 STD63597 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	25.0000	25.0000	0.0	109	0.00
2	T	Dichlorodifluoromethane	50.0000	70.5998	-41.2#	141	0.00
3	P	Chloromethane	50.0000	44.5894	10.8	96	0.00
4	C	Vinyl Chloride	50.0000	44.5467	10.9	96	0.00
5	T	1,3-Butadiene	50.0000	32.5347	34.9#	69	-0.02
6	T	Bromomethane	50.0000	51.5652	-3.1	115	-0.01
7	T	Chloroethane	50.0000	53.4618	-6.9	115	-0.01
8	T	Trichlorofluoromethane	50.0000	51.9378	-3.9	113	-0.01
9	T	Diethyl ether	100.0000	102.9971	-3.0	116	0.00
10	T	Isoprene	50.0000	57.1693	-14.3	121	0.00
11	T	Acrolein	50.0000	120.6675	-141.3#	391	0.00
12	T	1,1,2-Trichloro-1,2,2-Trifl	50.0000	56.1543	-12.3	118	0.00
13	T	Acetone	50.0000	50.7075	-1.4	107	0.00
14	C	1,1-Dichloroethene	50.0000	48.5689	2.9	105	0.00
15	T	Tert-Butyl Alcohol	200.0000	235.8970	-17.9	126	0.02
16	T	Dimethyl Sulfide	50.0000	84.5413	-69.1#	181	0.00
17	T	Iodomethane	50.0000	86.3797	-72.8#	168	0.00
18	T	Methyl acetate	50.0000	51.1093	-2.2	113	0.00
19	T	Methylene Chloride	50.0000	51.1153	-2.2	112	0.00
20	T	Carbon Disulfide	50.0000	51.4018	-2.8	108	0.00
21	T	Acrylonitrile	50.0000	58.1283	-16.3	124	0.00
22	T	Methyl Tert Butyl Ether	50.0000	54.1801	-8.4	112	0.00
23	T	trans-1,2-Dichloroethene	50.0000	51.6270	-3.3	112	0.00
24	T	n-Hexane	50.0000	56.1889	-12.4	115	0.00
25	T	Diisopropyl ether	100.0000	103.6457	-3.6	112	0.00
26	T	Vinyl Acetate	50.0000	64.4045	-28.8#	138	0.00
27	P	1,1-Dichloroethane	50.0000	49.9418	0.1	109	0.00
28	T	Ethyl-Tert-Butyl ether	100.0000	101.3182	-1.3	109	0.00
29	T	2-Butanone	50.0000	52.6231	-5.2	109	0.00
30	T	Propionitrile	100.0000	115.7932	-15.8	127	0.00
31	T	2,2-Dichloropropane	50.0000	50.3021	-0.6	109	0.00
32	T	cis-1,2-Dichloroethene	50.0000	53.0126	-6.0	112	0.00
33	C	Chloroform	50.0000	48.9366	2.1	108	0.00
34		1-Bromopropane	50.0000	66.4592	-32.9#	136	0.00
35	T	Bromochloromethane	50.0000	49.3783	1.2	106	0.00
36	T	Tetrahydrofuran	100.0000	113.0596	-13.1	122	0.00
37	S	Dibromofluoromethane	25.0000	24.9080	0.4	108	0.00
38	T	1,1,1-Trichloroethane	50.0000	48.8427	2.3	103	0.00
39	T	Cyclohexane	50.0000	52.3931	-4.8	107	0.00
40	T	1,1-Dichloropropene	50.0000	50.9337	-1.9	106	0.00
41	T	Tert-Amyl-Methyl ether	100.0000	104.5256	-4.5	113	0.00
42	T	Carbon Tetrachloride	50.0000	47.9201	4.2	100	0.00
43	S	1,2-Dichloroethane-d4	25.0000	23.7884	4.8	104	0.00
44		Heptane	-1.0000	0.0000	0.0	0	-2.74#
45	T	1,2-Dichloroethane	50.0000	48.7446	2.5	105	0.00
46	T	Benzene	50.0000	51.2391	-2.5	109	0.00
47	T	Trichloroethene	50.0000	50.0409	-0.1	104	0.00
48	T	Methylcyclohexane	50.0000	54.2189	-8.4	110	0.00
49	C	1,2-Dichloropropane	50.0000	52.4121	-4.8	109	0.00
50	T	Bromodichloromethane	50.0000	49.9703	0.1	101	0.00
51	T	1,4-Dioxane	200.0000	238.2661	-19.1	122	0.00
52	T	Dibromomethane	50.0000	50.7983	-1.6	104	0.00
53	T	2-Chloroethyl Vinyl Ether	50.0000	51.6690	-3.3	101	0.00
54	T	4-Methyl-2-Pentanone	50.0000	50.6016	-1.2	99	0.00

(#) = Out of Range
8M395964.D 8260WTR.M Fri Mar 28 16:11:54 2014 Page 1

Data File : C:\MSDCHEM\2\DATA\032814\8M395964.D Vial: 14
Acq On : 28 Mar 2014 15:48 Operator: TMB
Sample : WG468975-12 50ug/L ALT SRC STD 8260 Inst : HPMS8
Misc : 1,1 STD63597 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
55	T	cis-1,3-Dichloropropene	50.0000	54.9094	-9.8	110	0.00
56	T	Dimethyl Disulfide	50.0000	53.2517	-6.5	107	0.00
57	I	Chlorobenzene-d5	25.0000	25.0000	0.0	102	0.00
58	S	Toluene-d8	25.0000	26.9612	-7.8	107	0.00
59	C	Toluene	50.0000	54.9560	-9.9	107	0.00
60	T	Ethyl Methacrylate	50.0000	56.5821	-13.2	96	0.00
61		Paraldehyde	-1.0000	0.0000	0.0	0	-13.34#
62	T	trans-1,3-Dichloropropene	50.0000	47.6322	4.7	92	0.00
63	T	1,1,2-Trichloroethane	50.0000	50.3477	-0.7	95	0.00
64	T	2-Hexanone	50.0000	46.6968	6.6	84	0.00
65	T	1,3-Dichloropropane	50.0000	49.5638	0.9	94	0.00
66	T	Tetrachloroethene	50.0000	49.5132	1.0	97	-0.01
67	T	Dibromochloromethane	50.0000	53.3695	-6.7	98	0.00
68	T	1,2-Dibromoethane	50.0000	49.6362	0.7	96	0.00
69	T	1-Chlorohexane	50.0000	56.0261	-12.1	102	0.00
70	P	Chlorobenzene	50.0000	47.3641	5.3	95	0.00
71	T	1,1,1,2-Tetrachloroethane	50.0000	50.5393	-1.1	98	0.00
72	C	Ethylbenzene	50.0000	51.0238	-2.0	100	0.00
73	T	m-,p-Xylene	100.0000	100.2989	-0.3	98	0.00
74	T	o-Xylene	50.0000	48.7594	2.5	94	0.00
75	T	Styrene	50.0000	54.5081	-9.0	101	0.00
76	P	Bromoform	50.0000	52.0714	-4.1	97	0.00
77	T	Isopropylbenzene	50.0000	50.8467	-1.7	95	0.00
78	I	1,4-Dichlorobenzene-d4	25.0000	25.0000	0.0	103	0.00
79	P	1,1,2,2-Tetrachloroethane	50.0000	50.2647	-0.5	99	0.00
80	S	p-Bromofluorobenzene	25.0000	24.0306	3.9	95	0.00
81	T	1,2,3-Trichloropropane	50.0000	51.6460	-3.3	98	0.00
82	T	trans-1,4-Dichloro-2-Butene	50.0000	28.9975	42.0#	55	0.00
83	T	n-Propylbenzene	50.0000	49.7743	0.5	93	0.00
84	T	Bromobenzene	50.0000	51.5303	-3.1	101	0.00
85	T	1,3,5-Trimethylbenzene	50.0000	55.9613	-11.9	105	0.00
86	T	2-Chlorotoluene	50.0000	47.7384	4.5	91	0.00
87	T	4-Chlorotoluene	50.0000	50.1627	-0.3	101	-0.01
88	T	a-Methylstyrene	50.0000	55.6142	-11.2	101	0.00
89	T	tert-Butylbenzene	50.0000	50.3168	-0.6	98	0.00
90	T	1,2,4-Trimethylbenzene	50.0000	54.3508	-8.7	104	0.00
91	T	sec-Butylbenzene	50.0000	50.1251	-0.3	96	0.00
92	T	p-Isopropyltoluene	50.0000	50.9468	-1.9	97	0.00
93	T	1,3-Dichlorobenzene	50.0000	48.3303	3.3	96	0.00
94	T	1,4-Dichlorobenzene	50.0000	50.7529	-1.5	104	0.00
95	T	n-Butylbenzene	50.0000	54.7188	-9.4	106	0.00
96	T	1,2-Dichlorobenzene	50.0000	47.2292	5.5	95	0.00
97	T	1,2-Dibromo-3-Chloropropane	50.0000	50.2115	-0.4	96	0.00
98	T	1,2,4-Trichlorobenzene	50.0000	52.2287	-4.5	102	0.00
99	T	Hexachlorobutadiene	50.0000	54.2974	-8.6	108	0.00
100	T	Naphthalene	50.0000	53.5846	-7.2	98	0.00
101	T	1,2,3-Trichlorobenzene	50.0000	50.7646	-1.5	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
8M395964.D 8260WTR.M Fri Mar 28 16:11:54 2014 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\MSDchem\2\data\032914\8M395975.D Vial: 2
Acq On : 29 Mar 2014 11:40 Operator: MES
Sample : WG469133-02 50ug/L WATER CCV 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 29 12:02:01 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.00	96	808390	25.00	ug/L	0.00
57) Chlorobenzene-d5	14.88	117	671598	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.91	152	381885	25.00	ug/L	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	9.96	111	174602	23.5316	ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 94.12%			
43) 1,2-Dichloroethane-d4	10.60	65	137980	22.8170	ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 91.28%			
58) Toluene-d8	12.98	98	671521	24.9593	ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 99.84%			
80) p-Bromofluorobenzene	16.38	95	246436	23.1173	ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 92.48%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.36	85	437163	61.2879	ug/L	100
3) Chloromethane	3.84	50	731779	52.8446	ug/L	100
4) Vinyl Chloride	4.07	62	507047	54.7495	ug/L	99
5) 1,3-Butadiene	4.12	54	351844	69.0734	ug/L	98
6) Bromomethane	5.00	94	318882	54.5019	ug/L	98
7) Chloroethane	5.16	64	319807	54.4815	ug/L	99
8) Trichlorofluoromethane	5.65	101	608156	55.2755	ug/L	99
9) Diethyl ether	6.18	59	458491	94.6171	ug/L	99
10) Isoprene	6.22	67	553732	58.4038	ug/L	99
11) Acrolein	6.42	56	5523	44.7448	ug/L	91
12) 1,1,2-Trichloro-1,2,2-Trif	6.44	101	405814	57.0868	ug/L	91
13) Acetone	6.52	43	49269	43.2395	ug/L	95
14) 1,1-Dichloroethene	6.75	61	589830	54.9558	ug/L	91
15) Tert-Butyl Alcohol	6.86	59	62089	188.7230	ug/L	98
16) Dimethyl Sulfide	7.02	62	297761	50.3167	ug/L	98
17) Iodomethane	7.28	142	393679	60.3157	ug/L	92
18) Methyl acetate	7.28	43	140600	43.3086	ug/L	98
19) Methylene Chloride	7.54	84	364212	50.4612	ug/L	95
20) Carbon Disulfide	7.59	76	1322754	56.8231	ug/L	99
21) Acrylonitrile	7.71	53	77587	46.8898	ug/L	98
22) Methyl Tert Butyl Ether	7.75	73	636591	47.7249	ug/L	99
23) trans-1,2-Dichloroethene	7.99	61	590222	55.2688	ug/L	92
24) n-Hexane	8.07	57	684432	65.6378	ug/L	98
25) Diisopropyl ether	8.41	45	2847129	103.8662	ug/L	98
26) Vinyl Acetate	8.58	43	575008	55.0480	ug/L	100
27) 1,1-Dichloroethane	8.61	63	700428	53.0687	ug/L	99
28) Ethyl-Tert-Butyl ether	8.98	59	2150295	98.2903	ug/L	98
29) 2-Butanone	9.16	43	85111	42.9791	ug/L	97
30) Propionitrile	9.27	54	54417	89.6644	ug/L	98
31) 2,2-Dichloropropane	9.40	77	635754	57.7928	ug/L	99
32) cis-1,2-Dichloroethene	9.46	96	433119	54.2046	ug/L	88
33) Chloroform	9.67	83	657139	51.9240	ug/L	98
34) 1-Bromopropane	9.80	122	86205	57.7741	ug/L	100
35) Bromochloromethane	9.90	130	230094	50.0929	ug/L	88
36) Tetrahydrofuran	9.91	42	146920	127.2375	ug/L	99
38) 1,1,1-Trichloroethane	10.20	97	668508	55.6525	ug/L	99
39) Cyclohexane	10.24	56	860627	60.4232	ug/L	99
40) 1,1-Dichloropropene	10.39	75	569067	57.2558	ug/L	93
41) Tert-Amyl-Methyl ether	10.49	73	1495434	95.0323	ug/L	99
42) Carbon Tetrachloride	10.55	117	614243	56.7137	ug/L	99

(#) = qualifier out of range (m) = manual integration
8M395975.D 8260WTR.M Sat Mar 29 12:02:02 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDchem\2\data\032914\8M395975.D Vial: 2
Acq On : 29 Mar 2014 11:40 Operator: MES
Sample : WG469133-02 50ug/L WATER CCV 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 29 12:02:01 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

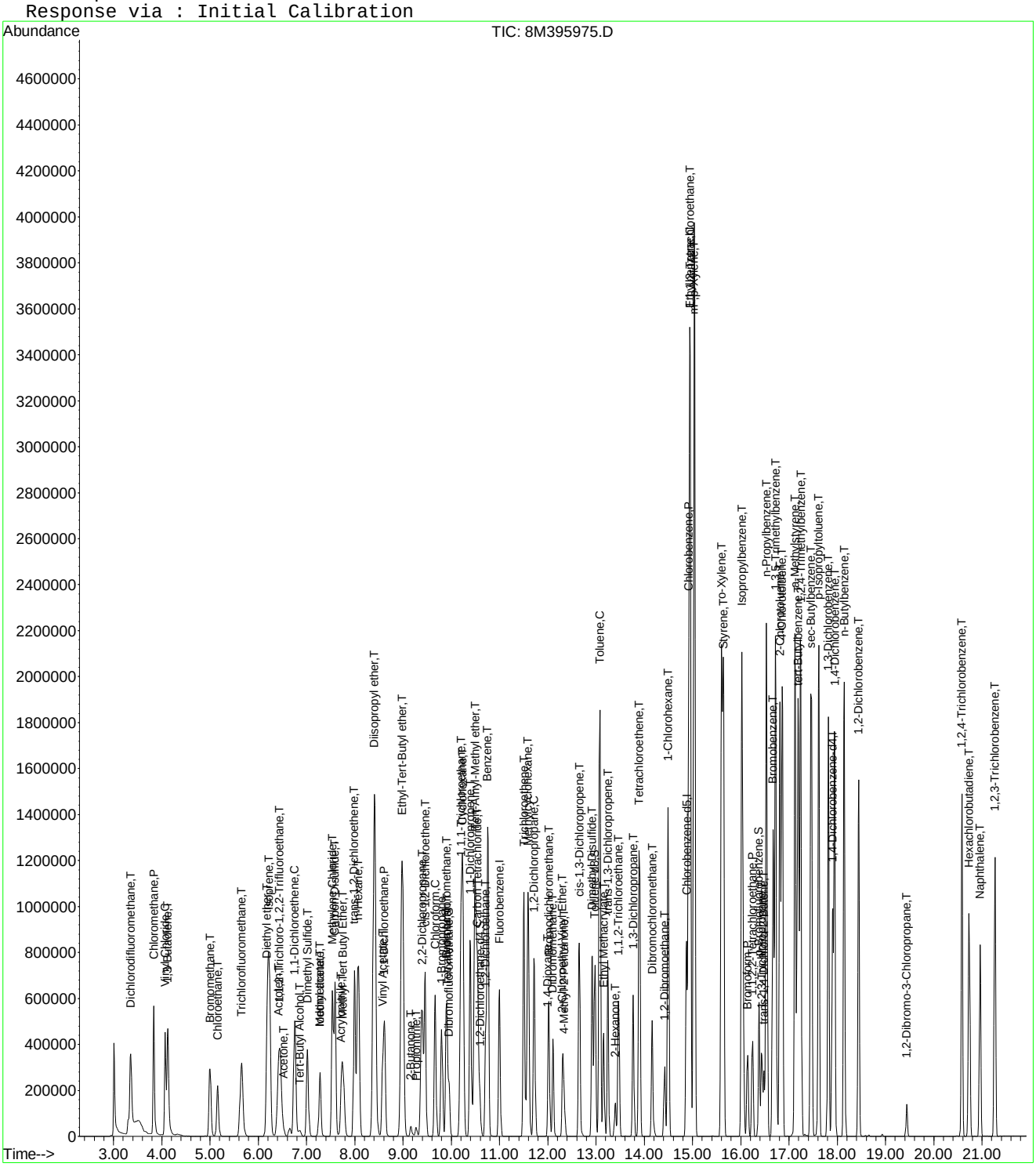
	Compound	R.T.	QIon	Response	Conc Unit	Qvalue
45)	1,2-Dichloroethane	10.71	62	415302	50.4667 ug/L	98
46)	Benzene	10.75	78	1596468	53.8241 ug/L	97
47)	Trichloroethene	11.51	130	474520	54.6096 ug/L	95
48)	Methylcyclohexane	11.59	83	669765	61.8018 ug/L	96
49)	1,2-Dichloropropane	11.71	63	416554	53.7152 ug/L	97
50)	Bromodichloromethane	12.02	83	503728	54.0443 ug/L	99
51)	1,4-Dioxane	12.00	88	7722	217.6864 ug/L	95
52)	Dibromomethane	12.11	93	181641	49.4714 ug/L	89
53)	2-Chloroethyl Vinyl Ether	12.30	63	166546	48.7332 ug/L	95
54)	4-Methyl-2-Pentanone	12.33	58	78481	43.0121 ug/L	98
55)	cis-1,3-Dichloropropene	12.65	75	598308	55.1372 ug/L	100
56)	Dimethyl Disulfide	12.92	94	631815	51.8285 ug/L	97
59)	Toluene	13.08	91	1823780	56.0658 ug/L	99
60)	Ethyl Methacrylate	13.16	69	303121	49.0308 ug/L	95
62)	trans-1,3-Dichloropropene	13.24	75	489354	52.0561 ug/L	100
63)	1,1,2-Trichloroethane	13.46	97	263930	50.4881 ug/L	96
64)	2-Hexanone	13.40	58	73146	43.0677 ug/L	100
65)	1,3-Dichloropropane	13.77	76	430367	50.4256 ug/L	92
66)	Tetrachloroethene	13.90	164	424216	56.6107 ug/L	89
67)	Dibromochloromethane	14.16	129	360488	53.3122 ug/L	99
68)	1,2-Dibromoethane	14.42	107	263745	49.9149 ug/L	99
69)	1-Chlorohexane	14.50	91	622772	60.9088 ug/L	94
70)	Chlorobenzene	14.92	112	1247081	53.6641 ug/L	91
71)	1,1,1,2-Tetrachloroethane	14.95	131	444674	54.0253 ug/L	99
72)	Ethylbenzene	14.95	106	673771	55.8349 ug/L	98
73)	m-,p-Xylene	15.03	106	1617880	112.4028 ug/L	96
74)	o-Xylene	15.60	106	802033	56.2472 ug/L	96
75)	Styrene	15.64	104	1323604	57.5377 ug/L	92
76)	Bromoform	16.14	173	238609	50.2289 ug/L	98
77)	Isopropylbenzene	16.03	105	2017747	59.1597 ug/L	100
79)	1,1,2,2-Tetrachloroethane	16.24	83	273800	50.1719 ug/L	99
81)	1,2,3-Trichloropropane	16.44	110	79743	50.1998 ug/L	92
82)	trans-1,4-Dichloro-2-Buten	16.48	53	84929	42.2010 ug/L	85
83)	n-Propylbenzene	16.53	91	2460989	61.3919 ug/L	98
84)	Bromobenzene	16.67	156	565528	55.1342 ug/L	85
85)	1,3,5-Trimethylbenzene	16.72	105	1713822	60.9342 ug/L	99
86)	2-Chlorotoluene	16.81	91	1524520	57.0995 ug/L	96
87)	4-Chlorotoluene	16.85	91	1475229	59.1498 ug/L	96
88)	a-Methylstyrene	17.12	118	961292	56.9008 ug/L	97
89)	tert-Butylbenzene	17.19	134	386880	59.1226 ug/L	95
90)	1,2,4-Trimethylbenzene	17.25	105	1743879	59.5566 ug/L	99
91)	sec-Butylbenzene	17.45	105	2053094	60.7895 ug/L	99
92)	p-Isopropyltoluene	17.62	119	1806148	61.0820 ug/L	100
93)	1,3-Dichlorobenzene	17.81	146	1043280	55.2963 ug/L	94
94)	1,4-Dichlorobenzene	17.95	146	1040413	53.4639 ug/L	94
95)	n-Butylbenzene	18.14	91	1551740	61.1419 ug/L	97
96)	1,2-Dichlorobenzene	18.44	146	909291	52.6233 ug/L	95
97)	1,2-Dibromo-3-Chloropropan	19.44	75	42015	48.0389 ug/L	74
98)	1,2,4-Trichlorobenzene	20.58	180	667490	54.7247 ug/L	99
99)	Hexachlorobutadiene	20.73	225	301425	62.5124 ug/L	98
100)	Naphthalene	20.96	128	867066	52.0423 ug/L	99
101)	1,2,3-Trichlorobenzene	21.27	180	542444	51.4550 ug/L	98

(#) = qualifier out of range (m) = manual integration
8M395975.D 8260WTR.M Sat Mar 29 12:02:02 2014 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\MSDchem\2\data\032914\8M395975.D Vial: 2
Acq On : 29 Mar 2014 11:40 Operator: MES
Sample : WG469133-02 50ug/L WATER CCV 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 29 12:02 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration



Continuing Calibration Area and RT check

Instrument: HPMS8
Initial cal date: 28 Mar 2014 12:19
CCV date: 29 Mar 2014 11:40
CCV Filename: 8M395975.D

	Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
	Amount	RT	Amount	RT	Amount	RT
InitCal	798177	11.00	668923	14.87	385818	17.90
CCV	808390	11.00	671598	14.88	381885	17.91

Data File : C:\MSDCHEM\2\DATA\032914\8M395975.D Vial: 2
Acq On : 29 Mar 2014 11:40 Operator: MES
Sample : WG469133-02 50ug/L WATER CCV 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	1.0000	1.0000	0.0	101	0.00
2	T	Dichlorodifluoromethane	0.2206	0.2704	-22.6	113	0.00
3	P	Chloromethane	0.4283	0.4526	-5.7	105	0.00
4	C	Vinyl Chloride	0.2864	0.3136	-9.5	109	0.00
5	T	1,3-Butadiene	0.1729	0.2176	-25.8#	124	-0.01
6	T	Bromomethane	0.1809	0.1972	-9.0	113	0.00
7	T	Chloroethane	0.1815	0.1978	-9.0	108	0.00
8	T	Trichlorofluoromethane	0.3403	0.3761	-10.6	112	0.00
9	T	Diethyl ether	0.1499	0.1418	5.4	99	0.00
10	T	Isoprene	0.2932	0.3425	-16.8	114	0.00
11	T	Acrolein	0.0043	0.0034	21.4	89	0.00
12	T	1,1,2-Trichloro-1,2,2-Trifl	0.2198	0.2510	-14.2	111	0.00
13	T	Acetone	0.0352	0.0305	13.5	84	0.00
14	C	1,1-Dichloroethene	0.3319	0.3648	-9.9	110	0.00
15	T	Tert-Butyl Alcohol	0.0102	0.0096	5.6	94	0.00
16	T	Dimethyl Sulfide	0.1830	0.1842	-0.6	100	0.00
17	T	Iodomethane	0.2019	0.2435	-20.6	109	0.00
18	T	Methyl acetate	0.1004	0.0870	13.4	89	0.00
19	T	Methylene Chloride	0.2232	0.2253	-0.9	102	0.00
20	T	Carbon Disulfide	0.7199	0.8181	-13.6	111	0.00
21	T	Acrylonitrile	0.0512	0.0480	6.2	93	-0.01
22	T	Methyl Tert Butyl Ether	0.4125	0.3937	4.6	91	0.00
23	T	trans-1,2-Dichloroethene	0.3303	0.3651	-10.5	112	0.00
24	T	n-Hexane	0.3225	0.4233	-31.3#	125	0.00
25	T	Diisopropyl ether	0.8477	0.8805	-3.9	104	0.00
26	T	Vinyl Acetate	0.3230	0.3557	-10.1	110	0.00
27	P	1,1-Dichloroethane	0.4082	0.4332	-6.1	107	0.00
28	T	Ethyl-Tert-Butyl ether	0.6766	0.6650	1.7	99	0.00
29	T	2-Butanone	0.0612	0.0526	14.0	82	0.00
30	T	Propionitrile	0.0188	0.0168	10.3	91	0.00
31	T	2,2-Dichloropropane	0.3402	0.3932	-15.6	116	0.00
32	T	cis-1,2-Dichloroethene	0.2471	0.2679	-8.4	107	0.00
33	C	Chloroform	0.3914	0.4064	-3.8	106	0.00
34		1-Bromopropane	0.0461	0.0533	-15.6	110	0.00
35	T	Bromochloromethane	0.1421	0.1423	-0.2	100	0.00
36	T	Tetrahydrofuran	0.0357	0.0454	-27.2#	128	0.00
37	S	Dibromofluoromethane	0.2295	0.2160	5.9	94	0.00
38	T	1,1,1-Trichloroethane	0.3715	0.4135	-11.3	109	0.00
39	T	Cyclohexane	0.4405	0.5323	-20.8	114	0.00
40	T	1,1-Dichloropropene	0.3074	0.3520	-14.5	110	0.00
41	T	Tert-Amyl-Methyl ether	0.4867	0.4625	5.0	96	0.00
42	T	Carbon Tetrachloride	0.3349	0.3799	-13.4	110	0.00
43	S	1,2-Dichloroethane-d4	0.1870	0.1707	8.7	93	0.00
44		Heptane	0.0000	0.0000	0.0	0#	-2.74#
45	T	1,2-Dichloroethane	0.2545	0.2569	-0.9	101	0.00
46	T	Benzene	0.9173	0.9874	-7.6	106	-0.01
47	T	Trichloroethene	0.2687	0.2935	-9.2	105	0.00
48	T	Methylcyclohexane	0.3352	0.4143	-23.6	116	0.00
49	C	1,2-Dichloropropane	0.2398	0.2576	-7.4	104	0.00
50	T	Bromodichloromethane	0.2883	0.3116	-8.1	101	0.00
51	T	1,4-Dioxane	0.0011	0.0012	-8.2	104	0.00
52	T	Dibromomethane	0.1136	0.1124	1.1	94	0.00
53	T	2-Chloroethyl Vinyl Ether	0.1057	0.1030	2.5	88	0.00
54	T	4-Methyl-2-Pentanone	0.0564	0.0485	14.0	78	0.00

(#) = Out of Range
8M395975.D 8260WTR.M Sat Mar 29 12:12:20 2014 Page 1

Data File : C:\MSDCHEM\2\DATA\032914\8M395975.D Vial: 2
Acq On : 29 Mar 2014 11:40 Operator: MES
Sample : WG469133-02 50ug/L WATER CCV 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
55	T	cis-1,3-Dichloropropene	0.3356	0.3701	-10.3	103	0.00
56	T	Dimethyl Disulfide	0.3770	0.3908	-3.7	97	0.00
57	I	Chlorobenzene-d5	1.0000	1.0000	0.0	100	0.00
58	S	Toluene-d8	1.0015	0.9999	0.2	98	0.00
59	C	Toluene	1.2109	1.3578	-12.1	107	0.00
60	T	Ethyl Methacrylate	0.2301	0.2257	1.9	82	0.00
61		Paraldehyde	0.0000	0.0000	0.0	0#	-13.34#
62	T	trans-1,3-Dichloropropene	0.3499	0.3643	-4.1	99	0.00
63	T	1,1,2-Trichloroethane	0.1946	0.1965	-1.0	94	-0.01
64	T	2-Hexanone	0.0632	0.0545	13.9	76	0.00
65	T	1,3-Dichloropropane	0.3177	0.3204	-0.9	95	0.00
66	T	Tetrachloroethene	0.2789	0.3158	-13.2	110	-0.01
67	T	Dibromochloromethane	0.2517	0.2684	-6.6	97	0.00
68	T	1,2-Dibromoethane	0.1967	0.1964	0.2	95	0.00
69	T	1-Chlorohexane	0.3806	0.4637	-21.8	109	0.00
70	P	Chlorobenzene	0.8650	0.9284	-7.3	106	-0.01
71	T	1,1,1,2-Tetrachloroethane	0.3064	0.3311	-8.1	103	0.00
72	C	Ethylbenzene	0.4492	0.5016	-11.7	108	0.00
73	T	m-,p-Xylene	0.5358	0.6022	-12.4	109	-0.01
74	T	o-Xylene	0.5308	0.5971	-12.5	107	0.00
75	T	Styrene	0.8563	0.9854	-15.1	105	0.00
76	P	Bromoform	0.1768	0.1776	-0.5	92	0.00
77	T	Isopropylbenzene	1.2696	1.5022	-18.3	109	0.00
78	I	1,4-Dichlorobenzene-d4	1.0000	1.0000	0.0	99	0.00
79	P	1,1,2,2-Tetrachloroethane	0.3573	0.3585	-0.3	94	0.00
80	S	p-Bromofluorobenzene	0.6979	0.6453	7.5	88	0.00
81	T	1,2,3-Trichloropropane	0.1040	0.1044	-0.4	91	0.00
82	T	trans-1,4-Dichloro-2-Butene	0.1077	0.1112	-3.2	76	0.00
83	T	n-Propylbenzene	2.6243	3.2222	-22.8	110	0.00
84	T	Bromobenzene	0.6715	0.7404	-10.3	103	-0.01
85	T	1,3,5-Trimethylbenzene	1.8413	2.2439	-21.9	109	0.00
86	T	2-Chlorotoluene	1.7479	1.9961	-14.2	105	0.00
87	T	4-Chlorotoluene	1.6327	1.9315	-18.3	114	-0.01
88	T	a-Methylstyrene	1.1060	1.2586	-13.8	99	-0.01
89	T	tert-Butylbenzene	0.4284	0.5065	-18.2	110	0.00
90	T	1,2,4-Trimethylbenzene	1.9169	2.2832	-19.1	109	0.00
91	T	sec-Butylbenzene	2.2110	2.6881	-21.6	112	-0.01
92	T	p-Isopropyltoluene	1.9357	2.3648	-22.2	112	0.00
93	T	1,3-Dichlorobenzene	1.2351	1.3660	-10.6	105	0.00
94	T	1,4-Dichlorobenzene	1.2739	1.3622	-6.9	105	0.00
95	T	n-Butylbenzene	1.6615	2.0317	-22.3	114	0.00
96	T	1,2-Dichlorobenzene	1.1312	1.1905	-5.2	102	0.00
97	T	1,2-Dibromo-3-Chloropropane	0.0573	0.0550	3.9	88	0.00
98	T	1,2,4-Trichlorobenzene	0.7985	0.8739	-9.4	103	0.00
99	T	Hexachlorobutadiene	0.3157	0.3947	-25.0#	119	-0.01
100	T	Naphthalene	1.0907	1.1352	-4.1	91	0.00
101	T	1,2,3-Trichlorobenzene	0.6901	0.7102	-2.9	98	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
8M395975.D 8260WTR.M Sat Mar 29 12:12:20 2014 Page 2

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\2\DATA\032914\8M395975.D Vial: 2
Acq On : 29 Mar 2014 11:40 Operator: MES
Sample : WG469133-02 50ug/L WATER CCV 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	Fluorobenzene	25.0000	25.0000	0.0	101	0.00
2	T	Dichlorodifluoromethane	50.0000	61.2879	-22.6	113	0.00
3	P	Chloromethane	50.0000	52.8446	-5.7	105	0.00
4	C	Vinyl Chloride	50.0000	54.7495	-9.5	109	0.00
5	T	1,3-Butadiene	50.0000	69.0734	-38.1#	124	-0.01
6	T	Bromomethane	50.0000	54.5019	-9.0	113	0.00
7	T	Chloroethane	50.0000	54.4815	-9.0	108	0.00
8	T	Trichlorofluoromethane	50.0000	55.2755	-10.6	112	0.00
9	T	Diethyl ether	100.0000	94.6171	5.4	99	0.00
10	T	Isoprene	50.0000	58.4038	-16.8	114	0.00
11	T	Acrolein	50.0000	44.7448	10.5	89	0.00
12	T	1,1,2-Trichloro-1,2,2-Trifl	50.0000	57.0868	-14.2	111	0.00
13	T	Acetone	50.0000	43.2395	13.5	84	0.00
14	C	1,1-Dichloroethene	50.0000	54.9558	-9.9	110	0.00
15	T	Tert-Butyl Alcohol	200.0000	188.7230	5.6	94	0.00
16	T	Dimethyl Sulfide	50.0000	50.3167	-0.6	100	0.00
17	T	Iodomethane	50.0000	60.3157	-20.6	109	0.00
18	T	Methyl acetate	50.0000	43.3086	13.4	89	0.00
19	T	Methylene Chloride	50.0000	50.4612	-0.9	102	0.00
20	T	Carbon Disulfide	50.0000	56.8231	-13.6	111	0.00
21	T	Acrylonitrile	50.0000	46.8898	6.2	93	-0.01
22	T	Methyl Tert Butyl Ether	50.0000	47.7249	4.6	91	0.00
23	T	trans-1,2-Dichloroethene	50.0000	55.2688	-10.5	112	0.00
24	T	n-Hexane	50.0000	65.6378	-31.3#	125	0.00
25	T	Diisopropyl ether	100.0000	103.8662	-3.9	104	0.00
26	T	Vinyl Acetate	50.0000	55.0480	-10.1	110	0.00
27	P	1,1-Dichloroethane	50.0000	53.0686	-6.1	107	0.00
28	T	Ethyl-Tert-Butyl ether	100.0000	98.2903	1.7	99	0.00
29	T	2-Butanone	50.0000	42.9791	14.0	82	0.00
30	T	Propionitrile	100.0000	89.6644	10.3	91	0.00
31	T	2,2-Dichloropropane	50.0000	57.7928	-15.6	116	0.00
32	T	cis-1,2-Dichloroethene	50.0000	54.2046	-8.4	107	0.00
33	C	Chloroform	50.0000	51.9240	-3.8	106	0.00
34		1-Bromopropane	50.0000	57.7741	-15.5	110	0.00
35	T	Bromochloromethane	50.0000	50.0929	-0.2	100	0.00
36	T	Tetrahydrofuran	100.0000	127.2375	-27.2#	128	0.00
37	S	Dibromofluoromethane	25.0000	23.5316	5.9	94	0.00
38	T	1,1,1-Trichloroethane	50.0000	55.6525	-11.3	109	0.00
39	T	Cyclohexane	50.0000	60.4232	-20.8	114	0.00
40	T	1,1-Dichloropropene	50.0000	57.2558	-14.5	110	0.00
41	T	Tert-Amyl-Methyl ether	100.0000	95.0323	5.0	96	0.00
42	T	Carbon Tetrachloride	50.0000	56.7137	-13.4	110	0.00
43	S	1,2-Dichloroethane-d4	25.0000	22.8170	8.7	93	0.00
44		Heptane	-1.0000	0.0000	0.0	0	-2.74#
45	T	1,2-Dichloroethane	50.0000	50.4667	-0.9	101	0.00
46	T	Benzene	50.0000	53.8241	-7.6	106	-0.01
47	T	Trichloroethene	50.0000	54.6096	-9.2	105	0.00
48	T	Methylcyclohexane	50.0000	61.8018	-23.6	116	0.00
49	C	1,2-Dichloropropane	50.0000	53.7152	-7.4	104	0.00
50	T	Bromodichloromethane	50.0000	54.0443	-8.1	101	0.00
51	T	1,4-Dioxane	200.0000	217.6864	-8.8	104	0.00
52	T	Dibromomethane	50.0000	49.4714	1.1	94	0.00
53	T	2-Chloroethyl Vinyl Ether	50.0000	48.7332	2.5	88	0.00
54	T	4-Methyl-2-Pentanone	50.0000	43.0121	14.0	78	0.00

(#) = Out of Range
8M395975.D 8260WTR.M Sat Mar 29 12:12:17 2014 Page 1

Data File : C:\MSDCHEM\2\DATA\032914\8M395975.D Vial: 2
Acq On : 29 Mar 2014 11:40 Operator: MES
Sample : WG469133-02 50ug/L WATER CCV 8260 Inst : HPMS8
Misc : 1,1 STD63578 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Multiple Level Calibration

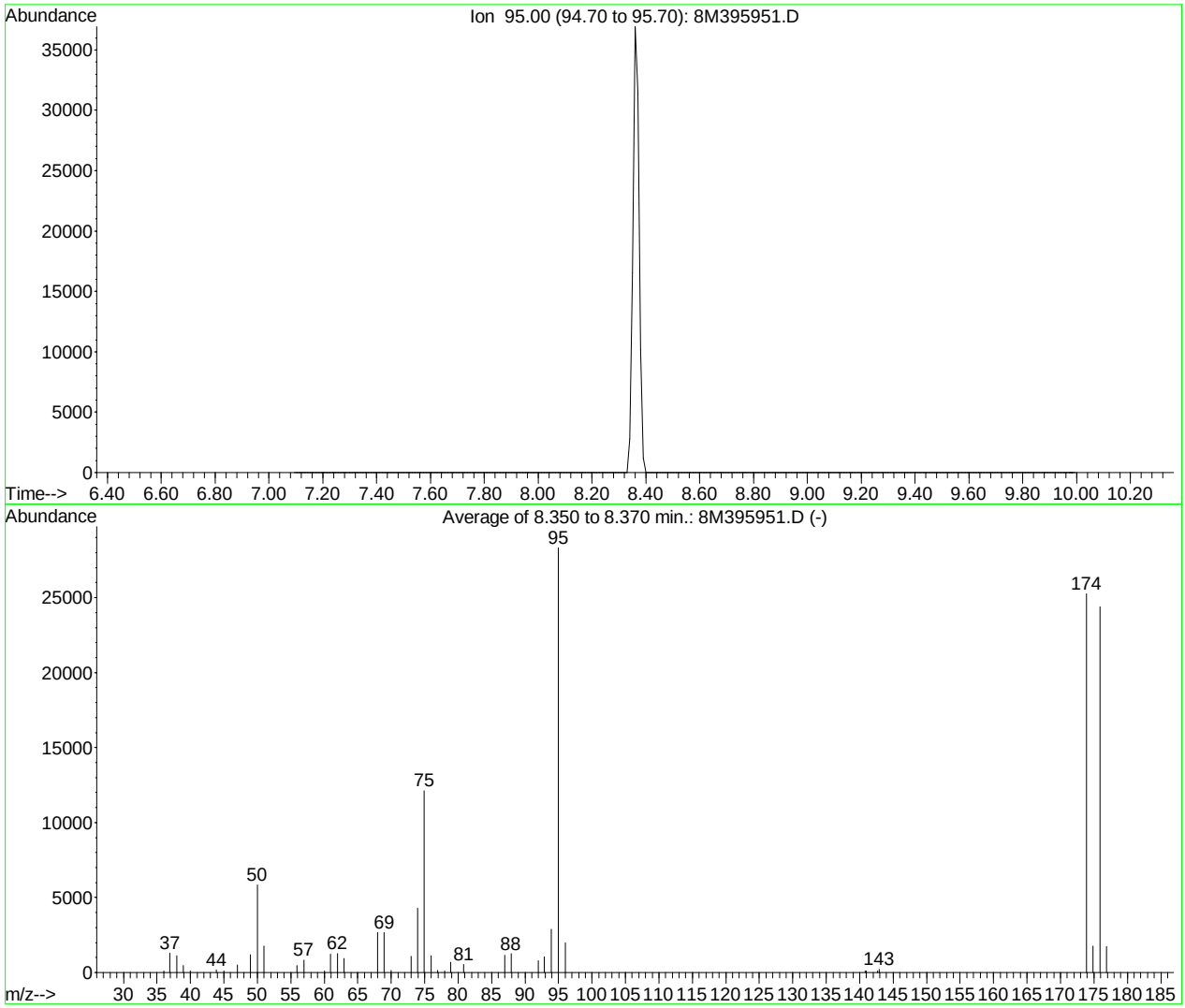
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 25% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
55	T	cis-1,3-Dichloropropene	50.0000	55.1372	-10.3	103	0.00
56	T	Dimethyl Disulfide	50.0000	51.8285	-3.7	97	0.00
57	I	Chlorobenzene-d5	25.0000	25.0000	0.0	100	0.00
58	S	Toluene-d8	25.0000	24.9593	0.2	98	0.00
59	C	Toluene	50.0000	56.0658	-12.1	107	0.00
60	T	Ethyl Methacrylate	50.0000	49.0308	1.9	82	0.00
61		Paraldehyde	-1.0000	0.0000	0.0	0	-13.34#
62	T	trans-1,3-Dichloropropene	50.0000	52.0562	-4.1	99	0.00
63	T	1,1,2-Trichloroethane	50.0000	50.4881	-1.0	94	-0.01
64	T	2-Hexanone	50.0000	43.0677	13.9	76	0.00
65	T	1,3-Dichloropropane	50.0000	50.4256	-0.9	95	0.00
66	T	Tetrachloroethene	50.0000	56.6107	-13.2	110	-0.01
67	T	Dibromochloromethane	50.0000	53.3122	-6.6	97	0.00
68	T	1,2-Dibromoethane	50.0000	49.9149	0.2	95	0.00
69	T	1-Chlorohexane	50.0000	60.9088	-21.8	109	0.00
70	P	Chlorobenzene	50.0000	53.6641	-7.3	106	-0.01
71	T	1,1,1,2-Tetrachloroethane	50.0000	54.0253	-8.1	103	0.00
72	C	Ethylbenzene	50.0000	55.8349	-11.7	108	0.00
73	T	m-,p-Xylene	100.0000	112.4028	-12.4	109	-0.01
74	T	o-Xylene	50.0000	56.2472	-12.5	107	0.00
75	T	Styrene	50.0000	57.5377	-15.1	105	0.00
76	P	Bromoform	50.0000	50.2289	-0.5	92	0.00
77	T	Isopropylbenzene	50.0000	59.1597	-18.3	109	0.00
78	I	1,4-Dichlorobenzene-d4	25.0000	25.0000	0.0	99	0.00
79	P	1,1,2,2-Tetrachloroethane	50.0000	50.1719	-0.3	94	0.00
80	S	p-Bromofluorobenzene	25.0000	23.1173	7.5	88	0.00
81	T	1,2,3-Trichloropropane	50.0000	50.1998	-0.4	91	0.00
82	T	trans-1,4-Dichloro-2-Butene	50.0000	42.2010	15.6	76	0.00
83	T	n-Propylbenzene	50.0000	61.3919	-22.8	110	0.00
84	T	Bromobenzene	50.0000	55.1342	-10.3	103	-0.01
85	T	1,3,5-Trimethylbenzene	50.0000	60.9342	-21.9	109	0.00
86	T	2-Chlorotoluene	50.0000	57.0995	-14.2	105	0.00
87	T	4-Chlorotoluene	50.0000	59.1498	-18.3	114	-0.01
88	T	a-Methylstyrene	50.0000	56.9008	-13.8	99	-0.01
89	T	tert-Butylbenzene	50.0000	59.1226	-18.2	110	0.00
90	T	1,2,4-Trimethylbenzene	50.0000	59.5566	-19.1	109	0.00
91	T	sec-Butylbenzene	50.0000	60.7895	-21.6	112	-0.01
92	T	p-Isopropyltoluene	50.0000	61.0820	-22.2	112	0.00
93	T	1,3-Dichlorobenzene	50.0000	55.2963	-10.6	105	0.00
94	T	1,4-Dichlorobenzene	50.0000	53.4639	-6.9	105	0.00
95	T	n-Butylbenzene	50.0000	61.1419	-22.3	114	0.00
96	T	1,2-Dichlorobenzene	50.0000	52.6233	-5.2	102	0.00
97	T	1,2-Dibromo-3-Chloropropane	50.0000	48.0388	3.9	88	0.00
98	T	1,2,4-Trichlorobenzene	50.0000	54.7247	-9.4	103	0.00
99	T	Hexachlorobutadiene	50.0000	62.5124	-25.0#	119	-0.01
100	T	Naphthalene	50.0000	52.0423	-4.1	91	0.00
101	T	1,2,3-Trichlorobenzene	50.0000	51.4550	-2.9	98	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
8M395975.D 8260WTR.M Sat Mar 29 12:12:17 2014 Page 2

2.1.1.5 Raw QC Data

```
Data File : C:\MSDCHEM\2\DATA\032814\8M395951.D          Vial: 1
Acq On    : 28 Mar 2014   8:58                    Operator: TMB
Sample    : WG468975-01 50ng BFB STD 8260         Inst    : HPMS8
Misc      : 1,1 STD63150                          Multiplr: 1.00
MS Integration Params: rteint.p
Method    : C:\MSDCHEM\2\METHODS\BFB.M (RTE Integrator)
Title     : SOP:OVL MSV01
```

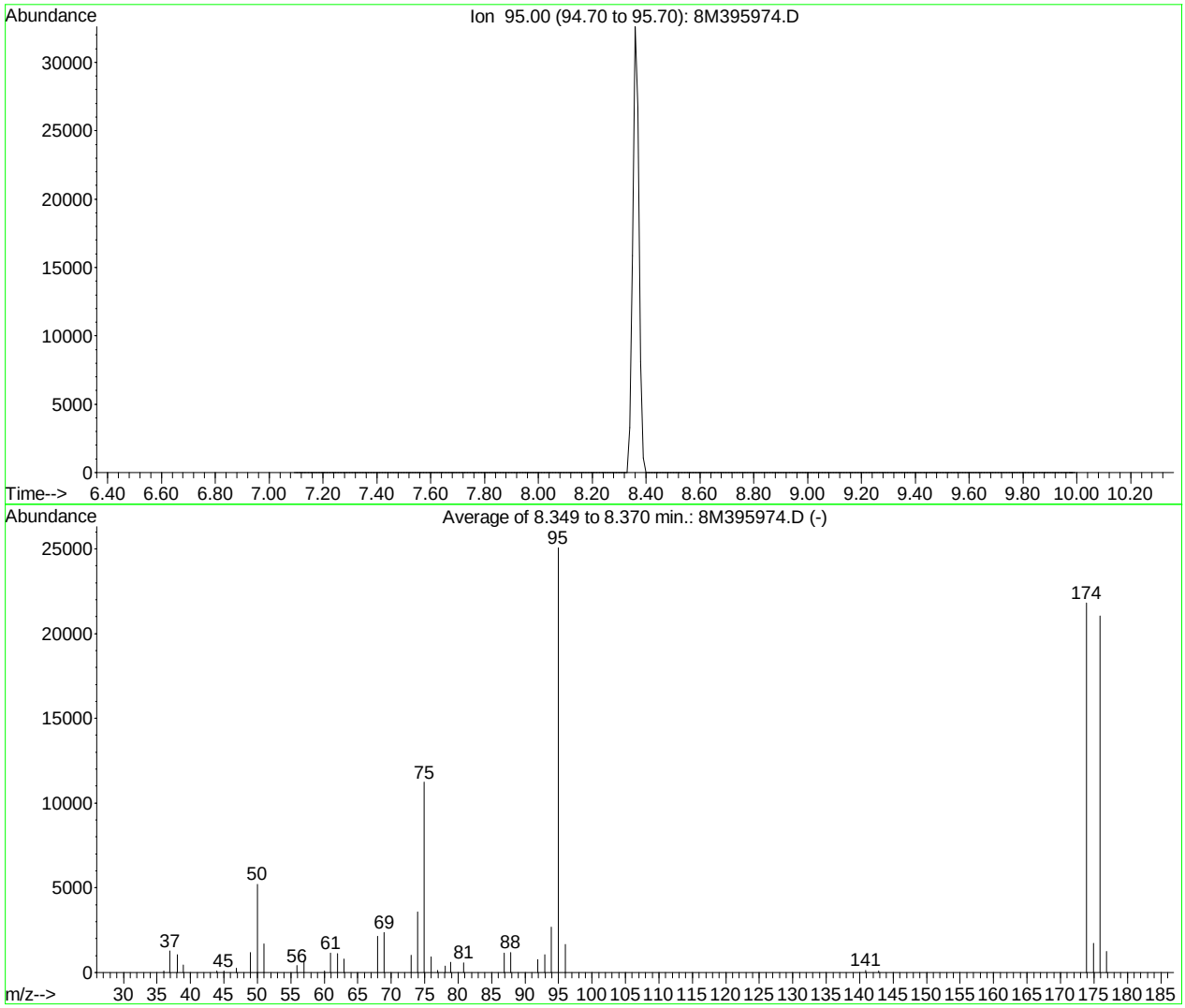


AutoFind: Scans 124, 125, 126; Background Corrected with Scan 120

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.7	5852	PASS
75	95	30	60	42.8	12123	PASS
95	95	100	100	100.0	28312	PASS
96	95	5	9	7.0	1980	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	89.2	25266	PASS
175	174	5	9	7.0	1768	PASS
176	174	95	101	96.6	24400	PASS
177	176	5	9	7.1	1722	PASS

8M395951.D BFB.M Fri Mar 28 09:09:14 2014

Data File : C:\MSDCHEM\2\DATA\032914\8M395974.D Vial: 1
Acq On : 29 Mar 2014 11:17 Operator: MES
Sample : WG469133-01 50ng BFB STD 8260 Inst : HPMS8
Misc : 1,1 STD63150 Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\2\METHODS\BFB.M (RTE Integrator)
Title : SOP:OVL MSV01



AutoFind: Scans 124, 125, 126; Background Corrected with Scan 120

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.8	5210	PASS
75	95	30	60	44.9	11237	PASS
95	95	100	100	100.0	25052	PASS
96	95	5	9	6.7	1671	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	87.1	21812	PASS
175	174	5	9	7.9	1728	PASS
176	174	95	101	96.5	21044	PASS
177	176	5	9	6.0	1259	PASS

8M395974.D BFB.M Sat Mar 29 11:53:59 2014

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395977.D Vial: 4
Acq On : 29 Mar 2014 12:38 Operator: MES
Sample : WG469134-01 BLANK 3/29 Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 08:20:07 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

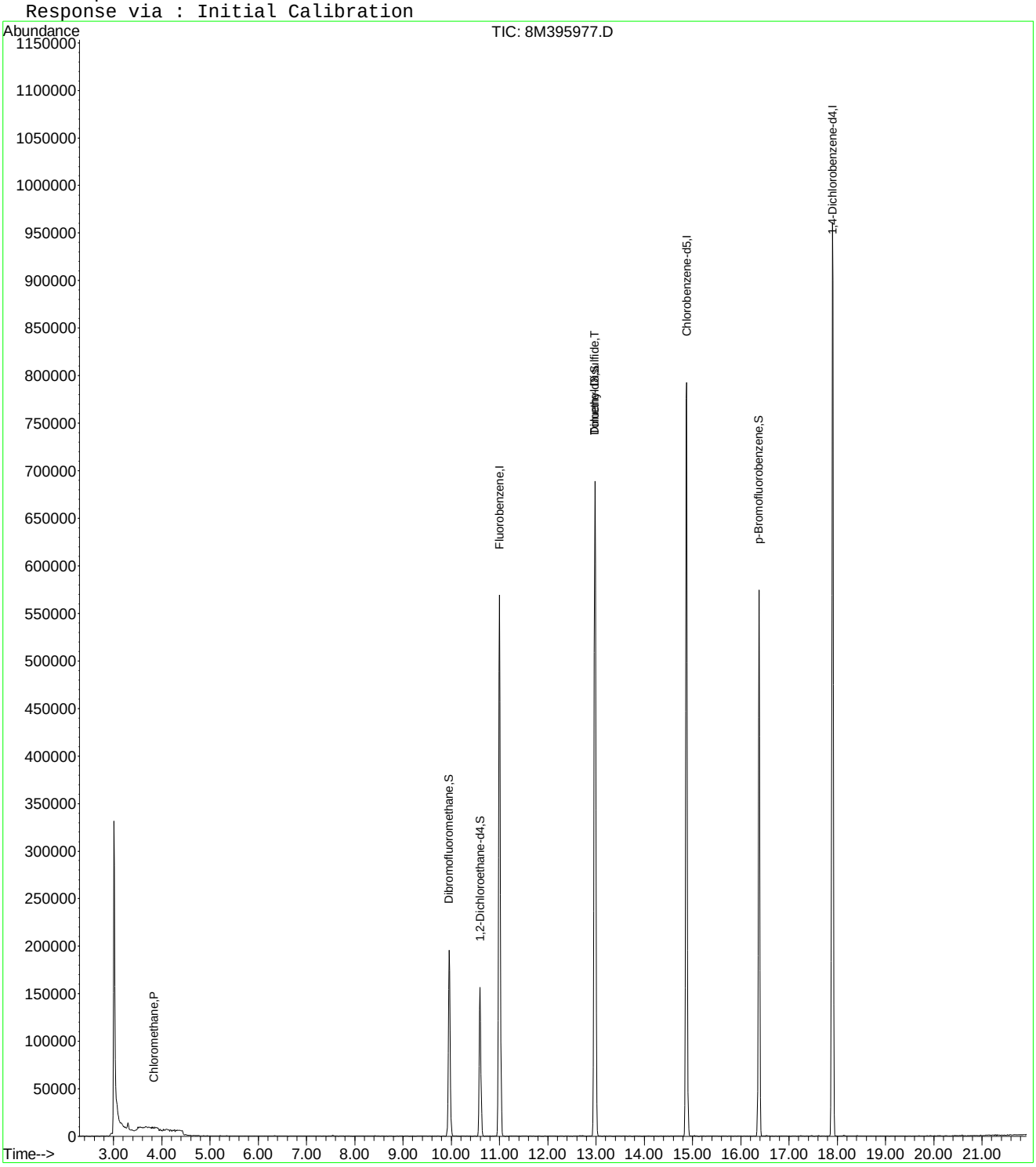
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.00	96	705375	25.00	ug/L	0.00
57) Chlorobenzene-d5	14.88	117	629220	25.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.91	152	372224	25.00	ug/L	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	9.96	111	169362	26.1589	ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 104.64%			
43) 1,2-Dichloroethane-d4	10.60	65	132548	25.1198	ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 100.48%			
58) Toluene-d8	12.98	98	620229	24.6055	ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 98.44%			
80) p-Bromofluorobenzene	16.38	95	239346	23.0349	ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 92.12%			
Target Compounds						Qvalue
3) Chloromethane	3.84	50	2945	0.2437	ug/L #	66
56) Dimethyl Disulfide	12.98	94	17584	1.6531	ug/L #	27

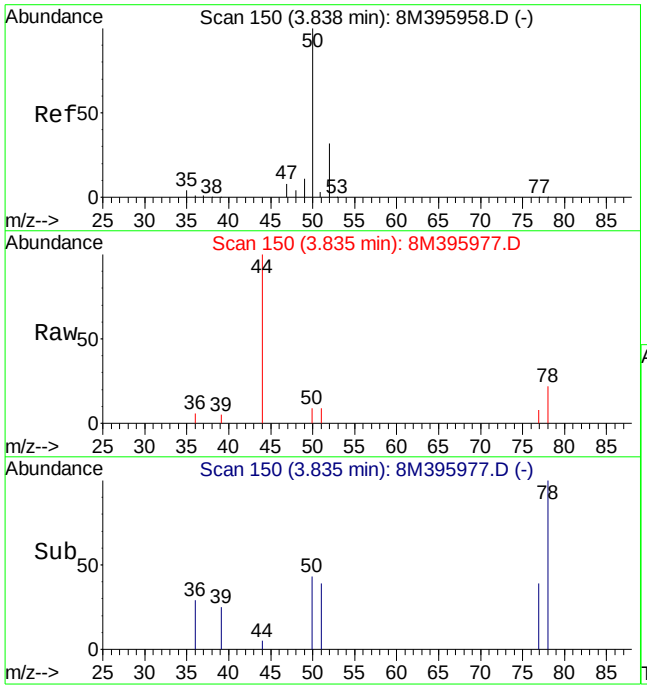
(#) = qualifier out of range (m) = manual integration
8M395977.D 8260WTR.M Mon Mar 31 08:20:07 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395977.D Vial: 4
Acq On : 29 Mar 2014 12:38 Operator: MES
Sample : WG469134-01 BLANK 3/29 Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 31 8:20 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration

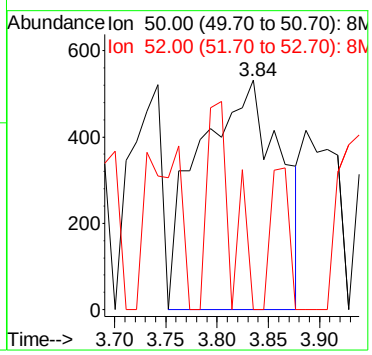


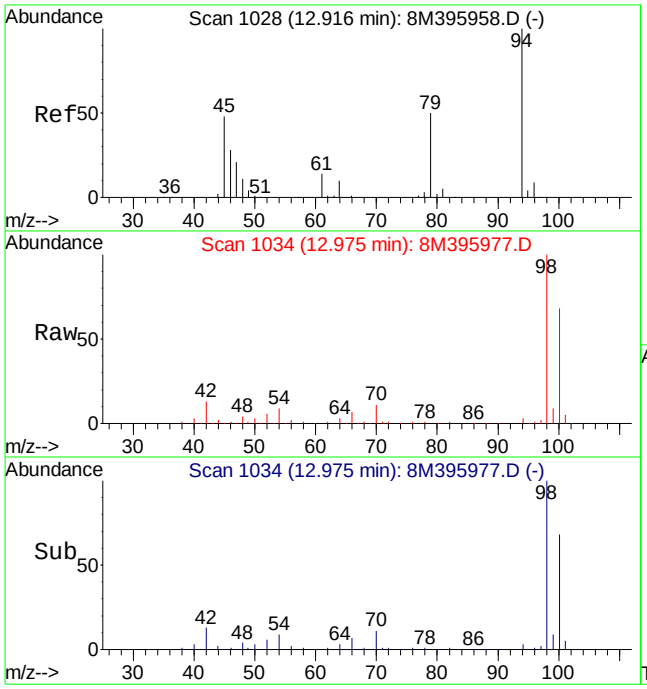


#3
Chloromethane
Concen: 0.24 ug/L
RT: 3.84 min Scan# 150
Delta R.T. -0.00 min
Lab File: 8M395977.D
Acq: 29 Mar 2014 12:38

Tgt Ion: 50 Resp: 2945

Ion	Ratio	Lower	Upper
50	100		
52	13.7	19.6	45.6#

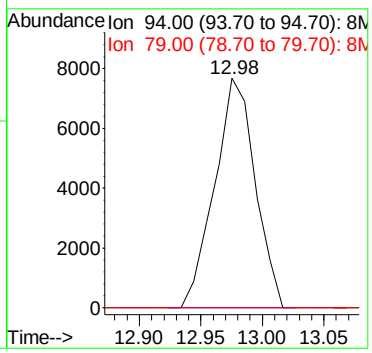




#56
Dimethyl Disulfide
Concen: 1.65 ug/L
RT: 12.98 min Scan# 1034
Delta R.T. 0.05 min
Lab File: 8M395977.D
Acq: 29 Mar 2014 12:38

Tgt Ion: 94 Resp: 17584

Ion	Ratio	Lower	Upper
94	100		
79	0.0	30.4	70.8#



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395977.D Vial: 4
Acq On : 29 Mar 2014 12:38 Operator: MES
Sample : WG469134-01 BLANK 3/29 Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 31 08:19:44 2014 Quant Results File: A9FOOWTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
Title : A9-FOO Water SOP:MSV01 01-06-14 HPMS8
Last Update : Tue Jan 07 08:20:19 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	11.00	96	705375	25.00	ug/L	0.00
11) Chlorobenzene-d5	14.88	117	629220	25.00	ug/L	0.00
12) 1,4-Dichlorobenzene-d4	17.91	152	372224	25.00	ug/L	0.00

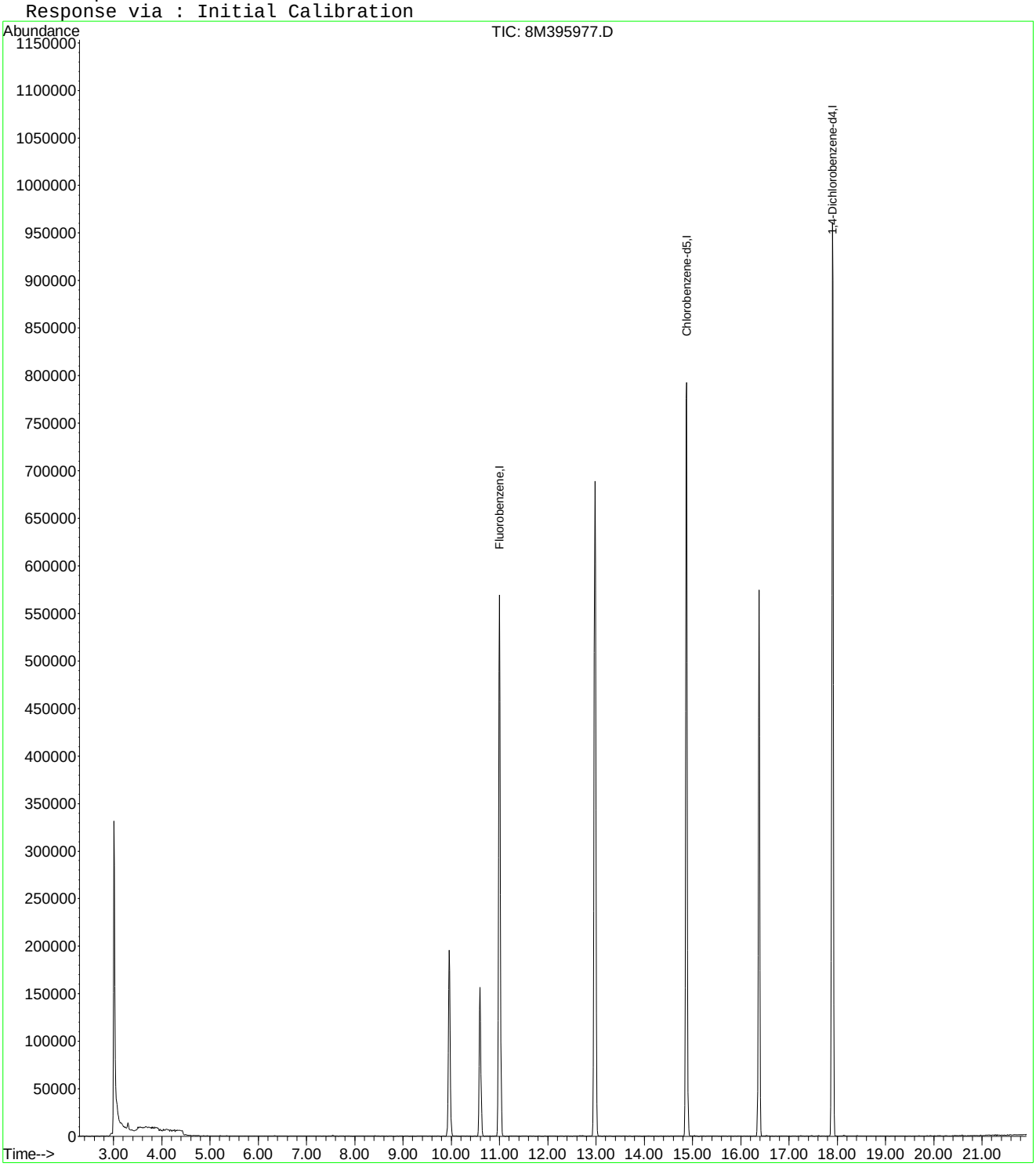
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
8M395977.D A9FOOWTR.M Mon Mar 31 08:19:45 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\2\DATA\032914\8M395977.D Vial: 4
Acq On : 29 Mar 2014 12:38 Operator: MES
Sample : WG469134-01 BLANK 3/29 Inst : HPMS8
Misc : 1,1 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 31 8:19 2014 Quant Results File: A9FOOWTR.RES

Method : C:\MSDCHEM\2\METHODS\A9FOOWTR.M (RTE Integrator)
Title : A9-FOO Water SOP:MSV01 01-06-14 HPMS8
Last Update : Tue Jan 07 08:20:19 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDchem\2\data\032914\8M395978.D Vial: 5
Acq On : 29 Mar 2014 13:08 Operator: MES
Sample : WG469134-02 20ug/L LCS 8260 Inst : HPMS8
Misc : 1,1 STD63597 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 29 13:30:19 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	11.00	96	767445	25.00 ug/L	0.00
57) Chlorobenzene-d5	14.88	117	660574	25.00 ug/L	0.00
78) 1,4-Dichlorobenzene-d4	17.91	152	381110	25.00 ug/L	0.00
System Monitoring Compounds					
37) Dibromofluoromethane	9.95	111	177718	25.2294 ug/L	0.00
Spiked Amount 25.000	Range 86 - 118		Recovery = 100.92%		
43) 1,2-Dichloroethane-d4	10.60	65	146244	25.4738 ug/L	0.00
Spiked Amount 25.000	Range 80 - 120		Recovery = 101.88%		
58) Toluene-d8	12.97	98	669239	25.2896 ug/L	0.00
Spiked Amount 25.000	Range 88 - 110		Recovery = 101.16%		
80) p-Bromofluorobenzene	16.38	95	257284	24.1840 ug/L	0.00
Spiked Amount 25.000	Range 86 - 115		Recovery = 96.72%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.36	85	225126	33.2453 ug/L	100
3) Chloromethane	3.83	50	297729	22.6473 ug/L	99
4) Vinyl Chloride	4.07	62	193347	21.9909 ug/L	99
5) 1,3-Butadiene	4.11	54	80614	12.8021 ug/L	99
6) Bromomethane	5.00	94	127455	22.9463 ug/L	98
7) Chloroethane	5.16	64	129002	23.1489 ug/L	96
8) Trichlorofluoromethane	5.65	101	233651	22.3696 ug/L	99
9) Diethyl ether	6.18	59	457490	99.4476 ug/L	99
10) Isoprene	6.22	67	193719	21.5222 ug/L	98
11) Acrolein	6.42	56	13383	88.6893 ug/L	93
12) 1,1,2-Trichloro-1,2,2-Trif	6.44	101	159790	23.6773 ug/L	95
13) Acetone	6.52	43	22218	20.5393 ug/L	96
14) 1,1-Dichloroethene	6.75	61	201475	19.7734 ug/L	90
15) Tert-Butyl Alcohol	6.86	59	66114	211.6788 ug/L	98
16) Dimethyl Sulfide	7.02	62	182500	32.4848 ug/L	98
17) Iodomethane	7.28	142	220451	35.5774 ug/L	90
18) Methyl acetate	7.28	43	58741	19.0592 ug/L	100
19) Methylene Chloride	7.54	84	146360	21.3599 ug/L	95
20) Carbon Disulfide	7.59	76	431823	19.5400 ug/L	100
21) Acrylonitrile	7.72	53	34530	21.9816 ug/L	99
22) Methyl Tert Butyl Ether	7.75	73	273954	21.6340 ug/L	100
23) trans-1,2-Dichloroethene	7.99	61	214920	21.1990 ug/L	90
24) n-Hexane	8.07	57	219783	22.2020 ug/L	97
25) Diisopropyl ether	8.41	45	2704723	103.9354 ug/L	97
26) Vinyl Acetate	8.58	43	247159	24.9240 ug/L	99
27) 1,1-Dichloroethane	8.61	63	258797	20.6542 ug/L	99
28) Ethyl-Tert-Butyl ether	8.98	59	2138784	102.9801 ug/L	98
29) 2-Butanone	9.17	43	41038	21.8289 ug/L	100
30) Propionitrile	9.27	54	64590	112.1048 ug/L	97
31) 2,2-Dichloropropane	9.40	77	222741	21.3284 ug/L	98
32) cis-1,2-Dichloroethene	9.46	96	166995	22.0144 ug/L	84
33) Chloroform	9.67	83	251752	20.9535 ug/L	99
34) 1-Bromopropane	9.80	122	37763	26.6588 ug/L	96
35) Bromochloromethane	9.90	130	91685	21.0253 ug/L	87
36) Tetrahydrofuran	9.92	42	118518	108.1166 ug/L	99
38) 1,1,1-Trichloroethane	10.20	97	244003	21.3967 ug/L	100
39) Cyclohexane	10.23	56	284975	21.0751 ug/L	98
40) 1,1-Dichloropropene	10.40	75	202197	21.4291 ug/L	91
41) Tert-Amyl-Methyl ether	10.49	73	1568666	105.0045 ug/L	100
42) Carbon Tetrachloride	10.54	117	213447	20.7593 ug/L	99

(#) = qualifier out of range (m) = manual integration
8M395978.D 8260WTR.M Sat Mar 29 13:30:19 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDchem\2\data\032914\8M395978.D Vial: 5
Acq On : 29 Mar 2014 13:08 Operator: MES
Sample : WG469134-02 20ug/L LCS 8260 Inst : HPMS8
Misc : 1,1 STD63597 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 29 13:30:19 2014 Quant Results File: 8260WTR.RES

Quant Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration
DataAcq Meth : 8260WTR

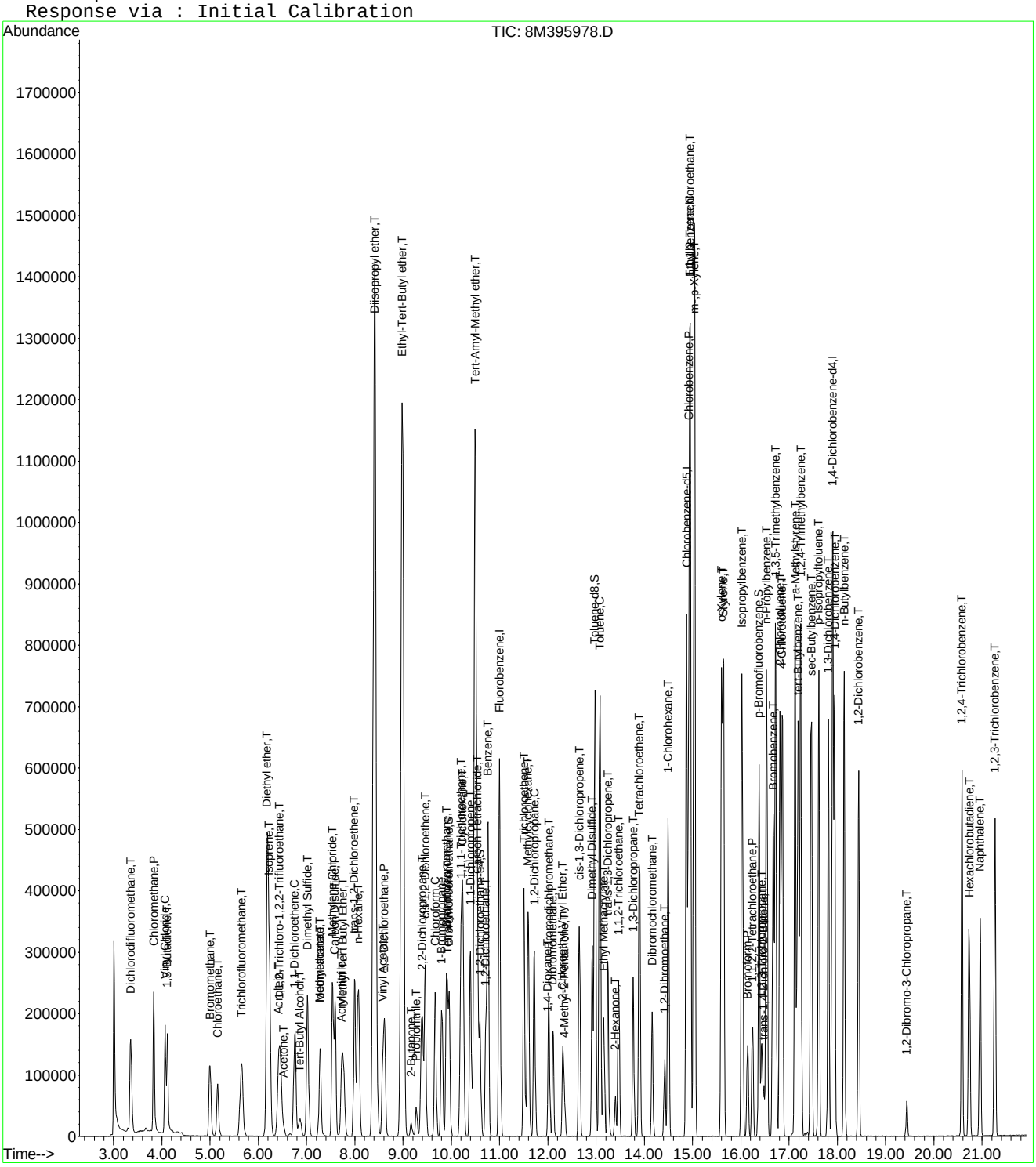
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
45)	1,2-Dichloroethane	10.71	62	168022	21.5071 ug/L		99
46)	Benzene	10.76	78	618649	21.9702 ug/L		97
47)	Trichloroethene	11.51	130	181191	21.9647 ug/L		96
48)	Methylcyclohexane	11.59	83	227880	22.1492 ug/L		96
49)	1,2-Dichloropropane	11.72	63	164032	22.2807 ug/L		96
50)	Bromodichloromethane	12.02	83	193342	21.8501 ug/L		99
51)	1,4-Dioxane	12.00	88	6841	203.1397 ug/L		98
52)	Dibromomethane	12.11	93	76630	21.9843 ug/L		87
53)	2-Chloroethyl Vinyl Ether	12.31	63	68554	21.1299 ug/L		96
54)	4-Methyl-2-Pentanone	12.34	58	33532	19.3579 ug/L		99
55)	cis-1,3-Dichloropropene	12.65	75	237870	23.0905 ug/L		100
56)	Dimethyl Disulfide	12.92	94	249422	21.5520 ug/L		94
59)	Toluene	13.08	91	702871	21.9679 ug/L		99
60)	Ethyl Methacrylate	13.16	69	134396	22.1018 ug/L		93
62)	trans-1,3-Dichloropropene	13.24	75	191116	20.6697 ug/L		99
63)	1,1,2-Trichloroethane	13.47	97	112892	21.9559 ug/L		95
64)	2-Hexanone	13.40	58	31094	18.6134 ug/L		99
65)	1,3-Dichloropropane	13.77	76	182629	21.7555 ug/L		90
66)	Tetrachloroethene	13.89	164	154914	21.0179 ug/L		89
67)	Dibromochloromethane	14.16	129	146231	21.9869 ug/L		99
68)	1,2-Dibromoethane	14.42	107	107924	20.7659 ug/L		98
69)	1-Chlorohexane	14.49	91	229740	22.8442 ug/L		92
70)	Chlorobenzene	14.93	112	462937	20.2534 ug/L		92
71)	1,1,1,2-Tetrachloroethane	14.95	131	170949	21.1159 ug/L		100
72)	Ethylbenzene	14.95	106	258709	21.7968 ug/L		97
73)	m-,p-Xylene	15.04	106	612751	43.2815 ug/L		99
74)	o-Xylene	15.60	106	286699	20.4420 ug/L		97
75)	Styrene	15.64	104	512615	22.6555 ug/L		91
76)	Bromoform	16.14	173	99968	21.3952 ug/L		100
77)	Isopropylbenzene	16.02	105	724813	21.6059 ug/L		100
79)	1,1,2,2-Tetrachloroethane	16.24	83	119680	21.9751 ug/L		99
81)	1,2,3-Trichloropropane	16.44	110	34883	22.0042 ug/L		80
82)	trans-1,4-Dichloro-2-Buten	16.48	53	23446	11.8578 ug/L	#	35
83)	n-Propylbenzene	16.53	91	863620	21.5877 ug/L		98
84)	Bromobenzene	16.68	156	224690	21.9499 ug/L		86
85)	1,3,5-Trimethylbenzene	16.72	105	672619	23.9633 ug/L		100
86)	2-Chlorotoluene	16.81	91	549365	20.6178 ug/L		95
87)	4-Chlorotoluene	16.85	91	536657	21.5612 ug/L		96
88)	a-Methylstyrene	17.13	118	379483	22.5080 ug/L		95
89)	tert-Butylbenzene	17.19	134	138354	21.1861 ug/L		93
90)	1,2,4-Trimethylbenzene	17.24	105	681452	23.3201 ug/L		99
91)	sec-Butylbenzene	17.46	105	721837	21.4161 ug/L		100
92)	p-Isopropyltoluene	17.62	119	633048	21.4525 ug/L		100
93)	1,3-Dichlorobenzene	17.81	146	388146	20.6145 ug/L		94
94)	1,4-Dichlorobenzene	17.95	146	415427	21.3910 ug/L		95
95)	n-Butylbenzene	18.14	91	592373	23.3883 ug/L		99
96)	1,2-Dichlorobenzene	18.44	146	351357	20.3754 ug/L		94
97)	1,2-Dibromo-3-Chloropropan	19.44	75	18162	20.8082 ug/L		70
98)	1,2,4-Trichlorobenzene	20.58	180	266078	21.8590 ug/L		98
99)	Hexachlorobutadiene	20.74	225	107699	22.3811 ug/L		98
100)	Naphthalene	20.96	128	378830	22.7840 ug/L		98
101)	1,2,3-Trichlorobenzene	21.27	180	229236	21.7890 ug/L		98

(#) = qualifier out of range (m) = manual integration
8M395978.D 8260WTR.M Sat Mar 29 13:30:19 2014 Page 2

Quantitation Report (Not Reviewed)

Data File : C:\MSDchem\2\data\032914\8M395978.D Vial: 5
Acq On : 29 Mar 2014 13:08 Operator: MES
Sample : WG469134-02 20ug/L LCS 8260 Inst : HPMS8
Misc : 1,1 STD63597 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 29 13:30 2014 Quant Results File: 8260WTR.RES

Method : C:\MSDCHEM\2\METHODS\8260WTR.M (RTE Integrator)
Title : Method 8260B/624 WTR-SOP:OVLMSV01 03-28-14 HPMS 8
Last Update : Fri Mar 28 14:25:01 2014
Response via : Initial Calibration



2.2 Semivolatiles Data

2.2.1 Semivolatiles GC/MS Data (827-PAHL)

2.2.1.1 Summary Data

Login Number: L14031621
Department: Semivolatiles
Analyst: Cassie A. Augenstein

METHOD

Preparation 3510C

Analysis SW-846 8270 SIM

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: The MS/MSD pair exceeded % RPD criteria for all analytes, however the recoveries for both the MS and MSD are within specified limits. Please see the applicable QC report for a detailed presentation of the failures.

SAMPLES

Samples: All acceptance criteria were met.

Internal Standards: All acceptance criteria were met.

Surrogates: Samples 07REF, 08MS and 09MSD were not re-extracted per TSR instructions (marginal failure).

Sample #	Analyte	Date	Result	Lower	Upper	Type
L14031621-09	p-Terphenyl-d14	2014-04-01 15:54:00	49.1	50	135	Recovery

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peakcompletely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low areacounts for the target compound.

Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene andbenzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Managing Director or the QAO will be required.

Narrative ID: 80632
Approved By: Eric Lawson

Certificate of Analysis

Sample #:	L14031621-01	**PrePrep Method:**	N/A	**Instrument:**	HPMS7
Client ID:	40MW7GW32714	**Prep Method:**	3510C	**Prep Date:**	03/31/2014 11:16
Matrix:	Water	**Analytical Method:**	8270C	**Cal Date:**	03/05/2014 15:52
Workgroup #:	WG469379	**Analyst:**	CAA	**Run Date:**	04/01/2014 12:32
Collect Date:	03/27/2014 09:57	**Dilution:**	1	**File ID:**	7M60732
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3		U	0.0521	0.0260
Benzo(a)pyrene	50-32-8		U	0.0521	0.0260
Benzo(b)fluoranthene	205-99-2		U	0.0521	0.0260
Benzo(k)fluoranthene	207-08-9		U	0.0521	0.0260
Chrysene	218-01-9		U	0.0521	0.0260

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	83.3	40	110	
2-Fluorobiphenyl	76.5	50	110	
p-Terphenyl-d14	81.7	50	135	

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-02	**PrePrep Method:**	N/A	**Instrument:**	HPMS7
Client ID:	40EQR32714	**Prep Method:**	3510C	**Prep Date:**	03/31/2014 11:16
Matrix:	Water	**Analytical Method:**	8270C	**Cal Date:**	03/05/2014 15:52
Workgroup #:	WG469379	**Analyst:**	CAA	**Run Date:**	04/01/2014 12:57
Collect Date:	03/27/2014 10:45	**Dilution:**	1	**File ID:**	7M60733
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3		U	0.0515	0.0258
Benzo(a)pyrene	50-32-8		U	0.0515	0.0258
Benzo(b)fluoranthene	205-99-2		U	0.0515	0.0258
Benzo(k)fluoranthene	207-08-9		U	0.0515	0.0258
Chrysene	218-01-9		U	0.0515	0.0258

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	79.6	40	110	
2-Fluorobiphenyl	69.5	50	110	
p-Terphenyl-d14	71.1	50	135	

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-03	**PrePrep Method:**	N/A	**Instrument:**	HPMS7
Client ID:	40FB32714	**Prep Method:**	3510C	**Prep Date:**	03/31/2014 11:16
Matrix:	Water	**Analytical Method:**	8270C	**Cal Date:**	03/05/2014 15:52
Workgroup #:	WG469379	**Analyst:**	CAA	**Run Date:**	04/01/2014 13:23
Collect Date:	03/27/2014 11:00	**Dilution:**	1	**File ID:**	7M60734
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3		U	0.0510	0.0255
Benzo(a)pyrene	50-32-8		U	0.0510	0.0255
Benzo(b)fluoranthene	205-99-2		U	0.0510	0.0255
Benzo(k)fluoranthene	207-08-9		U	0.0510	0.0255
Chrysene	218-01-9		U	0.0510	0.0255

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	78.5	40	110	
2-Fluorobiphenyl	71.5	50	110	
p-Terphenyl-d14	83.9	50	135	

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-04	**PrePrep Method:**	N/A	**Instrument:**	HPMS7
Client ID:	40MW5GW32714	**Prep Method:**	3510C	**Prep Date:**	03/31/2014 11:16
Matrix:	Water	**Analytical Method:**	8270C	**Cal Date:**	03/05/2014 15:52
Workgroup #:	WG469379	**Analyst:**	CAA	**Run Date:**	04/01/2014 13:48
Collect Date:	03/27/2014 14:02	**Dilution:**	1	**File ID:**	7M60735
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3		U	0.0521	0.0260
Benzo(a)pyrene	50-32-8		U	0.0521	0.0260
Benzo(b)fluoranthene	205-99-2		U	0.0521	0.0260
Benzo(k)fluoranthene	207-08-9		U	0.0521	0.0260
Chrysene	218-01-9		U	0.0521	0.0260

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	74.8	40	110	
2-Fluorobiphenyl	67.4	50	110	
p-Terphenyl-d14	72.3	50	135	

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-05	**PrePrep Method:**	N/A	**Instrument:**	HPMS7
Client ID:	40DUPGW32714	**Prep Method:**	3510C	**Prep Date:**	03/31/2014 11:16
Matrix:	Water	**Analytical Method:**	8270C	**Cal Date:**	03/05/2014 15:52
Workgroup #:	WG469379	**Analyst:**	CAA	**Run Date:**	04/01/2014 14:13
Collect Date:	03/27/2014 14:02	**Dilution:**	1	**File ID:**	7M60736
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3		U	0.0521	0.0260
Benzo(a)pyrene	50-32-8		U	0.0521	0.0260
Benzo(b)fluoranthene	205-99-2		U	0.0521	0.0260
Benzo(k)fluoranthene	207-08-9		U	0.0521	0.0260
Chrysene	218-01-9		U	0.0521	0.0260

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	71.9	40	110	
2-Fluorobiphenyl	62.8	50	110	
p-Terphenyl-d14	74.5	50	135	

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-06	**PrePrep Method:**	N/A	**Instrument:**	HPMS7
Client ID:	40MW6GW32714	**Prep Method:**	3510C	**Prep Date:**	03/31/2014 11:16
Matrix:	Water	**Analytical Method:**	8270C	**Cal Date:**	03/05/2014 15:52
Workgroup #:	WG469379	**Analyst:**	CAA	**Run Date:**	04/01/2014 14:39
Collect Date:	03/27/2014 15:42	**Dilution:**	1	**File ID:**	7M60737
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3		U	0.0521	0.0260
Benzo(a)pyrene	50-32-8		U	0.0521	0.0260
Benzo(b)fluoranthene	205-99-2		U	0.0521	0.0260
Benzo(k)fluoranthene	207-08-9		U	0.0521	0.0260
Chrysene	218-01-9		U	0.0521	0.0260

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	67.0	40	110	
2-Fluorobiphenyl	61.2	50	110	
p-Terphenyl-d14	67.0	50	135	

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-07	**PrePrep Method:**	N/A	**Instrument:**	HPMS7
Client ID:	LFMW01GW32714	**Prep Method:**	3510C	**Prep Date:**	03/31/2014 11:16
Matrix:	Water	**Analytical Method:**	8270C	**Cal Date:**	03/05/2014 15:52
Workgroup #:	WG469379	**Analyst:**	CAA	**Run Date:**	04/01/2014 15:04
Collect Date:	03/27/2014 17:50	**Dilution:**	1	**File ID:**	7M60738
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3		U	0.0500	0.0250
Benzo(a)pyrene	50-32-8		U	0.0500	0.0250
Benzo(b)fluoranthene	205-99-2		U	0.0500	0.0250
Benzo(k)fluoranthene	207-08-9		U	0.0500	0.0250
Chrysene	218-01-9		U	0.0500	0.0250

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	91.7	40	110	
2-Fluorobiphenyl	81.4	50	110	
p-Terphenyl-d14	77.7	50	135	

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #: L14031621-08 **PrePrep Method:** N/A **Instrument:** HPMS7
Client ID: LFMW01MSGW32714 **Prep Method:** 3510C **Prep Date:** 03/31/2014 11:16
Matrix: Water **Analytical Method:** 8270C **Cal Date:** 03/05/2014 15:52
Workgroup #: WG469379 **Analyst:** CAA **Run Date:** 04/01/2014 15:29
Collect Date: 03/27/2014 18:15 **Dilution:** 1 **File ID:** 7M60739
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3	0.847		0.0521	0.0260
Benzo(a)pyrene	50-32-8	0.913		0.0521	0.0260
Benzo(b)fluoranthene	205-99-2	0.878		0.0521	0.0260
Benzo(k)fluoranthene	207-08-9	0.860		0.0521	0.0260
Chrysene	218-01-9	0.996		0.0521	0.0260

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	83.5	40	110	
2-Fluorobiphenyl	82.6	50	110	
p-Terphenyl-d14	74.6	50	135	

Sample #: L14031621-09 **PrePrep Method:** N/A **Instrument:** HPMS7
Client ID: LFMW01MSDGW32714 **Prep Method:** 3510C **Prep Date:** 03/31/2014 11:16
Matrix: Water **Analytical Method:** 8270C **Cal Date:** 03/05/2014 15:52
Workgroup #: WG469379 **Analyst:** CAA **Run Date:** 04/01/2014 15:54
Collect Date: 03/27/2014 18:15 **Dilution:** 1 **File ID:** 7M60740
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Benzo(a)anthracene	56-55-3	0.601	J	0.0538	0.0269
Benzo(a)pyrene	50-32-8	0.626	J	0.0538	0.0269
Benzo(b)fluoranthene	205-99-2	0.582	J	0.0538	0.0269
Benzo(k)fluoranthene	207-08-9	0.597	J	0.0538	0.0269
Chrysene	218-01-9	0.700	J	0.0538	0.0269

Surrogate	Recovery	Lower Limit	Upper Limit	Q
Nitrobenzene-d5	59.2	40	110	
2-Fluorobiphenyl	55.5	50	110	
p-Terphenyl-d14	49.1	50	135	*

J	The reported result is an estimated value.

Certificate of Analysis

2.2.1.2 QC Summary Data

Example 8270 Calculations

1.0 Calculating the Response Factor (RF) from the initial calibration (ICAL) data:

RF = [(Ax) (Cis)] / [(Ais) (Cx)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured:	1261197
Cis = Concentration of the specific internal standard (ug/mL)	40
Ais = Area of the characteristic ion of the specific internal standard	608044
Cx = Concentration of the compound in the standard being measured (ug/mL)	50
RF = Calculated Response Factor	**1.65935**

2.0 Calculating the concentration (C) of a compound in water using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Vi)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Vi = Initial volume of sample extracted from prep log (mL)	1021
Cx = Concentration of the compound in the sample being measured (ug/mL)	0.016947
Cx = Concentration of the compound in the sample being measured (ug/L)	**16.947**

3.0 Calculating the concentration (C) of a compound in soil using the data from the prep log and quantitation report: *

Cx = [(Ax) (Cis) (Vf) (D)] / [(Ais) (RF) (Wi)]

where:	Example
Ax = Area of the characteristic ion for the compound being measured	367250
Cis = Concentration of the specific internal standard (ug/mL)	40
Vf = Final volume of sample extract from prep log (mL)	1
D = Dilution factor for sample as a multiplier (10x = 10)	1
Ais = Area of the characteristic ion of the specific internal standard	511641
RF = Average RF from the ICAL	1.65935
Wi = Initial weight of sample extracted (g) from prep log	30
Cx = Concentration of the compound in the sample being measured (ug/g)	0.576763
Cx = Concentration of the compound in the sample being measured (ug/kg)	**576.7627**

Dry weight correction:

Percent solids (PCT_S)	50
Cd = (Cx) (100)/PCT_S	**1153.525** ug/kg

* Concentrations appearing on the instrument quantitation reports are on-column results and do not take into account initial volume, final volume, and the dilution factor.

4.0 Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of IS = Ax/Ais

x = amount ratio = concentration analyte/concentration internal standard = Cx / Cis

m = slope from curve plot

b = intercept from curve plot

Step 2: Calculate y from Quantitation Report

y = 16790/784838 = 0.02139

Step 3: Solve for x

x = (y - b)/m = [(0.02139 -(- 0.0435)]/ 0.0783 = 0.829

Step 4: Solve for analyte concentration Cx

Cx = Cis (x) = (25.0)(0.829) = 20.72 ug/L

Example Spreadsheet Calculation:

Slope from curve, m:	0.0783	
Intercept from curve, b:	-0.0435	
Area of analyte, Ax:	16790	
Area of Internal Standard , Ais:	784484	
Concentration of IS, Cis	25.00	ug/L
Response Ratio (y) :	0.021403	
Amount Ratio:	0.828897	
Concentration (Cx):	20.72241	ug/L

5.0 Concentration from Quadratic Regression

Step 1 - Retrieve Curve Data from Plot, y = Ax^2 + Bx + C
Where:
Ax^2 + Bx + (C - y) = 0
A, B, C = constants from the ICAL quadratic regression
y = Response ratio = Area of analyte/Area of internal standard (IS)
x = Amount ratio = Concentration of analyte/concentration of IS

Step 2: Calculate y from Quantitation Report

y = Ax/Ais

Step 3: Solve for x using the quadratic formula
Ax^2 + Bx + C - y = 0

$$x = \frac{b \pm \sqrt{\left(b^2 - 4a(c - y)\right)}}{2a}$$ (Two possible solutions)

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(Amount ratio)

Example Spreadsheet Calculation:

Value of A from plot:	**0.0259**	
Value of B from plot:	**0.0596**	
Value of C from plot:	**-0.0165**	
Area of analyte from quantitation report:	**203233**	
Area of IS from quantiation report:	**1425653**	
Response ratio, y:	**0.142554**	
C - y:	**-0.15905**	
Root 1 - Computed amount ratio , X1:	**-3.88278**	
Root 2 - Computed amount ratio , X2:	**1.581623**	use this solution
Concentration of IS, Cis:	**40.00**	
Concentration of analyte, Cx:	**63.26**	ug/L

Microbac Laboratories Inc.
Sample Extract Log

Workgroup: WG469212
Analyst: CPD
Spike Analyst: CPD
Method: 3510C
Run Date: 03/31/2014 11:16
SOP: EXA01 Revision 17
Spike Witness: JDH
Surr Solution: STD62908

Methylene Chloride Lot #: COA17356
Sodium Sulfate,Anhydrous,Granular (Lot # COA17209

	SAMPLE #	Type	Reference	pH	Prod	Init Amnt	Surr Amnt	Spike Amnt	Spike Sol	Final Vol	Color
1	L14031615-01	SAMP		<2	625-PAHL	980 mL	.25 mL			1 mL	Transparent
2	L14031621-01	SAMP		N	827-PAHL-SPE	960 mL	.25 mL			1 mL	Transparent
3	L14031621-02	SAMP		N	827-PAHL-SPE	970 mL	.25 mL			1 mL	Transparent
4	L14031621-03	SAMP		N	827-PAHL-SPE	980 mL	.25 mL			1 mL	Transparent
5	L14031621-04	SAMP		N	827-PAHL-SPE	960 mL	.25 mL			1 mL	Transparent
6	L14031621-05	SAMP		N	827-PAHL-SPE	960 mL	.25 mL			1 mL	Transparent
7	L14031621-06	SAMP		N	827-PAHL-SPE	960 mL	.25 mL			1 mL	Transparent
8	L14031621-07	RS01		N	827-PAHL-SPE	1000 mL	.25 mL			1 mL	Transparent
9	L14031621-08	MS01	L14031621-07	N	827-PAHL-SPE	960 mL	.25 mL	1 mL	STD61199	1 mL	Transparent
10	L14031621-09	SD01	L14031621-07	N	827-PAHL-SPE	930 mL	.25 mL	1 mL	STD61199	1 mL	Transparent
11	L14031678-01	SAMP		N	827-PAHL	1000 mL	.25 mL			1 mL	Transparent
12	L14031678-02	SAMP		N	827-PAHL	960 mL	.25 mL			1 mL	Colored
13	L14031678-03	SAMP		N	827-PAHL	1000 mL	.25 mL			1 mL	Transparent
14	L14031682-01	SAMP		N	625-PAHL	1000 mL	.25 mL			1 mL	Colored
15	WG469212-01	BLANK		N	827-PAHL	1000 mL	.25 mL			1 mL	Transparent
16	WG469212-02	LCS		N	827-PAHL	1000 mL	.25 mL	1 mL	STD61199	1 mL	Transparent
17	WG469212-03	REF	L14031621-07	N	827-PAHL-SPE	1000 mL	.25 mL			1 mL	Transparent
18	WG469212-04	MS	L14031621-07	N	827-PAHL-SPE	960 mL	.25 mL	1 mL	STD61199	1 mL	Transparent
19	WG469212-05	MSD	L14031621-07	N	827-PAHL-SPE	930 mL	.25 mL	1 mL	STD61199	1 mL	Transparent

L14031615-01	SX PRESERVED WITH HCL

Analyst:

Reviewer:

EXTRACT - Modified 10/22/2008
PDF ID: 3451180
Report generated: 04/02/2014 14:15

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS7 Dataset: 030514
Analyst1: CAA Analyst2: NA
Method: 8270L SOP: MSS03 Rev: 11
Method: OVAP SOP: MSS03 Rev: 0

Maintenance Log ID: 49348 Syringe Filter Lot#:
Eluent ID#:

Column 1 ID: RXI-5MS Column 2 ID: NA

Workgroups: WG465545

Internal STD: STD62368 Surrogate STD: NA Calibration STD
CCV STD: LCS STD: MS/MSD STD:

Comments:

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	7M60536	WG465525-01 5PPM DFTPP	1	1	STD60340	03/05/14 08:17
2	7M60537	WG465525-02 1 PPM PAHL STD	1	1	STD62940	03/05/14 08:32
3	7M60538	WG465525-02 1 PPM PAHL STD	1	1	STD62940	03/05/14 08:58
4	7M60539	10 PPM PAHL STD	1	1	STD62940	03/05/14 11:05
5	7M60540	WG465525-01 5PPM DFTPP	1	1	STD60340	03/05/14 11:43
6	7M60541	WG465525-02 1 PPM PAHL STD	1	1	STD62940	03/05/14 11:58
7	7M60542	WG465525-02 1 PPM PAHL STD	1	1	STD62940	03/05/14 13:21
8	7M60543	WG465525-03 10 PPM PAHL STD	1	1	STD62940	03/05/14 13:46
9	7M60544	WG465525-04 5 PPM PAHL STD	1	1	STD62940	03/05/14 14:11
10	7M60545	WG465525-05 2.5 PPM PAHL STD	1	1	STD62940	03/05/14 14:36
11	7M60546	WG465525-06 0.5 PPM PAHL STD	1	1	STD62940	03/05/14 15:01
12	7M60547	WG465525-07 0.1 PPM PAHL STD	1	1	STD62940	03/05/14 15:26
13	7M60548	WG465525-08 0.05 PPM PAHL STD	1	1	STD62940	03/05/14 15:52
14	7M60549	WG465525-09 1 PPM PAHL Alt Src STD	1	1	STD62936	03/05/14 16:17
15	7M60550	WG465417-01 BLK 03/04	7	1	SOIL	03/05/14 16:42
16	7M60551	WG465417-02 LCS 03/04	7	1	SOIL	03/05/14 17:07
17	7M60552	WG465417-03 LCS DUP 03/04	7	1	SOIL	03/05/14 17:32
18	7M60553	L14021349-01 RE	7	1	SOIL	03/05/14 17:57
19	7M60554	L14021349-04 RE	7	1	SOIL	03/05/14 18:22
20	7M60555	L14021349-07 RE	7	1	SOIL	03/05/14 18:46

Comments

Seq.	Rerun	Dil.	Reason	Analytes
2	X			
	WG465525-02 1 PPM PAHL STD - SS TPH >20% biased high.			
3	X			
	WG465525-02 1 PPM PAHL STD - SS TPH >20% biased high, clip column and replace gold seal.			
6	X			
	WG465525-02 1 PPM PAHL STD - 1-methylnaphthalene >20% biased high.			
7				
	WG465525-02 1 PPM PAHL STD - SS TPH >20% biased high, run ICAL.			

Page: 1 Approved: 06-MAR-14

Microbac Laboratories Inc.

Instrument Run Log

Instrument: HPMS7 Dataset: 040114
Analyst1: CAA Analyst2: NA
Method: 8270L SOP: MSS03 Rev: 11
Method: OVAP SOP: MSS03 Rev: 0

Maintenance Log ID: 49621 Syringe Filter Lot#:
Eluent ID#:

Workgroups: Column 1 ID: RXI-5MS Column 2 ID: NA
WG469107, WG469379
Internal STD: STD63577 Surrogate STD: NA Calibration STD
CCV STD: LCS STD: MS/MSD STD:

Comments: L13031621 samples were not re-extracted per TSR instructions.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	7M60723	WG469371-01 5PPM DFTPP	1	1	STD60340	04/01/14 08:55
2	7M60724	WG469371-02 1 PPM PAHL STD	1	1	STD62940	04/01/14 09:10
3	7M60725	WG469212-01 BLK 03/31	1	1		04/01/14 09:35
4	7M60726	WG469212-02 LCS 03/31	1	1		04/01/14 10:00
5	7M60727	L14031615-01	2	1		04/01/14 10:26
6	7M60728	L14031619-03 10X	1	10		04/01/14 10:51
7	7M60729	L14031619-06 10X	1	10		04/01/14 11:16
8	7M60730	L14031619-07 10X	1	10		04/01/14 11:41
9	7M60731	L14031619-08 10X	1	10		04/01/14 12:07
10	7M60732	L14031621-01	1	1		04/01/14 12:32
11	7M60733	L14031621-02	1	1		04/01/14 12:57
12	7M60734	L14031621-03	1	1		04/01/14 13:23
13	7M60735	L14031621-04	1	1		04/01/14 13:48
14	7M60736	L14031621-05	1	1		04/01/14 14:13
15	7M60737	L14031621-06	1	1		04/01/14 14:39
16	7M60738	L14031621-07 REF	2	1		04/01/14 15:04
17	7M60739	L14031621-08 MS	2	1		04/01/14 15:29
18	7M60740	L14031621-09 MSD	2	1		04/01/14 15:54
19	7M60741	L14031678-01	1	1		04/01/14 16:20
20	7M60742	L14031678-02	1	1		04/01/14 16:45
21	7M60743	L14031678-03	1	1		04/01/14 17:10
22	7M60744	L14031682-01	2	1		04/01/14 17:35

Comments

Seq.	Rerun	Dil.	Reason	Analytes
4				
	WG469212-02 LCS 03/31 - 1 analyte marginally <LCL.			
5				
	L14031615-01 - SS TPH <LCL.			
18				
	L14031621-09 MSD - SS TPH <LCL.			

Page: 1 Approved: 02-APR-14

Microbac Laboratories Inc.

Data Checklist

Date: 05-MAR-2014
Analyst: CAA
Analyst: NA
Method: 8270L
Instrument: HPMS7
Curve Workgroup: NA
Runlog ID: 59320
Analytical Workgroups: L14021349

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	NA
Pentachlorophenol/benzidine tailing (MS)	NA
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	X
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	NA
% D/% Drift	NA
Minimum response factors (MS)	NA
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	NA
Recoveries	NA
%RPD	NA
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
06-MAR-2014

Secondary Reviewer:
06-MAR-2014

CHECKLIST1 - Modified 03/05/2008
Generated: MAR-06-2014 09:04:50

Microbac Laboratories Inc.

Data Checklist

Date: 01-APR-2014
Analyst: CAA
Analyst: NA
Method: 8270L
Instrument: HPMS7
Curve Workgroup: NA
Runlog ID: 59915
Analytical Workgroups: L14031615, L14031619, L14031621, L14031678, L14031682

ANALYTICAL	
System Performance Check	X
DFTPP (MS)	X
Endrin/DDT breakdown (8081/MS)	X
Pentachlorophenol/benzidine tailing (MS)	X
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (MS)	X
Continuing calibration blank (CCB) (IC)	NA
Special standards	NA
Blanks	X
TCL hits	X
Surrogate recoveries	X
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	X
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	X
Surrogate recoveries	X
Internal standard areas (MS)	X
Library searches (MS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	NA
Check for completeness	X
Primary Reviewer	CAA
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	ECL

Primary Reviewer:
02-APR-2014

Secondary Reviewer:
02-APR-2014

CHECKLIST1 - Modified 03/05/2008
Generated: APR-02-2014 16:06:16

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 8270C **AAB#:** WG469379

Login Number: L14031621

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
40MW7GW32714	01	03/27/14					03/31/2014	4.1	7		04/01/14	1.1	40	
40EQR32714	02	03/27/14					03/31/2014	4	7		04/01/14	1.1	40	
40FB32714	03	03/27/14					03/31/2014	4	7		04/01/14	1.1	40	
40MW5GW32714	04	03/27/14					03/31/2014	3.9	7		04/01/14	1.1	40	
40DUPGW32714	05	03/27/14					03/31/2014	3.9	7		04/01/14	1.1	40	
40MW6GW32714	06	03/27/14					03/31/2014	3.8	7		04/01/14	1.1	40	
LFMW01GW32714	07	03/27/14					03/31/2014	3.7	7		04/01/14	1.2	40	
LFMW01MSGW32714	08	03/27/14					03/31/2014	3.7	7		04/01/14	1.2	40	
LFMW01MSDGW32714	09	03/27/14					03/31/2014	3.7	7		04/01/14	1.2	40	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3454693
Report generated 04/03/2014 08:49

Login Number: L14031621
Instrument Id: HPMS7
Workgroup (AAB#): WG469379

Method: 8270L
CAL ID: HPMS7-05-MAR-14
Matrix: Water

Sample Number	Dilution	Tag	1	2	3
L14031621-01	1.00	01	76.5	83.3	81.7
L14031621-02	1.00	01	69.5	79.6	71.1
L14031621-03	1.00	01	71.5	78.5	83.9
L14031621-04	1.00	01	67.4	74.8	72.3
L14031621-05	1.00	01	62.8	71.9	74.5
L14031621-06	1.00	01	61.2	67.0	67.0
L14031621-07	1.00	01	81.4	91.7	77.7
L14031621-08	1.00	01	82.6	83.5	74.6
L14031621-09	1.00	01	55.5	59.2	49.1
WG469212-01	1.00	01	72.0	79.5	75.7
WG469212-02	1.00	01	61.8	68.0	68.2

Surrogates	Surrogate Limits		
1 - 2-Fluorobiphenyl	50	-	110
2 - Nitrobenzene-d5	40	-	110
3 - p-Terphenyl-d14	50	-	135

Underline = Result out of surrogate limits

DL = surrogate diluted out
ND = surrogate not detected

SURROGATES - Modified 03/06/2008
PDF File ID: 3454703
Report generated: 04/03/2014 08:49

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L14031621
Work Group: WG469379
Blank File ID: 7M60725
Blank Sample ID: WG469212-01
Prep Date: 03/31/14 11:16
Instrument ID: HPMS7
Analyzed Date: 04/01/14 09:35
Method: 8270C
Analyst: CAA

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG469212-02	7M60726	04/01/14 10:00	01
40MW7GW32714	L14031621-01	7M60732	04/01/14 12:32	01
40EQR32714	L14031621-02	7M60733	04/01/14 12:57	01
40FB32714	L14031621-03	7M60734	04/01/14 13:23	01
40MW5GW32714	L14031621-04	7M60735	04/01/14 13:48	01
40DUPGW32714	L14031621-05	7M60736	04/01/14 14:13	01
40MW6GW32714	L14031621-06	7M60737	04/01/14 14:39	01
LFMW01GW32714	L14031621-07	7M60738	04/01/14 15:04	01
LFMW01MSGW32714	L14031621-08	7M60739	04/01/14 15:29	01
LFMW01MSDGW32714	L14031621-09	7M60740	04/01/14 15:54	01

Report Name: BLANK_SUMMARY
PDF File ID: 3454694
Report generated 04/03/2014 08:49

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L14031621 Prep Date: 03/31/14 11:16 Sample ID: WG469212-01
Instrument ID: HPMS7 Run Date: 04/01/14 09:35 Prep Method: 3510C
File ID: 7M60725 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG469379 Matrix: Water Units: ug/L
Contract #: Cal ID: HPMS7-05-MAR-14

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Benzo(a)anthracene	0.0250	0.0500	0.0250	1	U
Benzo(a)pyrene	0.0250	0.0500	0.0250	1	U
Benzo(b)fluoranthene	0.0250	0.0500	0.0250	1	U
Benzo(k)fluoranthene	0.0250	0.0500	0.0250	1	U
Chrysene	0.0250	0.0500	0.0250	1	U

Surrogates	% Recovery	Surrogate Limits	Qualifier
Nitrobenzene-d5	79.5	40 - 110	PASS
2-Fluorobiphenyl	72.0	50 - 110	PASS
p-Terphenyl-d14	75.7	50 - 135	PASS

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3454695
03-APR-2014 08:49

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L14031621 Run Date: 04/01/2014 Sample ID: WG469212-02
Instrument ID: HPMS7 Run Time: 10:00 Prep Method: 3510C
File ID: 7M60726 Analyst: CAA Method: 8270C
Workgroup (AAB#): WG469379 Matrix: Water Units: ug/L
QC Key: DOD4 Lot#: STD61199 Cal ID: HPMS7-05-MAR-14

Analytes	Expected	Found	% Rec	LCS Limits	Q
Benzo(a)anthracene	1.00	0.805	80.5	55 - 110	
Benzo(a)pyrene	1.00	0.779	77.9	55 - 110	
Benzo(b)fluoranthene	1.00	0.693	69.3	45 - 120	
Benzo(k)fluoranthene	1.00	0.725	72.5	45 - 125	
Chrysene	1.00	0.901	90.1	55 - 110	

Surrogates	% Recovery	Surrogate Limits	Qualifier
Nitrobenzene-d5	68.0	40 - 110	PASS
2-Fluorobiphenyl	61.8	50 - 110	PASS
p-Terphenyl-d14	68.2	50 - 135	PASS

* EXCEEDS %REC LIMIT

LCS - Modified 03/06/2008
PDF File ID: 3454696
Report generated: 04/03/2014 08:49

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L14031621 Cal ID:HPMS7- 05-MAR-14 Worknum:WG469379

Instrument ID:HPMS7 Contract #: Prep Method:3510C

Parent ID:L14031621-07 File ID:7M60738 Dil:1 Method:8270C

Sample ID:L14031621-08 MS File ID:7M60739 Dil:1 Matrix:Water

Sample ID:L14031621-09 MSD File ID:7M60740 Dil:1 Units:ug/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Benzo(a)anthracene	U	1.04	0.847	81.3	1.08	0.601	55.9	33.9	55 - 110	30	#
Benzo(a)pyrene	U	1.04	0.913	87.7	1.08	0.626	58.3	37.2	55 - 110	30	#
Benzo(b)fluoranthene	U	1.04	0.878	84.3	1.08	0.582	54.1	40.6	45 - 120	30	#
Benzo(k)fluoranthene	U	1.04	0.860	82.5	1.08	0.597	55.5	36.1	45 - 125	30	#
Chrysene	U	1.04	0.996	95.7	1.08	0.700	65.1	35.0	55 - 110	30	#

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008

PDF File ID: 3454697

Report generated 04/03/2014 08:49

Microbac Laboratories Inc.
ORGANIC INSTRUMENT CHECK

DFTPP

Login Number: L14031621
Instrument: HPMS7
Analyst: CAA
Workgroup: WG465525

Tune ID: WG465525-01
Run Date: 03/05/2014
Run Time: 11:43
File ID: 7M60540
Cal ID: HPMS7-05-MAR-14

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	43.3	79118	PASS
68.0	69.0	0	2.00	1.45	948	PASS
69.0	198	0	100	35.8	65494	PASS
70.0	69.0	0	2.00	0.603	395	PASS
127	198	40.0	60.0	46.9	85826	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	182845	PASS
199	198	5.00	9.00	6.45	11797	PASS
275	198	10.0	30.0	26.4	48218	PASS
365	198	1.00	100	2.62	4793	PASS
441	443	0.0100	100	76.8	23912	PASS
442	198	40.0	100	84.2	153997	PASS
443	442	17.0	23.0	20.2	31133	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG465525-02	STD-CCV	01	03/05/2014 13:21	
WG465525-03	STD	01	03/05/2014 13:46	
WG465525-04	STD	01	03/05/2014 14:11	
WG465525-05	STD	01	03/05/2014 14:36	
WG465525-06	STD	01	03/05/2014 15:01	
WG465525-07	STD	01	03/05/2014 15:26	
WG465525-08	STD	01	03/05/2014 15:52	
WG465525-09	SSCV	01	03/05/2014 16:17	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 3454700
Report generated 04/03/2014 08:49

DFTPP

Login Number: L14031621
Instrument: HPMS7
Analyst: CAA
Workgroup: WG469371

Tune ID: WG469371-01
Run Date: 04/01/2014
Run Time: 08:55
File ID: 7M60723
Cal ID: HPMS7-05-MAR-14

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51.0	198	30.0	60.0	41.5	43252	PASS
68.0	69.0	0	2.00	0.803	301	PASS
69.0	198	0	100	36.0	37483	PASS
70.0	69.0	0	2.00	0.379	142	PASS
127	198	40.0	60.0	47.7	49632	PASS
197	198	0	1.00	0	0	PASS
198	198	100	100	100	104130	PASS
199	198	5.00	9.00	6.65	6921	PASS
275	198	10.0	30.0	24.6	25576	PASS
365	198	1.00	100	2.39	2492	PASS
441	443	0.0100	100	72.5	13496	PASS
442	198	40.0	100	84.0	87498	PASS
443	442	17.0	23.0	21.3	18627	PASS

This check relates to the following samples:

Lab ID	Client ID	Tag	Date Analyzed	Q
WG469371-02	CCV	01	04/01/2014 09:10	
WG469212-01	BLANK	01	04/01/2014 09:35	
WG469212-02	LCS	01	04/01/2014 10:00	
L14031621-01	40MW7GW32714	01	04/01/2014 12:32	
L14031621-02	40EQR32714	01	04/01/2014 12:57	
L14031621-03	40FB32714	01	04/01/2014 13:23	
L14031621-04	40MW5GW32714	01	04/01/2014 13:48	
L14031621-05	40DUPGW32714	01	04/01/2014 14:13	
L14031621-06	40MW6GW32714	01	04/01/2014 14:39	
L14031621-07	LFMW01GW32714	01	04/01/2014 15:04	
L14031621-08	LFMW01MSGW32714	01	04/01/2014 15:29	
L14031621-09	LFMW01MSDGW32714	01	04/01/2014 15:54	

* Sample past 12 hour tune limit

TUNE - Modified 03/06/2008
PDF File ID: 3454700
Report generated 04/03/2014 08:49

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L14031621 **Instrument ID:** HPMS7

Analytical Method: 8270C **Initial Calibration Date:** 05-MAR-14 15:52

ICAL Workgroup: WG465525 **Column ID:** F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD (R^2)
Benzo[a]pyrene	CCC	1.150	4.35		
Benzo[a]anthracene		1.155	1.81		
Benzo[b]fluoranthene		1.311	4.71		
Benzo[k]fluoranthene		1.293	6.89		
Chrysene		1.136	3.16		

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

If the %RSD is greater than the limit specified by the method or project QAP, then linear or quadratic equations will be used.

INT_CAL - Modified 03/06/2008
PDF File ID: 3454698
Report generated 04/03/2014 08:49

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L14031621
Analytical Method: 8270C
Instrument ID: HPMS7
Initial Calibration Date: 05-MAR-14 15:52
Column ID: F

Analyte	WG465525-02			WG465525-03			WG465525-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Benzo[a]pyrene	1.00	261807.000	1.180	10.0	2508628.00	1.162	5.00	1229906.00	1.224
Benzo[a]anthracene	1.00	296864.000	1.177	10.0	2604554.00	1.129	5.00	1348886.00	1.186
Benzo[b]fluoranthene	1.00	306098.000	1.379	10.0	2705506.00	1.253	5.00	1350582.00	1.345
Benzo[k]fluoranthene	1.00	289450.000	1.304	10.0	2477011.00	1.147	5.00	1405774.00	1.400
Chrysene	1.00	290093.000	1.150	10.0	2458406.00	1.066	5.00	1276780.00	1.122

INT_CAL - Modified 03/06/2008
PDF File ID: 3454698
Report generated 04/03/2014 08:49

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L14031621
Analytical Method: 8270C
Instrument ID: HPMS7
Initial Calibration Date: 05-MAR-14 15:52
Column ID: F

Analyte	WG465525-05			WG465525-06			WG465525-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Benzo[a]pyrene	2.50	553315.000	1.169	0.500	117366.000	1.146	0.100	20165.0000	1.092
Benzo[a]anthracene	2.50	637999.000	1.160	0.500	133533.000	1.148	0.100	23600.0000	1.134
Benzo[b]fluoranthene	2.50	645408.000	1.364	0.500	138112.000	1.348	0.100	23289.0000	1.262
Benzo[k]fluoranthene	2.50	615749.000	1.301	0.500	134968.000	1.317	0.100	25407.0000	1.376
Chrysene	2.50	618313.000	1.125	0.500	135179.000	1.162	0.100	24168.0000	1.161

INT_CAL - Modified 03/06/2008
PDF File ID: 3454698
Report generated 04/03/2014 08:49

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L14031621
Analytical Method: 8270C
Instrument ID: HPMS7
Initial Calibration Date: 05-MAR-14 15:52
Column ID: F

Analyte	WG465525-08		
	CONC	RESP	RF
Benzo[a]pyrene	0.0500	9336.00000	1.081
Benzo[a]anthracene	0.0500	10914.0000	1.149
Benzo[b]fluoranthene	0.0500	10600.0000	1.227
Benzo[k]fluoranthene	0.0500	10435.0000	1.208
Chrysene	0.0500	11096.0000	1.168

INT_CAL - Modified 03/06/2008
PDF File ID: 3454698
Report generated 04/03/2014 08:49

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L14031621 Run Date: 03/05/2014 Sample ID: WG465525-09
Instrument ID: HPMS7 Run Time: 16:17 Method: 8270C
File ID: 7M60549 Analyst: CAA QC Key: DOD4
ICal Workgroup: WG465525 Cal ID: HPMS7 - 05-MAR-14

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Benzo[a]pyrene	CCC	1000	1130	ug/L	1.30	12.6	30	
Benzo[a]anthracene		1000	1020	ug/L	1.18	2.20	30	
Benzo[b]fluoranthene		1000	1010	ug/L	1.32	0.700	30	
Benzo[k]fluoranthene		1000	1010	ug/L	1.31	1.30	30	
Chrysene		1000	1030	ug/L	1.17	3.00	30	

* Exceeds %D Limit

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 3454699
Report generated 04/03/2014 08:49

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/01/2014 Sample ID: WG469371-02
Instrument ID: HPMS7 Run Time: 09:10 Method: 8270C
File ID: 7M60724 Analyst: CAA QC Key: DOD4
Workgroup (AAB#): WG469379 Cal ID: HPMS7 - 05-MAR-14
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Acenaphthene	CCC	1000	951	ug/L	1.18	4.94	20	
Fluoranthene	CCC	1000	1000	ug/L	1.34	0.400	20	
Benzo[a]pyrene	CCC	1000	1040	ug/L	1.20	4.02	20	
Benzo[a]anthracene		1000	1050	ug/L	1.21	4.90	20	
Benzo[b]fluoranthene		1000	1030	ug/L	1.36	3.43	20	
Benzo[k]fluoranthene		1000	996	ug/L	1.29	0.420	20	
Chrysene		1000	1040	ug/L	1.18	3.60	20	

* Exceeds %D Criteria

CCC Calibration Check Compounds
SPCC System Performance Check Compounds

CCV - Modified 03/05/2008
PDF File ID: 3454701
Report generated 04/03/2014 08:49

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L14031621
Instrument ID: HPMS7
Workgroup (AAB#): WG469379

ICAL CCV Number: WG465525-02
CAL ID: HPMS7-05-MAR-14
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5
WG465525-02	NA	NA	149683	252338	227721	221948	216432
Upper Limit	NA	NA	299366	504676	455442	443896	432864
Lower Limit	NA	NA	74842	126169	113861	110974	108216
L14031621-01	1.00	01	126522	181491	182233	170838	173292
L14031621-02	1.00	01	131384	186665	188484	176408	179010
L14031621-03	1.00	01	138805	199831	199830	204244	188749
L14031621-04	1.00	01	133798	189530	193440	180810	182388
L14031621-05	1.00	01	128669	184928	187881	177271	177197
L14031621-06	1.00	01	134425	192095	194906	181964	184264
L14031621-07	1.00	01	130570	186520	188017	176444	175907
L14031621-08	1.00	01	117292	179479	180333	169728	168850
L14031621-09	1.00	01	129424	187978	190135	178441	175947
WG469212-01	1.00	01	123481	179000	181244	169571	168860
WG469212-02	1.00	01	136734	198447	197802	207876	185663

IS-1 - Acenaphthene-d10
IS-2 - Chrysene-d12
IS-3 - Naphthalene-d8
IS-4 - Perylene-d12
IS-5 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_ICAL - Modified 03/06/2008
PDF File ID: 3454702
Report generated 04/03/2014 08:49

Microbac Laboratories Inc.

INTERNAL STANDARD RETENTION TIME SUMMARY
(COMPARED TO MIDPOINT OF ICAL)

Login Number: L14031621
Instrument ID: HPMS7
Workgroup (AAB#): WG469379

ICAL CCV Number: WG465525-02
CAL ID: HPMS7-05-MAR-14
Matrix: WATER

Sample Number	Dilution	Tag	IS-1	IS-2	IS-3	IS-4	IS-5
WG465525-02	NA	NA	8.12	13.32	5.94	15.44	9.97
Upper Limit	NA	NA	8.62	13.82	6.44	15.94	10.47
Lower Limit	NA	NA	7.62	12.82	5.44	14.94	9.47
L14031621-01	1.00	01	8.11	13.31	5.93	15.44	9.96
L14031621-02	1.00	01	8.11	13.31	5.93	15.44	9.96
L14031621-03	1.00	01	8.11	13.31	5.93	15.44	9.96
L14031621-04	1.00	01	8.11	13.31	5.93	15.44	9.96
L14031621-05	1.00	01	8.11	13.31	5.93	15.44	9.96
L14031621-06	1.00	01	8.11	13.31	5.93	15.44	9.96
L14031621-07	1.00	01	8.11	13.31	5.93	15.44	9.96
L14031621-08	1.00	01	8.11	13.31	5.93	15.44	9.96
L14031621-09	1.00	01	8.11	13.31	5.93	15.44	9.96
WG469212-01	1.00	01	8.11	13.31	5.93	15.44	9.96
WG469212-02	1.00	01	8.11	13.31	5.93	15.44	9.96

IS-1 - Acenaphthene-d10
IS-2 - Chrysene-d12
IS-3 - Naphthalene-d8
IS-4 - Perylene-d12
IS-5 - Phenanthrene-d10

Underline = Response outside limits

INTERNAL_STD_RT_ICAL - Modified 03/06/2008
PDF File ID: 3454704
Report generated: 04/03/2014 08:49

2.2.1.3 Sample Data

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60732.D Vial: 10
Acq On : 1 Apr 2014 12:32 pm Operator: CAA
Sample : L14031621-01 Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 02 11:26:22 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

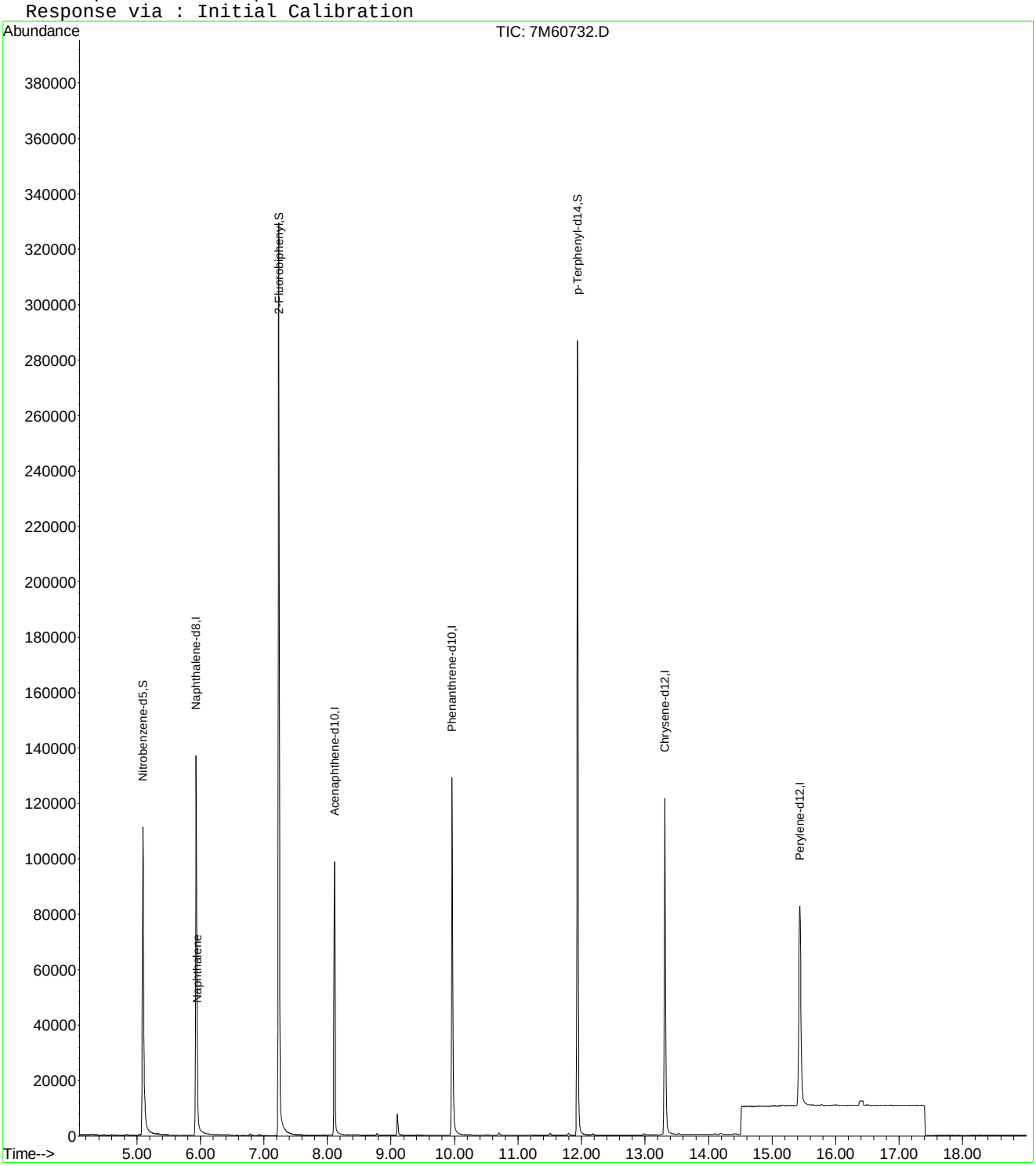
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.93	136	182233	1.00	ug/ml	-0.01
6) Acenaphthene-d10	8.11	164	126522	1.00	ug/ml	-0.01
11) Phenanthrene-d10	9.96	188	173292	1.00	ug/ml	-0.01
15) Chrysene-d12	13.31	240	181491	1.00	ug/ml	0.00
20) Perylene-d12	15.44	264	170838	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.10	82	113727	2.0833	ug/ml	0.00
Spiked Amount 2.500	Range 35 - 114		Recovery = 83.20%			
7) 2-Fluorobiphenyl	7.23	172	307912	1.9115	ug/ml	-0.01
Spiked Amount 2.500	Range 43 - 116		Recovery = 76.40%			
17) p-Terphenyl-d14	11.94	244	326703	2.0436	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 81.60%			
Target Compounds						Qvalue
3) Naphthalene	5.96	128	9141	0.0451	ug/ml	99

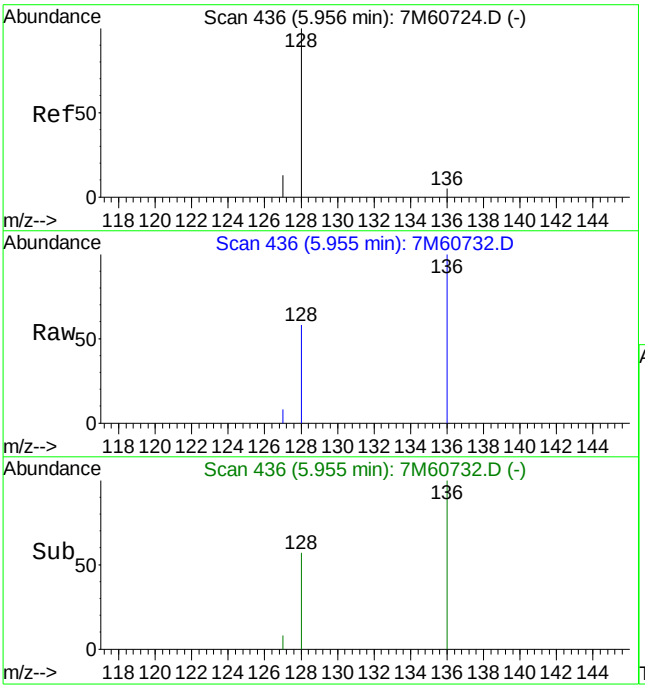
(#) = qualifier out of range (m) = manual integration
7M60732.D SIMPAHL.M Wed Apr 02 13:50:13 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60732.D Vial: 10
Acq On : 1 Apr 2014 12:32 pm Operator: CAA
Sample : L14031621-01 Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 2 11:26 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration

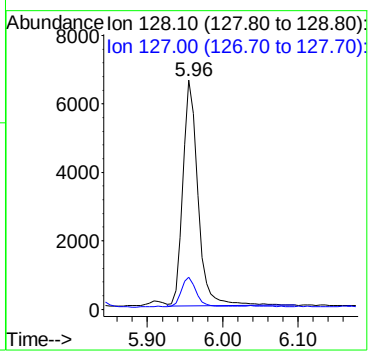




#3
Naphthalene
Concen: 0.05 ug/ml
RT: 5.96 min Scan# 436
Delta R.T. -0.01 min
Lab File: 7M60732.D
Acq: 1 Apr 2014 12:32 pm

Tgt Ion:128 Resp: 9141

Ion	Ratio	Lower	Upper
128	100		
127	12.8	7.9	18.5



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60733.D Vial: 11
Acq On : 1 Apr 2014 12:57 pm Operator: CAA
Sample : L14031621-02 Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 02 11:26:22 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

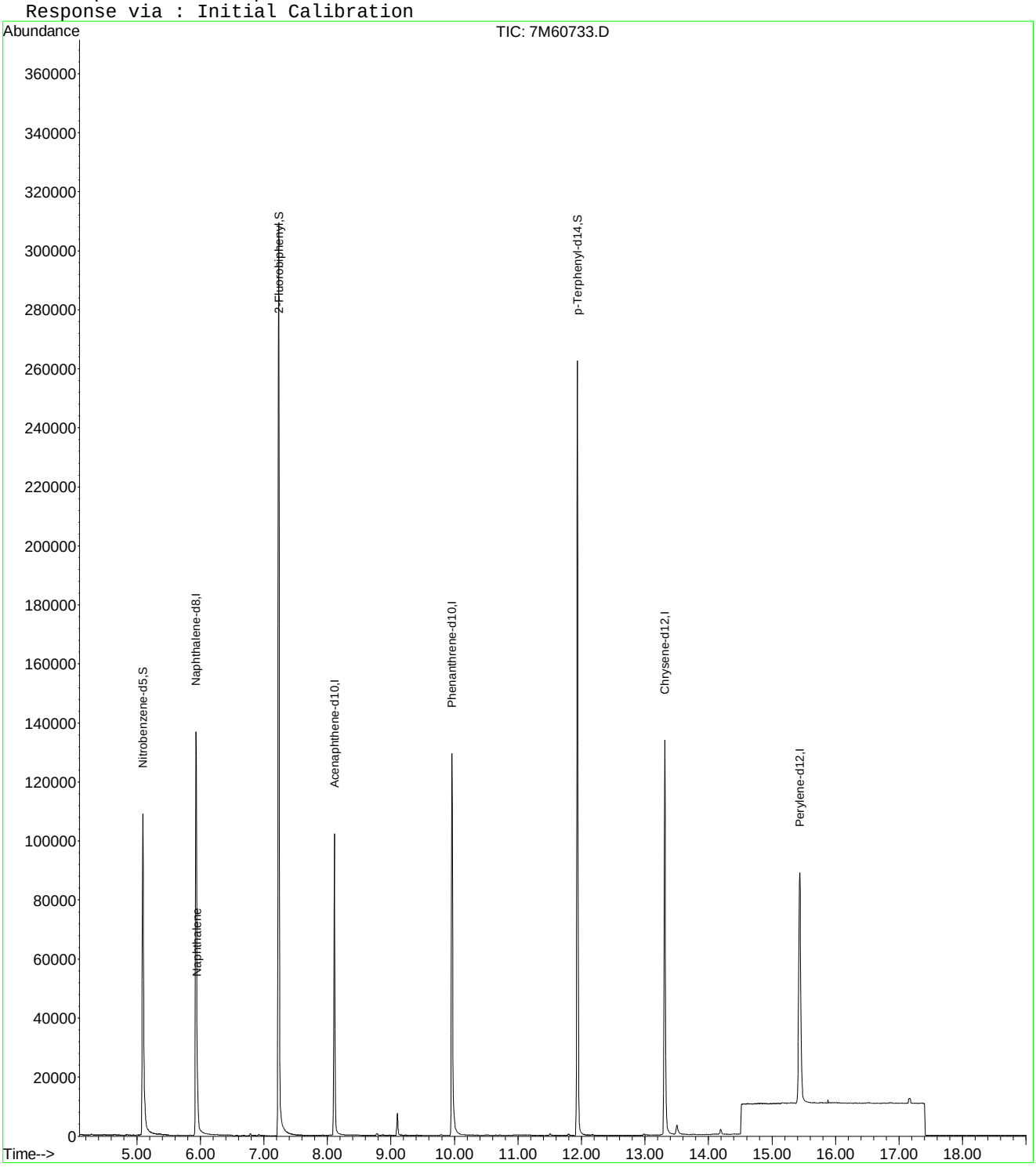
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.93	136	188484	1.00	ug/ml	-0.01
6) Acenaphthene-d10	8.11	164	131384	1.00	ug/ml	-0.01
11) Phenanthrene-d10	9.96	188	179010	1.00	ug/ml	-0.01
15) Chrysene-d12	13.31	240	186665	1.00	ug/ml	0.00
20) Perylene-d12	15.44	264	176408	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.09	82	112430	1.9912	ug/ml	-0.01
Spiked Amount 2.500	Range 35 - 114		Recovery = 79.60%			
7) 2-Fluorobiphenyl	7.23	172	290624	1.7374	ug/ml	-0.01
Spiked Amount 2.500	Range 43 - 116		Recovery = 69.60%			
17) p-Terphenyl-d14	11.93	244	292300	1.7777	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 71.20%			
Target Compounds						Qvalue
3) Naphthalene	5.95	128	11726	0.0560	ug/ml	100

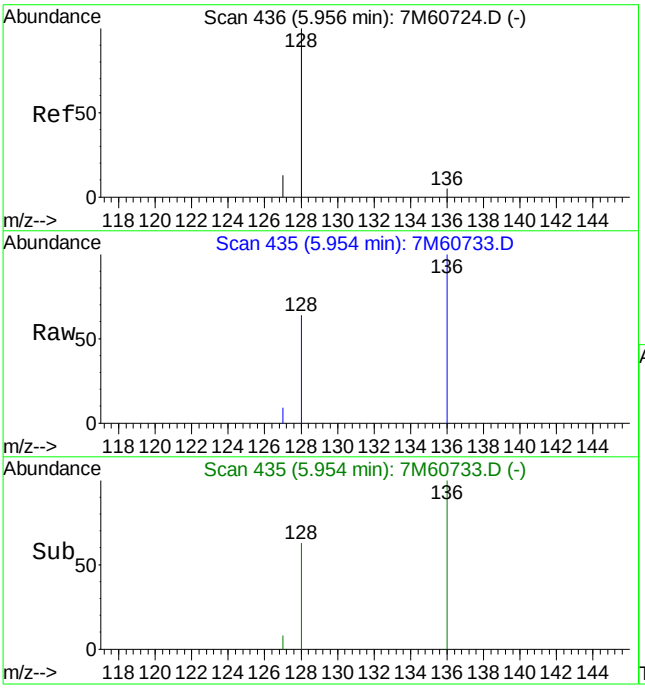
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60733.D Vial: 11
Acq On : 1 Apr 2014 12:57 pm Operator: CAA
Sample : L14031621-02 Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 2 11:26 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration

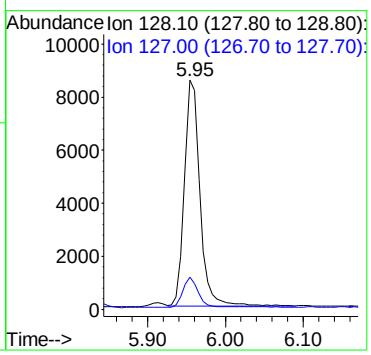




#3
Naphthalene
Concen: 0.06 ug/ml
RT: 5.95 min Scan# 435
Delta R.T. -0.01 min
Lab File: 7M60733.D
Acq: 1 Apr 2014 12:57 pm

Tgt Ion:128 Resp: 11726

Ion	Ratio	Lower	Upper
128	100		
127	13.3	7.9	18.5



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60734.D Vial: 12
Acq On : 1 Apr 2014 1:23 pm Operator: CAA
Sample : L14031621-03 Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 02 11:26:22 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

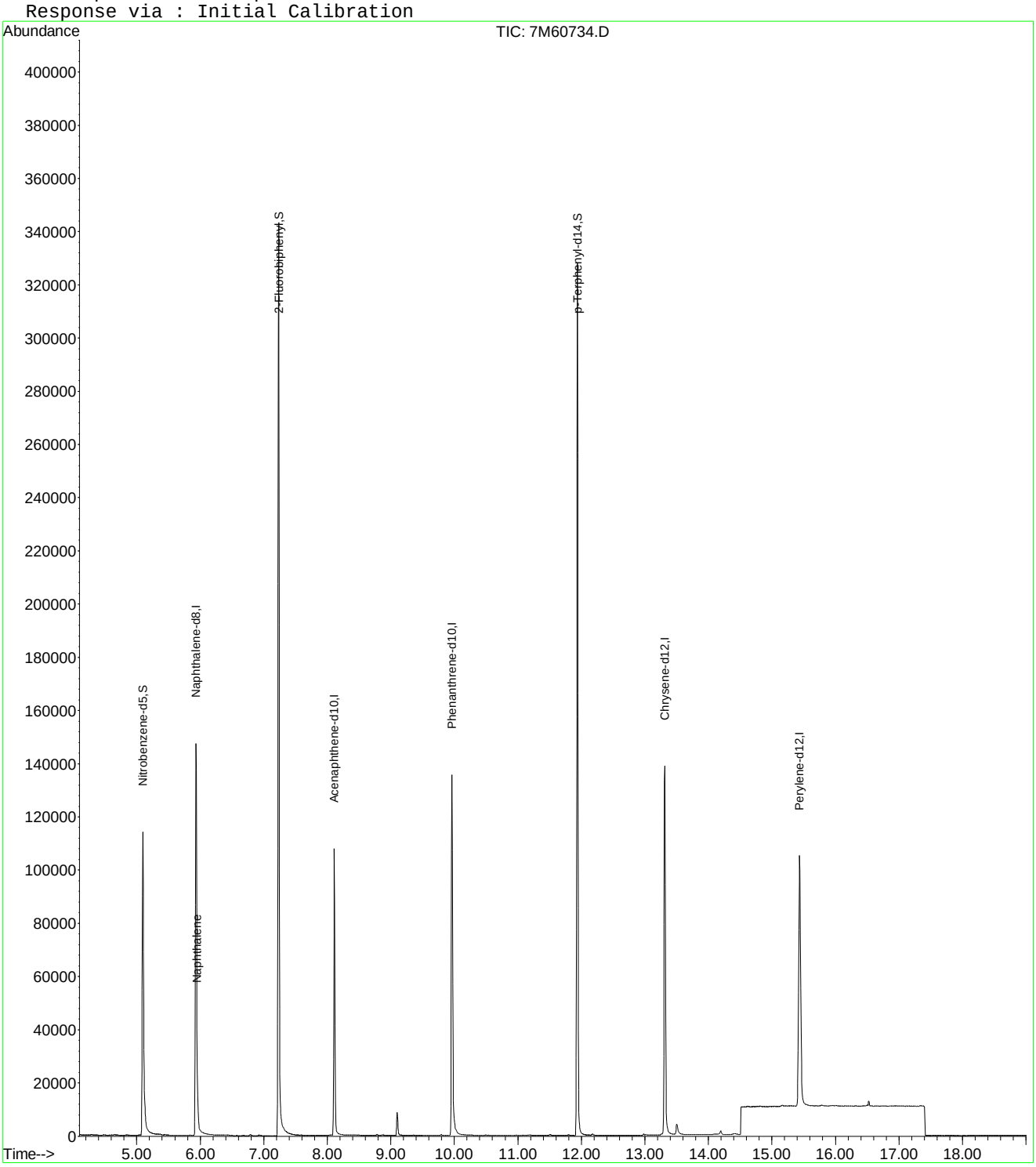
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.93	136	199830	1.00	ug/ml	-0.01
6) Acenaphthene-d10	8.11	164	138805	1.00	ug/ml	-0.01
11) Phenanthrene-d10	9.96	188	188749	1.00	ug/ml	-0.01
15) Chrysene-d12	13.31	240	199831	1.00	ug/ml	0.00
20) Perylene-d12	15.44	264	204244	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.09	82	117478	1.9625	ug/ml	-0.01
Spiked Amount 2.500	Range 35 - 114		Recovery = 78.40%			
7) 2-Fluorobiphenyl	7.23	172	316103	1.7887	ug/ml	-0.01
Spiked Amount 2.500	Range 43 - 116		Recovery = 71.60%			
17) p-Terphenyl-d14	11.94	244	369029	2.0965	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 84.00%			
Target Compounds						Qvalue
3) Naphthalene	5.95	128	10769	0.0485	ug/ml	100

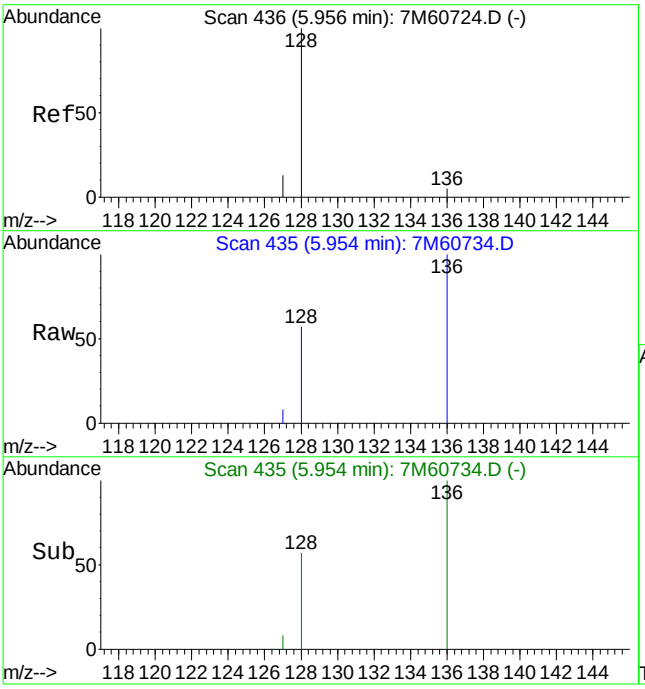
(#) = qualifier out of range (m) = manual integration
7M60734.D SIMPAHL.M Wed Apr 02 13:50:15 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60734.D Vial: 12
Acq On : 1 Apr 2014 1:23 pm Operator: CAA
Sample : L14031621-03 Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 2 11:26 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration

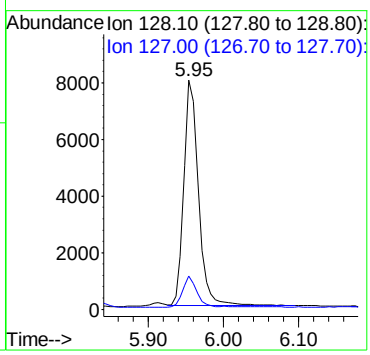




#3
Naphthalene
Concen: 0.05 ug/ml
RT: 5.95 min Scan# 435
Delta R.T. -0.01 min
Lab File: 7M60734.D
Acq: 1 Apr 2014 1:23 pm

Tgt Ion:128 Resp: 10769

Ion	Ratio	Lower	Upper
128	100		
127	13.1	7.9	18.5



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60735.D Vial: 13
Acq On : 1 Apr 2014 1:48 pm Operator: CAA
Sample : L14031621-04 Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 02 11:26:22 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

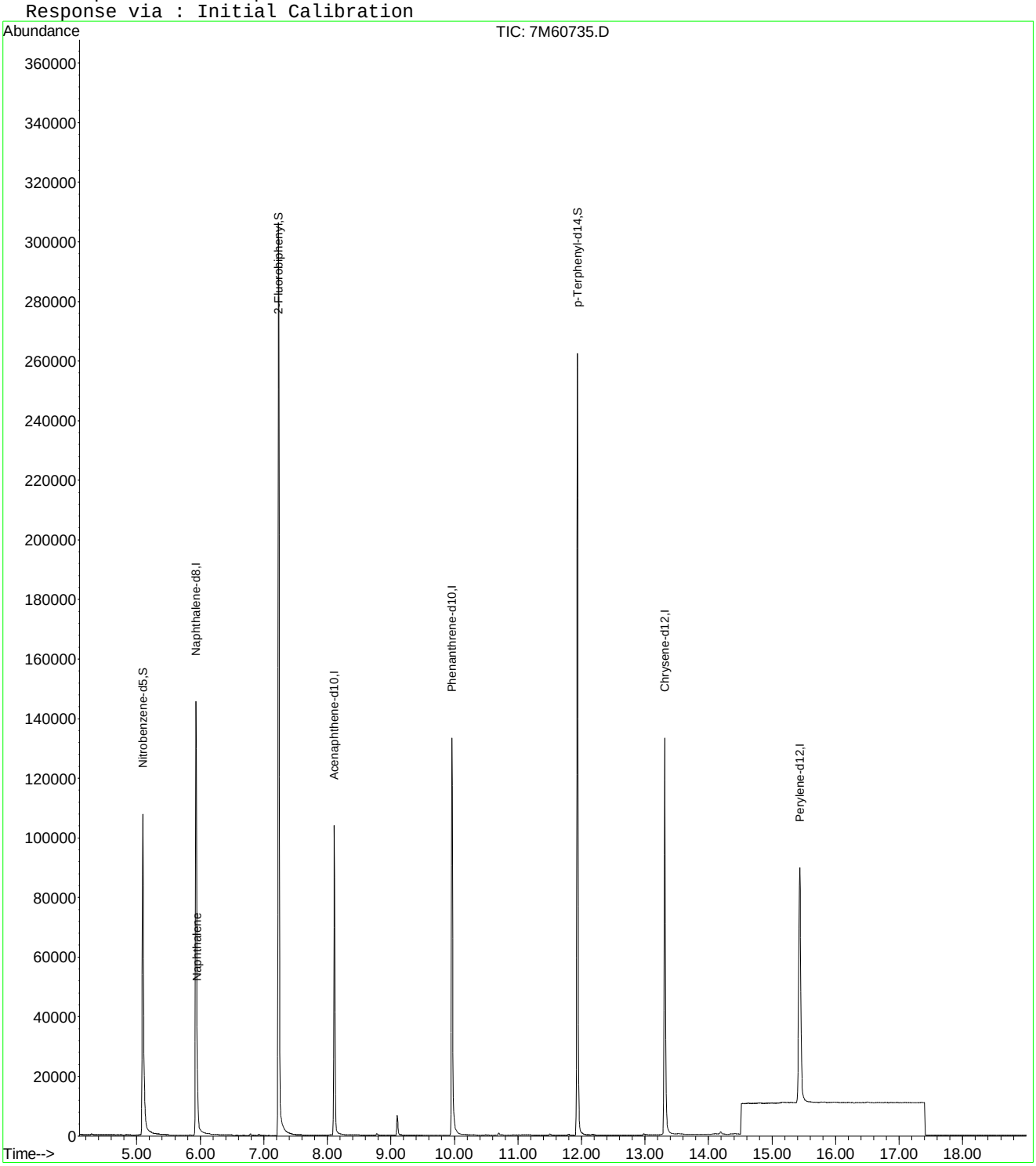
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.93	136	193440	1.00	ug/ml	-0.01
6) Acenaphthene-d10	8.11	164	133798	1.00	ug/ml	-0.01
11) Phenanthrene-d10	9.96	188	182388	1.00	ug/ml	-0.01
15) Chrysene-d12	13.31	240	189530	1.00	ug/ml	-0.01
20) Perylene-d12	15.44	264	180810	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.09	82	108427	1.8711	ug/ml	-0.01
Spiked Amount 2.500	Range 35 - 114		Recovery = 74.80%			
7) 2-Fluorobiphenyl	7.23	172	286849	1.6839	ug/ml	-0.01
Spiked Amount 2.500	Range 43 - 116		Recovery = 67.20%			
17) p-Terphenyl-d14	11.94	244	301944	1.8086	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 72.40%			
Target Compounds						Qvalue
3) Naphthalene	5.95	128	10928	0.0508	ug/ml	99

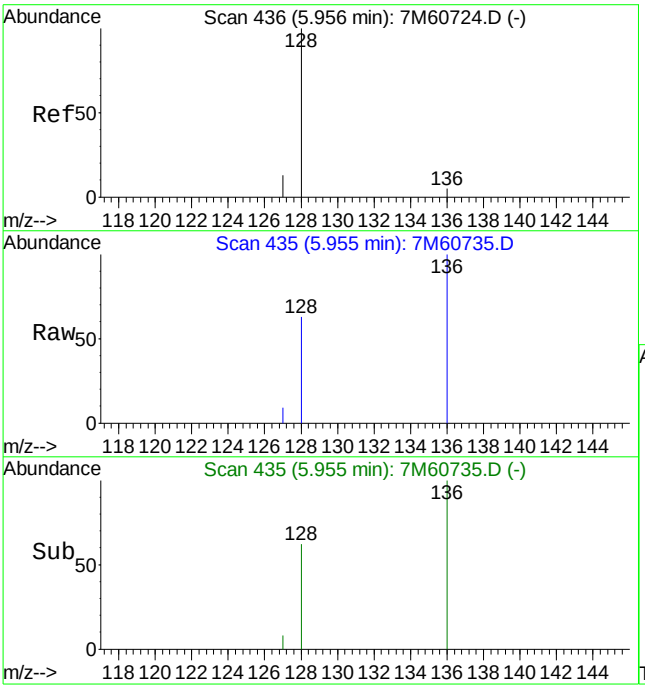
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60735.D Vial: 13
Acq On : 1 Apr 2014 1:48 pm Operator: CAA
Sample : L14031621-04 Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 2 11:26 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration

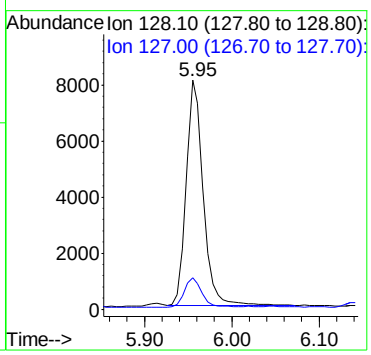




#3
Naphthalene
Concen: 0.05 ug/ml
RT: 5.95 min Scan# 435
Delta R.T. -0.01 min
Lab File: 7M60735.D
Acq: 1 Apr 2014 1:48 pm

Tgt Ion:128 Resp: 10928

Ion	Ratio	Lower	Upper
128	100		
127	13.7	7.9	18.5



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60736.D Vial: 14
Acq On : 1 Apr 2014 2:13 pm Operator: CAA
Sample : L14031621-05 Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 02 11:26:23 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

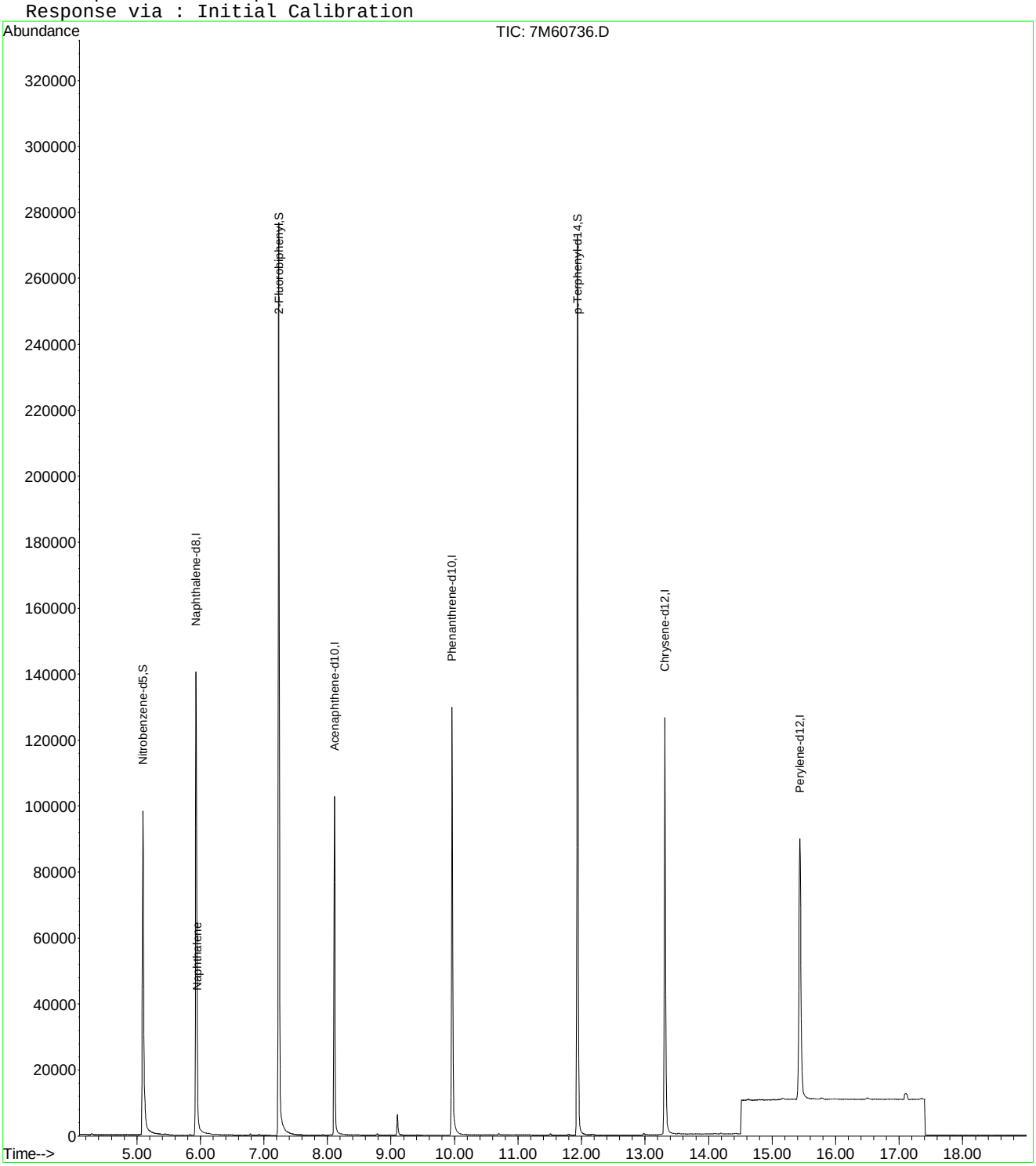
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.93	136	187881	1.00	ug/ml	-0.01
6) Acenaphthene-d10	8.11	164	128669	1.00	ug/ml	-0.01
11) Phenanthrene-d10	9.96	188	177197	1.00	ug/ml	-0.01
15) Chrysene-d12	13.31	240	184928	1.00	ug/ml	0.00
20) Perylene-d12	15.44	264	177271	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.10	82	101199	1.7981	ug/ml	0.00
Spiked Amount 2.500	Range 35 - 114		Recovery = 72.00%			
7) 2-Fluorobiphenyl	7.23	172	257316	1.5708	ug/ml	-0.01
Spiked Amount 2.500	Range 43 - 116		Recovery = 62.80%			
17) p-Terphenyl-d14	11.94	244	303585	1.8637	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 74.40%			
Target Compounds						Qvalue
3) Naphthalene	5.96	128	4692	0.0225	ug/ml	99

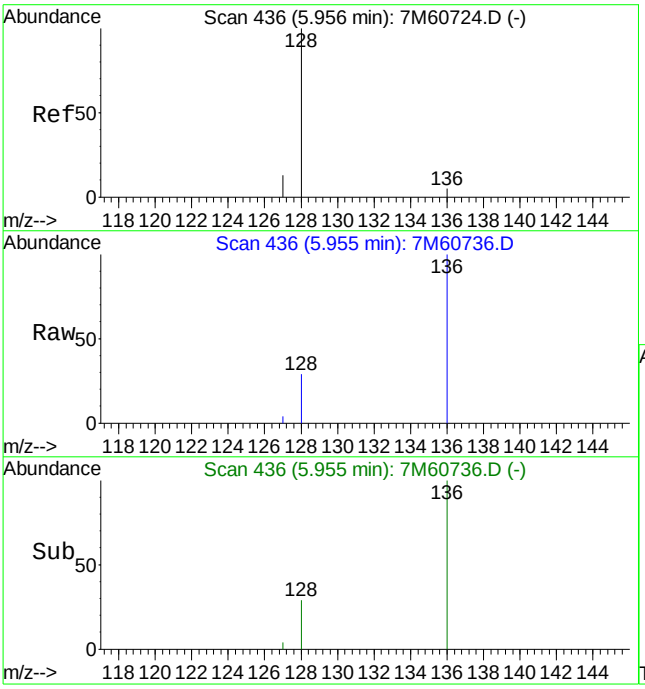
(#) = qualifier out of range (m) = manual integration
7M60736.D SIMPAHL.M Wed Apr 02 13:50:17 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60736.D Vial: 14
Acq On : 1 Apr 2014 2:13 pm Operator: CAA
Sample : L14031621-05 Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 2 11:26 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration

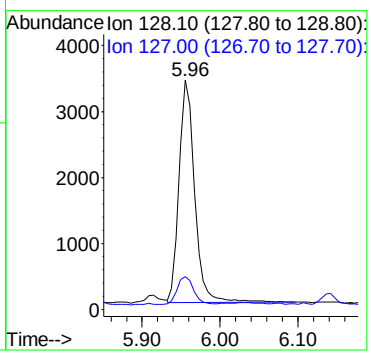




#3
Naphthalene
Concen: 0.02 ug/ml
RT: 5.96 min Scan# 436
Delta R.T. -0.01 min
Lab File: 7M60736.D
Acq: 1 Apr 2014 2:13 pm

Tgt Ion:128 Resp: 4692

Ion	Ratio	Lower	Upper
128	100		
127	12.9	7.9	18.5



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60737.D Vial: 15
Acq On : 1 Apr 2014 2:39 pm Operator: CAA
Sample : L14031621-06 Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 02 11:26:23 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.93	136	194906	1.00	ug/ml	-0.01
6) Acenaphthene-d10	8.11	164	134425	1.00	ug/ml	-0.01
11) Phenanthrene-d10	9.96	188	184264	1.00	ug/ml	-0.01
15) Chrysene-d12	13.31	240	192095	1.00	ug/ml	-0.01
20) Perylene-d12	15.44	264	181964	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.09	82	97738	1.6740	ug/ml	-0.01
Spiked Amount 2.500	Range 35 - 114		Recovery = 66.80%			
7) 2-Fluorobiphenyl	7.23	172	261784	1.5296	ug/ml	-0.01
Spiked Amount 2.500	Range 43 - 116		Recovery = 61.20%			
17) p-Terphenyl-d14	11.93	244	283468	1.6753	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 67.20%			

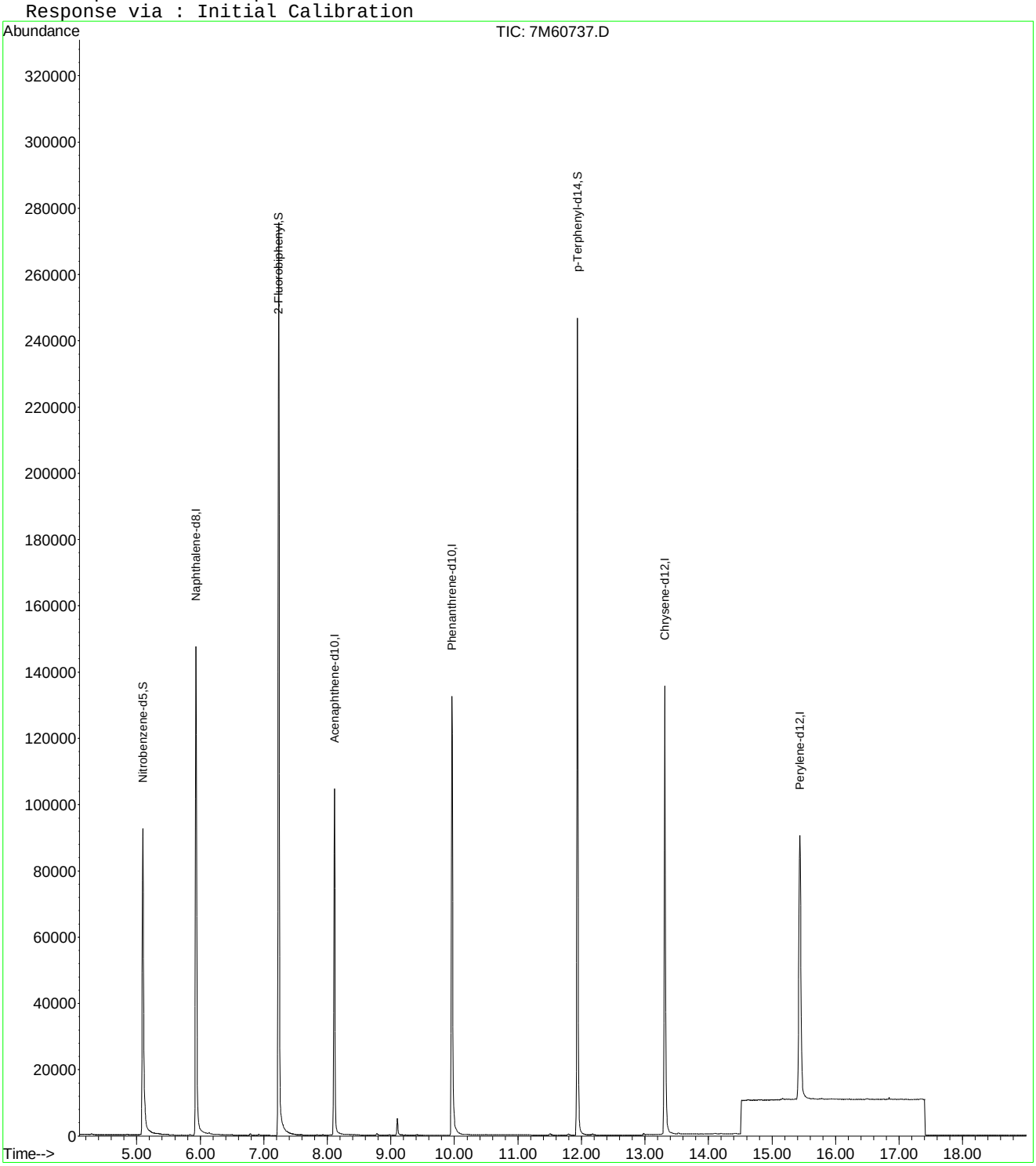
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
7M60737.D SIMPAHL.M Wed Apr 02 13:50:18 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60737.D Vial: 15
Acq On : 1 Apr 2014 2:39 pm Operator: CAA
Sample : L14031621-06 Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 2 11:26 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60738.D Vial: 16
Acq On : 1 Apr 2014 3:04 pm Operator: CAA
Sample : L14031621-07 REF Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 02 11:26:23 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

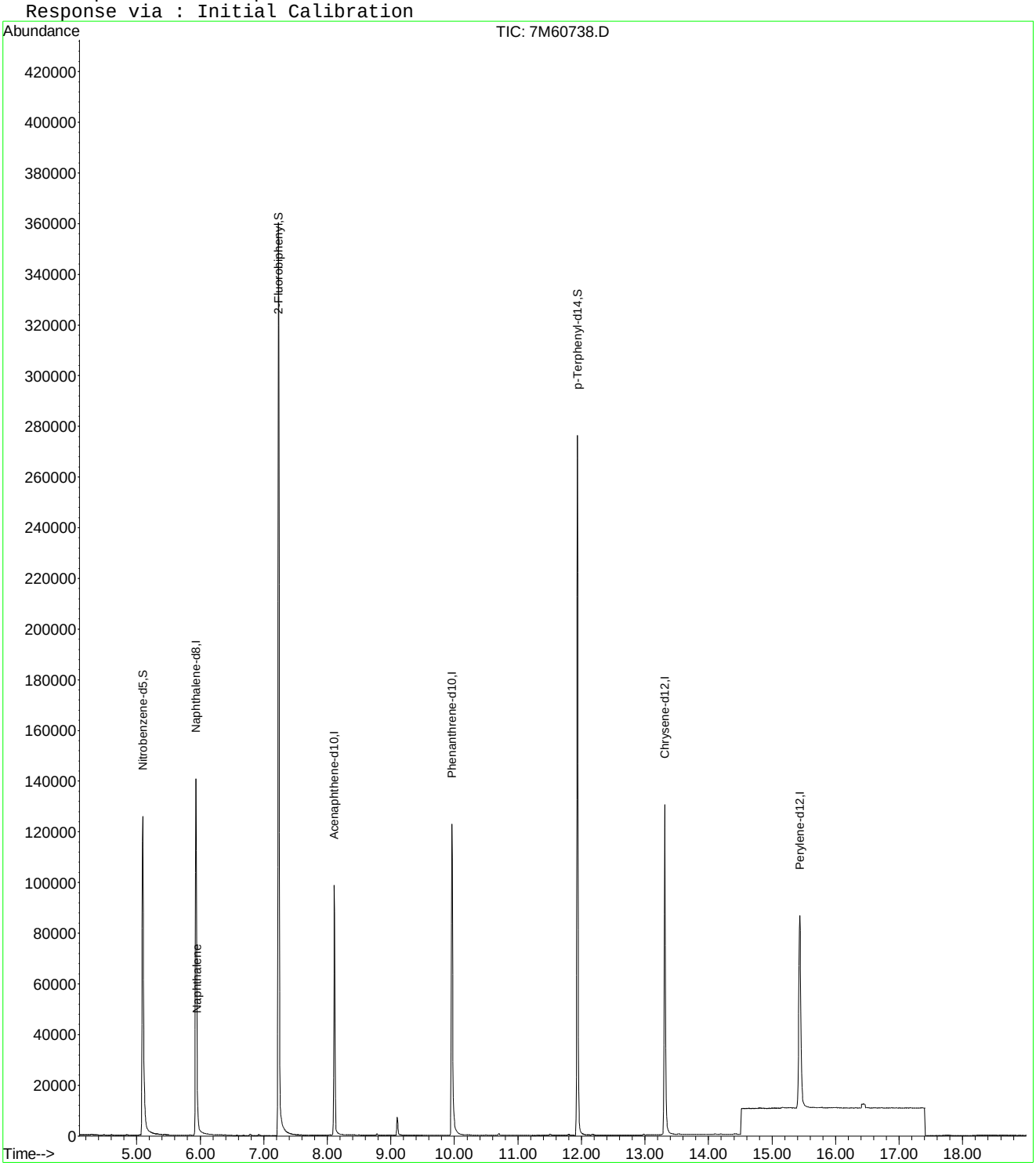
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.93	136	188017	1.00	ug/ml	-0.01
6) Acenaphthene-d10	8.11	164	130570	1.00	ug/ml	-0.01
11) Phenanthrene-d10	9.96	188	175907	1.00	ug/ml	-0.01
15) Chrysene-d12	13.31	240	186520	1.00	ug/ml	-0.01
20) Perylene-d12	15.44	264	176444	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.10	82	129051	2.2913	ug/ml	-0.01
Spiked Amount 2.500	Range 35 - 114		Recovery = 91.60%			
7) 2-Fluorobiphenyl	7.23	172	338201	2.0345	ug/ml	-0.01
Spiked Amount 2.500	Range 43 - 116		Recovery = 81.20%			
17) p-Terphenyl-d14	11.94	244	318989	1.9416	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 77.60%			
Target Compounds						Qvalue
3) Naphthalene	5.96	128	8178	0.0391	ug/ml	100

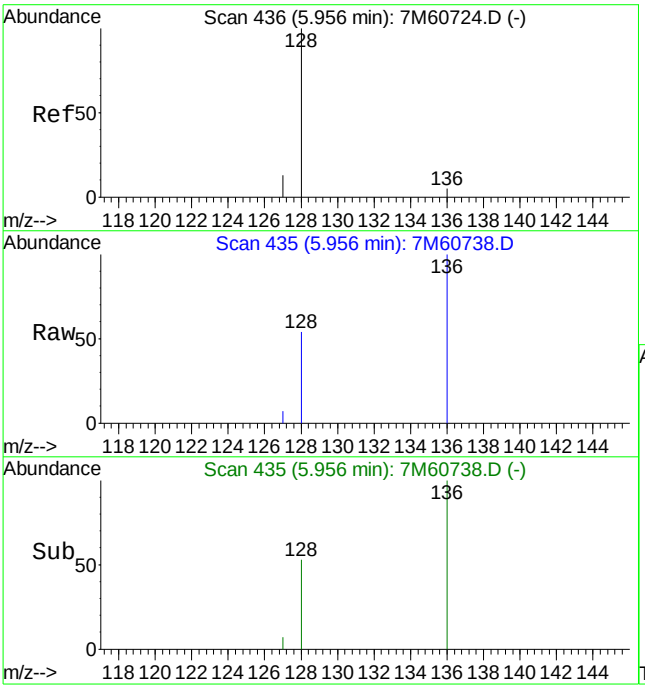
(#) = qualifier out of range (m) = manual integration
7M60738.D SIMPAHL.M Wed Apr 02 13:50:18 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60738.D Vial: 16
Acq On : 1 Apr 2014 3:04 pm Operator: CAA
Sample : L14031621-07 REF Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 2 11:26 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration

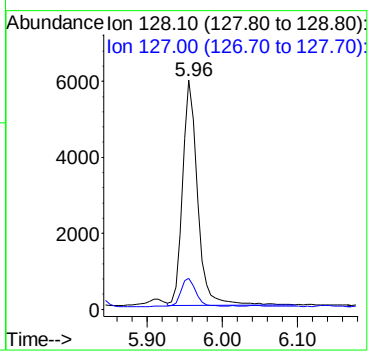




#3
Naphthalene
Concen: 0.04 ug/ml
RT: 5.96 min Scan# 435
Delta R.T. -0.01 min
Lab File: 7M60738.D
Acq: 1 Apr 2014 3:04 pm

Tgt Ion:128 Resp: 8178

Ion	Ratio	Lower	Upper
128	100		
127	13.0	7.9	18.5



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60739.D Vial: 17
Acq On : 1 Apr 2014 3:29 pm Operator: CAA
Sample : L14031621-08 MS Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 02 11:26:23 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

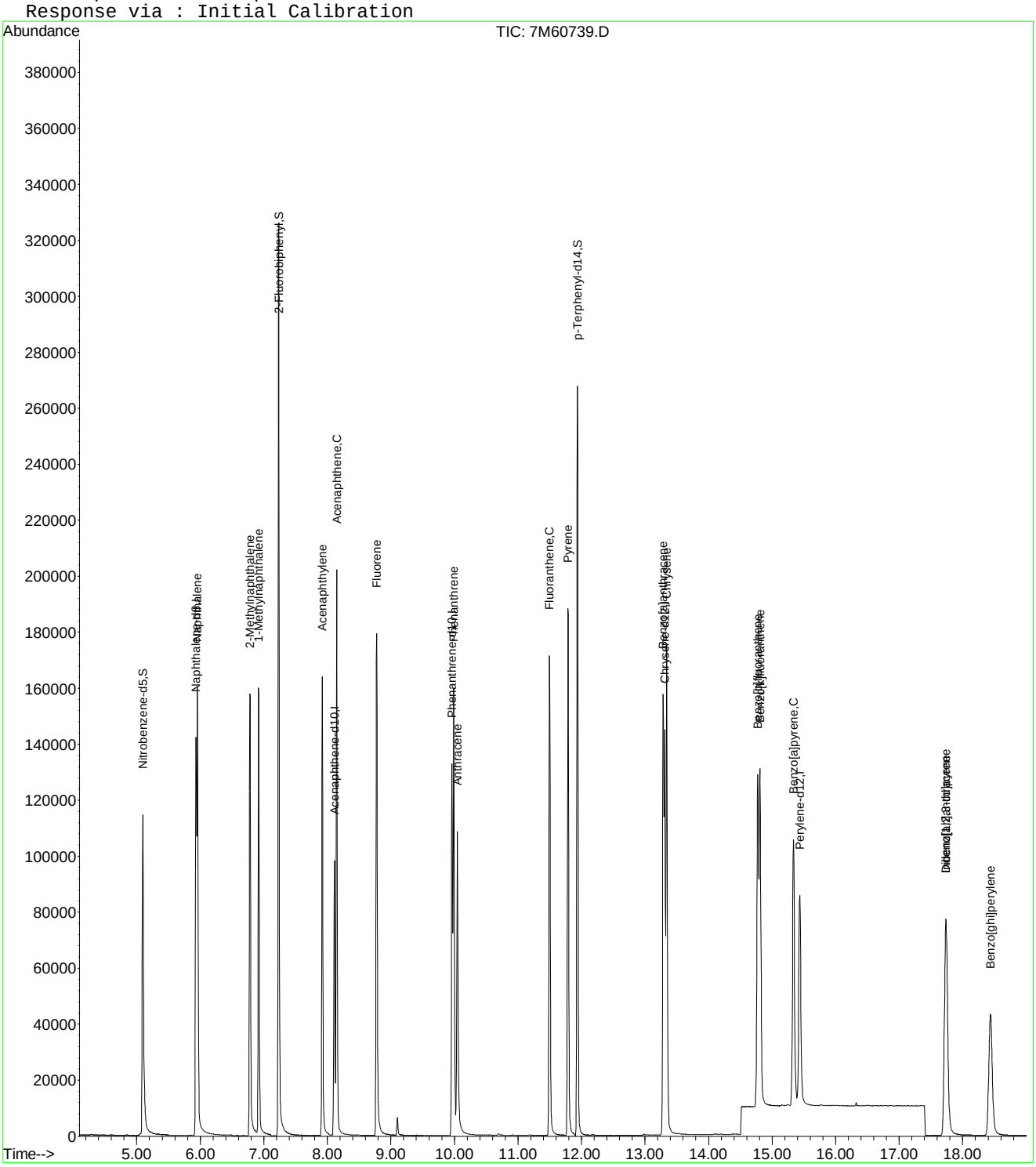
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.93	136	180333	1.00	ug/ml	-0.01
6) Acenaphthene-d10	8.11	164	117292	1.00	ug/ml	-0.01
11) Phenanthrene-d10	9.96	188	168850	1.00	ug/ml	-0.01
15) Chrysene-d12	13.31	240	179479	1.00	ug/ml	-0.01
20) Perylene-d12	15.44	264	169728	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.09	82	112803	2.0881	ug/ml	-0.01
Spiked Amount 2.500	Range 35 - 114		Recovery = 83.60%			
7) 2-Fluorobiphenyl	7.24	172	308436	2.0655	ug/ml	-0.01
Spiked Amount 2.500	Range 43 - 116		Recovery = 82.80%			
17) p-Terphenyl-d14	11.94	244	294956	1.8657	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 74.80%			
Target Compounds						Qvalue
3) Naphthalene	5.95	128	180516	0.9004	ug/ml	100
4) 2-Methylnaphthalene	6.78	142	115811	0.8707	ug/ml	100
5) 1-Methylnaphthalene	6.92	142	108032	0.8046	ug/ml	100
8) Acenaphthylene	7.92	152	191731	0.8729	ug/ml	100
9) Acenaphthene	8.15	154	124610	0.8588	ug/ml	99
10) Fluorene	8.78	166	127549	0.8604	ug/ml	100
12) Phenanthrene	9.99	178	175770	0.8810	ug/ml	100
13) Anthracene	10.05	178	141270	0.7063	ug/ml	99
14) Fluoranthene	11.50	202	201962	0.8934	ug/ml	100
16) Pyrene	11.79	202	231628	0.9375	ug/ml	100
18) Benzo[a]anthracene	13.29	228	168423	0.8127	ug/ml	100
19) Chrysene	13.34	228	195073	0.9565	ug/ml	99
21) Benzo[b]fluoranthene	14.77	252	187652	0.8433	ug/ml	100
22) Benzo[k]fluoranthene	14.81	252	181127	0.8251	ug/ml	100
23) Benzo[a]pyrene	15.34	252	171180	0.8766	ug/ml	100
24) Indeno[1,2,3-cd]pyrene	17.74	276	167959	0.7234	ug/ml	100
25) Dibenz[ah]anthracene	17.74	278	115223	0.5983	ug/ml	100
26) Benzo[ghi]perylene	18.43	276	138730	0.6743	ug/ml	100

(#) = qualifier out of range (m) = manual integration
7M60739.D SIMPAHL.M Wed Apr 02 13:29:17 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60739.D Vial: 17
Acq On : 1 Apr 2014 3:29 pm Operator: CAA
Sample : L14031621-08 MS Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 2 11:26 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60740.D Vial: 18
Acq On : 1 Apr 2014 3:54 pm Operator: CAA
Sample : L14031621-09 MSD Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 02 11:26:23 2014 Quant Results File: SIMPAHL.RES

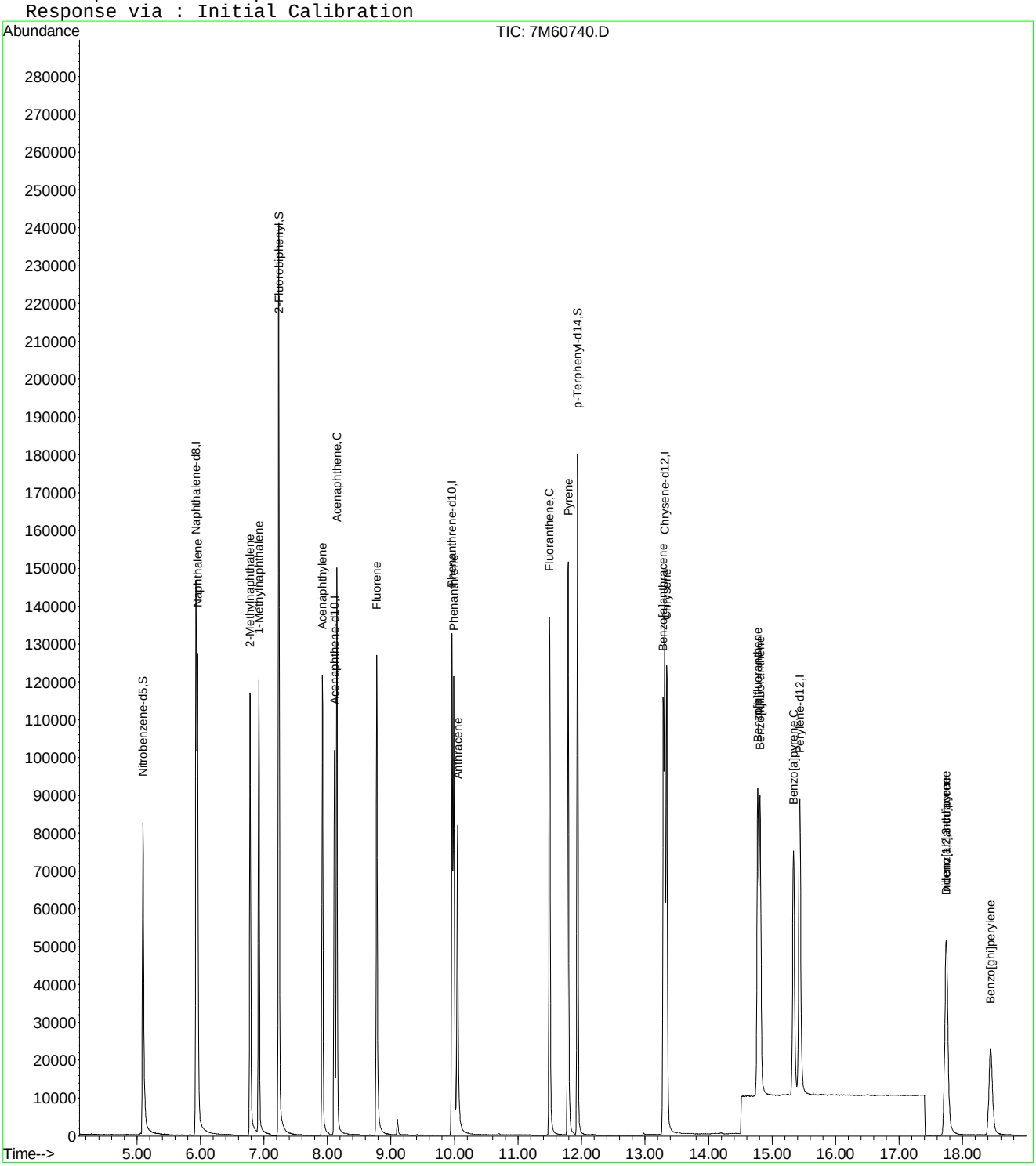
Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.93	136	190135	1.00	ug/ml	-0.01
6) Acenaphthene-d10	8.11	164	129424	1.00	ug/ml	-0.01
11) Phenanthrene-d10	9.96	188	175947	1.00	ug/ml	-0.01
15) Chrysene-d12	13.31	240	187978	1.00	ug/ml	-0.01
20) Perylene-d12	15.44	264	178441	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.10	82	84228	1.4788	ug/ml	0.00
Spiked Amount 2.500	Range 35 - 114		Recovery = 59.20%			
7) 2-Fluorobiphenyl	7.23	172	228579	1.3872	ug/ml	-0.01
Spiked Amount 2.500	Range 43 - 116		Recovery = 55.60%			
17) p-Terphenyl-d14	11.94	244	203357	1.2282	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 49.20%			
Target Compounds						Qvalue
3) Naphthalene	5.96	128	138702	0.6561	ug/ml	99
4) 2-Methylnaphthalene	6.78	142	87246	0.6222	ug/ml	100
5) 1-Methylnaphthalene	6.92	142	81547	0.5760	ug/ml	100
8) Acenaphthylene	7.92	152	140388	0.5792	ug/ml	100
9) Acenaphthene	8.15	154	91781	0.5733	ug/ml	99
10) Fluorene	8.78	166	91946	0.5621	ug/ml	100
12) Phenanthrene	9.99	178	128418	0.6177	ug/ml	100
13) Anthracene	10.05	178	105330	0.5054	ug/ml	99
14) Fluoranthene	11.50	202	159489	0.6771	ug/ml	99
16) Pyrene	11.79	202	183781	0.7102	ug/ml	100
18) Benzo[a]anthracene	13.29	228	121348	0.5591	ug/ml	100
19) Chrysene	13.34	228	138970	0.6506	ug/ml	99
21) Benzo[b]fluoranthene	14.77	252	126558	0.5410	ug/ml	100
22) Benzo[k]fluoranthene	14.81	252	128032	0.5548	ug/ml	99
23) Benzo[a]pyrene	15.34	252	119609	0.5826	ug/ml	99
24) Indeno[1,2,3-cd]pyrene	17.74	276	120610	0.4941	ug/ml	100
25) Dibenz[ah]anthracene	17.74	278	68631	0.3390	ug/ml	100
26) Benzo[ghi]perylene	18.44	276	75297	0.3481	ug/ml	99

(#) = qualifier out of range (m) = manual integration
7M60740.D SIMPAHL.M Wed Apr 02 13:29:18 2014 Page 1

Data File : C:\MSDCHEM\1\DATA\040114\7M60740.D Vial: 18
Acq On : 1 Apr 2014 3:54 pm Operator: CAA
Sample : L14031621-09 MSD Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 2 11:26 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration



2.2.1.4 Standards Data

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\030514\7M60542.D Vial: 2
Acq On : 5 Mar 2014 1:21 pm Operator: CAA
Sample : WG465525-02 1 PPM PAHL STD Inst : HPMS7
Misc : 1,1 STD62940 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 06 07:09:13 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Thu Mar 06 07:09:11 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

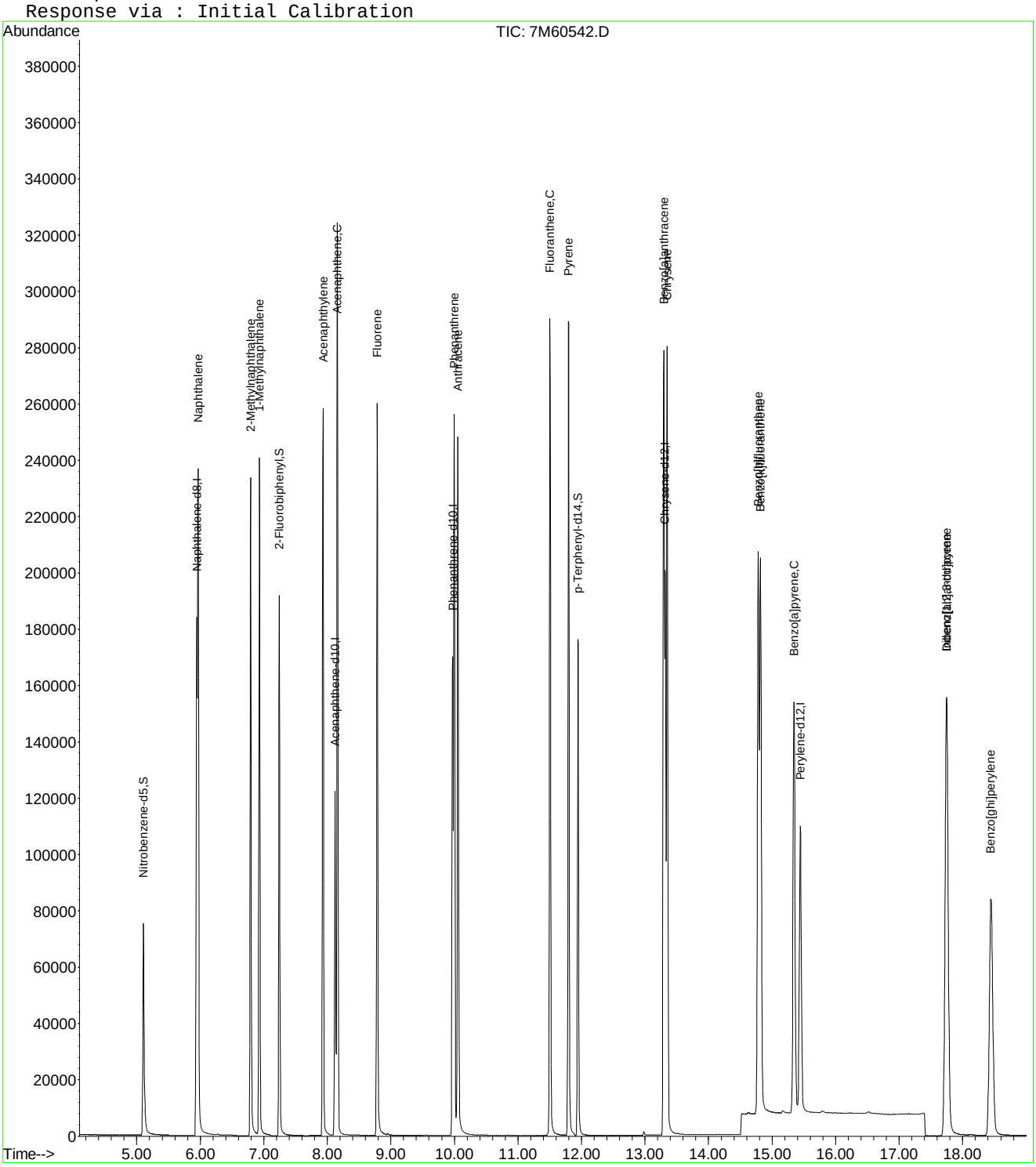
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.94	136	227721	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.12	164	149683	1.00	ug/ml	0.00
11) Phenanthrene-d10	9.97	188	216432	1.00	ug/ml	0.02
15) Chrysene-d12	13.32	240	252338	1.00	ug/ml	0.01
20) Perylene-d12	15.44	264	221948	1.00	ug/ml	0.01
System Monitoring Compounds						
2) Nitrobenzene-d5	5.11	82	76006	1.0772	ug/ml	0.00
Spiked Amount 2.500	Range 35 - 114		Recovery = 43.20%			
7) 2-Fluorobiphenyl	7.25	172	174738	0.9387	ug/ml	0.00
Spiked Amount 2.500	Range 43 - 116		Recovery = 37.60%#			
17) p-Terphenyl-d14	11.94	244	221401	1.2123	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 48.40%			
Target Compounds						Qvalue
3) Naphthalene	5.97	128	258053	1.0631	ug/ml	99
4) 2-Methylnaphthalene	6.79	142	156845	0.9702	ug/ml	99
5) 1-Methylnaphthalene	6.93	142	153280	0.9567	ug/ml	91
8) Acenaphthylene	7.93	152	288290	1.0577	ug/ml	100
9) Acenaphthene	8.16	154	187768	1.0071	ug/ml	100
10) Fluorene	8.78	166	171567	0.9338	ug/ml	96
12) Phenanthrene	10.00	178	260386	1.0437	ug/ml	99
13) Anthracene	10.05	178	268866	1.0505	ug/ml	99
14) Fluoranthene	11.50	202	310020	1.1262	ug/ml	99
16) Pyrene	11.79	202	341189	1.0523	ug/ml	98
18) Benzo[a]anthracene	13.30	228	296864	1.0744	ug/ml	100
19) Chrysene	13.35	228	290093	1.0725	ug/ml	100
21) Benzo[b]fluoranthene	14.78	252	306098	1.1273	ug/ml	91
22) Benzo[k]fluoranthene	14.82	252	289450	1.0589	ug/ml	93
23) Benzo[a]pyrene	15.34	252	261807	1.0847	ug/ml#	68
24) Indeno[1,2,3-cd]pyrene	17.75	276	294245	0.9995	ug/ml	100
25) Dibenz[ah]anthracene	17.75	278	245383	1.0049	ug/ml	100
26) Benzo[ghi]perylene	18.44	276	257956	1.0118	ug/ml	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\030514\7M60542.D Vial: 2
Acq On : 5 Mar 2014 1:21 pm Operator: CAA
Sample : WG465525-02 1 PPM PAHL STD Inst : HPMS7
Misc : 1,1 STD62940 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 6 7:09 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Thu Mar 06 07:11:26 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\030514\7M60543.D Vial: 3
Acq On : 5 Mar 2014 1:46 pm Operator: CAA
Sample : WG465525-03 10 PPM PAHL STD Inst : HPMS7
Misc : 1,1 STD62940 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 06 07:09:31 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Thu Mar 06 07:09:26 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

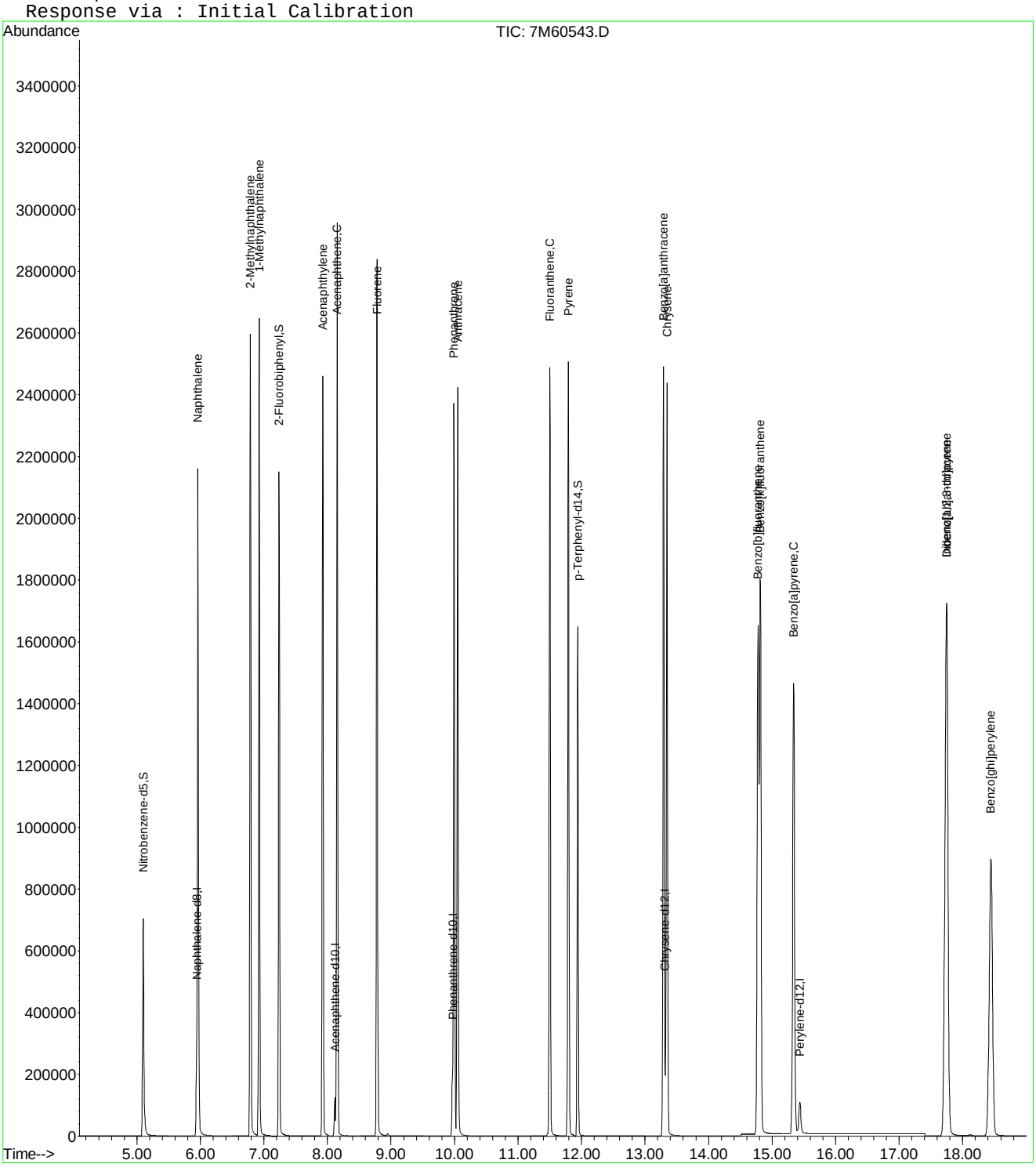
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.94	136	224311	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.12	164	145852	1.00	ug/ml	0.00
11) Phenanthrene-d10	9.97	188	213928	1.00	ug/ml	0.00
15) Chrysene-d12	13.31	240	230605	1.00	ug/ml	0.00
20) Perylene-d12	15.44	264	215980	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.10	82	656228	9.3718	ug/ml	0.00
Spiked Amount 2.500	Range 35 - 114		Recovery = 374.80%#			
7) 2-Fluorobiphenyl	7.24	172	1879500	10.4969	ug/ml	0.00
Spiked Amount 2.500	Range 43 - 116		Recovery = 420.00%#			
17) p-Terphenyl-d14	11.94	244	1960230	11.4043	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 456.00%#			
Target Compounds						Qvalue
3) Naphthalene	5.96	128	2422336	10.0579	ug/ml	98
4) 2-Methylnaphthalene	6.79	142	1731822	10.9593	ug/ml	99
5) 1-Methylnaphthalene	6.93	142	1675007	10.6991	ug/ml	99
8) Acenaphthylene	7.93	152	2743960	10.3039	ug/ml	98
9) Acenaphthene	8.16	154	1788324	9.8698	ug/ml	99
10) Fluorene	8.78	166	1859739	10.5334	ug/ml	99
12) Phenanthrene	9.99	178	2468201	9.9928	ug/ml	98
13) Anthracene	10.05	178	2569971	10.1475	ug/ml	97
14) Fluoranthene	11.50	202	2670967	9.7062	ug/ml	98
16) Pyrene	11.79	202	2928919	9.8355	ug/ml	98
18) Benzo[a]anthracene	13.29	228	2604554	10.2269	ug/ml	98
19) Chrysene	13.34	228	2458406	9.8704	ug/ml	97
21) Benzo[b]fluoranthene	14.78	252	2705506	10.0810	ug/ml	99
22) Benzo[k]fluoranthene	14.81	252	2477011	9.2108	ug/ml	98
23) Benzo[a]pyrene	15.34	252	2508628	10.5619	ug/ml	99
24) Indeno[1,2,3-cd]pyrene	17.75	276	3136637	10.9696	ug/ml	100
25) Dibenz[ah]anthracene	17.75	278	2633512	11.1019	ug/ml	100
26) Benzo[ghi]perylene	18.44	276	2626559	10.5831	ug/ml	99

(#) = qualifier out of range (m) = manual integration
7M60543.D SIMPAHL.M Thu Mar 06 07:14:25 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\030514\7M60543.D Vial: 3
Acq On : 5 Mar 2014 1:46 pm Operator: CAA
Sample : WG465525-03 10 PPM PAHL STD Inst : HPMS7
Misc : 1,1 STD62940 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 6 7:09 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Thu Mar 06 07:11:26 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\030514\7M60544.D Vial: 4
Acq On : 5 Mar 2014 2:11 pm Operator: CAA
Sample : WG465525-04 5 PPM PAHL STD Inst : HPMS7
Misc : 1,1 STD62940 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 06 07:09:49 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Thu Mar 06 07:09:44 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

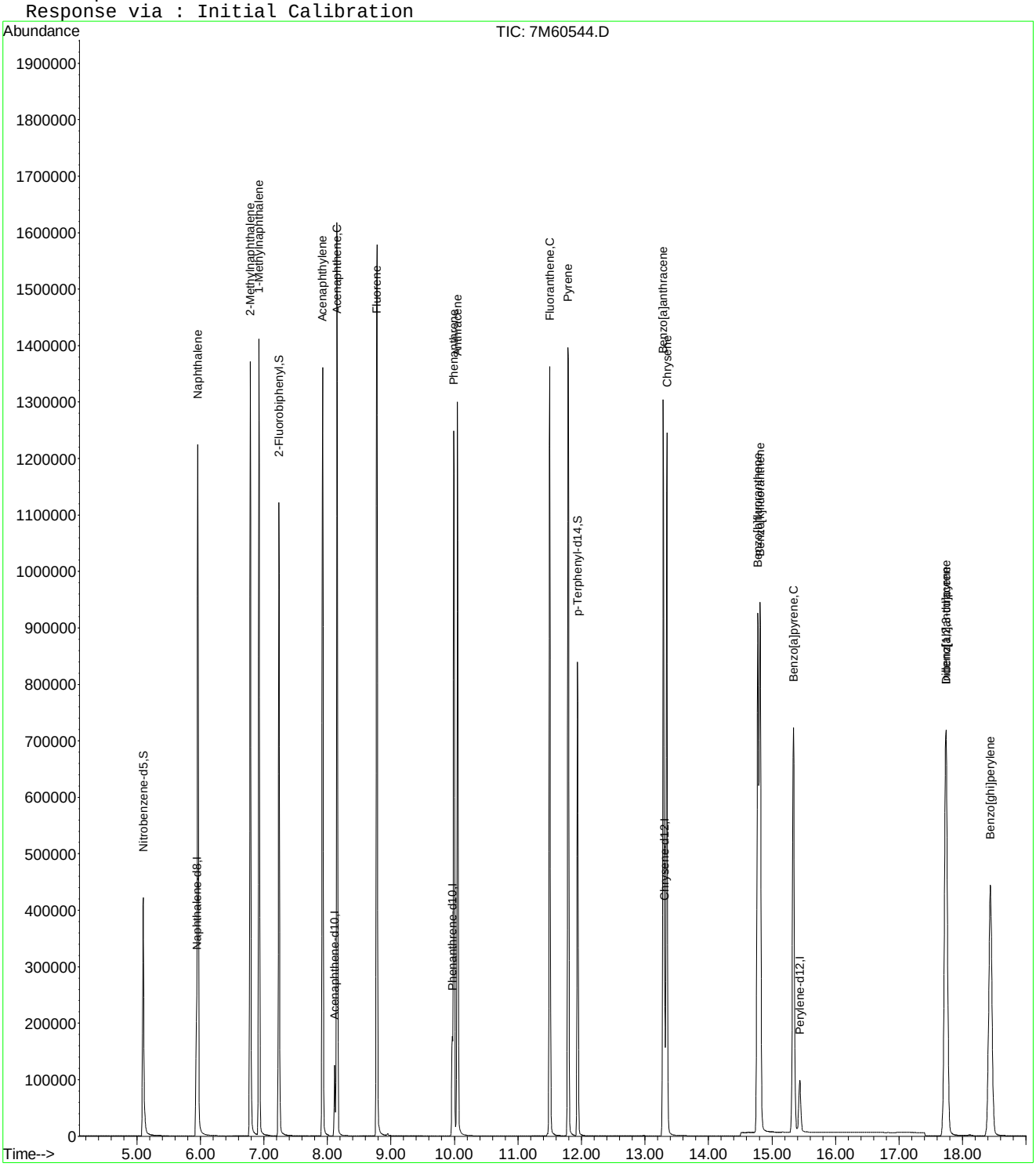
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.94	136	237914	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.12	164	147279	1.00	ug/ml	0.00
11) Phenanthrene-d10	9.97	188	210881	1.00	ug/ml	0.00
15) Chrysene-d12	13.31	240	227516	1.00	ug/ml	0.00
20) Perylene-d12	15.44	264	200897	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.10	82	400368	5.5166	ug/ml	0.00
Spiked Amount 2.500	Range 35 - 114		Recovery = 220.80%#			
7) 2-Fluorobiphenyl	7.24	172	987961	5.4403	ug/ml	0.00
Spiked Amount 2.500	Range 43 - 116		Recovery = 217.60%#			
17) p-Terphenyl-d14	11.94	244	1016788	5.8112	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 232.40%#			
Target Compounds						Qvalue
3) Naphthalene	5.96	128	1342541	5.2158	ug/ml	99
4) 2-Methylnaphthalene	6.79	142	906182	5.3443	ug/ml	99
5) 1-Methylnaphthalene	6.92	142	876211	5.2185	ug/ml	99
8) Acenaphthylene	7.92	152	1510854	5.5824	ug/ml	100
9) Acenaphthene	8.15	154	939162	5.1321	ug/ml	99
10) Fluorene	8.78	166	1006805	5.6197	ug/ml	99
12) Phenanthrene	9.99	178	1303833	5.3363	ug/ml	99
13) Anthracene	10.05	178	1361356	5.4292	ug/ml	99
14) Fluoranthene	11.50	202	1458514	5.3675	ug/ml	100
16) Pyrene	11.79	202	1563252	5.2628	ug/ml	100
18) Benzo[a]anthracene	13.29	228	1348886	5.2967	ug/ml	99
19) Chrysene	13.35	228	1276780	5.1380	ug/ml	99
21) Benzo[b]fluoranthene	14.78	252	1350582	5.4047	ug/ml	96
22) Benzo[k]fluoranthene	14.81	252	1405774	5.6361	ug/ml	97
23) Benzo[a]pyrene	15.34	252	1229906	5.5093	ug/ml	100
24) Indeno[1,2,3-cd]pyrene	17.74	276	1307644	4.8672	ug/ml	100
25) Dibenz[ah]anthracene	17.74	278	1096904	4.9221	ug/ml	100
26) Benzo[ghi]perylene	18.44	276	1290852	5.5433	ug/ml	99

(#) = qualifier out of range (m) = manual integration
7M60544.D SIMPAHL.M Thu Mar 06 07:14:26 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\030514\7M60544.D Vial: 4
Acq On : 5 Mar 2014 2:11 pm Operator: CAA
Sample : WG465525-04 5 PPM PAHL STD Inst : HPMS7
Misc : 1,1 STD62940 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 6 7:09 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Thu Mar 06 07:11:26 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\030514\7M60545.D Vial: 5
Acq On : 5 Mar 2014 2:36 pm Operator: CAA
Sample : WG465525-05 2.5 PPM PAHL STD Inst : HPMS7
Misc : 1,1 STD62940 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 06 07:10:04 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Thu Mar 06 07:09:59 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

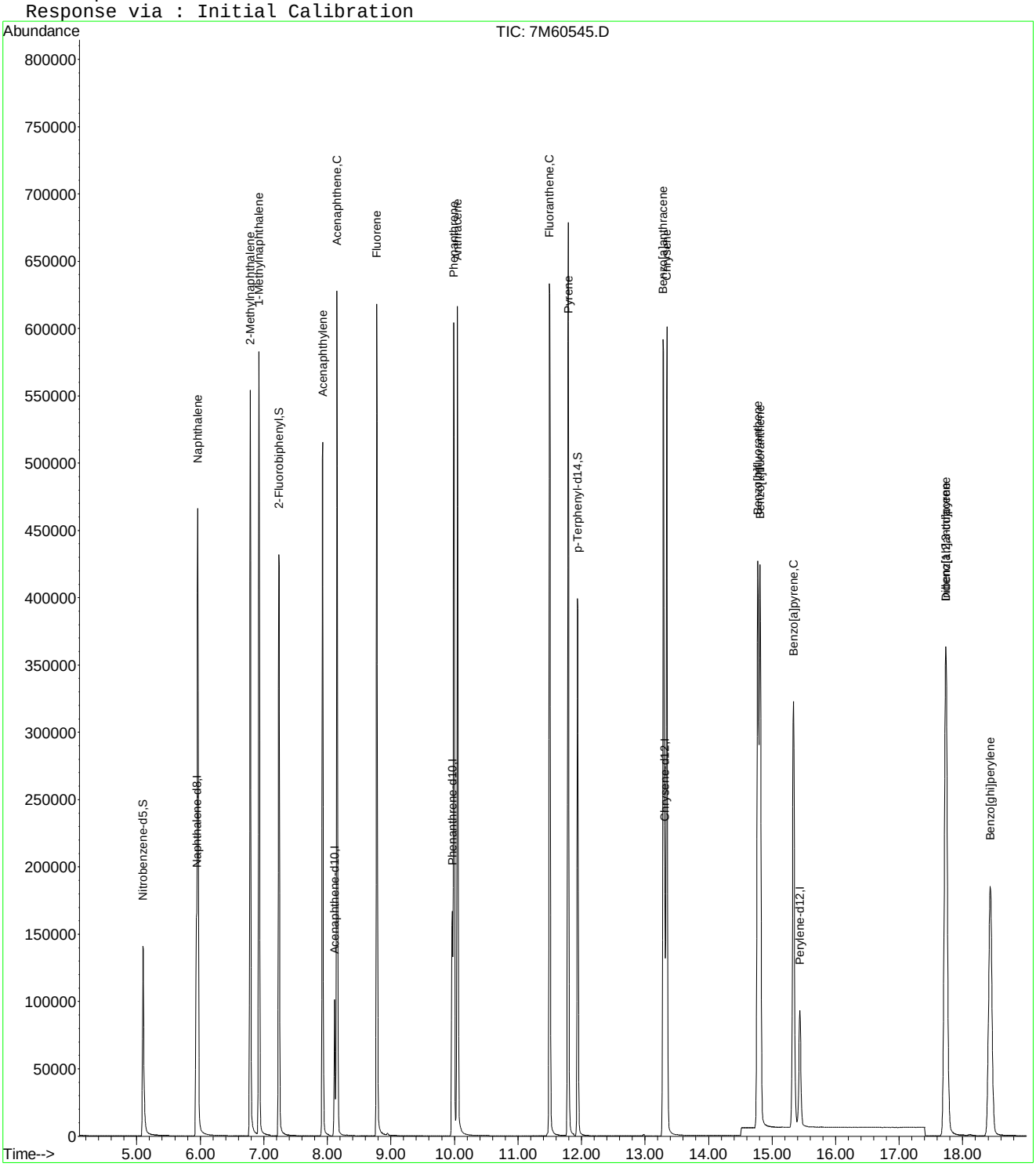
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.94	136	196145	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.12	164	119741	1.00	ug/ml	0.00
11) Phenanthrene-d10	9.97	188	207186	1.00	ug/ml	0.00
15) Chrysene-d12	13.32	240	219947	1.00	ug/ml	0.00
20) Perylene-d12	15.44	264	189297	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.10	82	142504	2.3846	ug/ml	0.00
Spiked Amount 2.500	Range 35 - 114		Recovery = 95.20%			
7) 2-Fluorobiphenyl	7.24	172	392330	2.6495	ug/ml	0.00
Spiked Amount 2.500	Range 43 - 116		Recovery = 106.00%			
17) p-Terphenyl-d14	11.94	244	493197	2.8213	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 112.80%			
Target Compounds						Qvalue
3) Naphthalene	5.96	128	520117	2.4343	ug/ml	100
4) 2-Methylnaphthalene	6.79	142	371564	2.6475	ug/ml	100
5) 1-Methylnaphthalene	6.93	142	374985	2.7019	ug/ml	99
8) Acenaphthylene	7.93	152	582441	2.6184	ug/ml	100
9) Acenaphthene	8.15	154	373585	2.5140	ug/ml	99
10) Fluorene	8.78	166	383842	2.6150	ug/ml	99
12) Phenanthrene	9.99	178	618450	2.5596	ug/ml	100
13) Anthracene	10.05	178	647684	2.6110	ug/ml	100
14) Fluoranthene	11.50	202	688384	2.5598	ug/ml	100
16) Pyrene	11.79	202	771152	2.6530	ug/ml	100
18) Benzo[a]anthracene	13.29	228	637999	2.5606	ug/ml	100
19) Chrysene	13.34	228	618313	2.5511	ug/ml	99
21) Benzo[b]fluoranthene	14.78	252	645408	2.7160	ug/ml	100
22) Benzo[k]fluoranthene	14.81	252	615749	2.5809	ug/ml	100
23) Benzo[a]pyrene	15.34	252	553315	2.5948	ug/ml	100
24) Indeno[1,2,3-cd]pyrene	17.74	276	670517	2.6721	ug/ml	100
25) Dibenz[ah]anthracene	17.74	278	559729	2.6889	ug/ml	100
26) Benzo[ghi]perylene	18.43	276	561948	2.5288	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\030514\7M60545.D Vial: 5
Acq On : 5 Mar 2014 2:36 pm Operator: CAA
Sample : WG465525-05 2.5 PPM PAHL STD Inst : HPMS7
Misc : 1,1 STD62940 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 6 7:10 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Thu Mar 06 07:11:26 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\030514\7M60546.D Vial: 6
Acq On : 5 Mar 2014 3:01 pm Operator: CAA
Sample : WG465525-06 0.5 PPM PAHL STD Inst : HPMS7
Misc : 1,1 STD62940 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 06 07:10:18 2014 Quant Results File: SIMPAHL.RES

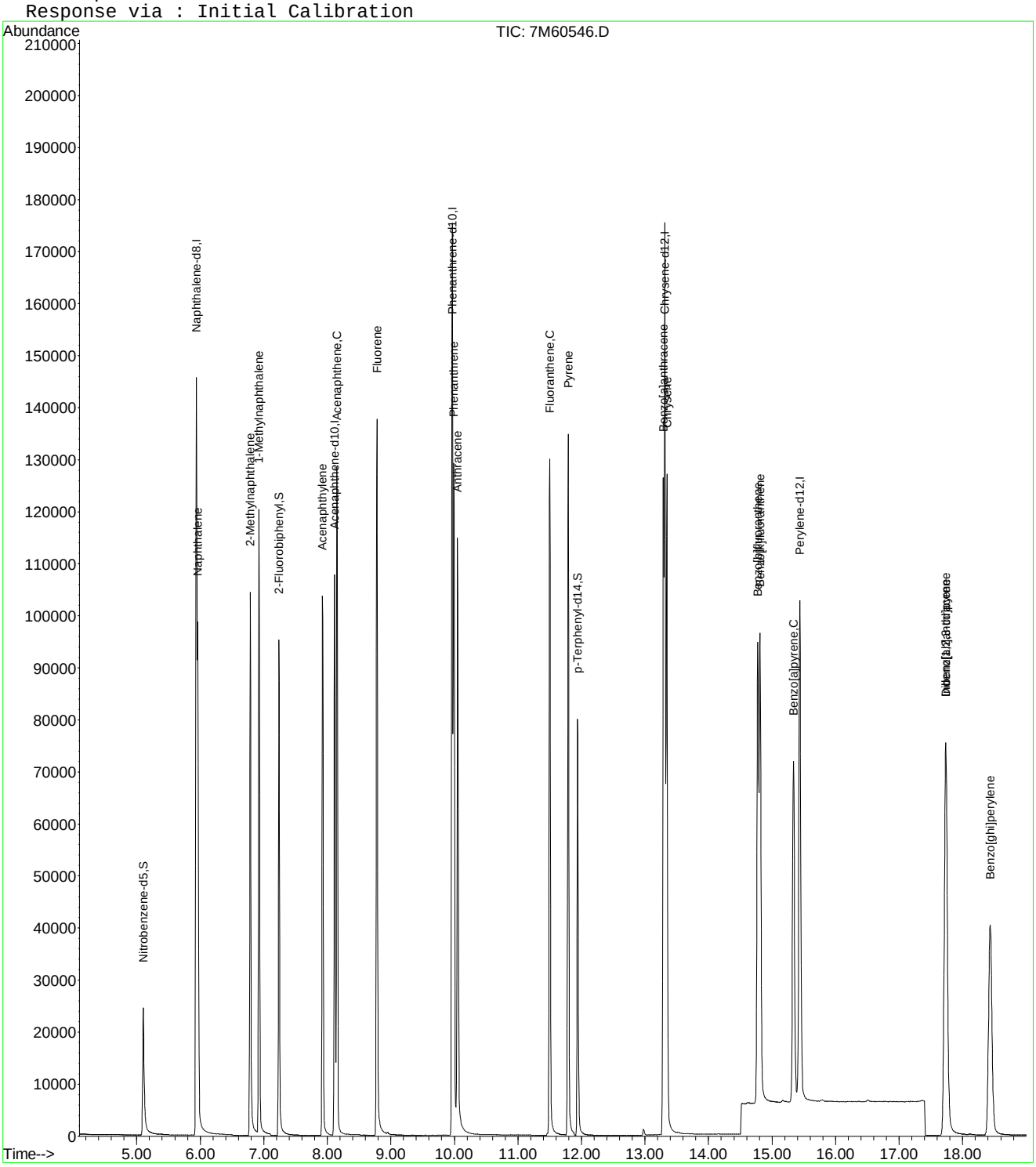
Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Thu Mar 06 07:10:13 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.94	136	189419	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.12	164	126475	1.00	ug/ml	0.00
11) Phenanthrene-d10	9.97	188	224749	1.00	ug/ml	0.00
15) Chrysene-d12	13.32	240	232661	1.00	ug/ml	0.00
20) Perylene-d12	15.44	264	204894	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.10	82	28909	0.5097	ug/ml	0.00
Spiked Amount 2.500	Range 35 - 114		Recovery = 20.40%#			
7) 2-Fluorobiphenyl	7.24	172	87685	0.5560	ug/ml	0.00
Spiked Amount 2.500	Range 43 - 116		Recovery = 22.40%#			
17) p-Terphenyl-d14	11.94	244	105098	0.5520	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 22.00%#			
Target Compounds						Qvalue
3) Naphthalene	5.96	128	108274	0.5254	ug/ml	100
4) 2-Methylnaphthalene	6.79	142	72330	0.5309	ug/ml	100
5) 1-Methylnaphthalene	6.93	142	79802	0.5898	ug/ml	99
8) Acenaphthylene	7.92	152	122012	0.5137	ug/ml	100
9) Acenaphthene	8.16	154	80025	0.5079	ug/ml	99
10) Fluorene	8.78	166	94334	0.6043	ug/ml	99
12) Phenanthrene	9.99	178	134190	0.5115	ug/ml	100
13) Anthracene	10.05	178	134930	0.5008	ug/ml	100
14) Fluoranthene	11.50	202	145917	0.4997	ug/ml	100
16) Pyrene	11.79	202	163414	0.5260	ug/ml	100
18) Benzo[a]anthracene	13.29	228	133533	0.5032	ug/ml	100
19) Chrysene	13.34	228	135179	0.5239	ug/ml	100
21) Benzo[b]fluoranthene	14.77	252	138112	0.5320	ug/ml	100
22) Benzo[k]fluoranthene	14.81	252	134968	0.5191	ug/ml	99
23) Benzo[a]pyrene	15.34	252	117366	0.5051	ug/ml	99
24) Indeno[1,2,3-cd]pyrene	17.73	276	143926	0.5270	ug/ml	100
25) Dibenz[ah]anthracene	17.73	278	118943	0.5251	ug/ml	100
26) Benzo[ghi]perylene	18.43	276	124783	0.5175	ug/ml	100

(#) = qualifier out of range (m) = manual integration
7M60546.D SIMPAHL.M Thu Mar 06 07:14:27 2014 Page 1

Data File : C:\MSDCHEM\1\DATA\030514\7M60546.D Vial: 6
Acq On : 5 Mar 2014 3:01 pm Operator: CAA
Sample : WG465525-06 0.5 PPM PAHL STD Inst : HPMS7
Misc : 1,1 STD62940 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 6 7:10 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Thu Mar 06 07:11:26 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\030514\7M60547.D Vial: 7
Acq On : 5 Mar 2014 3:26 pm Operator: CAA
Sample : WG465525-07 0.1 PPM PAHL STD Inst : HPMS7
Misc : 1,1 STD62940 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 06 07:10:32 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Thu Mar 06 07:10:27 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

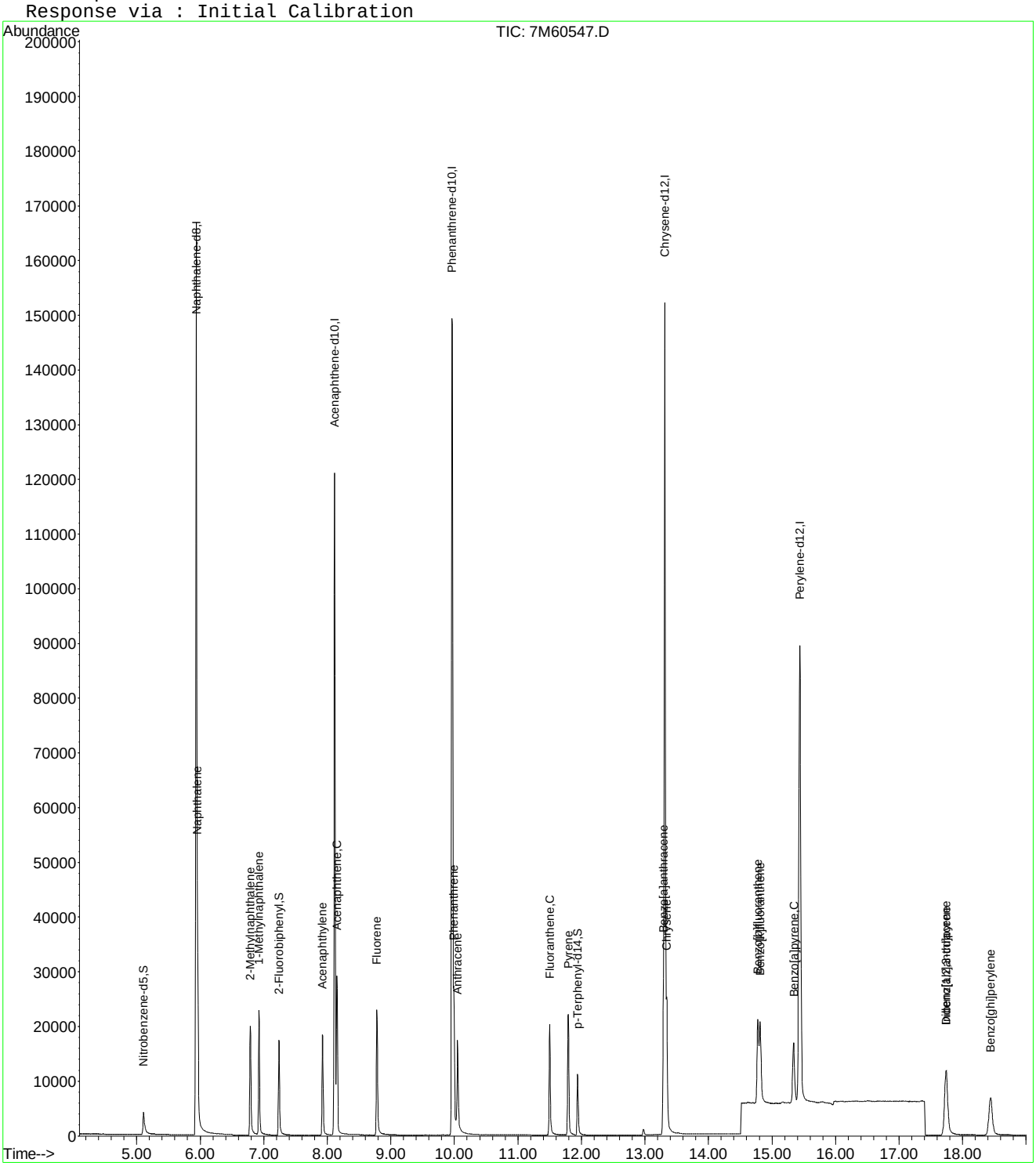
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.94	136	217082	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.12	164	151391	1.00	ug/ml	0.00
11) Phenanthrene-d10	9.96	188	205090	1.00	ug/ml	-0.01
15) Chrysene-d12	13.31	240	208121	1.00	ug/ml	0.00
20) Perylene-d12	15.44	264	184606	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.11	82	5919	0.0910	ug/ml	0.00
Spiked Amount 2.500	Range 35 - 114		Recovery =	3.60%#		
7) 2-Fluorobiphenyl	7.24	172	17837	0.0924	ug/ml	0.00
Spiked Amount 2.500	Range 43 - 116		Recovery =	3.60%#		
17) p-Terphenyl-d14	11.94	244	16309	0.0930	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery =	3.60%#		
Target Compounds						Qvalue
3) Naphthalene	5.96	128	24231	0.1016	ug/ml	100
4) 2-Methylnaphthalene	6.79	142	15173	0.0962	ug/ml	100
5) 1-Methylnaphthalene	6.93	142	15439	0.0969	ug/ml	100
8) Acenaphthylene	7.93	152	23041	0.0799	ug/ml	93
9) Acenaphthene	8.15	154	17574	0.0925	ug/ml	99
10) Fluorene	8.78	166	16247	0.0839	ug/ml	99
12) Phenanthrene	9.99	178	23113	0.0959	ug/ml	99
13) Anthracene	10.05	178	20521	0.0832	ug/ml	100
14) Fluoranthene	11.50	202	24410	0.0913	ug/ml	97
16) Pyrene	11.79	202	28268	0.1007	ug/ml	96
18) Benzo[a]anthracene	13.29	228	23600	0.0989	ug/ml	99
19) Chrysene	13.35	228	24168	0.1039	ug/ml	100
21) Benzo[b]fluoranthene	14.78	252	23289	0.0986	ug/ml	100
22) Benzo[k]fluoranthene	14.81	252	25407	0.1074	ug/ml	93
23) Benzo[a]pyrene	15.34	252	20165	0.0959	ug/ml	94
24) Indeno[1,2,3-cd]pyrene	17.74	276	24392	0.0984	ug/ml	100
25) Dibenz[ah]anthracene	17.74	278	19924	0.0969	ug/ml	100
26) Benzo[ghi]perylene	18.44	276	21966	0.1003	ug/ml	100

(#) = qualifier out of range (m) = manual integration
7M60547.D SIMPAHL.M Thu Mar 06 07:14:28 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\030514\7M60547.D Vial: 7
Acq On : 5 Mar 2014 3:26 pm Operator: CAA
Sample : WG465525-07 0.1 PPM PAHL STD Inst : HPMS7
Misc : 1,1 STD62940 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 6 7:10 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Thu Mar 06 07:11:26 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\030514\7M60548.D Vial: 8
Acq On : 5 Mar 2014 3:52 pm Operator: CAA
Sample : WG465525-08 0.05 PPM PAHL STD Inst : HPMS7
Misc : 1,1 STD62940 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 06 07:10:46 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Thu Mar 06 07:10:41 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

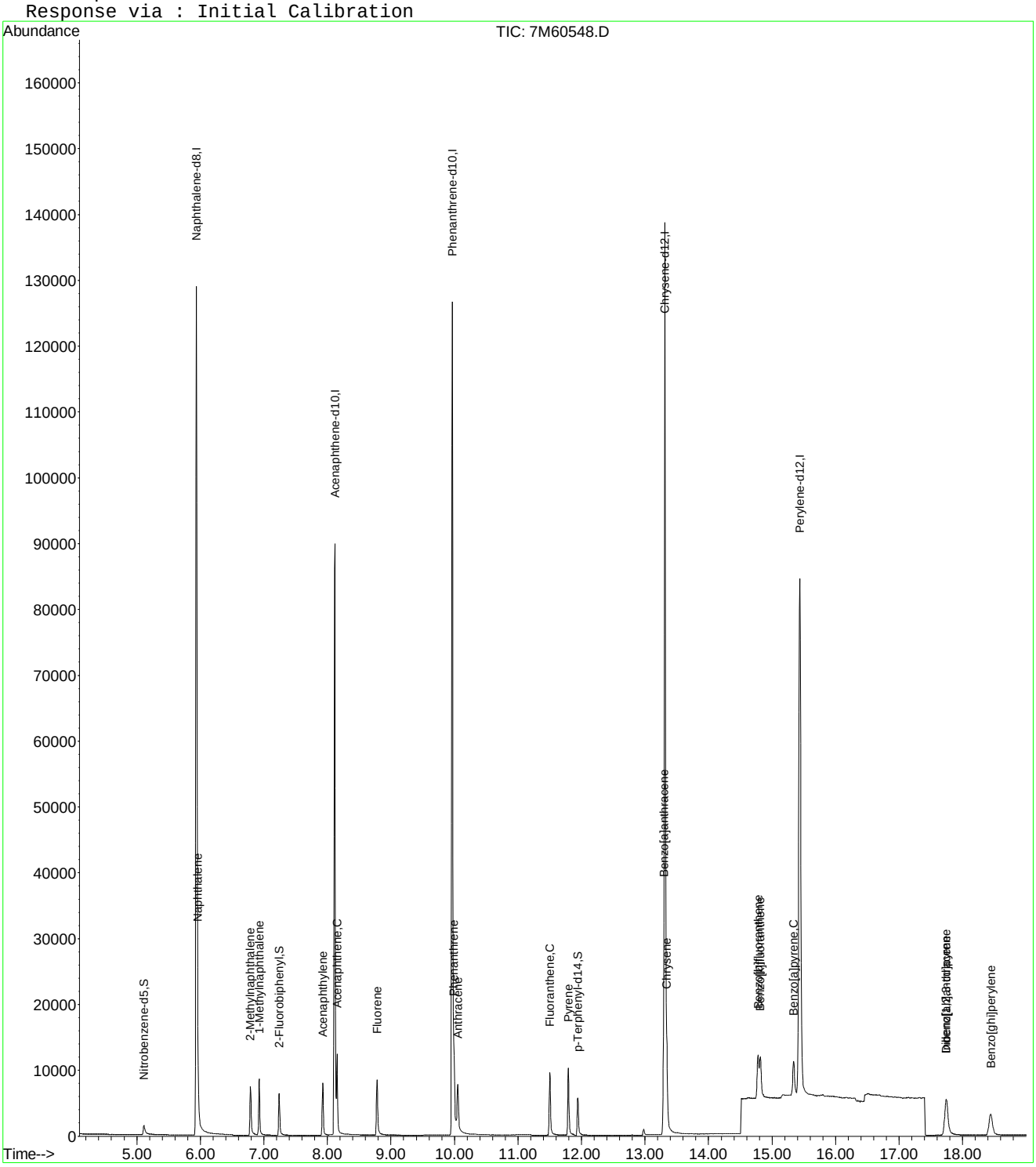
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.94	136	167807	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.12	164	111975	1.00	ug/ml	0.00
11) Phenanthrene-d10	9.97	188	163499	1.00	ug/ml	0.00
15) Chrysene-d12	13.32	240	190000	1.00	ug/ml	0.00
20) Perylene-d12	15.44	264	172775	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.11	82	2228	0.0443	ug/ml	0.00
Spiked Amount 2.500	Range 35 - 114		Recovery =	1.60%#		
7) 2-Fluorobiphenyl	7.24	172	6937	0.0489	ug/ml	0.00
Spiked Amount 2.500	Range 43 - 116		Recovery =	2.00%#		
17) p-Terphenyl-d14	11.94	244	9126	0.0565	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery =	2.40%#		
Target Compounds						Qvalue
3) Naphthalene	5.96	128	9403	0.0507	ug/ml	100
4) 2-Methylnaphthalene	6.79	142	6039	0.0493	ug/ml	100
5) 1-Methylnaphthalene	6.93	142	6184	0.0500	ug/ml	98
8) Acenaphthylene	7.93	152	10372	0.0497	ug/ml	93
9) Acenaphthene	8.15	154	6880	0.0496	ug/ml	100
10) Fluorene	8.78	166	6785	0.0481	ug/ml	100
12) Phenanthrene	10.00	178	9507	0.0495	ug/ml	99
13) Anthracene	10.05	178	9039	0.0467	ug/ml	100
14) Fluoranthene	11.50	202	12177	0.0574	ug/ml	100
16) Pyrene	11.79	202	14008	0.0544	ug/ml	91
18) Benzo[a]anthracene	13.29	228	10914	0.0499	ug/ml	98
19) Chrysene	13.34	228	11096	0.0519	ug/ml	100
21) Benzo[b]fluoranthene	14.78	252	10600	0.0475	ug/ml	100
22) Benzo[k]fluoranthene	14.81	252	10435	0.0465	ug/ml	100
23) Benzo[a]pyrene	15.34	252	9336	0.0473	ug/ml	91
24) Indeno[1,2,3-cd]pyrene	17.74	276	11684	0.0501	ug/ml	100
25) Dibenz[ah]anthracene	17.74	278	9525	0.0492	ug/ml	100
26) Benzo[ghi]perylene	18.44	276	10596	0.0514	ug/ml	100

(#) = qualifier out of range (m) = manual integration
7M60548.D SIMPAHL.M Thu Mar 06 07:14:29 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\030514\7M60548.D Vial: 8
Acq On : 5 Mar 2014 3:52 pm Operator: CAA
Sample : WG465525-08 0.05 PPM PAHL STD Inst : HPMS7
Misc : 1,1 STD62940 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 6 7:10 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Thu Mar 06 07:11:26 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\030514\7M60549.D Vial: 9
Acq On : 5 Mar 2014 4:17 pm Operator: CAA
Sample : WG465525-09 1 PPM PAHL Alt Src STD Inst : HPMS7
Misc : 1,1 STD62936 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 06 07:11:11 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Thu Mar 06 07:10:56 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

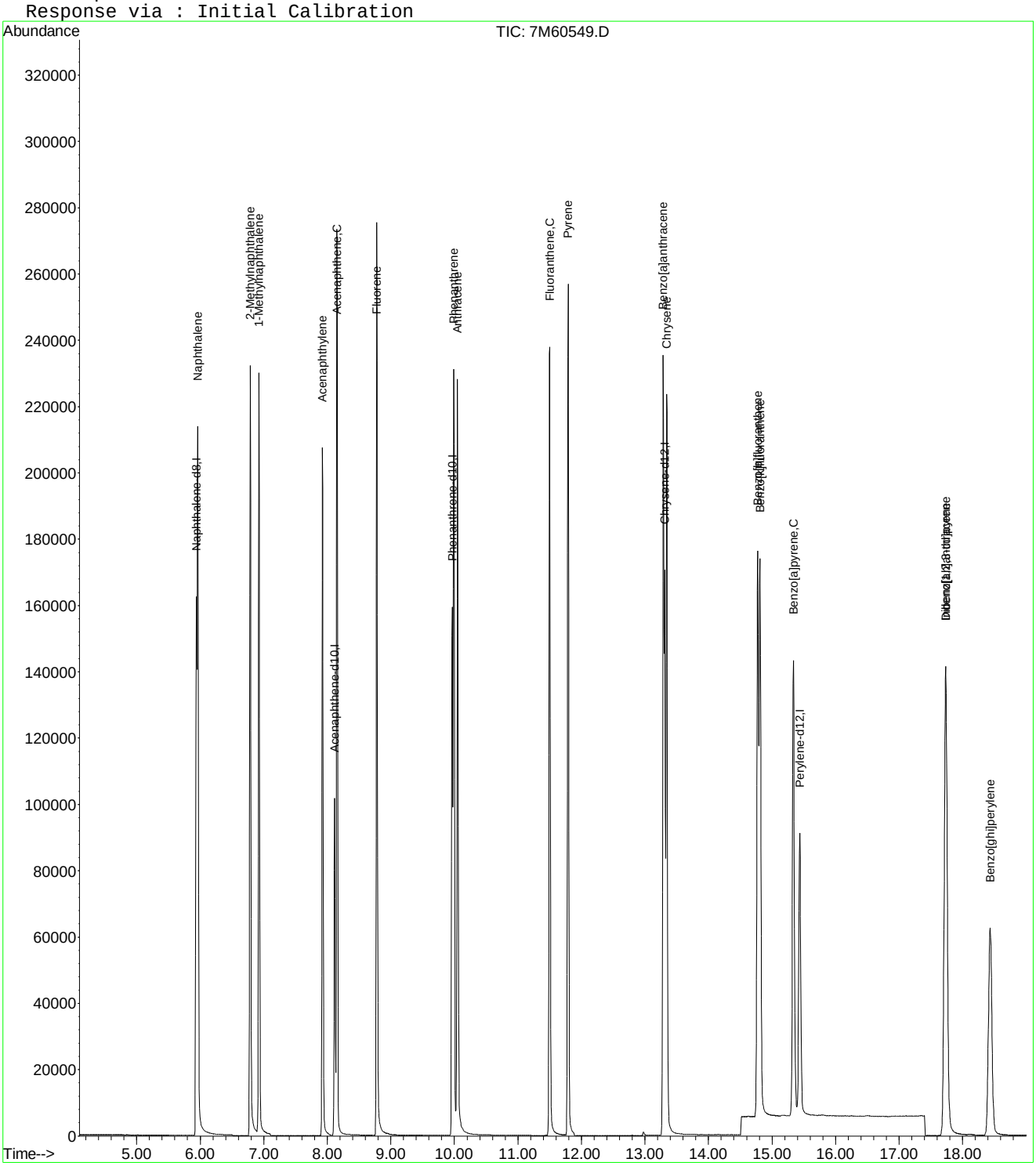
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.94	136	206773	1.00	ug/ml	0.00
6) Acenaphthene-d10	8.12	164	118528	1.00	ug/ml	0.00
11) Phenanthrene-d10	9.97	188	199269	1.00	ug/ml	0.00
15) Chrysene-d12	13.31	240	207684	1.00	ug/ml	-0.01
20) Perylene-d12	15.44	264	185289	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.11	82	4	0.0001	ug/ml	0.00
Spiked Amount 2.500	Range 35 - 114		Recovery =	0.00%#		
7) 2-Fluorobiphenyl	7.12	172	4	0.0000	ug/ml	-0.13
Spiked Amount 2.500	Range 43 - 116		Recovery =	0.00%#		
17) p-Terphenyl-d14	11.95	244	83	0.0005	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery =	0.00%#		
Target Compounds						Qvalue
3) Naphthalene	5.96	128	237211	1.0319	ug/ml	100
4) 2-Methylnaphthalene	6.79	142	162223	1.0637	ug/ml	100
5) 1-Methylnaphthalene	6.93	142	151034	0.9810	ug/ml	99
8) Acenaphthylene	7.92	152	237569	1.0703	ug/ml	100
9) Acenaphthene	8.16	154	164707	1.1234	ug/ml	99
10) Fluorene	8.78	166	178698	1.1928	ug/ml	99
12) Phenanthrene	9.99	178	246237	1.0458	ug/ml	100
13) Anthracene	10.05	178	250864	1.0627	ug/ml	99
14) Fluoranthene	11.50	202	270337	1.0133	ug/ml	99
16) Pyrene	11.79	202	307960	1.0772	ug/ml	100
18) Benzo[a]anthracene	13.29	228	245060	1.0219	ug/ml	100
19) Chrysene	13.35	228	242983	1.0297	ug/ml	100
21) Benzo[b]fluoranthene	14.77	252	244551	1.0068	ug/ml	96
22) Benzo[k]fluoranthene	14.81	252	242776	1.0131	ug/ml	100
23) Benzo[a]pyrene	15.34	252	239946	1.1256	ug/ml	100
24) Indeno[1,2,3-cd]pyrene	17.73	276	266493	1.0514	ug/ml	100
25) Dibenz[ah]anthracene	17.73	278	220686	1.0497	ug/ml	100
26) Benzo[ghi]perylene	18.43	276	194401	0.8655	ug/ml	100

(#) = qualifier out of range (m) = manual integration
7M60549.D SIMPAHL.M Thu Mar 06 07:15:28 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\030514\7M60549.D Vial: 9
Acq On : 5 Mar 2014 4:17 pm Operator: CAA
Sample : WG465525-09 1 PPM PAHL Alt Src STD Inst : HPMS7
Misc : 1,1 STD62936 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Mar 6 7:11 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Thu Mar 06 07:14:41 2014
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60724.D Vial: 2
Acq On : 1 Apr 2014 9:10 am Operator: CAA
Sample : WG469371-02 1 PPM PAHL STD Inst : HPMS7
Misc : 1,1 STD62940 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 01 09:32:41 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Tue Apr 01 07:55:55 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

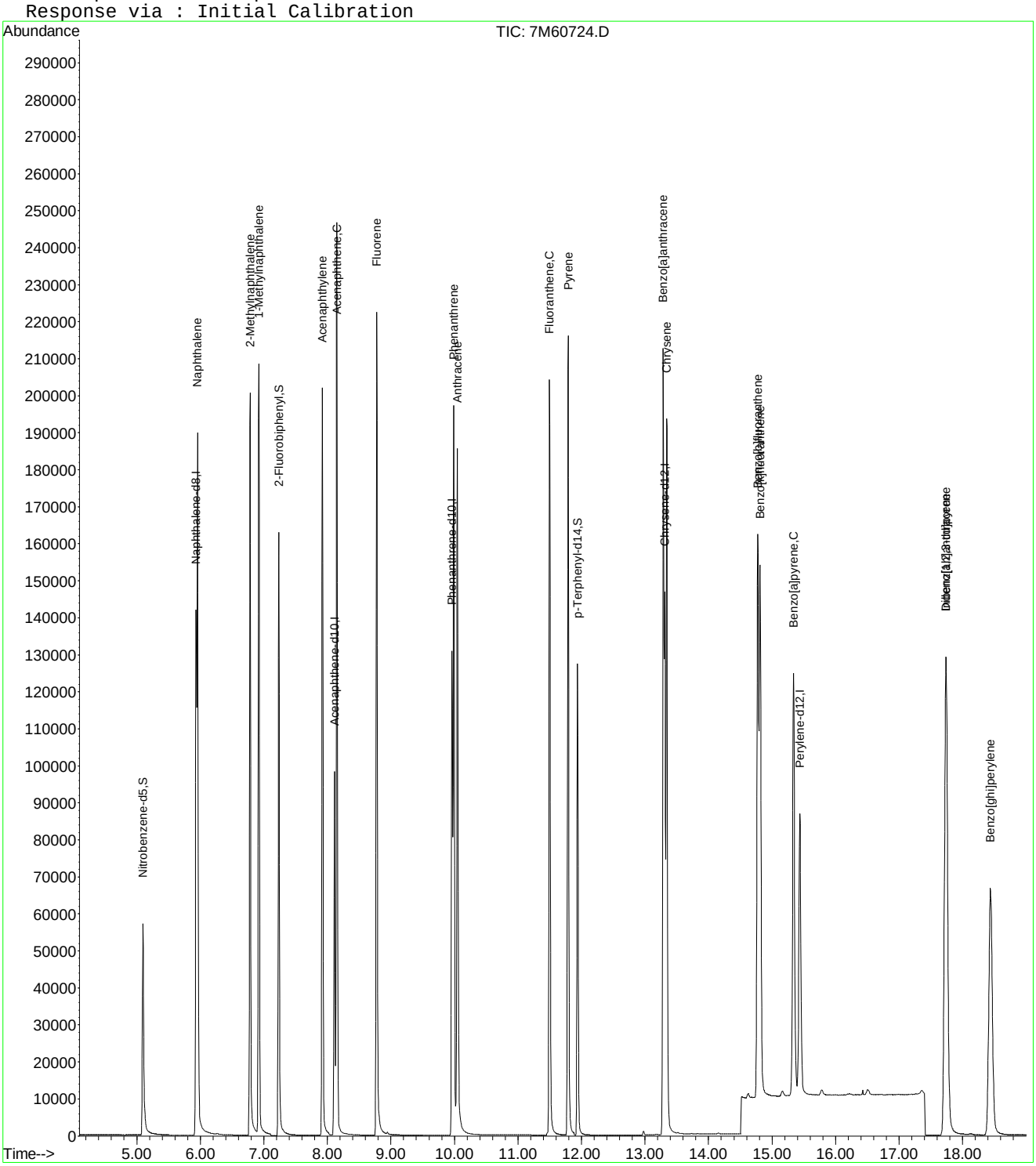
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.93	136	180054	1.00	ug/ml	-0.01
6) Acenaphthene-d10	8.11	164	127042	1.00	ug/ml	-0.01
11) Phenanthrene-d10	9.96	188	171768	1.00	ug/ml	-0.01
15) Chrysene-d12	13.31	240	181194	1.00	ug/ml	-0.01
20) Perylene-d12	15.44	264	170559	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.10	82	58667	1.0877	ug/ml	0.00
Spiked Amount 2.500	Range 35 - 114		Recovery = 43.60%			
7) 2-Fluorobiphenyl	7.23	172	154791	0.9570	ug/ml	-0.01
Spiked Amount 2.500	Range 43 - 116		Recovery = 38.40%#			
17) p-Terphenyl-d14	11.94	244	162115	1.0157	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 40.80%			
Target Compounds						Qvalue
3) Naphthalene	5.96	128	206554	1.0318	ug/ml	100
4) 2-Methylnaphthalene	6.78	142	138782	1.0451	ug/ml	100
5) 1-Methylnaphthalene	6.92	142	135773	1.0128	ug/ml	100
8) Acenaphthylene	7.92	152	235855	0.9914	ug/ml	99
9) Acenaphthene	8.15	154	149395	0.9506	ug/ml	100
10) Fluorene	8.78	166	151890	0.9459	ug/ml	100
12) Phenanthrene	9.99	178	205992	1.0149	ug/ml	100
13) Anthracene	10.05	178	215492	1.0591	ug/ml	100
14) Fluoranthene	11.50	202	230870	1.0040	ug/ml	99
16) Pyrene	11.79	202	258823	1.0376	ug/ml	100
18) Benzo[a]anthracene	13.29	228	219463	1.0490	ug/ml	99
19) Chrysene	13.35	228	213300	1.0360	ug/ml	99
21) Benzo[b]fluoranthene	14.77	252	231260	1.0343	ug/ml	100
22) Benzo[k]fluoranthene	14.81	252	219654	0.9958	ug/ml	99
23) Benzo[a]pyrene	15.34	252	204114	1.0402	ug/ml	100
24) Indeno[1,2,3-cd]pyrene	17.74	276	247583	1.0612	ug/ml	100
25) Dibenz[ah]anthracene	17.74	278	208913	1.0795	ug/ml	100
26) Benzo[ghi]perylene	18.44	276	212740	1.0290	ug/ml	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

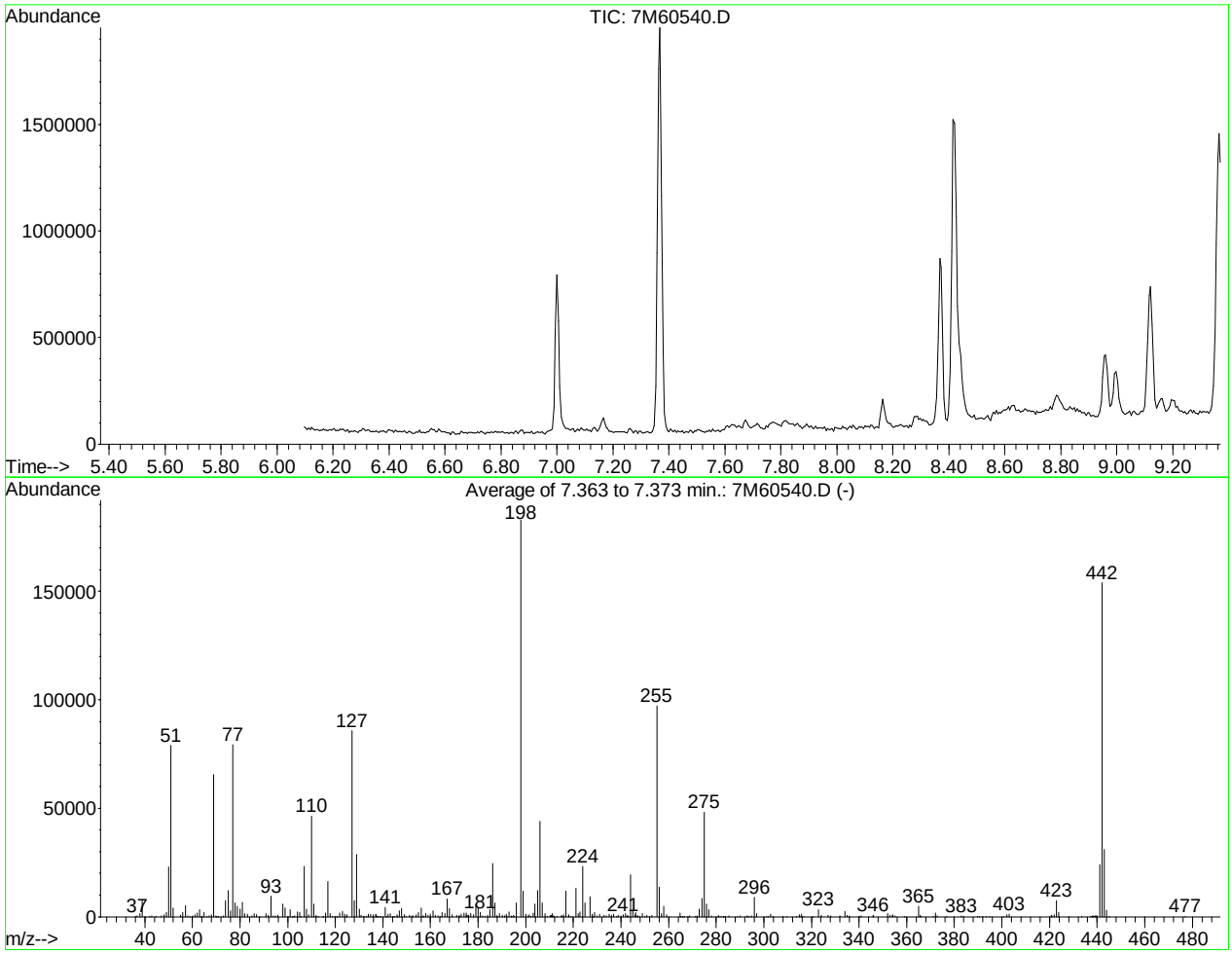
Data File : C:\MSDCHEM\1\DATA\040114\7M60724.D Vial: 2
Acq On : 1 Apr 2014 9:10 am Operator: CAA
Sample : WG469371-02 1 PPM PAHL STD Inst : HPMS7
Misc : 1,1 STD62940 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 1 9:32 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Tue Apr 01 07:55:55 2014
Response via : Initial Calibration



2.2.1.5 Raw QC Data

Data File : C:\MSDCHEM\1\DATA\030514\7M60540.D Vial: 1
Acq On : 5 Mar 2014 11:43 am Operator: CAA
Sample : WG465525-01 5PPM DFTPP Inst : HPMS7
Misc : 1,1 STD60340 Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP



AutoFind: Scans 238, 239, 240; Background Corrected with Scan 231

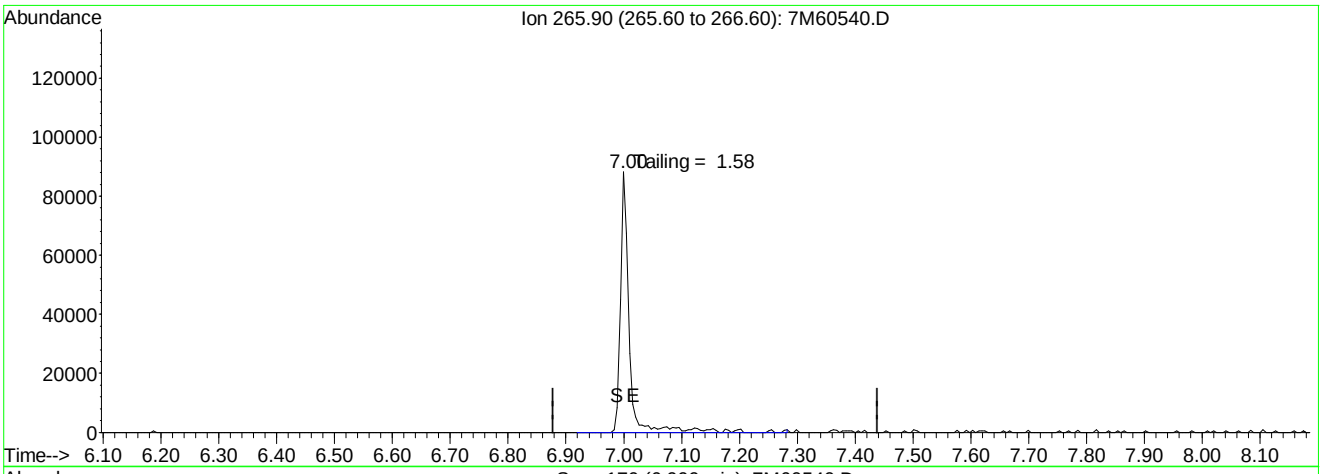
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	43.3	79118	PASS
68	69	0.00	2	1.4	948	PASS
69	198	0.00	100	35.8	65494	PASS
70	69	0.00	2	0.6	395	PASS
127	198	40	60	46.9	85826	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	182845	PASS
199	198	5	9	6.5	11797	PASS
275	198	10	30	26.4	48218	PASS
365	198	1	100	2.6	4793	PASS
441	443	0.01	100	76.8	23912	PASS
442	198	40	100	84.2	153997	PASS
443	442	17	23	20.2	31133	PASS

7M60540.D DFTPP.M Thu Mar 06 07:13:08 2014

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\030514\7M60540.D Vial: 1
Acq On : 5 Mar 2014 11:43 am Operator: CAA
Sample : WG465525-01 5PPM DFTPP Inst : HPMS7
Misc : 1,1 STD60340 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 6 7:13 2014 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Thu Mar 06 07:13:21 2014
Response via : Single Level Calibration



TIC: 7M60540.D

(1) Pentachlorophenol

7.00min 0.00

response 84767

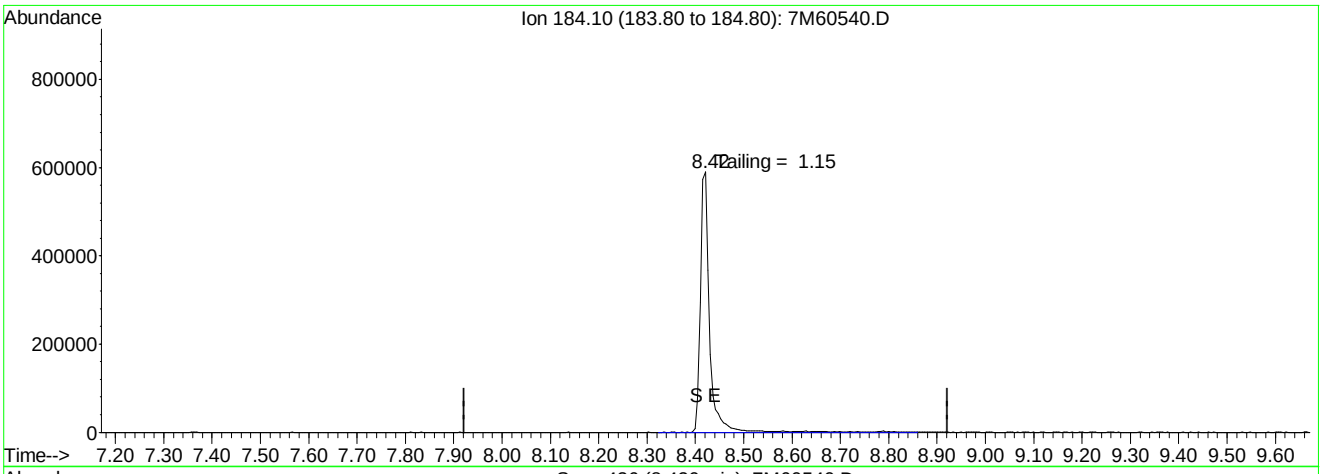
Ion	Exp%	Act%
265.90	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

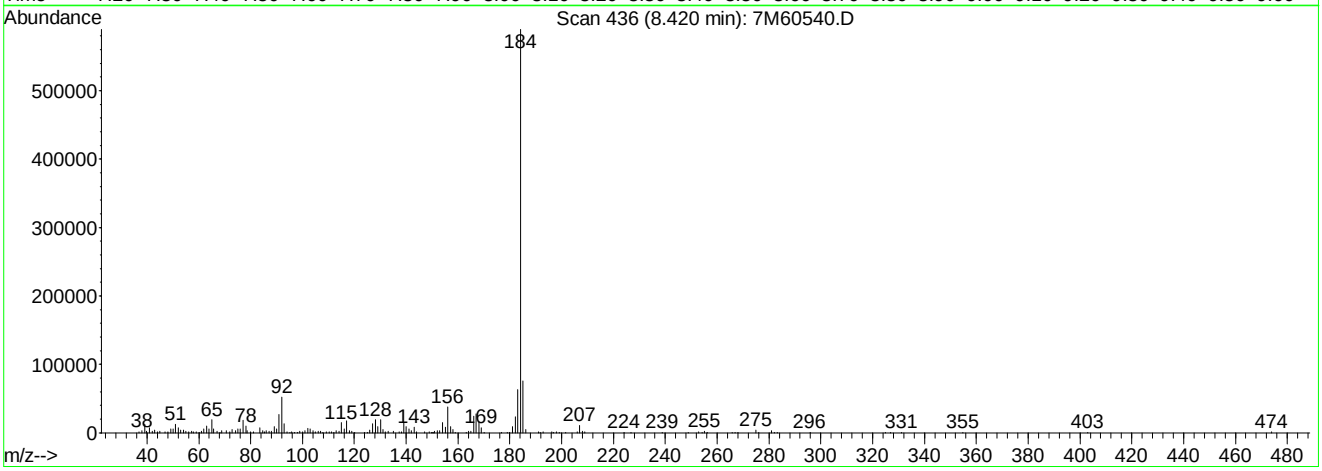
7M60540.D DFTPP.M Thu Mar 06 07:13:32 2014

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\030514\7M60540.D Vial: 1
Acq On : 5 Mar 2014 11:43 am Operator: CAA
Sample : WG465525-01 5PPM DFTPP Inst : HPMS7
Misc : 1,1 STD60340 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 6 7:13 2014 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Thu Mar 06 07:13:21 2014
Response via : Single Level Calibration





TIC: 7M60540.D

(2) Benzidine

8.42min 0.00

response 769160

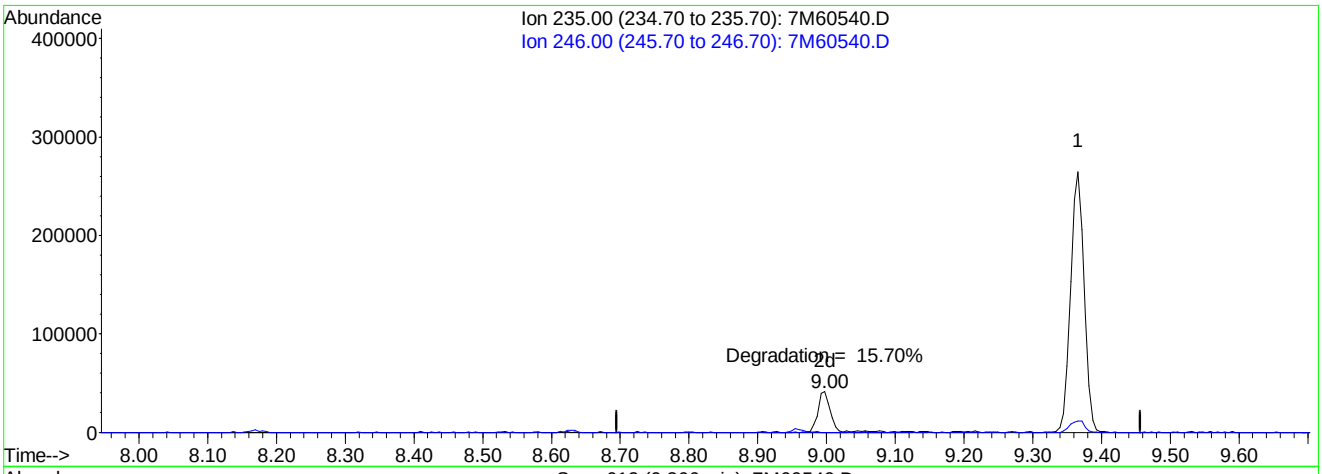
Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

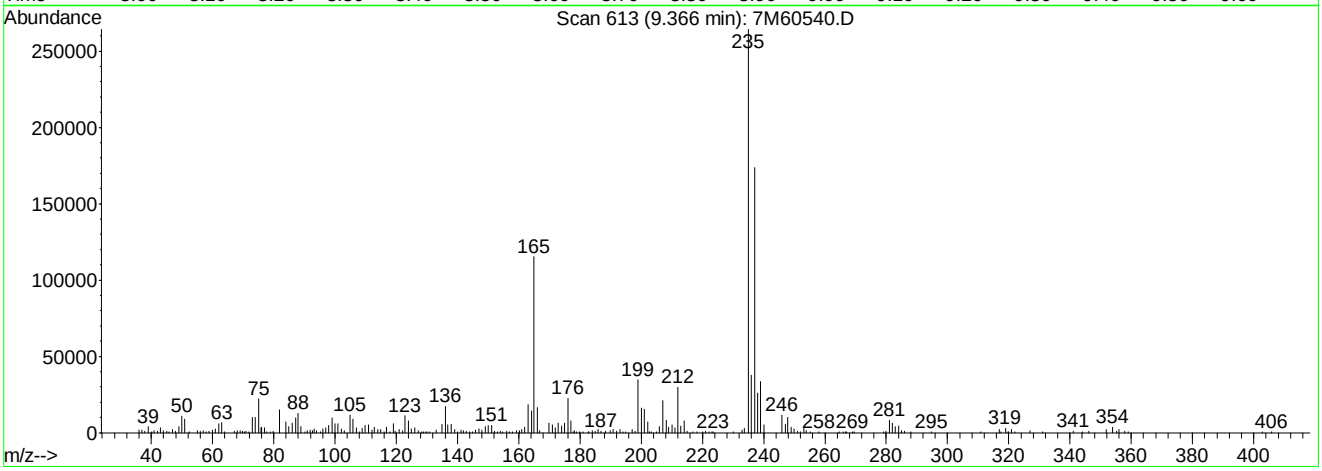
7M60540.D DFTPP.M Thu Mar 06 07:13:38 2014

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\030514\7M60540.D Vial: 1
Acq On : 5 Mar 2014 11:43 am Operator: CAA
Sample : WG465525-01 5PPM DFTPP Inst : HPMS7
Misc : 1,1 STD60340 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 6 7:13 2014 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Thu Mar 06 07:13:21 2014
Response via : Single Level Calibration





TIC: 7M60540.D

(3) DDT

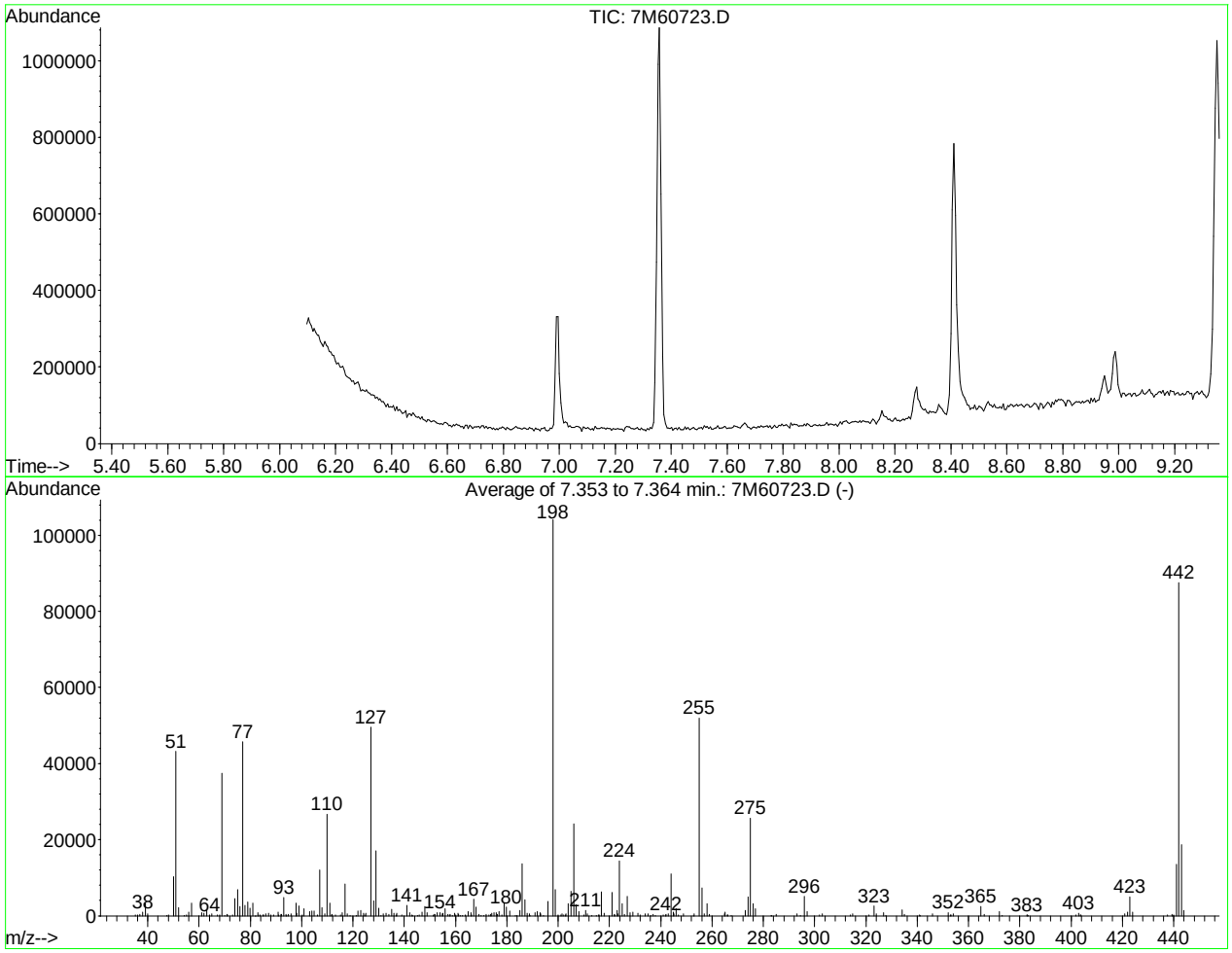
9.37min 0.00

response 363718

Ion	Exp%	Act%
235.00	100	100
246.00	4.40	4.79
0.00	0.00	0.00
0.00	0.00	0.00

7M60540.D DFTPP.M Thu Mar 06 07:13:46 2014

Data File : C:\MSDCHEM\1\DATA\040114\7M60723.D Vial: 1
Acq On : 1 Apr 2014 8:55 am Operator: CAA
Sample : WG469371-01 5PPM DFTPP Inst : HPMS7
Misc : 1,1 STD60340 Multiplr: 1.00
MS Integration Params: rteint.p
Method : C:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP



AutoFind: Scans 236, 237, 238; Background Corrected with Scan 229

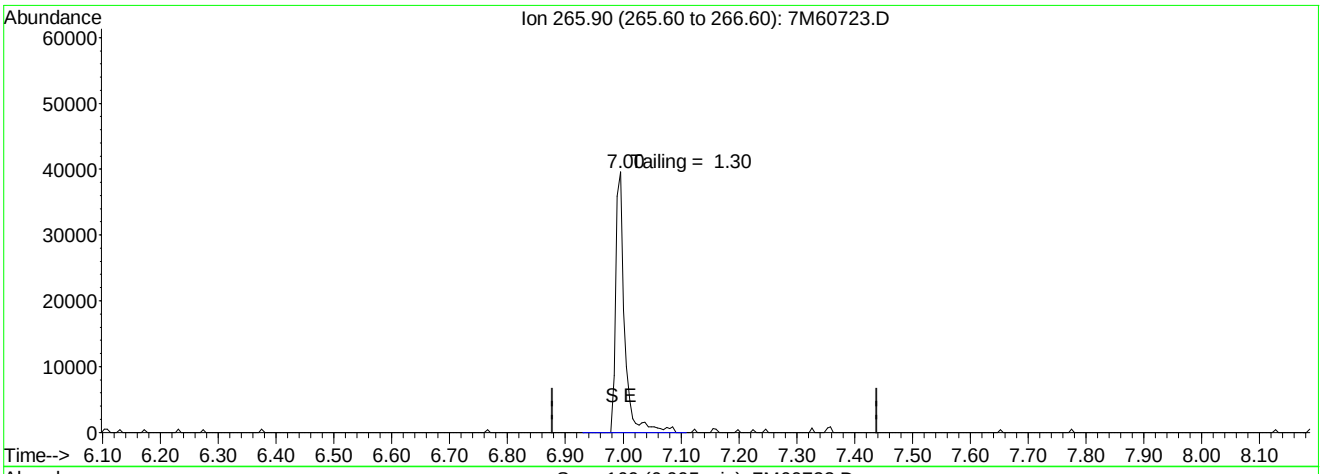
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	41.5	43252	PASS
68	69	0.00	2	0.8	301	PASS
69	198	0.00	100	36.0	37483	PASS
70	69	0.00	2	0.4	142	PASS
127	198	40	60	47.7	49632	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	104130	PASS
199	198	5	9	6.6	6921	PASS
275	198	10	30	24.6	25576	PASS
365	198	1	100	2.4	2492	PASS
441	443	0.01	100	72.5	13496	PASS
442	198	40	100	84.0	87498	PASS
443	442	17	23	21.3	18627	PASS

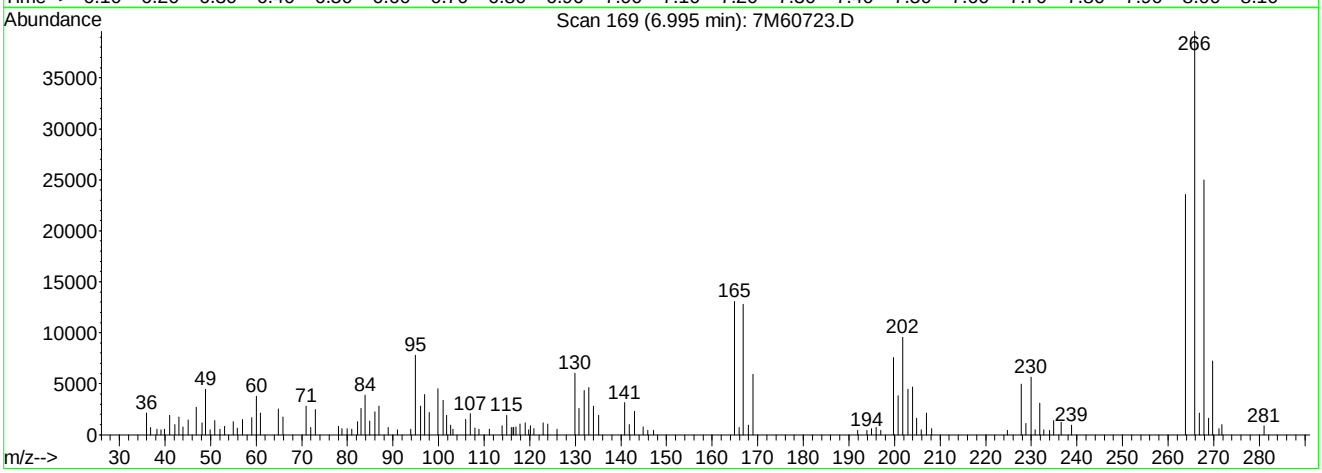
7M60723.D DFTPP.M Wed Apr 02 11:25:31 2014

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\040114\7M60723.D Vial: 1
Acq On : 1 Apr 2014 8:55 am Operator: CAA
Sample : WG469371-01 5PPM DFTPP Inst : HPMS7
Misc : 1,1 STD60340 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 1 9:06 2014 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Thu Mar 06 07:13:21 2014
Response via : Single Level Calibration





TIC: 7M60723.D

(1) Pentachlorophenol

7.00min 0.00

response 39131

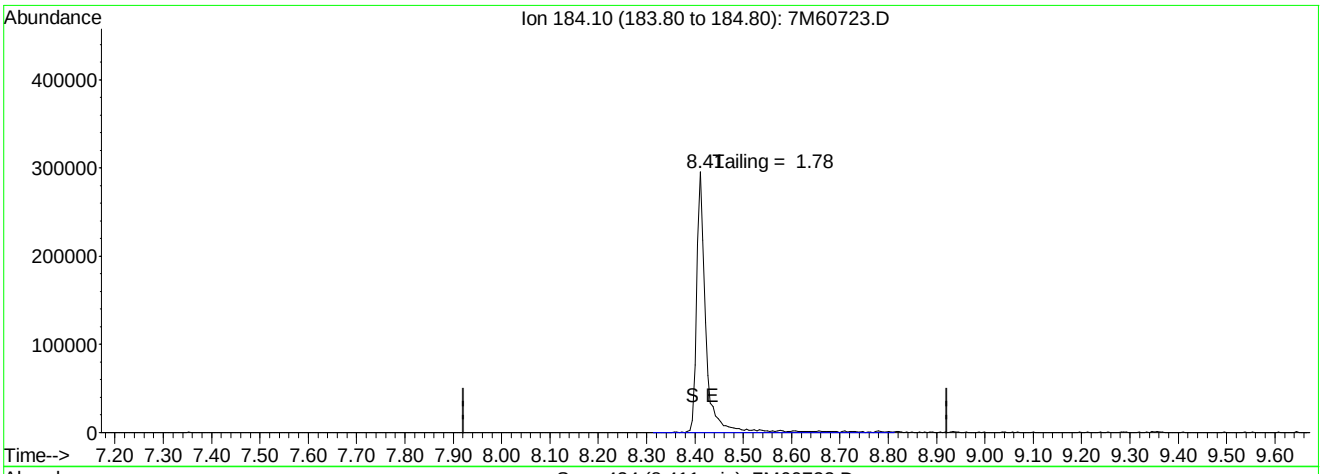
Ion	Exp%	Act%
265.90	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

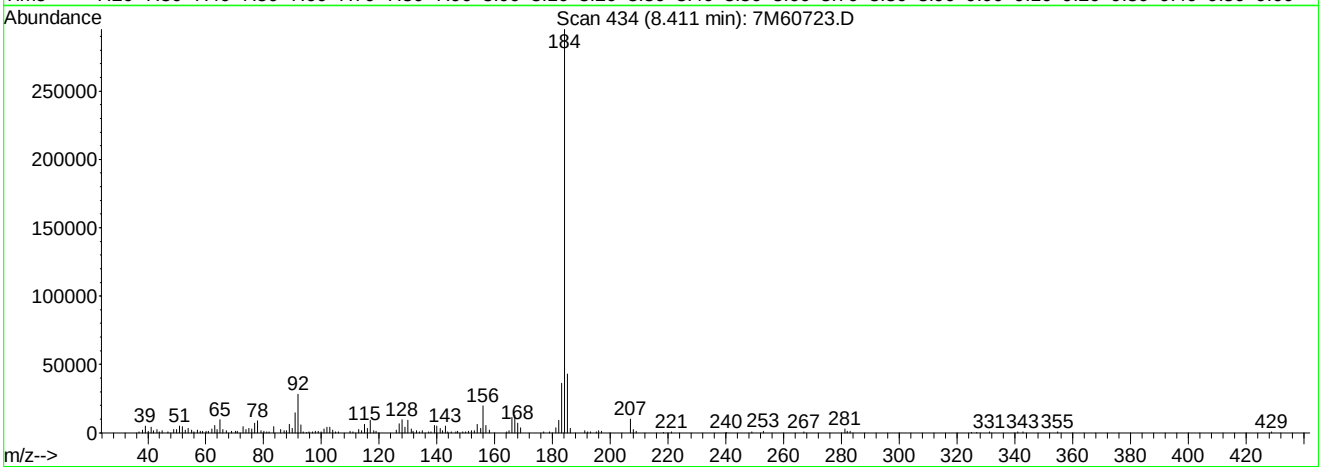
7M60723.D DFTPP.M Wed Apr 02 11:25:38 2014

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\040114\7M60723.D Vial: 1
Acq On : 1 Apr 2014 8:55 am Operator: CAA
Sample : WG469371-01 5PPM DFTPP Inst : HPMS7
Misc : 1,1 STD60340 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 1 9:06 2014 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Thu Mar 06 07:13:21 2014
Response via : Single Level Calibration





TIC: 7M60723.D

(2) Benzidine

8.41min 0.00

response 373911

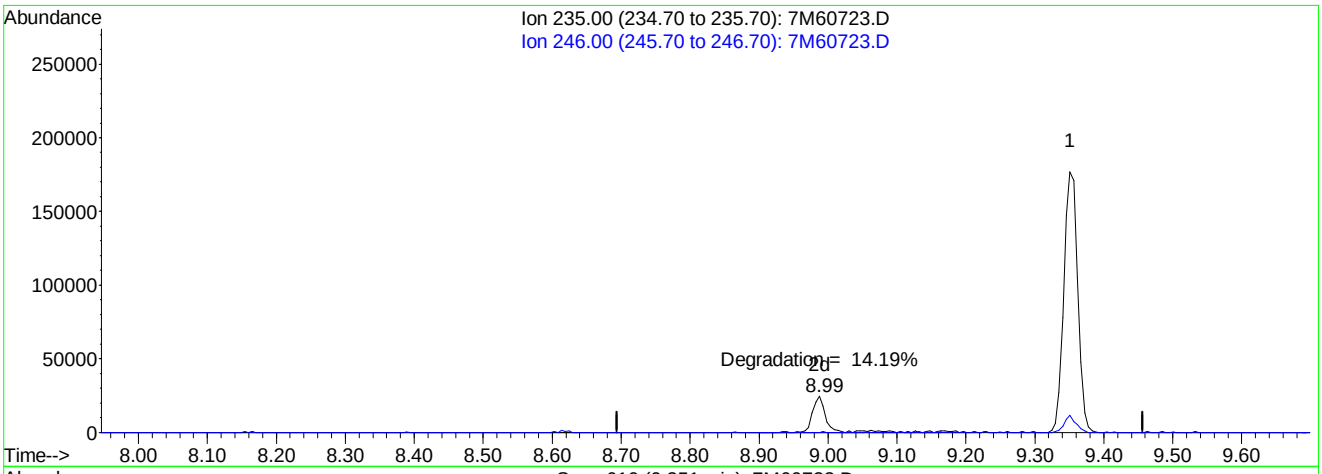
Ion	Exp%	Act%
184.10	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

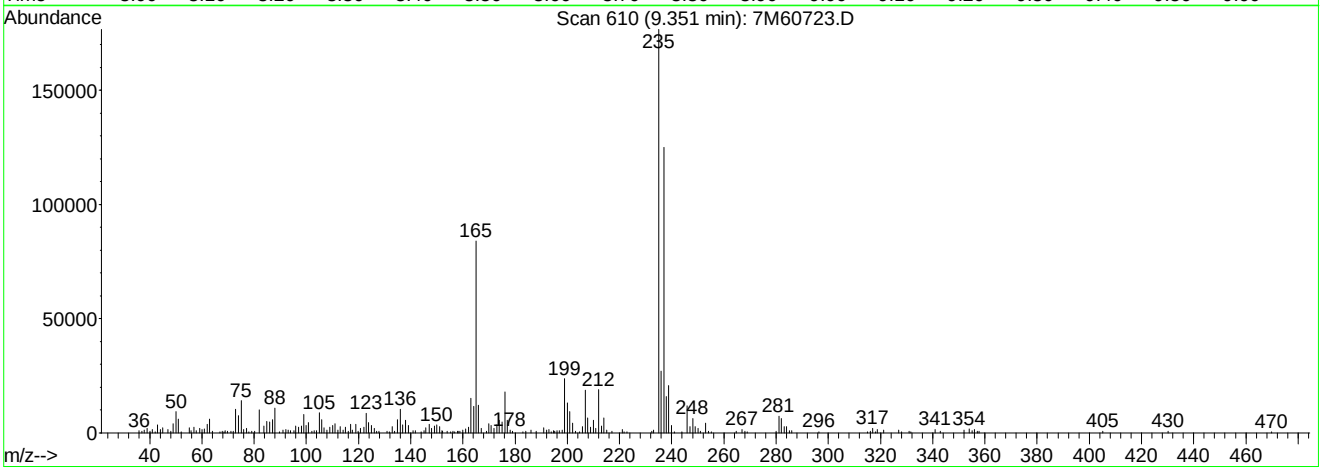
7M60723.D DFTPP.M Wed Apr 02 11:25:46 2014

Quantitation Report (Qedit)

Data File : C:\MSDCHEM\1\DATA\040114\7M60723.D Vial: 1
Acq On : 1 Apr 2014 8:55 am Operator: CAA
Sample : WG469371-01 5PPM DFTPP Inst : HPMS7
Misc : 1,1 STD60340 Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 1 9:06 2014 Quant Results File: temp.res

Method : C:\MSDCHEM\1\METHODS\DFTPP.M (RTE Integrator)
Title : DFTPP
Last Update : Thu Mar 06 07:13:21 2014
Response via : Single Level Calibration





TIC: 7M60723.D

(3) DDT

9.35min 0.00

response 249527

Ion	Exp%	Act%
235.00	100	100
246.00	4.40	5.43#
0.00	0.00	0.00
0.00	0.00	0.00

7M60723.D DFTPP.M Wed Apr 02 11:25:53 2014

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60725.D Vial: 3
Acq On : 1 Apr 2014 9:35 am Operator: CAA
Sample : WG469212-01 BLK 03/31 Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 02 11:26:20 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

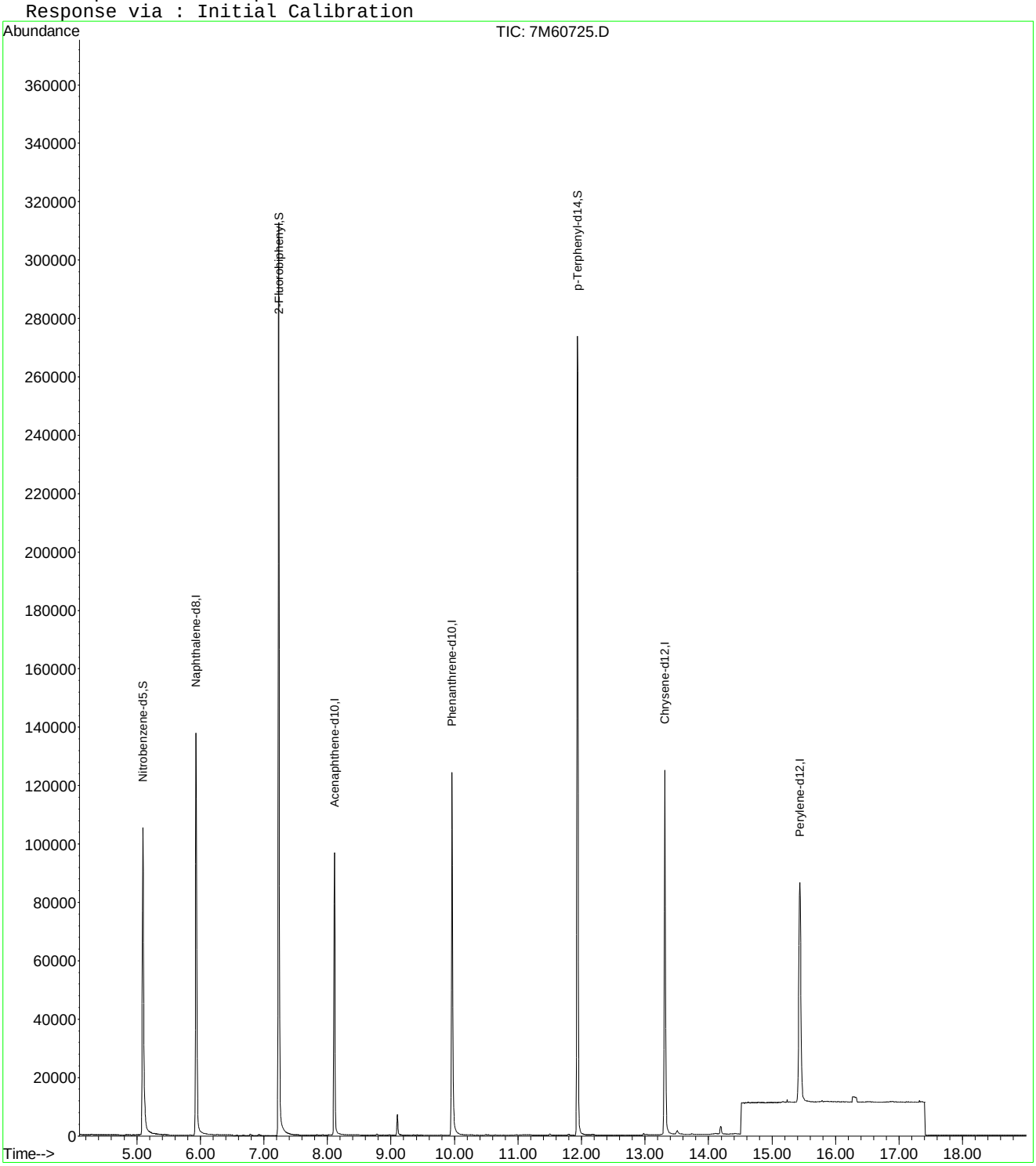
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.93	136	181244	1.00	ug/ml	-0.01
6) Acenaphthene-d10	8.11	164	123481	1.00	ug/ml	-0.01
11) Phenanthrene-d10	9.96	188	168860	1.00	ug/ml	-0.01
15) Chrysene-d12	13.31	240	179000	1.00	ug/ml	0.00
20) Perylene-d12	15.44	264	169571	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.09	82	107899	1.9873	ug/ml	-0.01
Spiked Amount 2.500	Range 35 - 114		Recovery = 79.60%			
7) 2-Fluorobiphenyl	7.23	172	282900	1.7995	ug/ml	-0.01
Spiked Amount 2.500	Range 43 - 116		Recovery = 72.00%			
17) p-Terphenyl-d14	11.94	244	298252	1.8916	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 75.60%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration
7M60725.D SIMPAHL.M Wed Apr 02 13:50:04 2014 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60725.D Vial: 3
Acq On : 1 Apr 2014 9:35 am Operator: CAA
Sample : WG469212-01 BLK 03/31 Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 2 11:26 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60726.D Vial: 4
Acq On : 1 Apr 2014 10:00 am Operator: CAA
Sample : WG469212-02 LCS 03/31 Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 02 11:26:21 2014 Quant Results File: SIMPAHL.RES

Quant Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration
DataAcq Meth : PAHLSIM

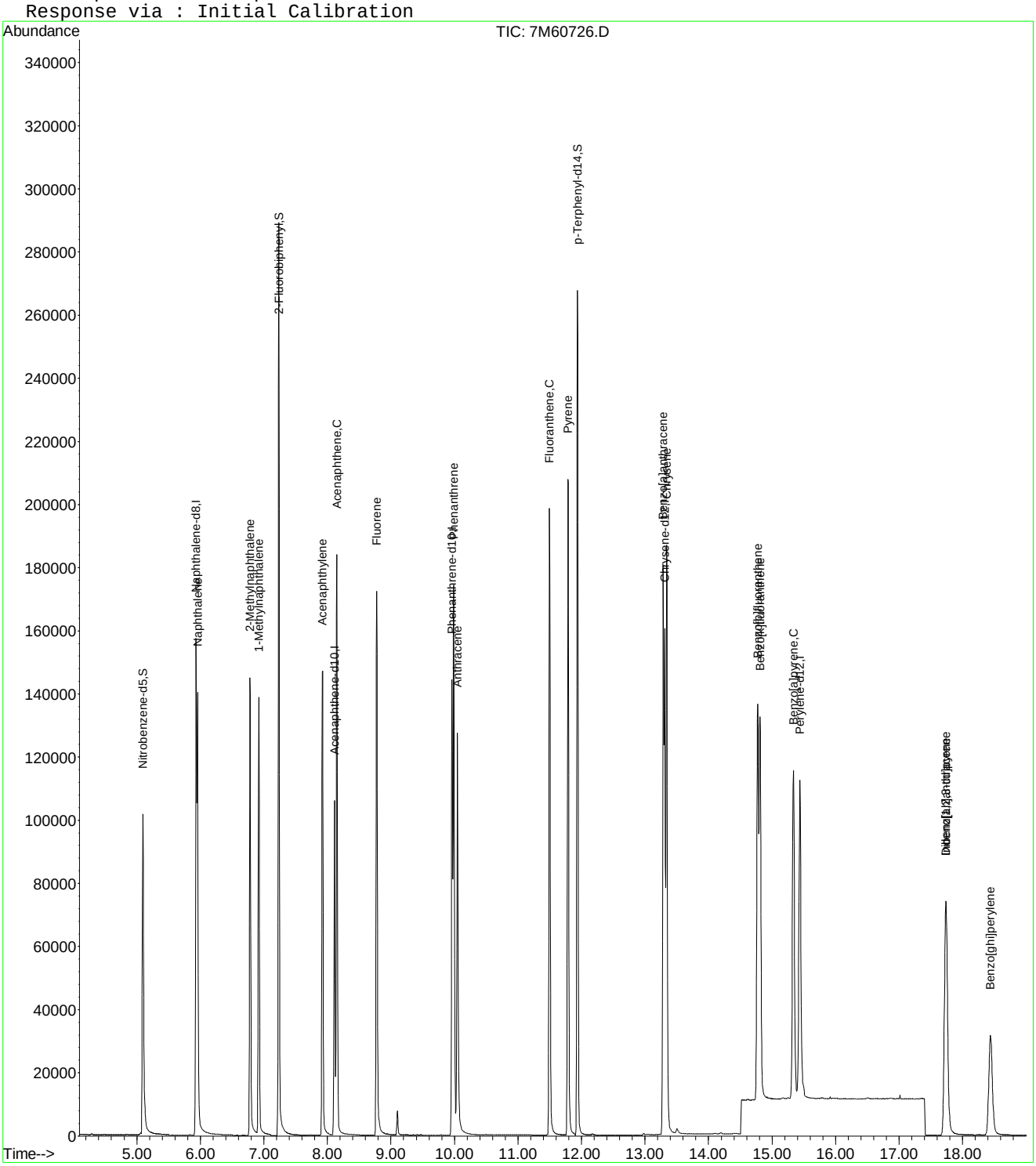
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Naphthalene-d8	5.93	136	197802	1.00	ug/ml	-0.01
6) Acenaphthene-d10	8.11	164	136734	1.00	ug/ml	-0.01
11) Phenanthrene-d10	9.96	188	185663	1.00	ug/ml	-0.01
15) Chrysene-d12	13.31	240	198447	1.00	ug/ml	-0.01
20) Perylene-d12	15.44	264	207876	1.00	ug/ml	0.00
System Monitoring Compounds						
2) Nitrobenzene-d5	5.09	82	100720	1.6998	ug/ml	-0.01
Spiked Amount 2.500	Range 35 - 114		Recovery = 68.00%			
7) 2-Fluorobiphenyl	7.23	172	269123	1.5459	ug/ml	-0.01
Spiked Amount 2.500	Range 43 - 116		Recovery = 62.00%			
17) p-Terphenyl-d14	11.94	244	298046	1.7051	ug/ml	0.00
Spiked Amount 2.500	Range 33 - 141		Recovery = 68.40%			
Target Compounds						Qvalue
3) Naphthalene	5.96	128	150751	0.6855	ug/ml	100
4) 2-Methylnaphthalene	6.79	142	100927	0.6918	ug/ml	100
5) 1-Methylnaphthalene	6.92	142	93786	0.6368	ug/ml	100
8) Acenaphthylene	7.92	152	175977	0.6873	ug/ml	94
9) Acenaphthene	8.15	154	111829	0.6612	ug/ml	99
10) Fluorene	8.78	166	120288	0.6960	ug/ml	100
12) Phenanthrene	9.99	178	184115	0.8392	ug/ml	99
13) Anthracene	10.05	178	153808	0.6993	ug/ml	99
14) Fluoranthene	11.50	202	222824	0.8965	ug/ml	99
16) Pyrene	11.79	202	255143	0.9340	ug/ml	100
18) Benzo[a]anthracene	13.29	228	184392	0.8047	ug/ml	100
19) Chrysene	13.34	228	203211	0.9012	ug/ml	100
21) Benzo[b]fluoranthene	14.77	252	188749	0.6926	ug/ml	96
22) Benzo[k]fluoranthene	14.81	252	195016	0.7254	ug/ml	96
23) Benzo[a]pyrene	15.34	252	186339	0.7791	ug/ml	99
24) Indeno[1,2,3-cd]pyrene	17.74	276	168962	0.5942	ug/ml	100
25) Dibenz[ah]anthracene	17.74	278	95385	0.4044	ug/ml	100
26) Benzo[ghi]perylene	18.44	276	102947	0.4085	ug/ml	99

(#) = qualifier out of range (m) = manual integration
7M60726.D SIMPAHL.M Wed Apr 02 13:29:08 2014 Page 1

Quantitation Report (QT Reviewed)

Data File : C:\MSDCHEM\1\DATA\040114\7M60726.D Vial: 4
Acq On : 1 Apr 2014 10:00 am Operator: CAA
Sample : WG469212-02 LCS 03/31 Inst : HPMS7
Misc : 1,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: Apr 2 11:26 2014 Quant Results File: SIMPAHL.RES

Method : C:\MSDCHEM\1\METHODS\SIMPAHL.M (RTE Integrator)
Title : OVD MSS03 SIMPAHL ICAL 03/05/14
Last Update : Wed Apr 02 11:26:09 2014
Response via : Initial Calibration



2.2 General Chromatography Data

2.2.2 6850 LC/MS Data

2.2.2.1 Summary Data

Login Number: L14031621
Department: General Chromatography
Analyst: John W. Richards Jr.

METHOD

Analysis SW-846 6850

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: For all compounds that yielded a %RSD greater than 15%, linear or higher order equations were applied. All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Continuing Calibration and Tune: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Matrix Spikes: This failure was due to sample matrix interference.

Sample #	Analyte	Date	Result	Lower	Upper	Type
L14031621-09	Perchlorate	2014-04-02 20:55:36	35.0	80	120	Recovery

SAMPLES

Samples: All acceptance criteria were met.

Internal Standards: All acceptance criteria were met.

Manual Integration Reason Codes

Reason #1: Data System Fails to Select Correct Peak In some cases the chromatography system selects and integrates the 'wrong peak'. In this case the analyst must correct the selection and force the system to integrate the proper peak. Other times the system may miss the peak completely.

Reason #2: Data System Splits the Peak Incorrectly or Integrates a False Peak as a Rider Peak This phenomena is common at low concentrations where the signal:noise ratio is low. A single compound (peak) is incorrectly split into multiple peaks or integrated as a main peak with one or more rider peaks resulting in low area counts for the target compound.

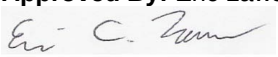
Reason #3: Improperly Integrated Isomers and/or coeluting compounds. This system often fails to distinguish coeluting compounds and or isomers. The integration areas and concentrations are wrong, and they must be corrected by manual integration. Prime examples are benzo(k)fluoranthene and benzo(b)fluoranthene which are often unresolved and integrated improperly when both are present at low concentrations in standards or samples.

Reason #4: System Establishes Incorrect Baseline There are numerous situations in chromatography where the system establishes the baseline incorrectly. Some baseline errors will be obvious to the analyst and should be corrected via manual procedures.

Reason #5: Miscellaneous Other situations involving integration errors may require in-depth review and technical judgment. These cases should be brought to the attention of the laboratory management. If the form of manual integration is not clearly covered by these four cases, then review and approval by the Laboratory Director or the QA/QC Supervisor will be required.

I certify that this data package is in compliance with the terms and conditions agreed to by the client and Microbac Laboratories Inc., both technically and for completeness, except for the conditions noted above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or designated person, as verified by the following signature.

Narrative ID: 80678
Approved By: Eric Lawson



Certificate of Analysis

Sample #:	L14031621-01	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	40MW7GW32714	**Prep Method:**	6850	**Prep Date:**	04/02/2014 13:30
Matrix:	Water	**Analytical Method:**	6850	**Cal Date:**	12/18/2013 19:20
Workgroup #:	WG469638	**Analyst:**	JWR	**Run Date:**	04/02/2014 17:27
Collect Date:	03/27/2014 09:57	**Dilution:**	1	**File ID:**	1LM.LM24174
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0	3.74		0.200	0.100

Sample #:	L14031621-02	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	40EQR32714	**Prep Method:**	6850	**Prep Date:**	04/02/2014 13:30
Matrix:	Water	**Analytical Method:**	6850	**Cal Date:**	12/18/2013 19:20
Workgroup #:	WG469638	**Analyst:**	JWR	**Run Date:**	04/02/2014 17:46
Collect Date:	03/27/2014 10:45	**Dilution:**	1	**File ID:**	1LM.LM24175
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0		U	0.200	0.100

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-03	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	40FB32714	**Prep Method:**	6850	**Prep Date:**	04/02/2014 13:30
Matrix:	Water	**Analytical Method:**	6850	**Cal Date:**	12/18/2013 19:20
Workgroup #:	WG469638	**Analyst:**	JWR	**Run Date:**	04/02/2014 18:05
Collect Date:	03/27/2014 11:00	**Dilution:**	1	**File ID:**	1LM.LM24176
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0		U	0.200	0.100

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #: L14031621-04 **PrePrep Method:** N/A **Instrument:** LCMS1
Client ID: 40MW5GW32714 **Prep Method:** 6850 **Prep Date:** 04/02/2014 13:30
Matrix: Water **Analytical Method:** 6850 **Cal Date:** 12/18/2013 19:20
Workgroup #: WG469638 **Analyst:** JWR **Run Date:** 04/02/2014 18:24
Collect Date: 03/27/2014 14:02 **Dilution:** 1 **File ID:** 1LM.LM24177
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0	0.721		0.200	0.100

Sample #: L14031621-05 **PrePrep Method:** N/A **Instrument:** LCMS1
Client ID: 40DUPGW32714 **Prep Method:** 6850 **Prep Date:** 04/02/2014 13:30
Matrix: Water **Analytical Method:** 6850 **Cal Date:** 12/18/2013 19:20
Workgroup #: WG469638 **Analyst:** JWR **Run Date:** 04/02/2014 18:43
Collect Date: 03/27/2014 14:02 **Dilution:** 1 **File ID:** 1LM.LM24178
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0	0.717		0.200	0.100

Sample #: L14031621-06 **PrePrep Method:** N/A **Instrument:** LCMS1
Client ID: 40MW6GW32714 **Prep Method:** 6850 **Prep Date:** 04/02/2014 13:30
Matrix: Water **Analytical Method:** 6850 **Cal Date:** 12/18/2013 19:20
Workgroup #: WG469638 **Analyst:** JWR **Run Date:** 04/02/2014 19:58
Collect Date: 03/27/2014 15:42 **Dilution:** 1 **File ID:** 1LM.LM24182
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0	0.506		0.200	0.100

Sample #: L14031621-07 **PrePrep Method:** N/A **Instrument:** LCMS1
Client ID: LFMW01GW32714 **Prep Method:** 6850 **Prep Date:** 04/02/2014 13:30
Matrix: Water **Analytical Method:** 6850 **Cal Date:** 12/18/2013 19:20
Workgroup #: WG469638 **Analyst:** JWR **Run Date:** 04/02/2014 20:17
Collect Date: 03/27/2014 17:50 **Dilution:** 1 **File ID:** 1LM.LM24183
Sample Tag: 01 **Units:** ug/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0	7.47		0.200	0.100

Certificate of Analysis

Sample #:	L14031621-08	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	LFMW01MSGW32714	**Prep Method:**	6850	**Prep Date:**	04/02/2014 13:30
Matrix:	Water	**Analytical Method:**	6850	**Cal Date:**	12/18/2013 19:20
Workgroup #:	WG469638	**Analyst:**	JWR	**Run Date:**	04/02/2014 20:36
Collect Date:	03/27/2014 18:15	**Dilution:**	1	**File ID:**	1LM.LM24184
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0	7.69		0.200	0.100

Sample #:	L14031621-09	**PrePrep Method:**	N/A	**Instrument:**	LCMS1
Client ID:	LFMW01MSDGW32714	**Prep Method:**	6850	**Prep Date:**	04/02/2014 13:30
Matrix:	Water	**Analytical Method:**	6850	**Cal Date:**	12/18/2013 19:20
Workgroup #:	WG469638	**Analyst:**	JWR	**Run Date:**	04/02/2014 20:55
Collect Date:	03/27/2014 18:15	**Dilution:**	1	**File ID:**	1LM.LM24185
Sample Tag:	01	**Units:**	ug/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Perchlorate	14797-73-0	7.54		0.200	0.100

2.2.2.2 QC Summary Data

Example Calculation 6850 - Perchlorate

Concentration from Linear Regression

Step 1: Retrieve Curve Data From Plot, y = mx + b

y = response ratio = response of analyte / response of internal standard (IS) = Rx/Ristd

x = amount ratio = concentration analyte/concentration internal standard (IS) = Cx / Cistd

m = slope from curve (1.45)

b = intercept from curve (-0.00242)

y = 1.45x + -0.00242

Step 2: Substitute the value for y

where y = 12600/226000 = 0.055752

Step 3: Solve for x

x = (y - b)/m = 0.0040119

Step 4: Solve for analyte concentration Cx

Cx = (Cis)(x) = (5 ug/L)(0.040119) = 0.200594 ug/L

Example Calculation - Water:

Slope from curve, m:	1.45
Intercept from curve, b:	-0.00242
Response of analyte, Rx:	12600
Response of Internal Standard , Ristd:	226000
Concentration of IS, Cistd (ug/L):	5.00
Response Ratio:	0.05575
Amount Ratio:	0.04012
Analyte Concentration, Cx (ug/L) :	0.200594

Example Calculation - Soil:

Analyte Concentration, Cx (ug/L):	0.20059
Amount of soil extracted (g):	5.00
Final volume of extract (mL):	50.00
Percent solids (Pct wt.)	100
Concentration in soil (ug/kg):	2.005938

Perchlorate Conductivity Check
(perchlorate1)

Conductivity Probe
Calibration Check: 1414 /1410 µs/cm

Working MCT Level: 10,000 µs/cm

Sample	Conductivity (µs/cm)	Pretreatment or Dilution Needed
WG469638-01 MCT	9,900	
-02 Blank	0.0	
-03 LCS	0.0	
L14040006-01 LOD	0.0	
L14040008-01 LOQ	0.0	
L14031621-01	627	
-02	0.3	
-03	0.3	
-04	455	
-05	447	
-06	209	
-07 RS	649	
-08 MS	642	
-09 MSD	646	
L14040067-01	3,110	
-02	3,060	

Analyst: John Richards

Date/Time: 04/03/14 / 13:30

DCN#101637

Microbac Laboratories Inc.

Instrument Run Log

Instrument: LCMS1 Dataset: 121813_JWR.TXT
Analyst1: JWR Analyst2: NA
Method: 6850 SOP: HPLC06 Rev: 6

Maintenance Log ID: Syringe Filter Lot#: 130402254
Eluent ID#:

Workgroups: Column 1 ID: KP-RPPX250 Column 2 ID: NA
Analytical WG456903 (waters)

Internal STD: COA17210 Surrogate STD: NA Calibration STD STD61802 (12/18/2013)
CCV STD: STD61802 LCS STD: STD61802 MS/MSD STD: STD61802

Comments: ICAL WG456864 : Alternate Source STD61185
Samples L13120673(-04,-05,-06) were analyzed at dilutions based on their historical results. Samples L13120673(-01,-02,-07,-08,-10) had no historical results. Samples with no historical results are initially screened at a 100x dilution in order to prevent overloading the analytical column and/or detector.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	1LM.LM23230	WG456864-01 CCB	1	1		12/18/13 17:07
2	1LM.LM23231	WG456864-02 STD (0.1 ug/L)	1	1	STD61802	12/18/13 17:26
3	1LM.LM23232	WG456864-03 STD (0.2 ug/L)	1	1	STD61802	12/18/13 17:45
4	1LM.LM23233	WG456864-04 STD (0.5 ug/L)	1	1	STD61802	12/18/13 18:04
5	1LM.LM23234	WG456864-05 STD (1.0 ug/L)	1	1	STD61802	12/18/13 18:23
6	1LM.LM23235	WG456864-06 STD (2.0 ug/L)	1	1	STD61802	12/18/13 18:42
7	1LM.LM23236	WG456864-07 STD (5.0 ug/L)	1	1	STD61802	12/18/13 19:01
8	1LM.LM23237	WG456864-08 STD (10 ug/L)	1	1	STD61802	12/18/13 19:20
9	1LM.LM23238	WG456864-09 SSCV (1.0 ug/L)	1	1	STD61185	12/18/13 19:39
10	1LM.LM23239	WG456905-01 CCB	1	1		12/18/13 19:58
11	1LM.LM23240	WG456905-02 CCV (1.0ug/L)	1	1	STD61802	12/18/13 20:17
12	1LM.LM23241	WG456903-07 MRL (0.2ug/L)	1	1	STD61802	12/18/13 20:36
13	1LM.LM23242	WG456903-01 MCT (0.2ug/L)	1	1	STD61802	12/18/13 20:55
14	1LM.LM23243	WG456903-02 BLANK	1	1		12/18/13 21:14
15	1LM.LM23244	WG456903-03 LCS (0.2ug/L)	1	1	STD61802	12/18/13 21:33
16	1LM.LM23245	L13120643-01	1	1		12/18/13 21:51
17	1LM.LM23246	L13120643-02	1	1		12/18/13 22:10
18	1LM.LM23247	L13120643-03 RS	1	1		12/18/13 22:29
19	1LM.LM23248	L13120643-04 MS	1	1	STD61802	12/18/13 22:48
20	1LM.LM23249	L13120643-05 MSD	1	1	STD61802	12/18/13 23:07
21	1LM.LM23250	L13120643-06	1	1		12/18/13 23:26
22	1LM.LM23251	L13120643-07	1	1		12/18/13 23:45
23	1LM.LM23252	WG456905-03 CCV (1.0ug/L)	1	1	STD61802	12/19/13 00:04
24	1LM.LM23253	WG456903-08 MRL (0.2ug/L)	1	1	STD61802	12/19/13 00:23
25	1LM.LM23254	WG456905-04 CCB	1	1		12/19/13 00:42
26	1LM.LM23255	L13120643-08	1	1		12/19/13 01:01
27	1LM.LM23256	L13120643-09	1	1		12/19/13 01:20
28	1LM.LM23257	L13120643-10	1	1		12/19/13 01:39
29	1LM.LM23258	L13120643-11	1	1		12/19/13 01:58
30	1LM.LM23259	L13120644-01	1	1		12/19/13 02:17
31	1LM.LM23260	L13120673-01 (100x)	1	100		12/19/13 02:36
32	1LM.LM23261	L13120673-02 (100x) (NR)	1	100		12/19/13 02:55

Page: 1 Approved: 20-DEC-13

Microbac Laboratories Inc.

Instrument Run Log

Instrument: LCMS1 Dataset: 121813_JWR.TXT
Analyst1: JWR Analyst2: NA
Method: 6850 SOP: HPLC06 Rev: 6

Maintenance Log ID: Syringe Filter Lot#: 130402254
Eluent ID#:

Workgroups: Column 1 ID: KP-RPPX250 Column 2 ID: NA
Analytical WG456903 (waters)
Internal STD: COA17210 Surrogate STD: NA STD61802 (12/18/2013)
CCV STD: STD61802 LCS STD: STD61802 STD61802

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
33	1LM.LM23262	L13120673-04 (5,000x)	1	5000		12/19/13 03:13
34	1LM.LM23263	L13120673-05 (10,000x)	1	10000		12/19/13 03:32
35	1LM.LM23264	L13120673-06 (10,000x)	1	10000		12/19/13 03:51
36	1LM.LM23265	WG456905-05 CCV (1.0ug/L)	1	1	STD61802	12/19/13 04:10
37	1LM.LM23266	WG456903-09 MRL (0.2ug/L)	1	1	STD61802	12/19/13 04:29
38	1LM.LM23267	WG456905-06 CCB	1	1		12/19/13 04:48
39	1LM.LM23268	L13120673-07 (100x) (NR)	1	100		12/19/13 05:07
40	1LM.LM23269	L13120673-08 (100x) (NR)	1	100		12/19/13 05:26
41	1LM.LM23270	L13120673-10 (100x) (NR)	1	100		12/19/13 05:45
42	1LM.LM23271	WG456905-07 CCV (1.0ug/L)	1	1	STD61802	12/19/13 06:04
43	1LM.LM23272	WG456903-10 MRL (0.2ug/L)	1	1	STD61802	12/19/13 06:23
44	1LM.LM23273	WG456905-08 CCB	1	1		12/19/13 06:42
45	1LM.LM23274	WG456905-09 CCV (1.0ug/L)	1	1	STD61802	12/19/13 14:20
46	1LM.LM23275	WG456903-11 MRL (0.2ug/L)	1	1	STD61802	12/19/13 14:39
47	1LM.LM23276	WG456905-10 CCB	1	1		12/19/13 14:58
48	1LM.LM23277	L13120673-02 (RR 100,000x)	1	100000		12/19/13 15:17
49	1LM.LM23278	L13120673-07 (RR 4x)	1	4		12/19/13 15:36
50	1LM.LM23279	L13120673-08 (RR Neat)	1	1		12/19/13 15:55
51	1LM.LM23280	L13120673-10 (RR 10,000x)	1	10000		12/19/13 16:14
52	1LM.LM23281	WG456905-11 CCV (1.0ug/L)	1	1	STD61802	12/19/13 16:33
53	1LM.LM23282	WG456903-12 MRL (0.2ug/L)	1	1	STD61802	12/19/13 16:52
54	1LM.LM23283	WG456905-12 CCB	1	1		12/19/13 17:11

Comments

Seq.	Rerun	Dil.	Reason	Analytes
32	X	100000	Over Calibration Range	
	L13120673-02 (100x) (NR) : This sample was reanalyzed at a 100,000x dilution on the end of this run.			
39	X	4	Analyzed too dilute	
	L13120673-07 (100x) (NR) : This sample was reanalyzed at a 4x dilution on the end of this run.			
40	X	1	Analyzed too dilute	
	L13120673-08 (100x) (NR) : This sample was reanalyzed neat on the end of this run.			
41	X	10000	Over Calibration Range	
	L13120673-10 (100x) (NR) : This sample was reanalyzed at a 10,000x dilution on the end of this run.			

Page: 2 Approved: 20-DEC-13

Microbac Laboratories Inc.

Instrument Run Log

Instrument: LCMS1 Dataset: 040214_JWR.TXT
Analyst1: JWR Analyst2: NA
Method: 6850 SOP: HPLC06 Rev: 6

Maintenance Log ID: Syringe Filter Lot#: 130402254
Eluent ID#:

Workgroups: Column 1 ID: KP-RPPX250 Column 2 ID: NA
Analytical WG469638 (waters)
Internal STD: COA17210 Surrogate STD: NA Calibration STD STD61802 (12/18/2013)
CCV STD: STD63472 LCS STD: STD63472 MS/MSD STD: STD63472

Comments: Sample L14040067-02 was analyzed at a dilution based on its pre-run screen results.

Seq.	File ID	Sample Information	Mat	Dil	Reference	Date/Time
1	1LM.LM24166	WG469639-01 CCB	1	1		04/02/14 14:55
2	1LM.LM24167	WG469639-02 CCV (1.0ug/L)	1	1	STD63472	04/02/14 15:14
3	1LM.LM24168	WG469638-07 MRL (0.2ug/L)	1	1	STD63472	04/02/14 15:33
4	1LM.LM24169	WG469638-01 MCT (0.2ug/L)	1	1	STD63472	04/02/14 15:52
5	1LM.LM24170	WG469638-02 BLANK	1	1		04/02/14 16:11
6	1LM.LM24171	WG469638-03 LCS (0.2ug/L)	1	1	STD63472	04/02/14 16:30
7	1LM.LM24172	L14040006-01 LOD (0.1ug/L)	1	1	STD63472	04/02/14 16:49
8	1LM.LM24173	L14040008-01 LOQ (0.2ug/L)	1	1	STD63472	04/02/14 17:08
9	1LM.LM24174	L14031621-01	1	1		04/02/14 17:27
10	1LM.LM24175	L14031621-02	1	1		04/02/14 17:46
11	1LM.LM24176	L14031621-03	1	1		04/02/14 18:05
12	1LM.LM24177	L14031621-04	1	1		04/02/14 18:24
13	1LM.LM24178	L14031621-05	1	1		04/02/14 18:43
14	1LM.LM24179	WG469639-03 CCV (1.0ug/L)	1	1	STD63472	04/02/14 19:01
15	1LM.LM24180	WG469638-08 MRL (0.2ug/L)	1	1	STD63472	04/02/14 19:20
16	1LM.LM24181	WG469639-04 CCB	1	1		04/02/14 19:39
17	1LM.LM24182	L14031621-06	1	1		04/02/14 19:58
18	1LM.LM24183	L14031621-07 RS	1	1		04/02/14 20:17
19	1LM.LM24184	L14031621-08 MS	1	1	STD63472	04/02/14 20:36
20	1LM.LM24185	L14031621-09 MSD	1	1	STD63472	04/02/14 20:55
21	1LM.LM24186	L14040067-01	1	1		04/02/14 21:14
22	1LM.LM24187	L14040067-01 RR 5x (NR)	1	5		04/02/14 21:33
23	1LM.LM24188	L14040067-02 (10x)	1	10		04/02/14 21:52
24	1LM.LM24189	WG469639-05 CCV (1.0ug/L)	1	1	STD63472	04/02/14 22:11
25	1LM.LM24190	WG469638-09 MRL (0.2ug/L)	1	1	STD63472	04/02/14 22:30
26	1LM.LM24191	WG469639-06 CCB	1	1		04/02/14 22:49

Comments

Seq.	Rerun	Dil.	Reason	Analytes
20				
	L14031621-09 MSD : The MSD %recovery is below the advisory limit due to SMI.			
22	X	1	Analyzed too dilute	
	L14040067-01 RR 5x: Not reported.			

Page: 1 Approved: 03-APR-14

Microbac Laboratories Inc.

Data Checklist

Date: 18-DEC-2013
Analyst: JWR
Analyst: NA
Method: 6850
Instrument: LCMS1
Curve Workgroup: WG456864
Runlog ID: 57868
Analytical Workgroups: L13120643, 0644, 0673

ANALYTICAL	
System Performance Check	NA
DFTPP (GCMS)	NA
Endrin/DDT breakdown (8081/GCMS)	NA
Pentachlorophenol/benzidine tailing (GCMS)	NA
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	X
Average RF	NA
Linear regression or higher order curve	X
Alternate source standard (ICV) % Difference	X
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (GCMS)	X
Continuing calibration blank (CCB) (IC/LCMS)	X
Limit of quantitation verification (LOQV) (LCMS)	X
Special standards	NA
Blanks	X
TCL hits	ND
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	NA
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Interference check sample (ICS) (LCMS)	MCT
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	X
Library searches (GCMS)	NA
Calculations & correct factors	X
Compounds above calibration range	X
Reruns	X
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	
Check for completeness	X
Primary Reviewer	JWR
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	MDC

Primary Reviewer:
19-DEC-2013

Secondary Reviewer:
20-DEC-2013

CHECKLIST1 - Modified 03/05/2008
Generated: DEC-20-2013 07:56:23

Microbac Laboratories Inc.

Data Checklist

Date: 02-APR-2014
Analyst: JWR
Analyst: NA
Method: 6850
Instrument: LCMS1
Curve Workgroup: NA
Runlog ID: 59934
Analytical Workgroups: L14031621, L14040006(LOD), 04-0008(LOQ), 04-0067

ANALYTICAL	
System Performance Check	NA
DFTPP (GCMS)	NA
Endrin/DDT breakdown (8081/GCMS)	NA
Pentachlorophenol/benzidine tailing (GCMS)	NA
Eluent check (IC)/system pressure (HPLC)	NA
Window standard (FID)	NA
Initial Calibration	NA
Average RF	NA
Linear regression or higher order curve	NA
Alternate source standard (ICV) % Difference	NA
Continuing Calibration (CCV)	X
% D/% Drift	X
Minimum response factors (GCMS)	X
Continuing calibration blank (CCB) (IC/LCMS)	X
Limit of quantitation verification (LOQV) (LCMS)	X
Special standards	NA
Blanks	X
TCL hits	ND
Surrogate recoveries	NA
LCS/LCSD (Laboratory Control Sample)	X
Recoveries	X
Surrogate recoveries	NA
MS/MSD/Sample duplicates	X
Recoveries	X
%RPD	X
Interference check sample (ICS) (LCMS)	MCT
Samples	X
TCL hits	X
Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)	NA
Surrogate recoveries	NA
Internal standard areas (MS)	X
Library searches (GCMS)	NA
Calculations & correct factors	X
Compounds above calibration range	NA
Reruns	NA
Manual integrations	X
Project/client specific requirements	X
REPORTING	
Upload batch form	X
KOBRA workgroup data/forms/bench sheets	X
Case narratives	
Check for completeness	X
Primary Reviewer	JWR
SUPERVISORY/SECONDARY REVIEW	
Check for compliance with method and project specific requirements	X
Check the completeness/accuracy of reported information	X
Data qualifiers	X
Secondary Reviewer	ECL

Primary Reviewer:
03-APR-2014

Secondary Reviewer:
03-APR-2014

CHECKLIST1 - Modified 03/05/2008
Generated: APR-03-2014 15:56:44

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 6850 AAB#: WG469638

Login Number: L14031621

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
40MW7GW32714	01	03/27/14					04/02/2014	6.1	28		04/02/14	.2	28	
40EQR32714	02	03/27/14					04/02/2014	6.1	28		04/02/14	.2	28	
40FB32714	03	03/27/14					04/02/2014	6.1	28		04/02/14	.2	28	
40MW5GW32714	04	03/27/14					04/02/2014	6	28		04/02/14	.2	28	
40DUPGW32714	05	03/27/14					04/02/2014	6	28		04/02/14	.2	28	
40MW6GW32714	06	03/27/14					04/02/2014	5.9	28		04/02/14	.3	28	
LFMW01GW32714	07	03/27/14					04/02/2014	5.8	28		04/02/14	.3	28	
LFMW01MSGW32714	08	03/27/14					04/02/2014	5.8	28		04/02/14	.3	28	
LFMW01MSDGW32714	09	03/27/14					04/02/2014	5.8	28		04/02/14	.3	28	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3456859
Report generated 04/04/2014 09:08

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L14031621
Work Group: WG469638
Blank File ID: 1LM.LM24170
Blank Sample ID: WG469638-02
Prep Date: 04/02/14 13:30
Instrument ID: LCMS1
Analyzed Date: 04/02/14 16:11
Method: 6850
Analyst: JWR

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
QCMRL	WG469638-07	1LM.LM24168	04/02/14 15:33	01
MCT	WG469638-01	1LM.LM24169	04/02/14 15:52	01
LCS	WG469638-03	1LM.LM24171	04/02/14 16:30	01
40MW7GW32714	L14031621-01	1LM.LM24174	04/02/14 17:27	01
40EQR32714	L14031621-02	1LM.LM24175	04/02/14 17:46	01
40FB32714	L14031621-03	1LM.LM24176	04/02/14 18:05	01
40MW5GW32714	L14031621-04	1LM.LM24177	04/02/14 18:24	01
40DUPGW32714	L14031621-05	1LM.LM24178	04/02/14 18:43	01
QCMRL	WG469638-08	1LM.LM24180	04/02/14 19:20	01
40MW6GW32714	L14031621-06	1LM.LM24182	04/02/14 19:58	01
LFMW01GW32714	L14031621-07	1LM.LM24183	04/02/14 20:17	01
LFMW01MSGW32714	L14031621-08	1LM.LM24184	04/02/14 20:36	01
LFMW01MSDGW32714	L14031621-09	1LM.LM24185	04/02/14 20:55	01
QCMRL	WG469638-09	1LM.LM24190	04/02/14 22:30	01

Report Name: BLANK_SUMMARY
PDF File ID: 3456860
Report generated 04/04/2014 09:08

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L14031621 Prep Date: 04/02/14 13:30 Sample ID: WG469638-02
Instrument ID: LCMS1 Run Date: 04/02/14 16:11 Prep Method: 6850
File ID: 1LM.LM24170 Analyst: JWR Method: 6850
Workgroup (AAB#): WG469638 Matrix: Water Units: ug/L
Contract #: Cal ID: LCMS1-18-DEC-13

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Perchlorate	0.100	0.200	0.100	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3456861
04-APR-2014 09:08

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L14031621 **Run Date:** 04/02/2014 **Sample ID:** WG469638-03
Instrument ID: LCMS1 **Run Time:** 16:30 **Prep Method:** 6850
File ID: 1LM.LM24171 **Analyst:** JWR **Method:** 6850
Workgroup (AAB#): WG469638 **Matrix:** Water **Units:** ug/L
QC Key: DOD4 **Lot#:** STD63472 **Cal ID:** LCMS1-18-DEC-13

Analytes	Expected	Found	% Rec	LCS Limits	Q
Perchlorate	0.200	0.209	105	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 3456862
Report generated: 04/04/2014 09:08

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L14031621 Cal ID:LCMS1- 18-DEC-13 Worknum:WG469638

Instrument ID:LCMS1 Contract #: Prep Method:6850

Parent ID:L14031621-07 File ID:1LM.LM24183 Dil:1 Method:6850

Sample ID:L14031621-08 MS File ID:1LM.LM24184 Dil:1 Matrix:Water

Sample ID:L14031621-09 MSD File ID:1LM.LM24185 Dil:1 Units:ug/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Perchlorate	7.47	0.200	7.69	110	0.200	7.54	35	1.97	80 - 120	15	*

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008

PDF File ID: 3456863

Report generated 04/04/2014 09:08

Microbac Laboratories Inc.

INITIAL CALIBRATION SUMMARY

Login Number: L14031621
Instrument ID: LCMS1
Analytical Method: 6850
Initial Calibration Date: 18-DEC-13 19:20
ICAL Workgroup: WG456864
Column ID: F

Analyte		AVG RF	% RSD	LINEAR (R)	QUAD (R^2)
Perchlorate		1.443	2.71	1.00000	

R = Correlation coefficient; 0.995 minimum
R^2 = Coefficient of determination; 0.99 minimum

INT_CAL - Modified 03/06/2008
PDF File ID: 3458254
Report generated 04/04/2014 09:08

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L14031621
Analytical Method: 6850
Instrument ID: LCMS1
Initial Calibration Date: 18-DEC-13 19:20
Column ID: F

Analyte	WG456864-02			WG456864-03			WG456864-04		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Perchlorate	0.100	8410.00000	1.534	0.200	16200.0000	1.465	0.500	39200.0000	1.440

INT_CAL - Modified 03/06/2008
PDF File ID: 3458254
Report generated 04/04/2014 09:08

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L14031621
Analytical Method: 6850
Instrument ID: LCMS1
Initial Calibration Date: 18-DEC-13 19:20
Column ID: F

Analyte	WG456864-05			WG456864-06			WG456864-07		
	CONC	RESP	RF	CONC	RESP	RF	CONC	RESP	RF
Perchlorate	1.00	78800.0000	1.435	2.00	157000.000	1.414	5.00	393000.000	1.409

INT_CAL - Modified 03/06/2008
PDF File ID: 3458254
Report generated 04/04/2014 09:08

Microbac Laboratories Inc.

INITIAL CALIBRATION DATA

Login Number: L14031621
Analytical Method: 6850
Instrument ID: LCMS1
Initial Calibration Date: 18-DEC-13 19:20
Column ID: F

Analyte	WG456864-08		
	CONC	RESP	RF
Perchlorate	10.0	784000.000	1.406

INT_CAL - Modified 03/06/2008
PDF File ID: 3458254
Report generated 04/04/2014 09:08

Microbac Laboratories Inc.
ALTERNATE SOURCE CALIBRATION REPORT

Login Number: L14031621 Run Date: 12/18/2013 Sample ID: WG456864-09
Instrument ID: LCMS1 Run Time: 19:39 Method: 6850
File ID: 1LM.LM23238 Analyst: JWR QC Key: DOD4
ICal Workgroup: WG456864 Cal ID: LCMS1 - 18-DEC-13

Analyte		Expected	Found	Units	RF	%D	UCL	Q
Perchlorate		1.00	0.978	ug/L	1.39	2.20	15	

* Exceeds %D Limit

ALT - Modified 09/06/2007
Version 1.5 PDF File ID: 3458255
Report generated 04/04/2014 09:08

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number:	L14031621	Run Date:	04/02/2014	Sample ID:	WG469639-01
Instrument ID:	LCMS1	Run Time:	14:55	Method:	6850
File ID:	1LM.LM24166	Analyst:	JWR	Units:	ug/L
Workgroup (AAB#):	WG469638	Cal ID:	LCMS1 - 18-DEC-13		
Matrix:	WATER	QAPP:	DOD4		

Analytes	MDL	RDL	Concentration	Qualifier
Perchlorate	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3456866
Report generated 04/04/2014 09:08

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L14031621 Run Date: 04/02/2014 Sample ID: WG469639-04

Instrument ID: LCMS1 Run Time: 19:39 Method: 6850

File ID: 1LM.LM24181 Analyst: JWR Units: ug/L

Workgroup (AAB#): WG469638 Cal ID: LCMS1 - 18-DEC-13

Matrix: WATER QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Perchlorate	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3456866
Report generated 04/04/2014 09:08

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number:	L14031621	Run Date:	04/02/2014	Sample ID:	WG469639-06
Instrument ID:	LCMS1	Run Time:	22:49	Method:	6850
File ID:	1LM.LM24191	Analyst:	JWR	Units:	ug/L
Workgroup (AAB#):	WG469638	Cal ID:	LCMS1 - 18-DEC-13		
Matrix:	WATER	QAPP:	DOD4		

Analytes	MDL	RDL	Concentration	Qualifier
Perchlorate	0.100	0.200	0.100	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3456866
Report generated 04/04/2014 09:08

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/02/2014 Sample ID: WG469639-02

Instrument ID: LCMS1 Run Time: 15:14 Method: 6850

File ID: 1LM.LM24167 Analyst: JWR QC Key: DOD4

Workgroup (AAB#): WG469638 Cal ID: LCMS1 - 18-DEC-13

Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Perchlorate		1.00	1.01	ug/L	1.43	1.00	15	

* Exceeds %D Criteria

CCV - Modified 03/05/2008

PDF File ID: 3456865

Report generated 04/04/2014 09:08

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/02/2014 Sample ID: WG469639-03

Instrument ID: LCMS1 Run Time: 19:01 Method: 6850

File ID: 1LM.LM24179 Analyst: JWR QC Key: DOD4

Workgroup (AAB#): WG469638 Cal ID: LCMS1 - 18-DEC-13

Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Perchlorate		1.00	1.00	ug/L	1.42	0	15	

* Exceeds %D Criteria

CCV - Modified 03/05/2008

PDF File ID: 3456865

Report generated 04/04/2014 09:08

Microbac Laboratories Inc.
CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/02/2014 Sample ID: WG469639-05
Instrument ID: LCMS1 Run Time: 22:11 Method: 6850
File ID: 1LM.LM24189 Analyst: JWR QC Key: DOD4
Workgroup (AAB#): WG469638 Cal ID: LCMS1 - 18-DEC-13
Matrix: WATER

Analyte		Expected	Found	UNITS	RF	%D	UCL	Q
Perchlorate		1.00	0.979	ug/L	1.39	2.10	15	

* Exceeds %D Criteria

CCV - Modified 03/05/2008
PDF File ID: 3456865
Report generated 04/04/2014 09:08

Microbac Laboratories Inc.

QCMRL SAMPLE

Login Number: L14031621 Run Date: 04/02/2014 Sample ID: WG469638-07

Instrument ID: LCMS1 Run Time: 15:33 Prep Method: 6850

File ID: 1LM.LM24168 Analyst: JWR Method: 6850

Workgroup (AAB#): WG469638 Matrix: Water Units: ug/L

Contract #: Cal ID: LCMS1-18-DEC-13

Analytes	Expected	Found	% Rec	Limits	Q
Perchlorate	0.200	0.189	94.5	70 - 130	

QCMRL - Modified 03/06/2007

PDF File ID: 3456864

Report generated 04/04/2014 09:08

Microbac Laboratories Inc.

QCMRL SAMPLE

Login Number: L14031621 Run Date: 04/02/2014 Sample ID: WG469638-08

Instrument ID: LCMS1 Run Time: 19:20 Prep Method: 6850

File ID: 1LM.LM24180 Analyst: JWR Method: 6850

Workgroup (AAB#): WG469638 Matrix: Water Units: ug/L

Contract #: Cal ID: LCMS1-18-DEC-13

Analytes	Expected	Found	% Rec	Limits	Q
Perchlorate	0.200	0.189	94.5	70 - 130	

QCMRL - Modified 03/06/2007

PDF File ID: 3456864

Report generated 04/04/2014 09:08

Microbac Laboratories Inc.

QCMRL SAMPLE

Login Number:	L14031621	**Run Date:**	04/02/2014	**Sample ID:**	WG469638-09
Instrument ID:	LCMS1	**Run Time:**	22:30	**Prep Method:**	6850
File ID:	1LM.LM24190	**Analyst:**	JWR	**Method:**	6850
Workgroup (AAB#):	WG469638	**Matrix:**	Water	**Units:**	ug/L
Contract #:		**Cal ID:**	LCMS1-18-DEC-13		

Analytes	Expected	Found	% Rec	Limits	Q
Perchlorate	0.200	0.198	99.0	70 - 130	

QCMRL - Modified 03/06/2007
PDF File ID: 3456864
Report generated 04/04/2014 09:08

Microbac Laboratories Inc.

INTERNAL STANDARD AREA SUMMARY
(COMPARED TO AVERAGE OF ICAL)

Login Number:L14031621
Instrument ID:LCMS1
Workgroup (AAB#):WG469638

ICAL CCV Number:WG456864-05
CAL ID: LCMS1-18-DEC-13
Matrix:WATER

Sample Number	Dilution	Tag	IS-1
WG456864	NA	NA	276000
Upper Limit	NA	NA	414000
Lower Limit	NA	NA	138000
L14031621-01	1.00	01	269000
L14031621-02	1.00	01	267000
L14031621-03	1.00	01	260000
L14031621-04	1.00	01	207000
L14031621-05	1.00	01	251000
L14031621-06	1.00	01	296000
L14031621-07	1.00	01	251000
L14031621-08	1.00	01	240000
L14031621-09	1.00	01	235000
WG469638-02	1.00	01	283000
WG469638-03	1.00	01	261000

IS-1 - O18LP

Underline = Response outside limits

INTERNAL_STD_AVG_ICAL - Modified 03/10/2010
PDF File ID: 3456867
Report generated 04/04/2014 09:09

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**	6850	**Samplenum:**	L14031621-01
Instrument:	LCMS1	**Prep Date:**	04/02/2014 13:30	**File ID:**	1LM.LM24174
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 17:27	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	284000	92300	3.08	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**	6850	**Samplenum:**	L14031621-02
Instrument:	LCMS1	**Prep Date:**	04/02/2014 13:30	**File ID:**	1LM.LM24175
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 17:46	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	0.000	221	0.000	2.3	3.8	*

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**	6850	**Samplenum:**	L14031621-03
Instrument:	LCMS1	**Prep Date:**	04/02/2014 13:30	**File ID:**	1LM.LM24176
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 18:05	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	519	97.9	5.30	2.3	3.8	*

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**	6850	**Samplenum:**	L14031621-04
Instrument:	LCMS1	**Prep Date:**	04/02/2014 13:30	**File ID:**	1LM.LM24177
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 18:24	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	42600	15000	2.84	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**	6850	**Samplenum:**	L14031621-05
Instrument:	LCMS1	**Prep Date:**	04/02/2014 13:30	**File ID:**	1LM.LM24178
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 18:43	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	51300	17100	3.00	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**	6850	**Samplenum:**	L14031621-06
Instrument:	LCMS1	**Prep Date:**	04/02/2014 13:30	**File ID:**	1LM.LM24182
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 19:58	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	42900	14700	2.92	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**	6850	**Samplenum:**	L14031621-07
Instrument:	LCMS1	**Prep Date:**	04/02/2014 13:30	**File ID:**	1LM.LM24183
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 20:17	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	528000	172000	3.07	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**	6850	**Samplenum:**	L14031621-08
Instrument:	LCMS1	**Prep Date:**	04/02/2014 13:30	**File ID:**	1LM.LM24184
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 20:36	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	519000	167000	3.11	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**	6850	**Samplenum:**	L14031621-09
Instrument:	LCMS1	**Prep Date:**	04/02/2014 13:30	**File ID:**	1LM.LM24185
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 20:55	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	499000	164000	3.04	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**		**Samplenum:**	WG456864-02
Instrument:	LCMS1	**Prep Date:**		**File ID:**	1LM.LM23231
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	12/18/2013 17:26	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	8410	2790	3.01	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**		**Samplenum:**	WG456864-03
Instrument:	LCMS1	**Prep Date:**		**File ID:**	1LM.LM23232
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	12/18/2013 17:45	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	16200	5210	3.11	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**		**Samplenum:**	WG456864-04
Instrument:	LCMS1	**Prep Date:**		**File ID:**	1LM.LM23233
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	12/18/2013 18:04	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	39200	12700	3.09	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**		**Samplenum:**	WG456864-05
Instrument:	LCMS1	**Prep Date:**		**File ID:**	1LM.LM23234
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	12/18/2013 18:23	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	78800	25700	3.07	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**		**Samplenum:**	WG456864-06
Instrument:	LCMS1	**Prep Date:**		**File ID:**	1LM.LM23235
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	12/18/2013 18:42	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	157000	51500	3.05	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**		**Samplenum:**	WG456864-07
Instrument:	LCMS1	**Prep Date:**		**File ID:**	1LM.LM23236
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	12/18/2013 19:01	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	393000	129000	3.05	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**		**Samplenum:**	WG456864-08
Instrument:	LCMS1	**Prep Date:**		**File ID:**	1LM.LM23237
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	12/18/2013 19:20	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	784000	253000	3.10	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**		**Samplenum:**	WG456864-09
Instrument:	LCMS1	**Prep Date:**		**File ID:**	1LM.LM23238
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	12/18/2013 19:39	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	81000	26800	3.02	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**	6850	**Samplenum:**	WG469638-01
Instrument:	LCMS1	**Prep Date:**	04/02/2014 13:30	**File ID:**	1LM.LM24169
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 15:52	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	17800	5620	3.17	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**	6850	**Samplenum:**	WG469638-02
Instrument:	LCMS1	**Prep Date:**	04/02/2014 13:30	**File ID:**	1LM.LM24170
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 16:11	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	0.000	515	0.000	2.3	3.8	*

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**	6850	**Samplenum:**	WG469638-03
Instrument:	LCMS1	**Prep Date:**	04/02/2014 13:30	**File ID:**	1LM.LM24171
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 16:30	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	16100	4770	3.38	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**	6850	**Samplenum:**	WG469638-07
Instrument:	LCMS1	**Prep Date:**	04/02/2014 13:30	**File ID:**	1LM.LM24168
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 15:33	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	14500	4960	2.92	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**	6850	**Samplenum:**	WG469638-08
Instrument:	LCMS1	**Prep Date:**	04/02/2014 13:30	**File ID:**	1LM.LM24180
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 19:20	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	16800	5400	3.11	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**	6850	**Samplenum:**	WG469638-09
Instrument:	LCMS1	**Prep Date:**	04/02/2014 13:30	**File ID:**	1LM.LM24190
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 22:30	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	17400	5820	2.99	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**		**Samplenum:**	WG469639-01
Instrument:	LCMS1	**Prep Date:**		**File ID:**	1LM.LM24166
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 14:55	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	188	123	1.53	2.3	3.8	*

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**		**Samplenum:**	WG469639-02
Instrument:	LCMS1	**Prep Date:**		**File ID:**	1LM.LM24167
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 15:14	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	75600	24100	3.14	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**		**Samplenum:**	WG469639-03
Instrument:	LCMS1	**Prep Date:**		**File ID:**	1LM.LM24179
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 19:01	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	82600	26900	3.07	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**		**Samplenum:**	WG469639-04
Instrument:	LCMS1	**Prep Date:**		**File ID:**	1LM.LM24181
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 19:39	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	0.000	0.000	0.000	2.3	3.8	*

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**		**Samplenum:**	WG469639-05
Instrument:	LCMS1	**Prep Date:**		**File ID:**	1LM.LM24189
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 22:11	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	83500	27200	3.07	2.3	3.8	

Perchlorate Ion Ratios

Microbac Laboratories Inc.

Login #:	L14031621	**Prep Method:**		**Samplenum:**	WG469639-06
Instrument:	LCMS1	**Prep Date:**		**File ID:**	1LM.LM24191
Analyst:	JWR	**Anal Method:**	6850	**Matrix:**	Water
Worknum:	WG469638	**Analysis Date:**	04/02/2014 22:49	**Units:**	ug/L

Analyte	Res #1	Res #2	Ratio	Lower	Upper	Q
PERCHLORATE	1020	0.000	0.000	2.3	3.8	*

2.2.2.3 Sample Data

Data File	LM24174.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 5:27:17 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	L14031621-01	**Injection Vial**	9.00
Data File	LM24174.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 5:27:17 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	L14031621-01	**Dilution Factor**	1.00
Sample Comment	1,1 (Hist)	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.690e+05	12.60	5.00	-

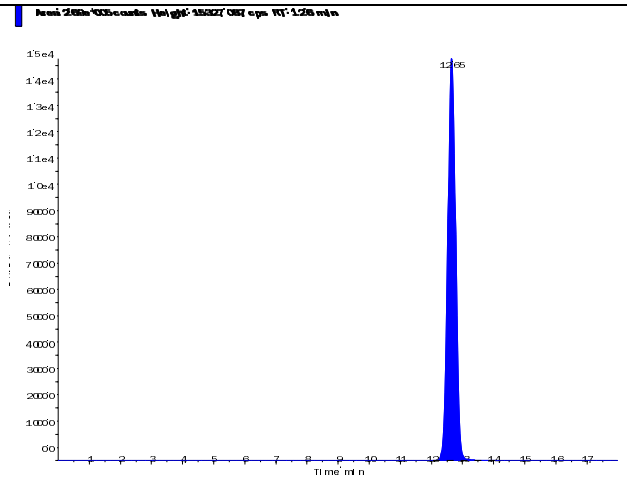
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	2.840e+05	12.70	N/A	3.74
Perchlorate conf	9.230e+04	12.70	N/A	3.73

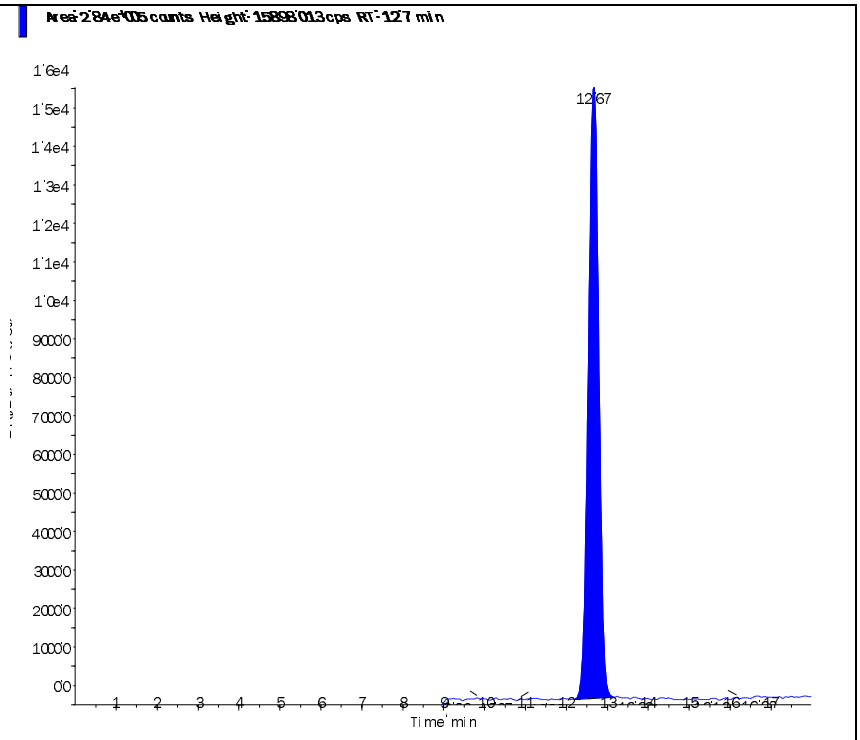
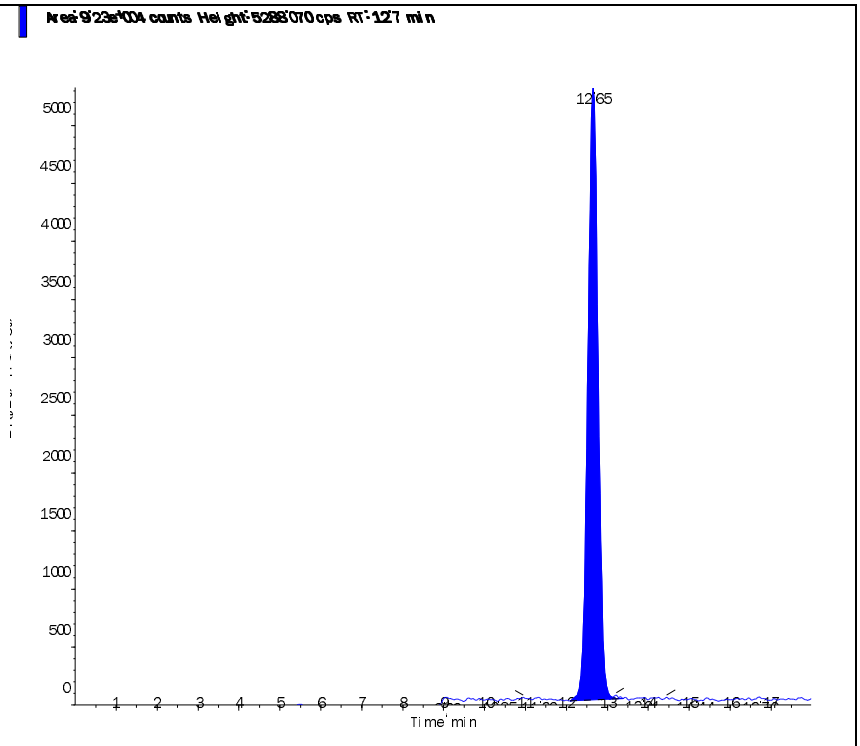
O18LP (Internal Standard)

RT (Exp. RT): 12.60(13.40) min

Concentration: 5.00 ug/L

Sample Type: (Unknown)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 12.70 (13.40) min Calculated conc: 3.74 ng/ml Area Ratio: 1.054 Sample Type: (Unknown)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 12.70 (13.40) min Calculated conc: 3.73 ng/ml Area Ratio: 0.343 Sample Type: (Unknown)	

Data File	LM24175.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 5:46:16 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	L14031621-02	**Injection Vial**	10.00
Data File	LM24175.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 5:46:16 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	L14031621-02	**Dilution Factor**	1.00
Sample Comment	1,1 (Hist)	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.670e+05	12.70	5.00	-

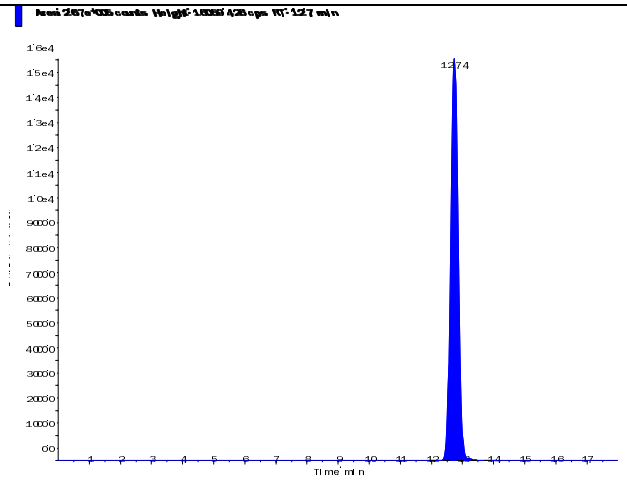
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	0.000e+00	0.00	N/A	No Peak
Perchlorate conf	2.210e+02	13.00	N/A	< 0

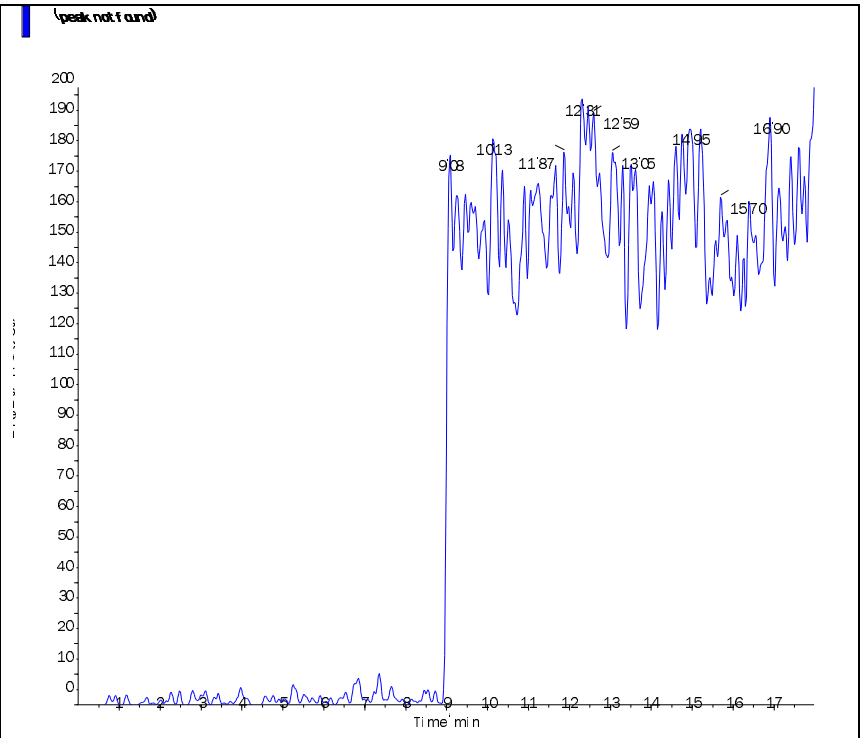
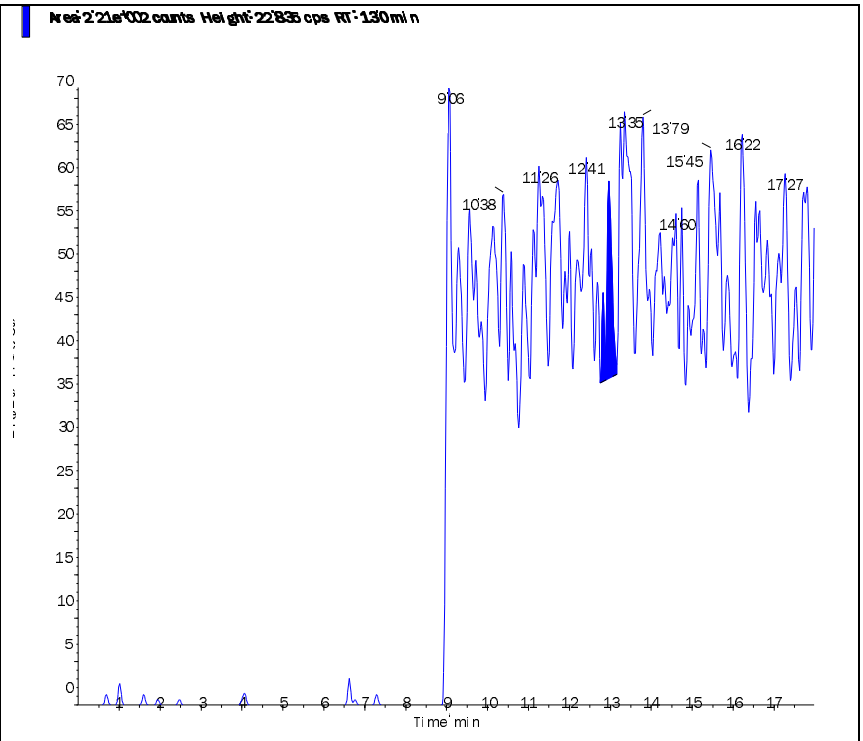
O18LP (Internal Standard)

RT (Exp. RT): 12.70(13.40) min

Concentration: 5.00 ug/L

Sample Type: (Unknown)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 0.00 (13.40) min Calculated conc: No Peak ng/ml Area Ratio: 0.00 Sample Type: (Unknown)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 13.00 (13.40) min Calculated conc: < 0 ng/ml Area Ratio: 0.001 Sample Type: (Unknown)	

Data File	LM24176.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 6:05:11 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	L14031621-03	**Injection Vial**	11.00
Data File	LM24176.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 6:05:11 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	L14031621-03	**Dilution Factor**	1.00
Sample Comment	1,1 (Hist)	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.600e+05	12.70	5.00	-

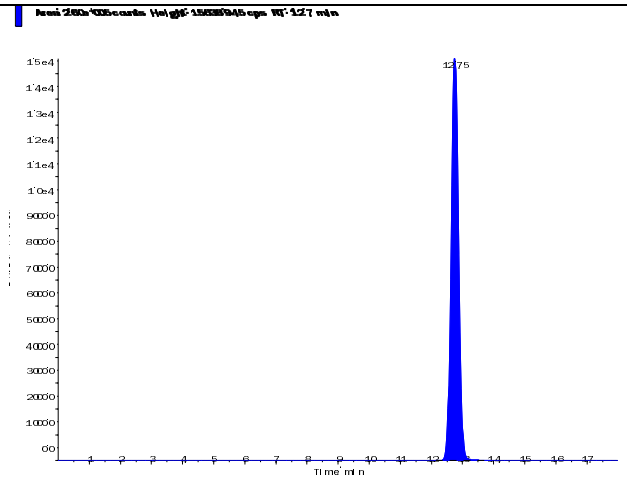
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	5.190e+02	12.60	N/A	< 0
Perchlorate conf	9.790e+01	12.70	N/A	< 0

O18LP (Internal Standard)

RT (Exp. RT): 12.70(13.40) min

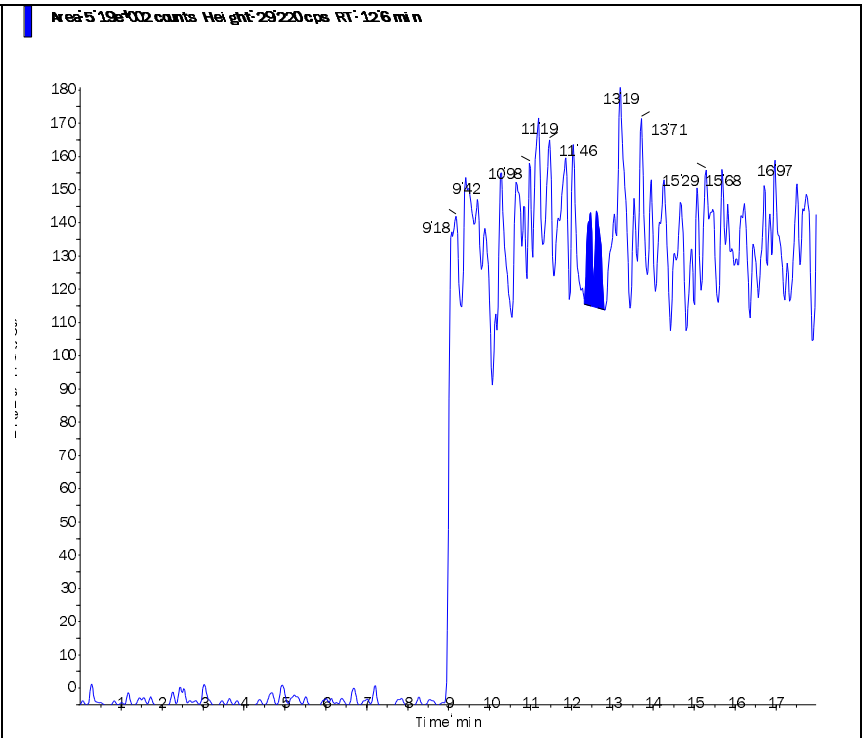
Concentration: 5.00 ug/L

Sample Type: (Unknown)



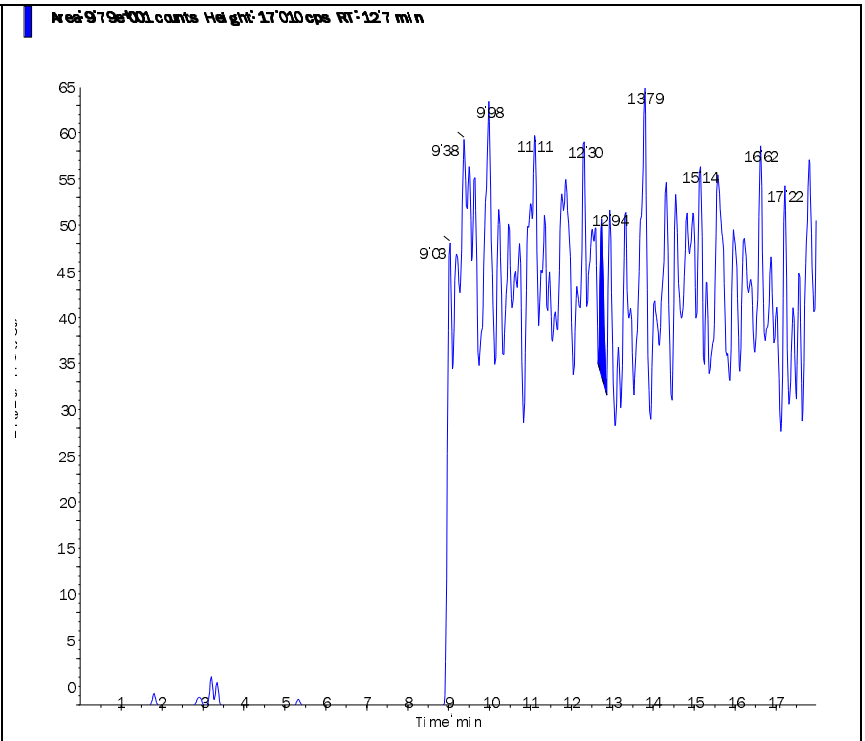
Perchlorate (98.8/83.3 amu)

RT (Exp. RT):	12.60 (13.40) min
Calculated conc:	< 0 ng/ml
Area Ratio:	0.002
Sample Type:	(Unknown)



Perchlorate conf (100.8/85.2 amu)

RT (Exp. RT):	12.70 (13.40) min
Calculated conc:	< 0 ng/ml
Area Ratio:	0.00
Sample Type:	(Unknown)



Data File	LM24177.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 6:24:08 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	L14031621-04	**Injection Vial**	12.00
Data File	LM24177.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 6:24:08 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	L14031621-04	**Dilution Factor**	1.00
Sample Comment	1,1 (Hist)	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.070e+05	12.60	5.00	-

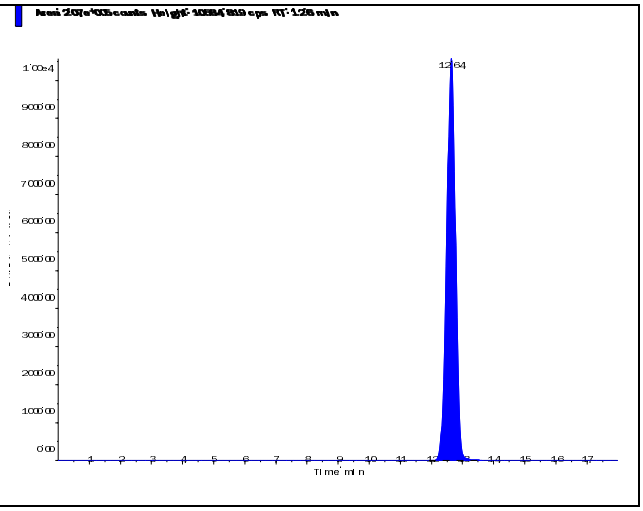
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	4.260e+04	12.70	N/A	0.721
Perchlorate conf	1.500e+04	12.60	N/A	0.782

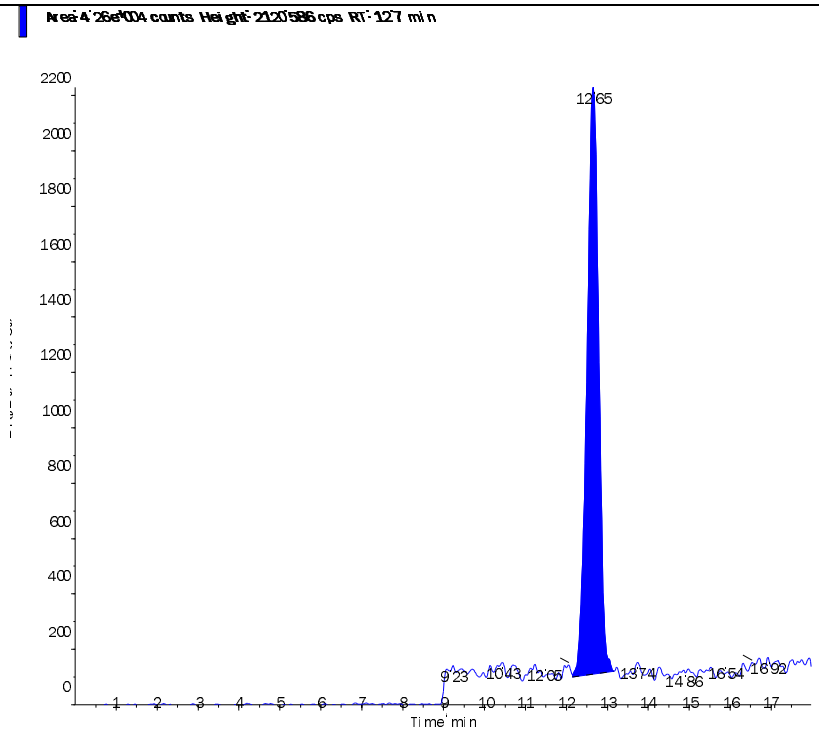
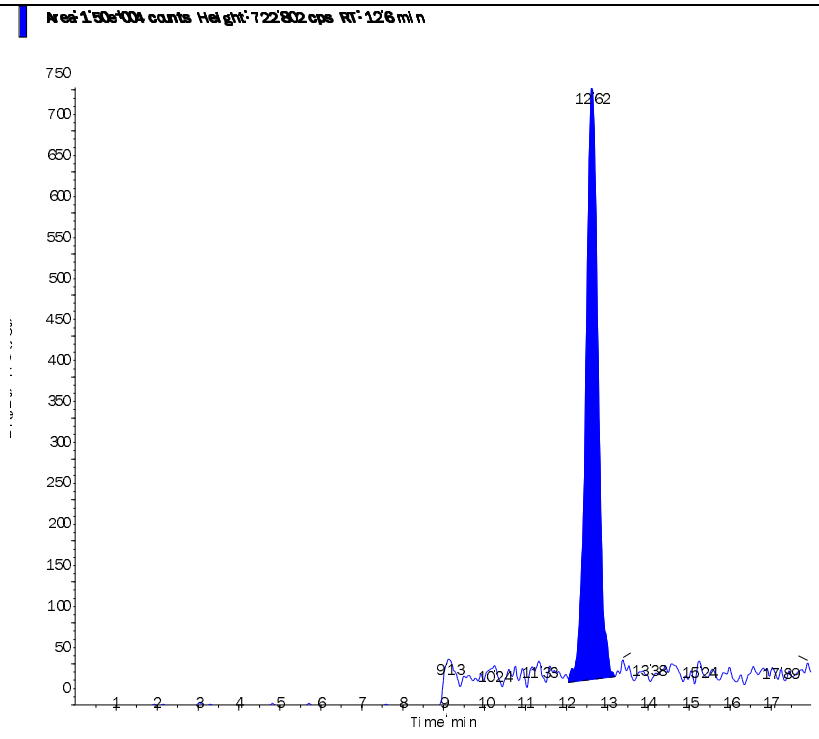
O18LP (Internal Standard)

RT (Exp. RT): 12.60(13.40) min

Concentration: 5.00 ug/L

Sample Type: (Unknown)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 12.70 (13.40) min Calculated conc: 0.721 ng/ml Area Ratio: 0.206 Sample Type: (Unknown)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 12.60 (13.40) min Calculated conc: 0.782 ng/ml Area Ratio: 0.073 Sample Type: (Unknown)	

Data File	LM24178.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 6:43:03 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	L14031621-05	**Injection Vial**	13.00
Data File	LM24178.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 6:43:03 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	L14031621-05	**Dilution Factor**	1.00
Sample Comment	1,1 (Hist)	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.510e+05	12.40	5.00	-

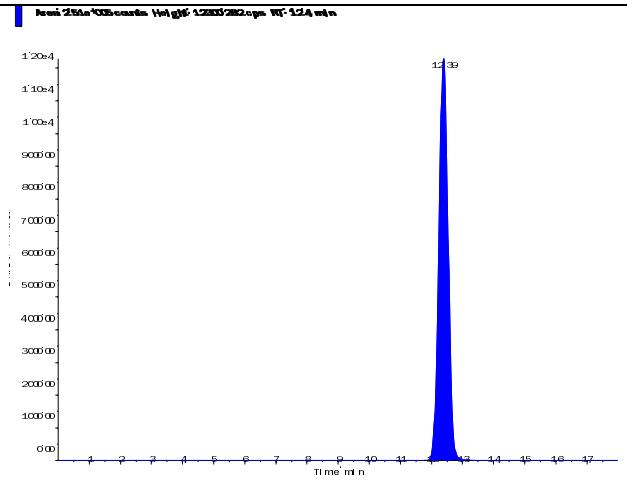
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	5.130e+04	12.40	N/A	0.717
Perchlorate conf	1.710e+04	12.40	N/A	0.732

O18LP (Internal Standard)

RT (Exp. RT): 12.40(13.40) min

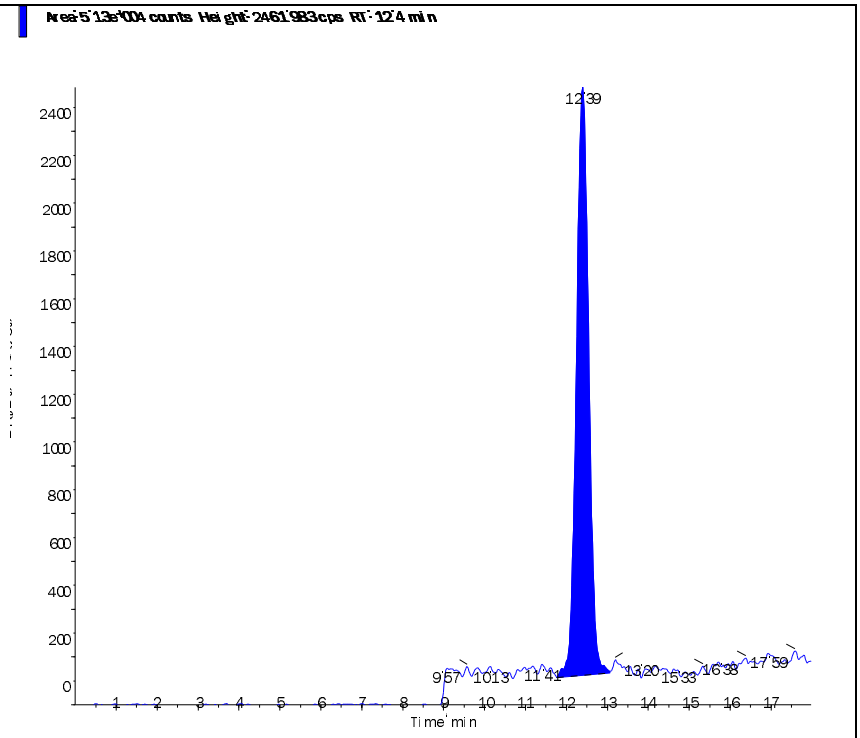
Concentration: 5.00 ug/L

Sample Type: (Unknown)



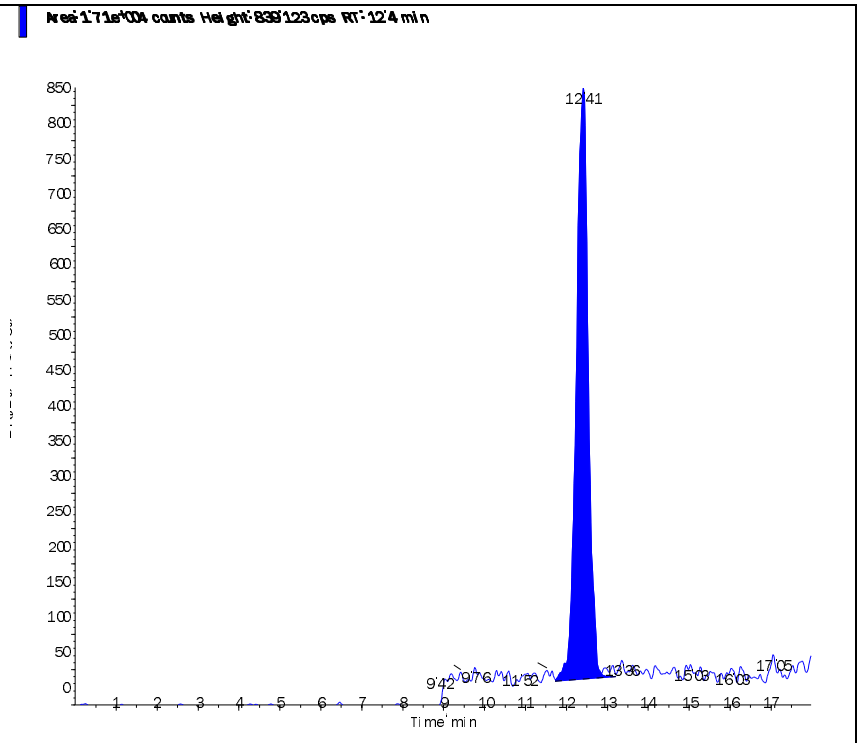
Perchlorate (98.8/83.3 amu)

RT (Exp. RT):	12.40 (13.40) min
Calculated conc:	0.717 ng/ml
Area Ratio:	0.204
Sample Type:	(Unknown)



Perchlorate conf (100.8/85.2 amu)

RT (Exp. RT):	12.40 (13.40) min
Calculated conc:	0.732 ng/ml
Area Ratio:	0.068
Sample Type:	(Unknown)



Data File	LM24182.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 7:58:46 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	L14031621-06	**Injection Vial**	14.00
Data File	LM24182.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 7:58:46 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	L14031621-06	**Dilution Factor**	1.00
Sample Comment	1,1 (Hist)	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.960e+05	12.70	5.00	-

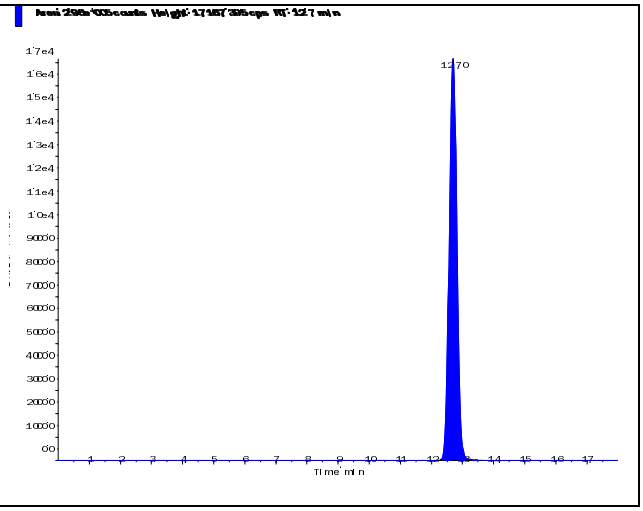
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	4.290e+04	12.70	N/A	0.506
Perchlorate conf	1.470e+04	12.70	N/A	0.532

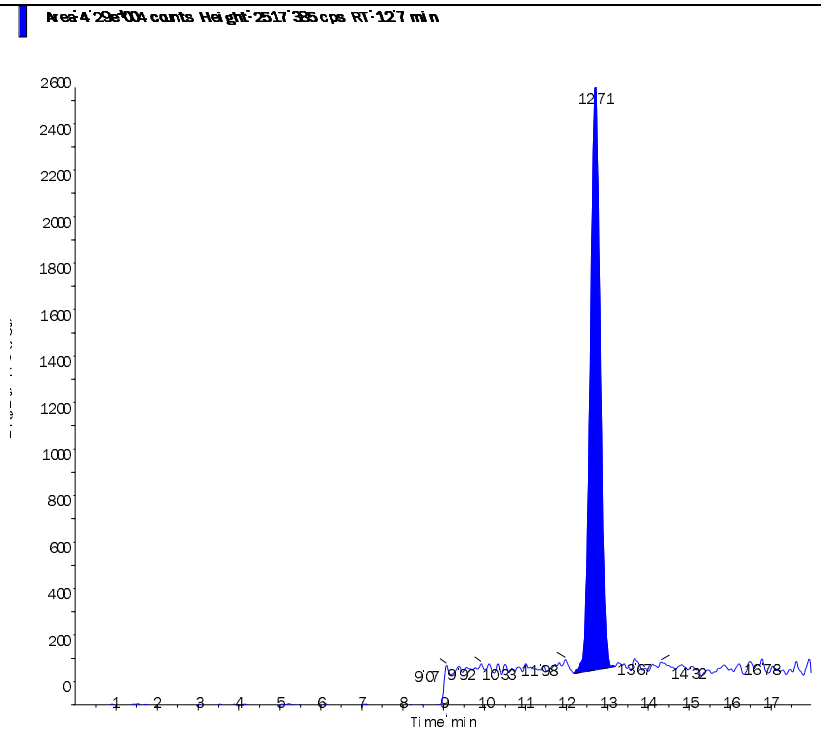
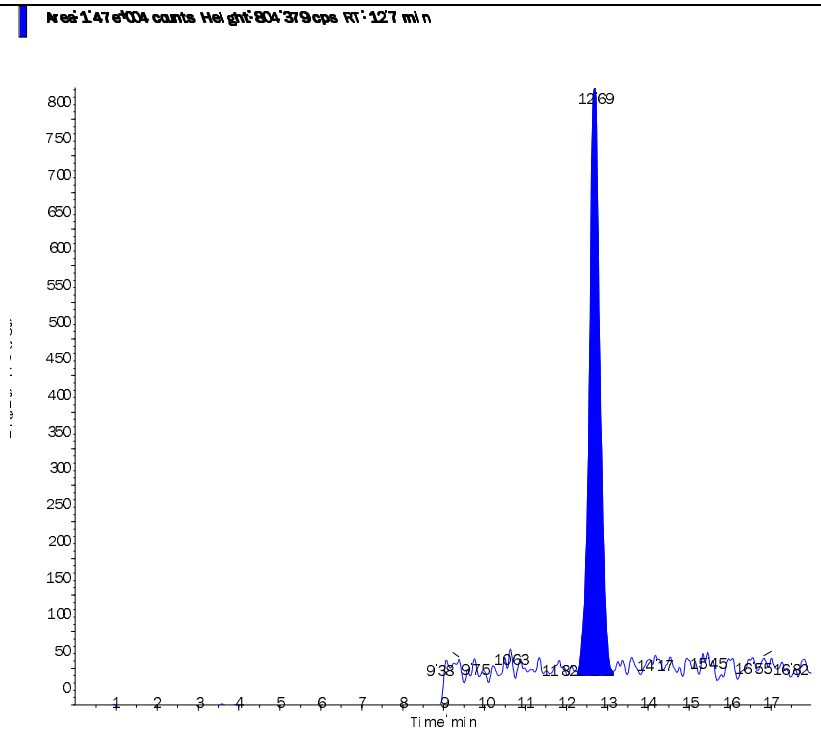
O18LP (Internal Standard)

RT (Exp. RT): 12.70(13.40) min

Concentration: 5.00 ug/L

Sample Type: (Unknown)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 12.70 (13.40) min Calculated conc: 0.506 ng/ml Area Ratio: 0.145 Sample Type: (Unknown)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 12.70 (13.40) min Calculated conc: 0.532 ng/ml Area Ratio: 0.05 Sample Type: (Unknown)	

Data File	LM24183.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 8:17:43 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	L14031621-07 RS	**Injection Vial**	15.00
Data File	LM24183.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 8:17:43 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG469638-04	**Dilution Factor**	1.00
Sample Comment	1,1 (Hist)	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.510e+05	12.20	5.00	-

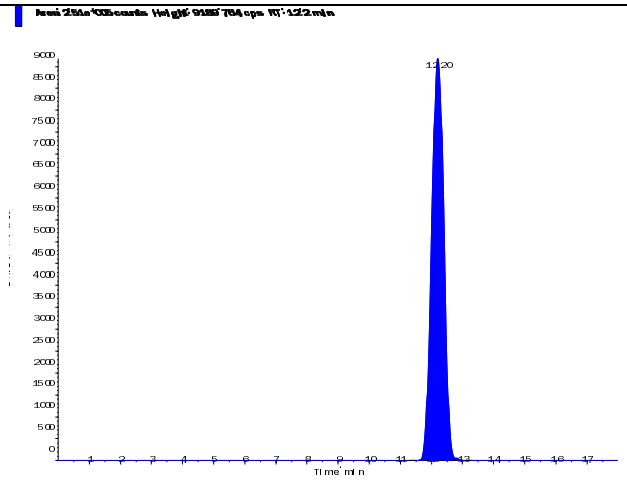
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	5.280e+05	12.20	N/A	7.47
Perchlorate conf	1.720e+05	12.20	N/A	7.49

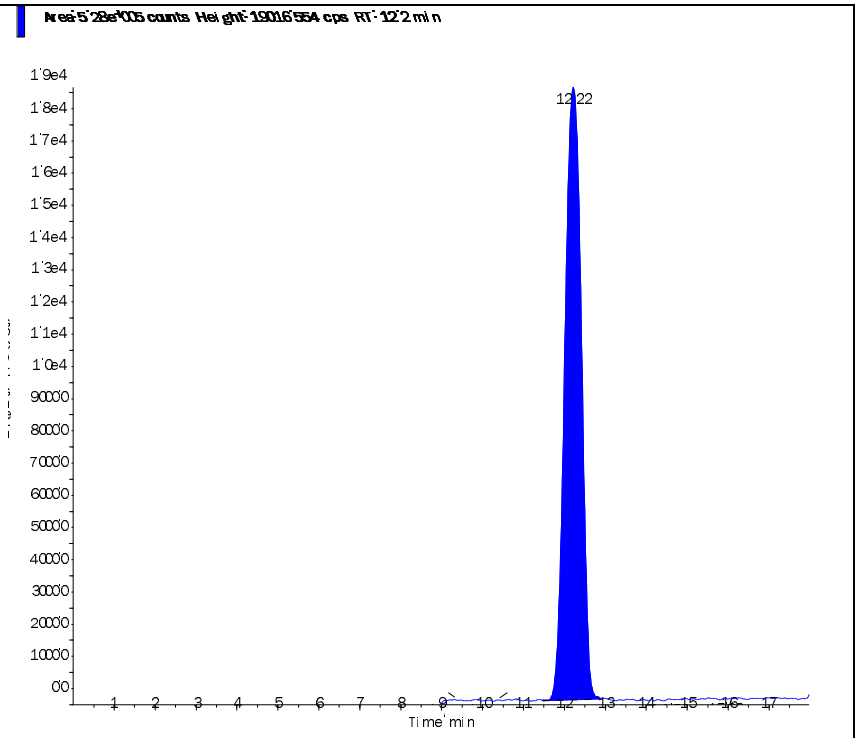
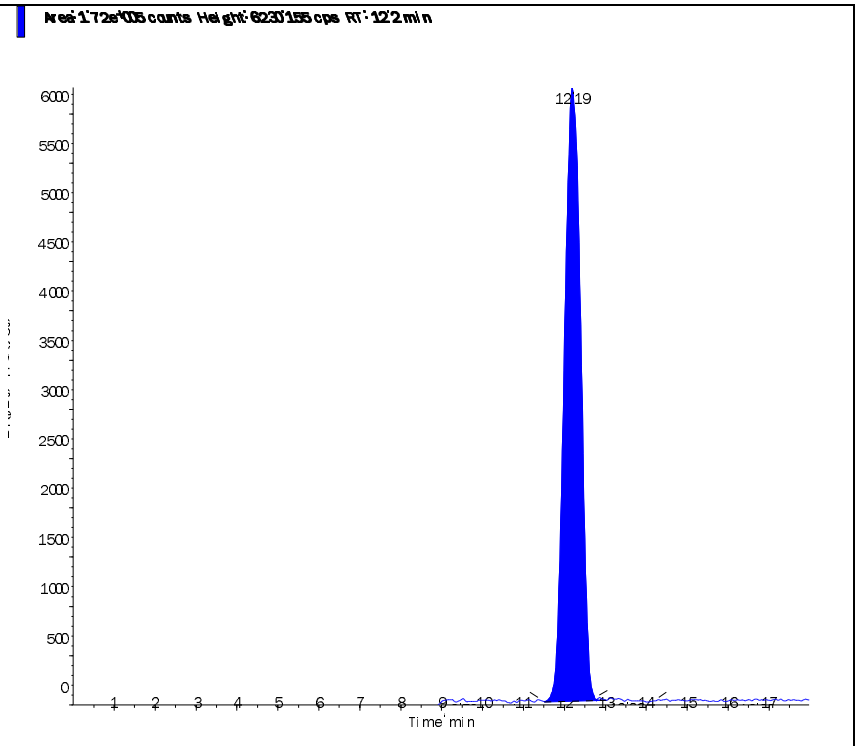
O18LP (Internal Standard)

RT (Exp. RT): 12.20(13.40) min

Concentration: 5.00 ug/L

Sample Type: (Unknown)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 12.20 (13.40) min Calculated conc: 7.47 ng/ml Area Ratio: 2.104 Sample Type: (Unknown)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 12.20 (13.40) min Calculated conc: 7.49 ng/ml Area Ratio: 0.687 Sample Type: (Unknown)	

Data File	LM24184.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 8:36:38 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

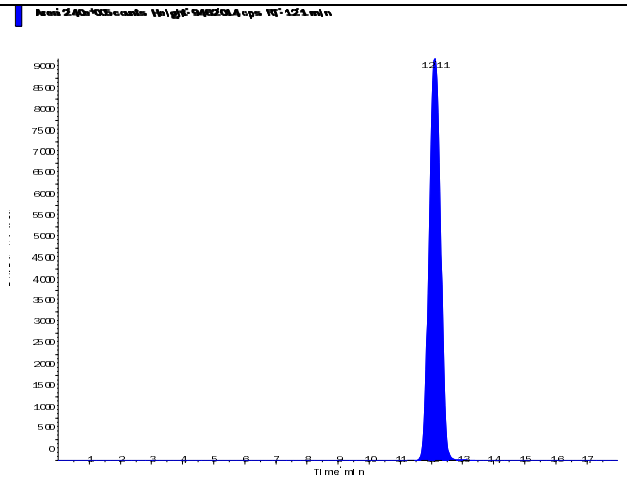
Sample Name	L14031621-08 MS	**Injection Vial**	16.00
Data File	LM24184.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 8:36:38 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG469638-05	**Dilution Factor**	1.00
Sample Comment	1,1 STD63472	**Weight to Volume**	0.00

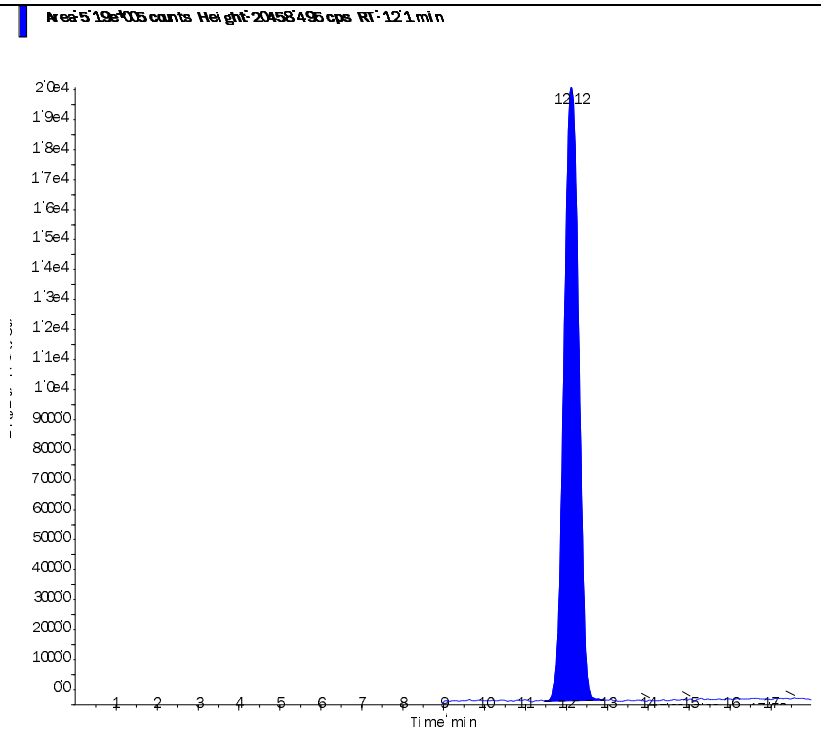
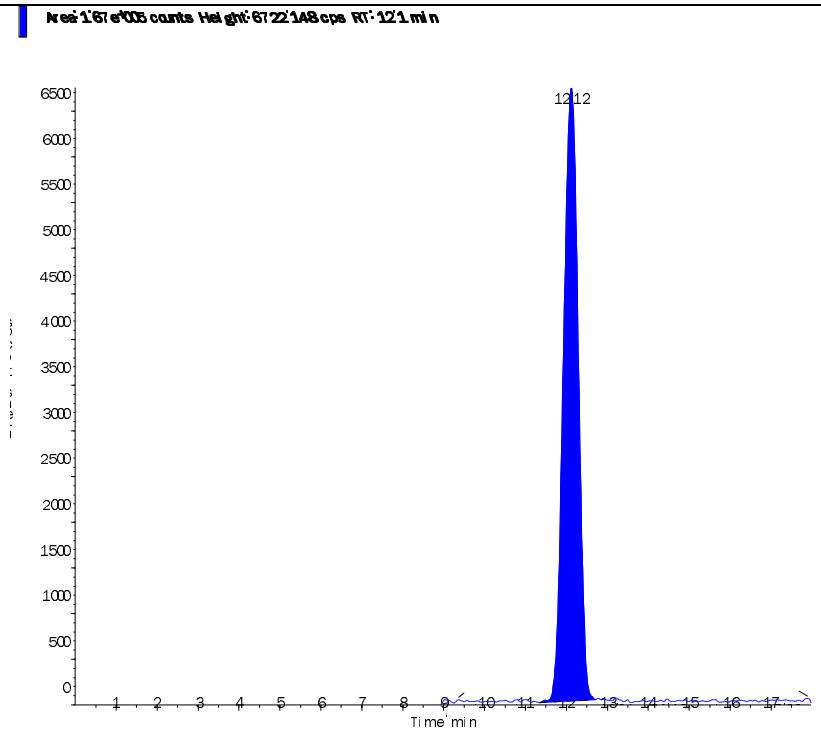
Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.400e+05	12.10	5.00	-

Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	5.190e+05	12.10	N/A	7.69
Perchlorate conf	1.670e+05	12.10	N/A	7.62

O18LP (Internal Standard)

RT (Exp. RT): 12.10(13.40) min
Concentration: 5.00 ug/L
Sample Type: (Unknown)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 12.10 (13.40) min Calculated conc: 7.69 ng/ml Area Ratio: 2.166 Sample Type: (Unknown)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 12.10 (13.40) min Calculated conc: 7.62 ng/ml Area Ratio: 0.698 Sample Type: (Unknown)	

Data File	LM24185.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 8:55:36 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	L14031621-09 MSD	**Injection Vial**	17.00
Data File	LM24185.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 8:55:36 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG469638-06	**Dilution Factor**	1.00
Sample Comment	1,1 STD63472	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.350e+05	12.10	5.00	-

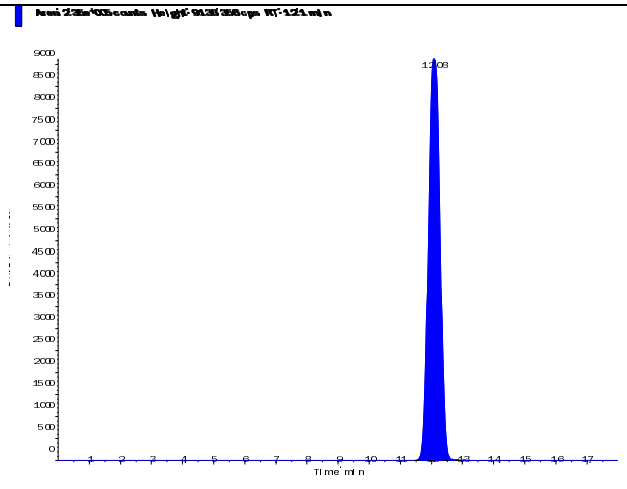
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	4.990e+05	12.10	N/A	7.54
Perchlorate conf	1.640e+05	12.10	N/A	7.62

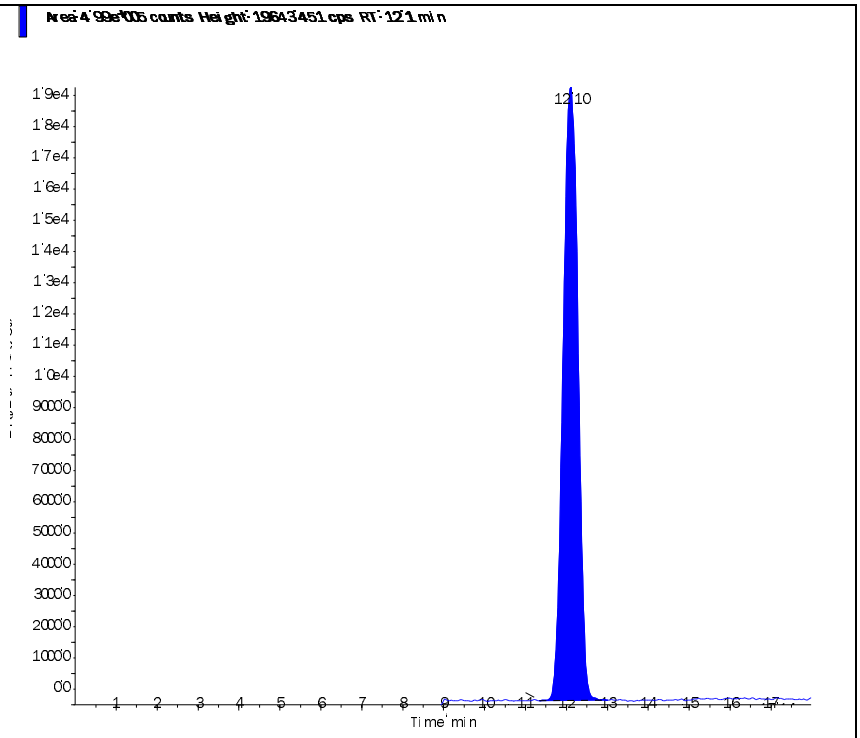
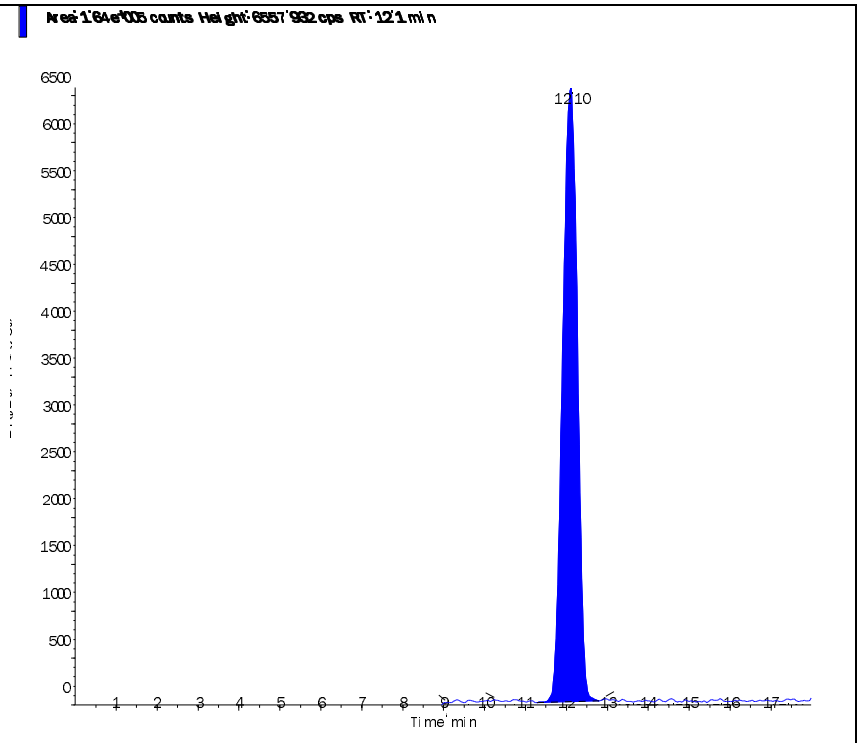
O18LP (Internal Standard)

RT (Exp. RT): 12.10(13.40) min

Concentration: 5.00 ug/L

Sample Type: (Unknown)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 12.10 (13.40) min Calculated conc: 7.54 ng/ml Area Ratio: 2.124 Sample Type: (Unknown)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 12.10 (13.40) min Calculated conc: 7.62 ng/ml Area Ratio: 0.698 Sample Type: (Unknown)	

2.2.2.4 Standards Data

Data File	LM23230.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	12/18/2013 5:07:55 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

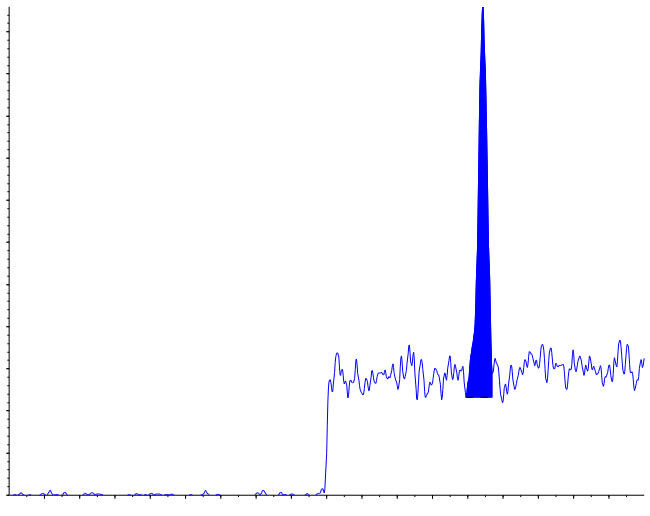
Sample Name	WG456864-01 CCB	**Injection Vial**	1.00
Data File	LM23230.wiff	**Injection Volume**	10.00
Acquisition Date	12/18/2013 5:07:55 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG456864-01	**Dilution Factor**	1.00
Sample Comment	11.00	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.690e+05	13.40	5.00	-

Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	1.350e+02	13.30	N/A	< 0
Perchlorate conf	1.420e+02	13.50	N/A	< 0

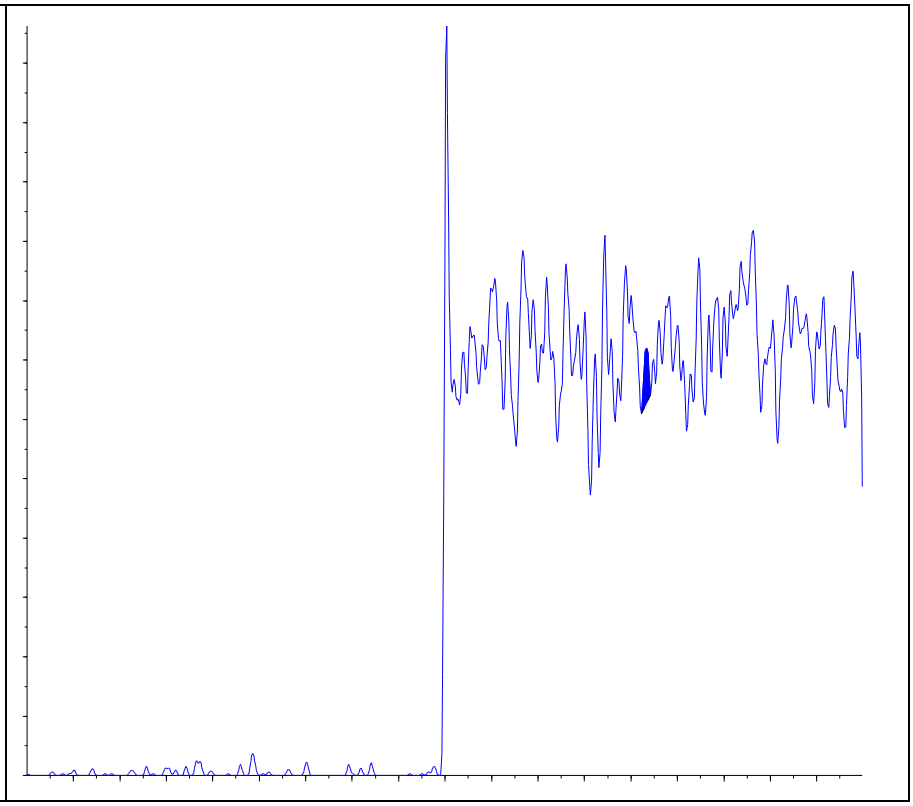
O18LP (Internal Standard)

RT (Exp. RT): 13.40(13.40) min
Concentration: 5.00 ug/L
Sample Type: (Unknown)



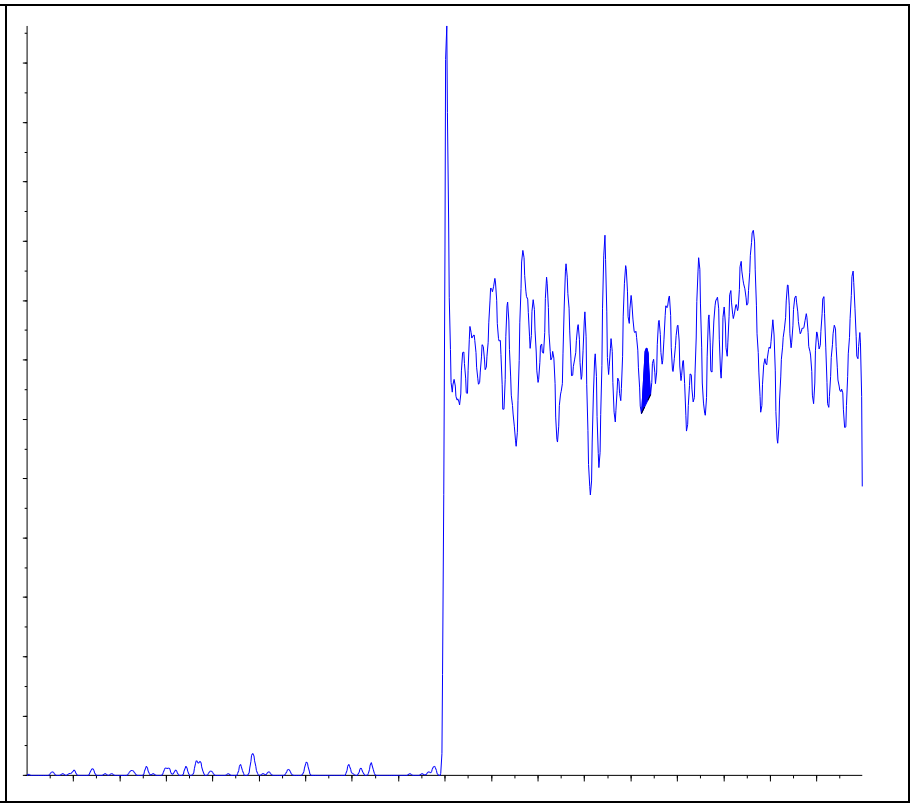
Perchlorate (98.8/83.3 amu)

RT (Exp. RT):	13.30 (13.40) min
Calculated conc:	< 0 ng/ml
Area Ratio:	0.001
Sample Type:	(Unknown)



Perchlorate conf (100.8/85.2 amu)

RT (Exp. RT):	13.50 (13.40) min
Calculated conc:	< 0 ng/ml
Area Ratio:	0.001
Sample Type:	(Unknown)

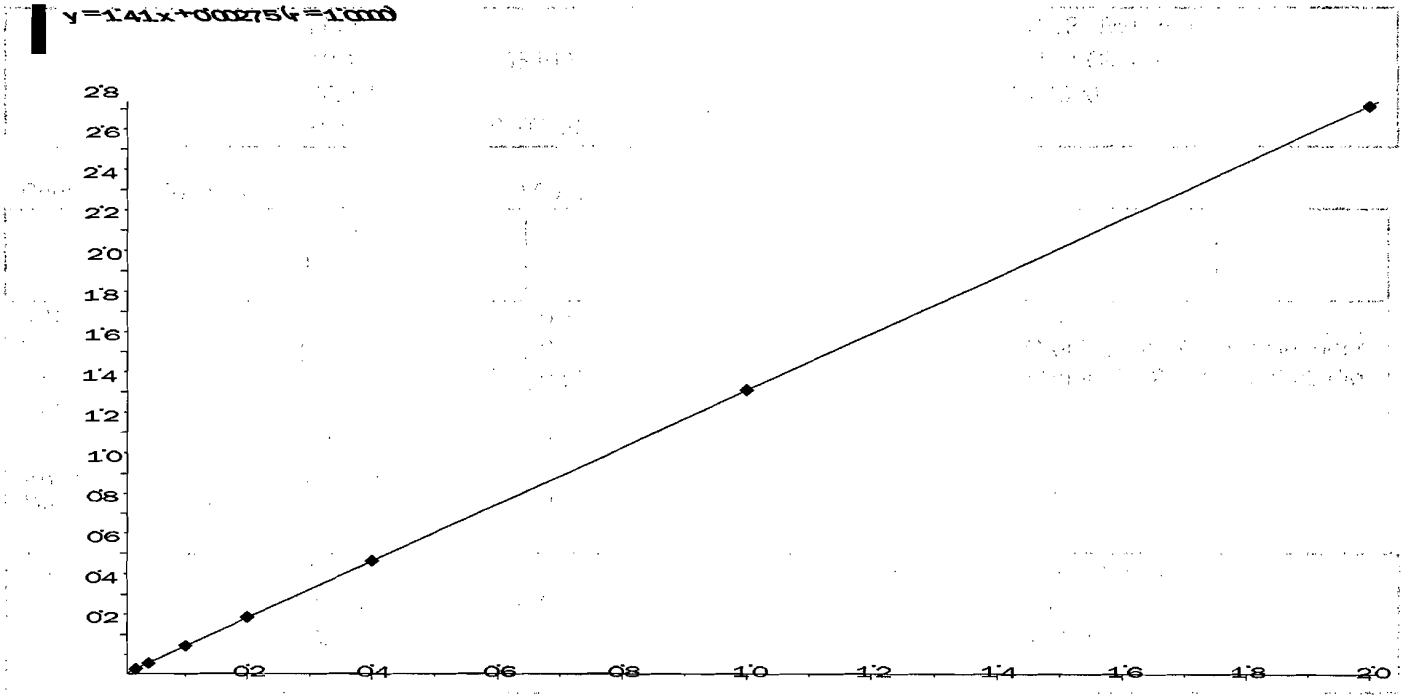


Analyte Name: **Perchlorate**
Internal Standard: O18LP

Data File	LM23230.wiff	**Result Table**	121813_JWR.rdb
Acquisition Date	12/18/2013 5:07:55 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Regression Equation: y = 1.41 x + 0.00275 (r = 1.0000)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.10	1	0.10	99.3	N/A	N/A
0.20	1	0.20	99.3	N/A	N/A
0.50	1	0.50	100.4	N/A	N/A
1.00	1	1.01	101.1	N/A	N/A
2.00	1	2.00	100.0	N/A	N/A
5.00	1	5.00	100.0	N/A	N/A
10.00	1	9.99	99.9	N/A	N/A

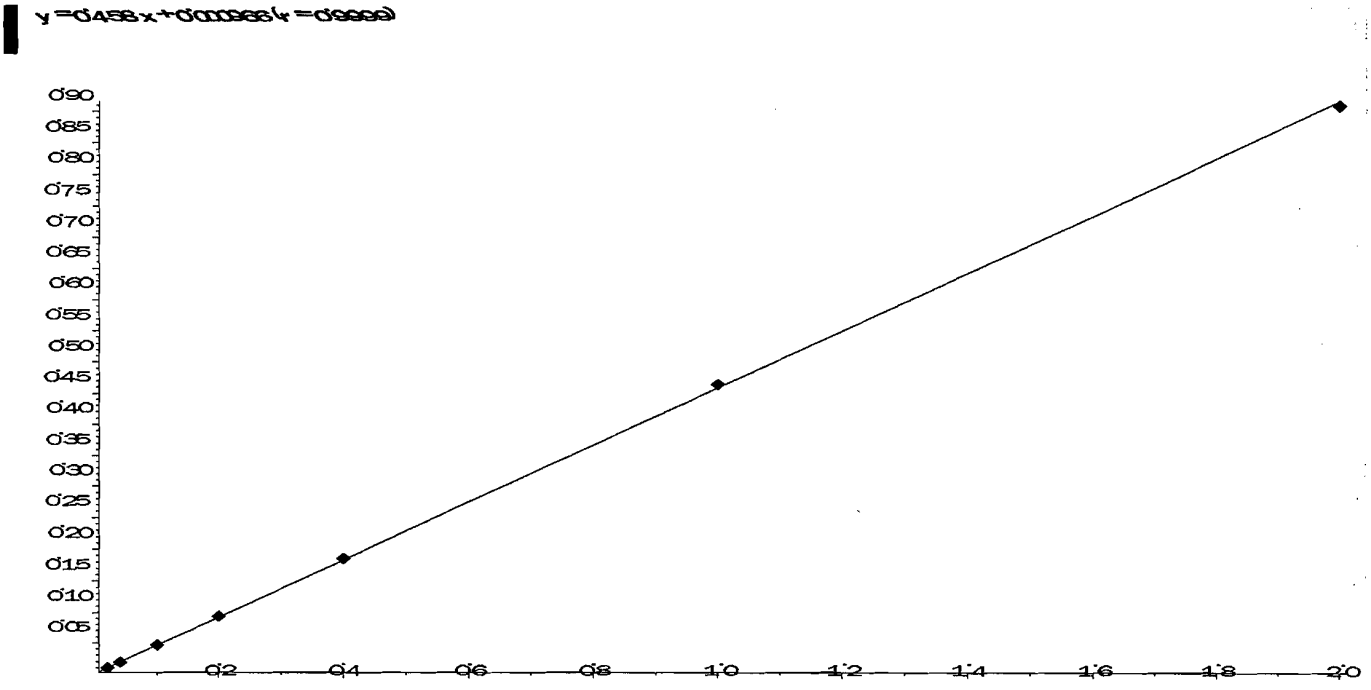


Analyte Name: **Perchlorate conf**
Internal Standard: O18LP

Data File	LM23230.wiff	**Result Table**	121813_JWR.rdb
Acquisition Date	12/18/2013 5:07:55 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Regression Equation: y = 0.458 x + 0.000966 (r = 0.9999)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.10	1	0.10	100.5	N/A	N/A
0.20	1	0.20	97.6	N/A	N/A
0.50	1	0.50	99.5	N/A	N/A
1.00	1	1.01	101.2	N/A	N/A
2.00	1	2.02	100.8	N/A	N/A
5.00	1	5.06	101.2	N/A	N/A
10.00	1	9.92	99.2	N/A	N/A



Data File	LM23231.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	12/18/2013 5:26:51 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG456864-02 STD (0.1 ug/L)	**Injection Vial**	2.00
Data File	LM23231.wiff	**Injection Volume**	10.00
Acquisition Date	12/18/2013 5:26:51 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Standard
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG456864-02	**Dilution Factor**	1.00
Sample Comment	1,1 STD61802	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.740e+05	13.40	5.00	-

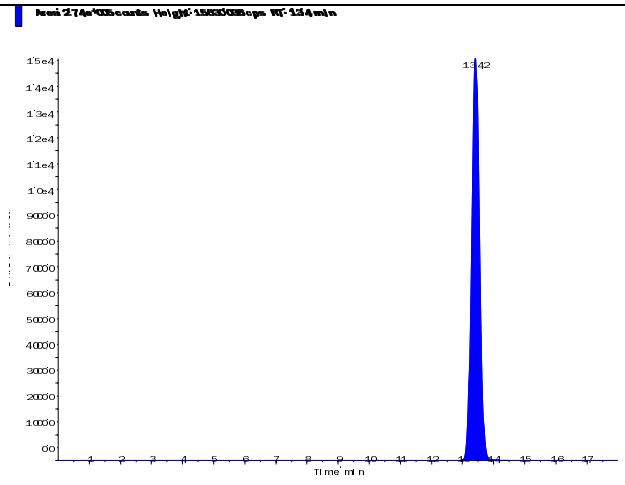
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	8.410e+03	13.40	0.10	0.0993
Perchlorate conf	2.790e+03	13.40	0.10	0.101

O18LP (Internal Standard)

RT (Exp. RT): 13.40(13.40) min

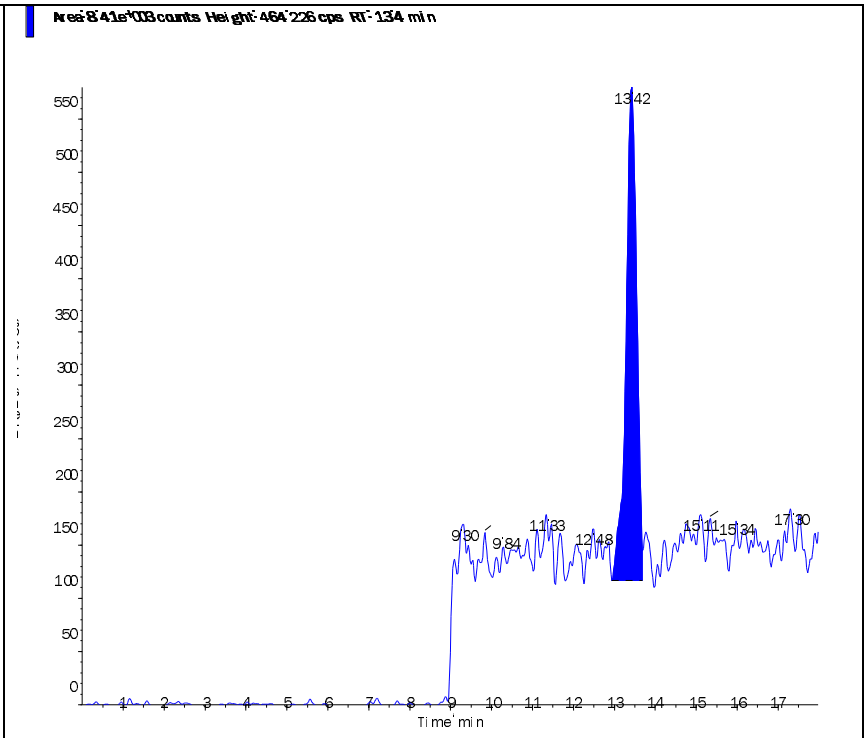
Concentration: 5.00 ug/L

Sample Type: (Standard)



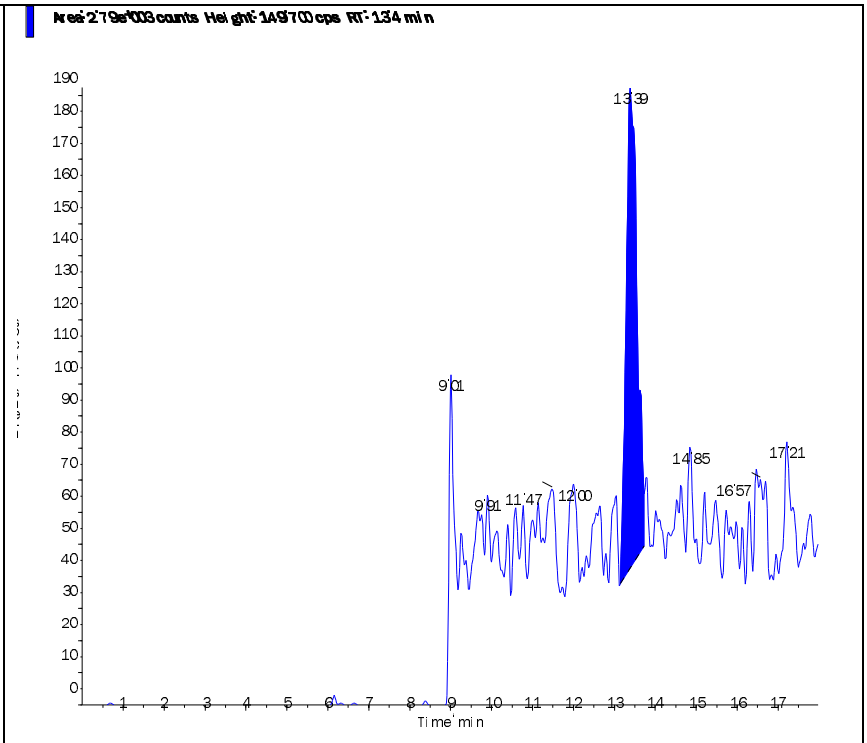
Perchlorate (98.8/83.3 amu)

RT (Exp. RT):	13.40 (13.40) min
Calculated conc:	0.0993 ng/ml
Area Ratio:	0.031
Sample Type:	(Standard)



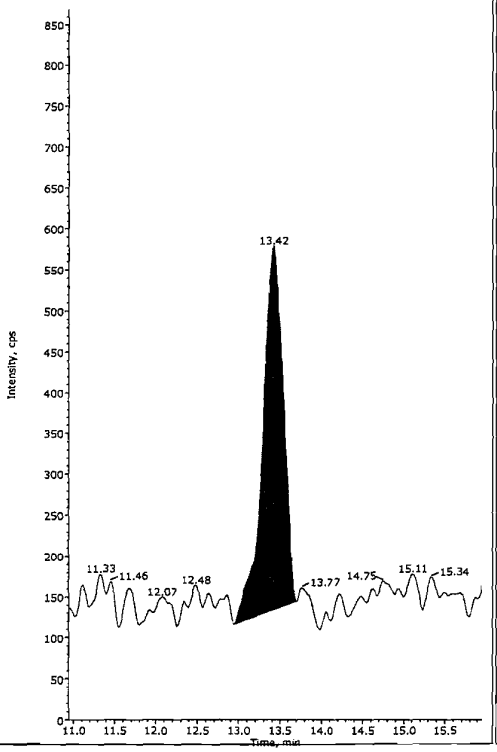
Perchlorate conf (100.8/85.2 amu)

RT (Exp. RT):	13.40 (13.40) min
Calculated conc:	0.101 ng/ml
Area Ratio:	0.01
Sample Type:	(Standard)



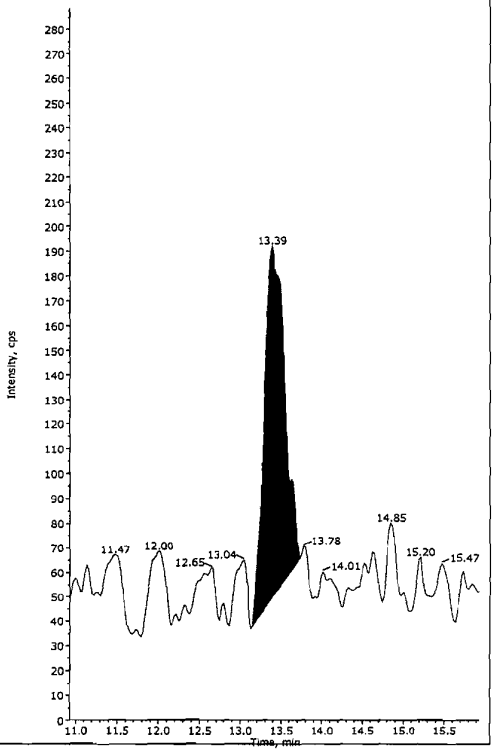
Sample Name: "WG456864-02 STD (0.1 ug/L)" Sample ID: "WG456864-02" File: "LM23231.wiff"
Peak Name: "Perchlorate" Mass(es): "98.8/83.3 amu"
Comment: "1,1 STD61802" Annotation: ""

```
Sample Index:          1
Sample Type:       Standard
Concentration:      0.100      ug/L
Calculated Conc:    0.0959     ug/L
Acq. Date:         12/18/2013
Acq. Time:         5:26:51 PM

Modified:             No
Proc. Algorithm: Analyst Classic
Bunching Factor:       3
Noise Threshold:     4.76    cps
Area Threshold:     23.82    cps
Num. Smooths:          5
Sep. Width:         0.20
Sep. Height:        0.01
Exp. Peak Ratio:    5.00
Exp. Adj. Ratio:    4.00
Exp. Val. Ratio:    3.00
RT Window:         30.000     sec
Expected RT:        13.4     min
Use Relative RT:    Yes

Int. Type:        Base To Base
Retention Time:     13.4     min
Area:          7.78e+003     counts
Height:          446.375     cps
Start Time:        12.941     min
End Time:          13.690     min
```

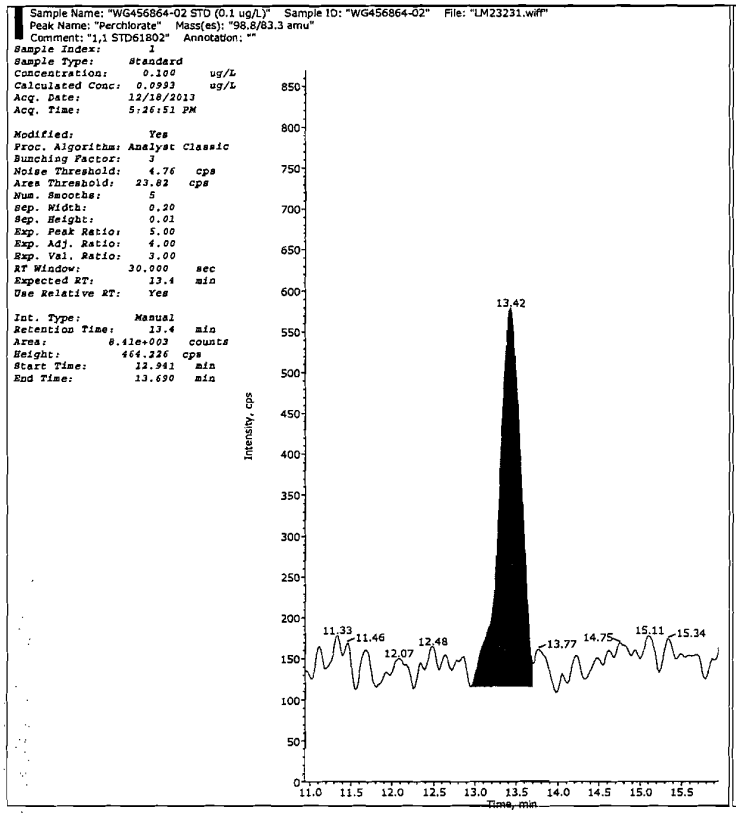


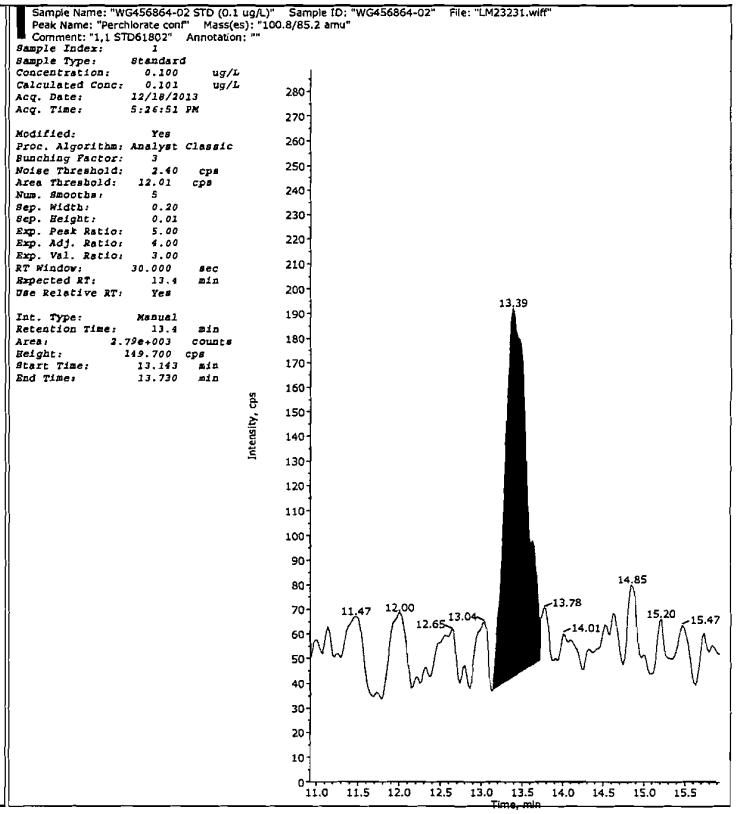
Sample Name: "WG456864-02 STD (0.1 ug/L)" Sample ID: "WG456864-02" File: "LM23231.wiff"
Peak Name: "Perchlorate conf" Mass(es): "100.8/85.2 amu"
Comment: "1,1 STD61802" Annotation: ""

```
Sample Index:          1
Sample Type:       Standard
Concentration:      0.100      ug/L
Calculated Conc:    0.0874     ug/L
Acq. Date:         12/18/2013
Acq. Time:         5:26:51 PM

Modified:             No
Proc. Algorithm: Analyst Classic
Bunching Factor:       2
Noise Threshold:     2.40    cps
Area Threshold:     12.01    cps
Num. Smooths:          5
Sep. Width:         0.20
Sep. Height:        0.01
Exp. Peak Ratio:    5.00
Exp. Adj. Ratio:    4.00
Exp. Val. Ratio:    3.00
RT Window:         30.000     sec
Expected RT:        13.4     min
Use Relative RT:    Yes

Int. Type:        Base To Base
Retention Time:     13.4     min
Area:          2.50e+003     counts
Height:          143.035     cps
Start Time:        13.143     min
End Time:          13.730     min
```



Collected by: N/A
Electronic Signature: no
Operator: lcms1





#4
SWR 12/19/13
pdw 12/20/13

Collected by: N/A
Electronic Signature: no
Operator: lcms1

Data File	LM23232.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	12/18/2013 5:45:47 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG456864-03 STD (0.2 ug/L)	**Injection Vial**	3.00
Data File	LM23232.wiff	**Injection Volume**	10.00
Acquisition Date	12/18/2013 5:45:47 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Standard
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG456864-03	**Dilution Factor**	1.00
Sample Comment	1,1 STD61802	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.770e+05	13.40	5.00	-

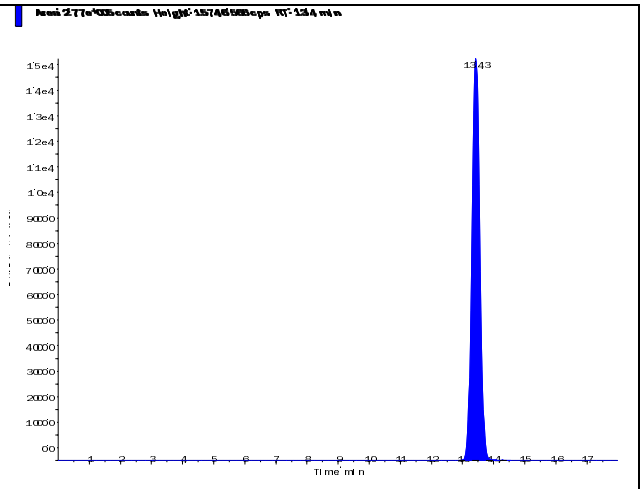
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	1.620e+04	13.40	0.20	0.199
Perchlorate conf	5.210e+03	13.40	0.20	0.195

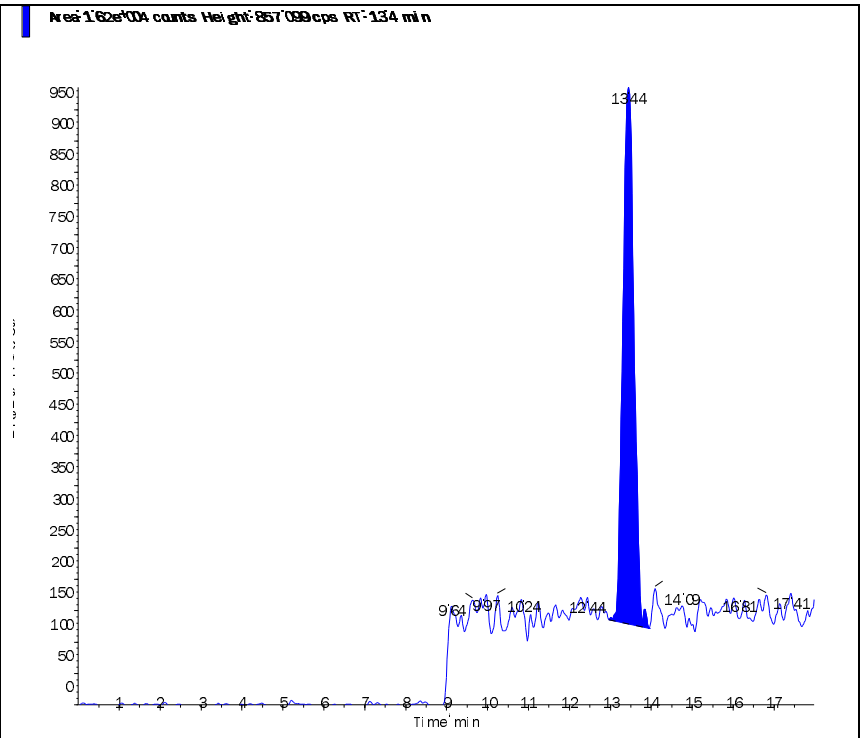
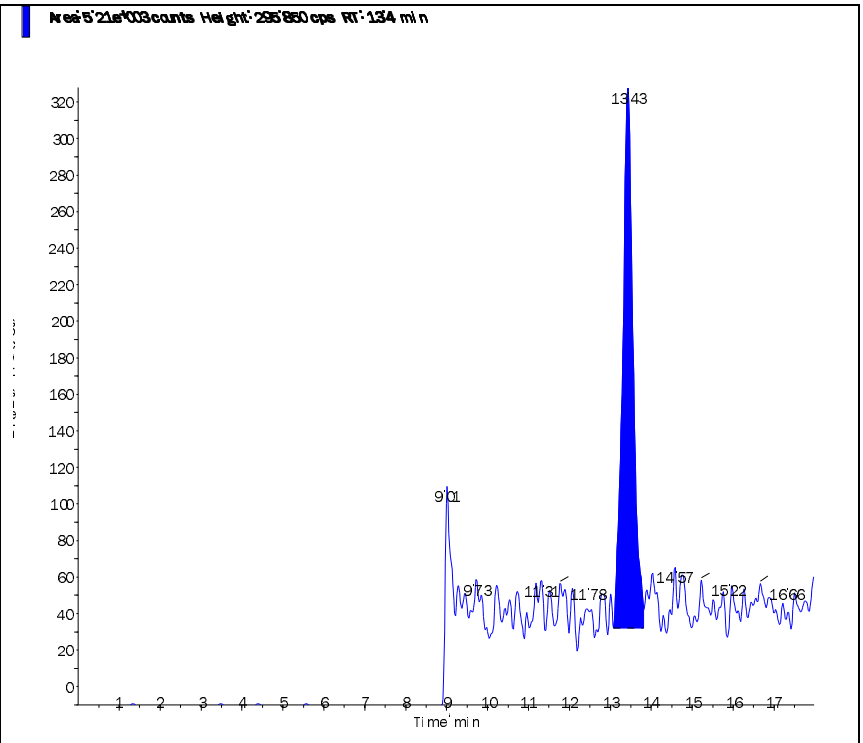
O18LP (Internal Standard)

RT (Exp. RT): 13.40(13.40) min

Concentration: 5.00 ug/L

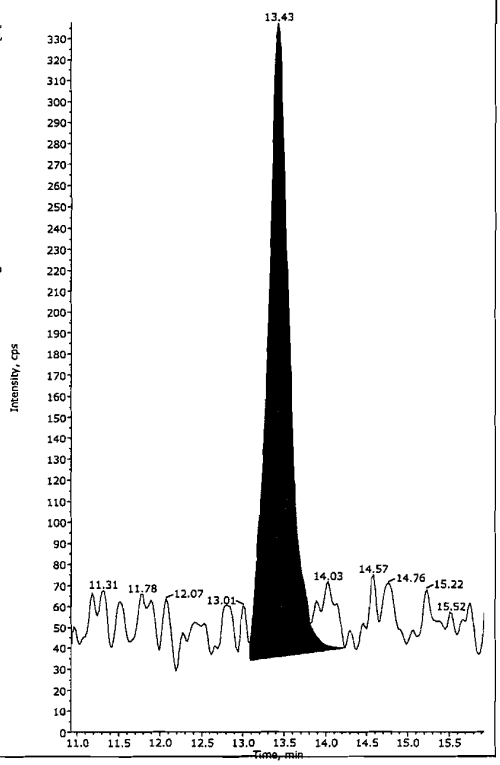
Sample Type: (Standard)



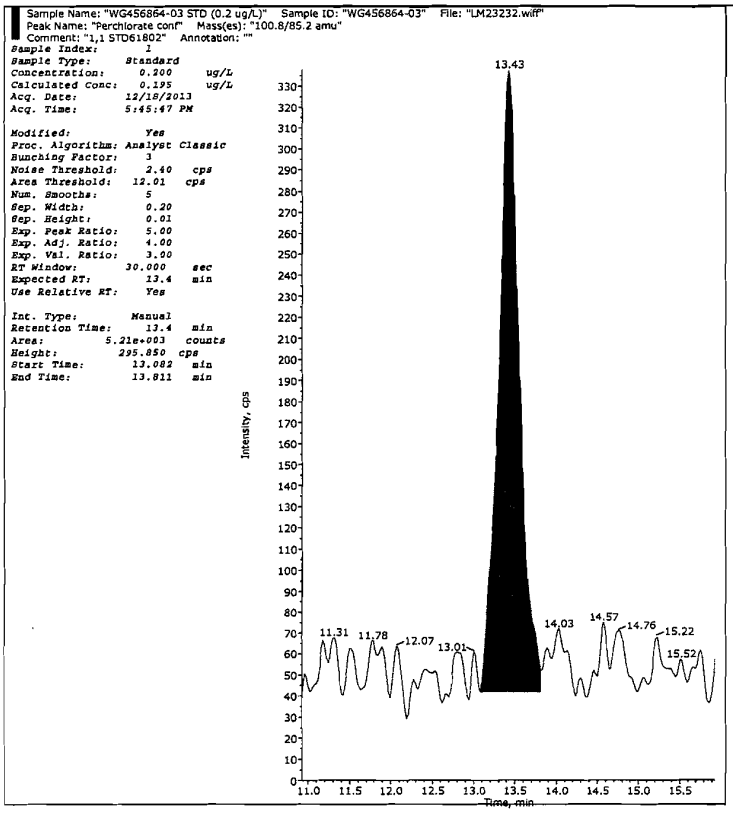
Perchlorate (98.8/83.3 amu) RT (Exp. RT): 13.40 (13.40) min Calculated conc: 0.199 ng/ml Area Ratio: 0.059 Sample Type: (Standard)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 13.40 (13.40) min Calculated conc: 0.195 ng/ml Area Ratio: 0.019 Sample Type: (Standard)	

Sample Name: "WG456864-03 STD (0.2 ug/L)" Sample ID: "WG456864-03" File: "LM23232.wiff"
Peak Name: "Perchlorate conf" Mass(es): "100.8/85.2 amu"
Comment: "1,1 5TD61802" Annotation: ""

Sample Index:	1
Sample Type:	Standard
Concentration:	0.200 ug/L
Calculated Conc:	0.207 ug/L
Acq. Date:	12/18/2013
Acq. Time:	5:45:47 PM
Modified:	No
Proc. Algorithm:	Analyst Classic
Bunching Factor:	2
Noise Threshold:	2.40 cps
Area Threshold:	12.01 cps
Num. Smooths:	5
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.000 sec
Expected RT:	13.4 min
Use Relative RT:	Yes
Int. Type:	Exponential Skim
Retention Time:	13.4 min
Area:	5.57e+003 counts
Height:	302.043 cps
Start Time:	13.082 min
End Time:	13.811 min



Collected by: N/A
Electronic Signature: no
Operator: lcms1



#4
JWR 12/19/13
mlc 12/20/13

Collected by: N/A
Electronic Signature: no
Operator: lcms1

Data File	LM23233.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	12/18/2013 6:04:43 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG456864-04 STD (0.5 ug/L)	**Injection Vial**	4.00
Data File	LM23233.wiff	**Injection Volume**	10.00
Acquisition Date	12/18/2013 6:04:43 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Standard
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG456864-04	**Dilution Factor**	1.00
Sample Comment	1,1 STD61802	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.720e+05	13.40	5.00	-

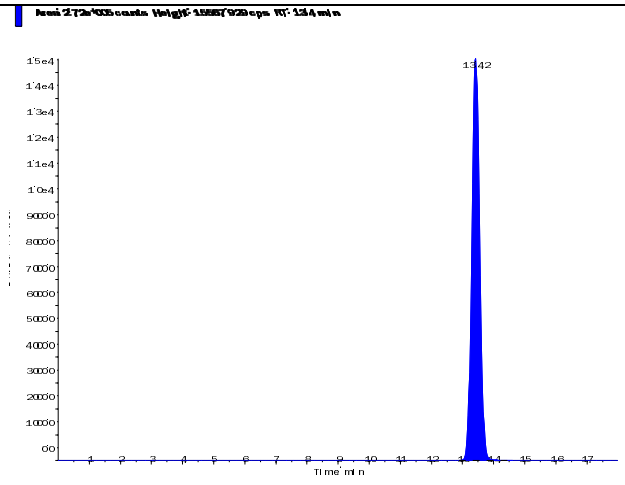
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	3.920e+04	13.40	0.50	0.502
Perchlorate conf	1.270e+04	13.40	0.50	0.497

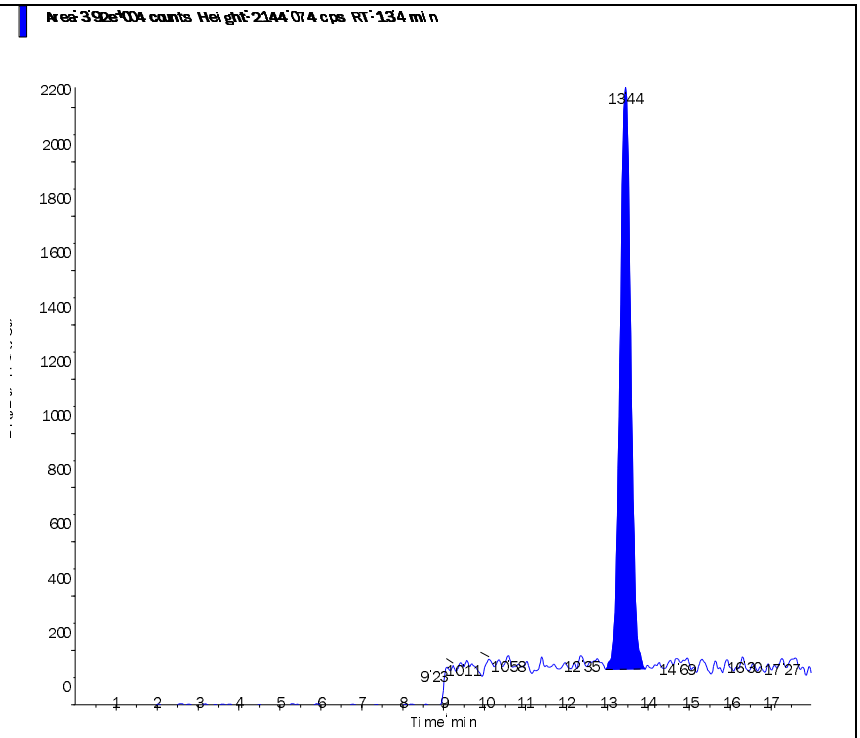
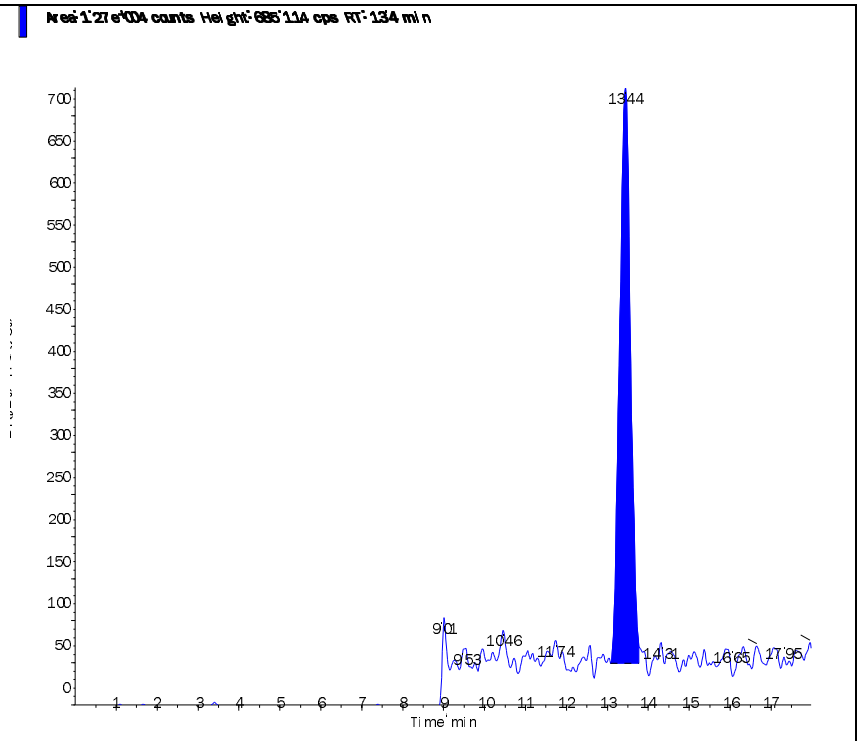
O18LP (Internal Standard)

RT (Exp. RT): 13.40(13.40) min

Concentration: 5.00 ug/L

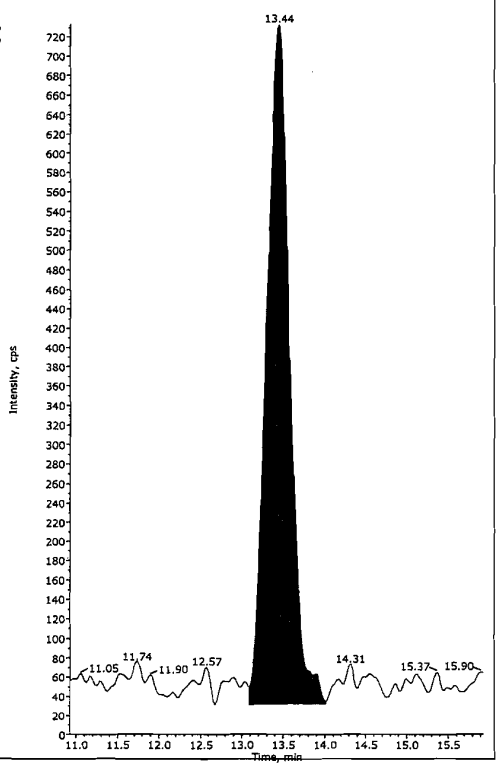
Sample Type: (Standard)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 13.40 (13.40) min Calculated conc: 0.502 ng/ml Area Ratio: 0.144 Sample Type: (Standard)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 13.40 (13.40) min Calculated conc: 0.497 ng/ml Area Ratio: 0.047 Sample Type: (Standard)	

Sample Name: "WG456864-04 STD (0.5 ug/L)" Sample ID: "WG456864-04" File: "LM23233.wiff"
Peak Name: "Perchlorate conf" Mass(es): "100.8/85.2 amu"
Comment: "1,1 STD61802" Annotation: ""

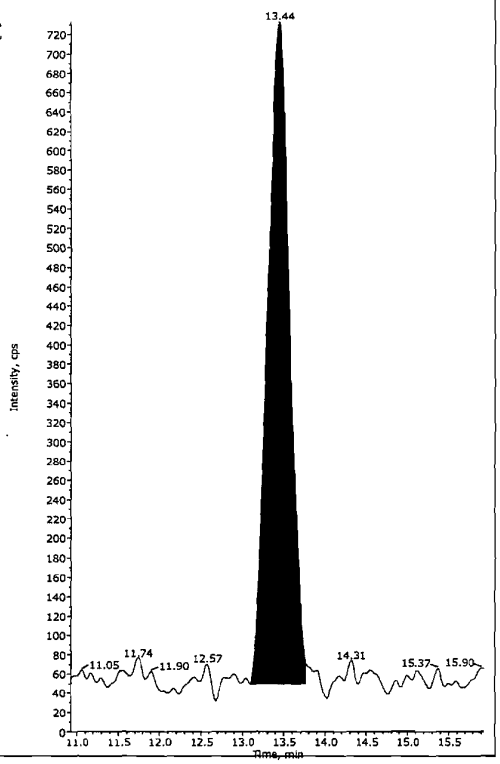
Sample Index:	1
Sample Type:	Standard
Concentration:	0.500 ug/L
Calculated Conc:	0.536 ug/L
Acq. Date:	12/18/2013
Acq. Time:	6:04:43 PM
Modified:	No
Proc. Algorithm:	Analyst Classic
Bunching Factor:	2
Noise Threshold:	2.40 cps
Area Threshold:	12.01 cps
Num. Smooths:	5
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.000 sec
Expected RT:	13.4 min
Use Relative RT:	Yes
Int. Type:	Valley
Retention Time:	13.4 min
Area:	1.37e+004 counts
Height:	702.393 cps
Start Time:	13.092 min
End Time:	14.014 min



Collected by: N/A
Electronic Signature: no
Operator: lcms1

Sample Name: "WG456864-04 STD (0.5 ug/L)" Sample ID: "WG456864-04" File: "LM23233.wiff"
Peak Name: "Perchlorate conf" Mass(es): "100.8/85.2 amu"
Comment: "1,1 STD61802" Annotation: ""

Sample Index:	1	
Sample Type:	Standard	
Concentration:	0.500	ug/L
Calculated Conc:	0.497	ug/L
Acq. Date:	12/18/2013	
Acq. Time:	6:04:43 PM	
Modified:	Yes	
Proc. Algorithm:	Analyst Classic	
Bunching Factor:	3	
Noise Threshold:	2.40	cps
Area Threshold:	12.01	cps
Num. Smooths:	5	
Sep. Width:	0.20	
Sep. Height:	0.01	
Exp. Peak Ratio:	5.00	
Exp. Adj. Ratio:	4.00	
Exp. Val. Ratio:	3.00	
RT Window:	30.000	sec
Expected RT:	13.4	min
Use Relative RT:	Yes	
Int. Type:	Manual	
Retention Time:	13.4	min
Area:	1.27e+004	counts
Height:	685.114	cps
Start Time:	13.082	min
End Time:	13.771	min



#4
JWR 12/19/13
mlc 12/20/13

Collected by: N/A
Electronic Signature: no
Operator: lcms1

Data File	LM23234.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	12/18/2013 6:23:41 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG456864-05 STD (1.0 ug/L)	**Injection Vial**	5.00
Data File	LM23234.wiff	**Injection Volume**	10.00
Acquisition Date	12/18/2013 6:23:41 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Standard
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG456864-05	**Dilution Factor**	1.00
Sample Comment	1,1 STD61802	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.740e+05	13.40	5.00	-

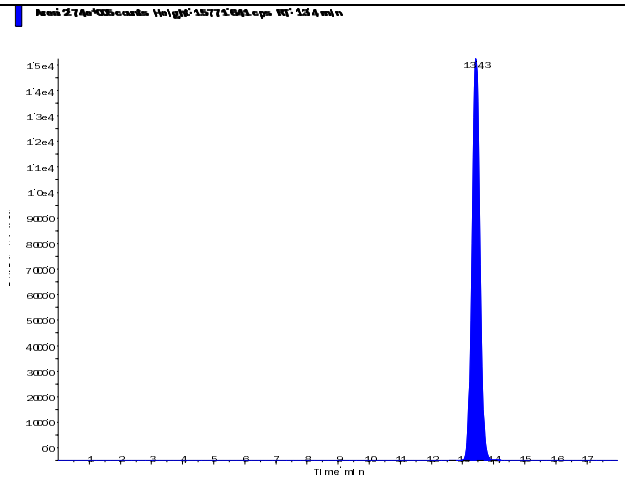
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	7.880e+04	13.40	1.00	1.01
Perchlorate conf	2.570e+04	13.40	1.00	1.01

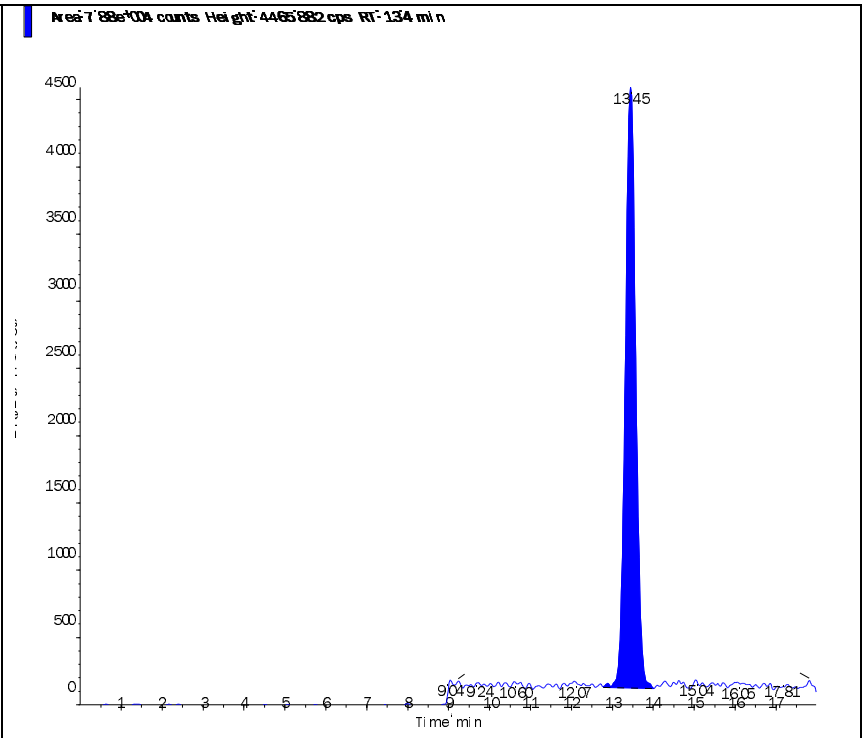
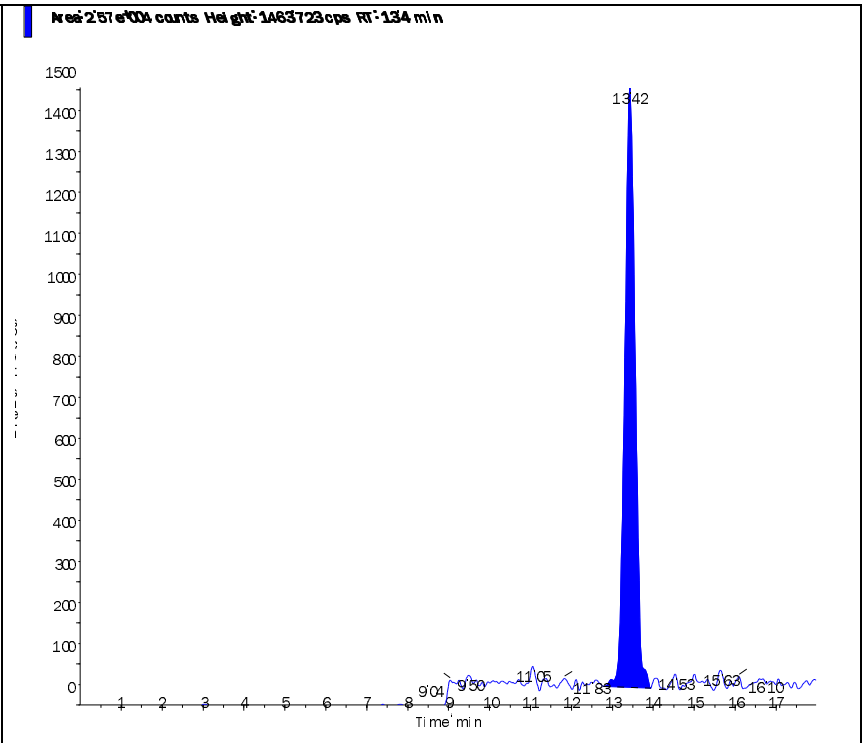
O18LP (Internal Standard)

RT (Exp. RT): 13.40(13.40) min

Concentration: 5.00 ug/L

Sample Type: (Standard)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 13.40 (13.40) min Calculated conc: 1.01 ng/ml Area Ratio: 0.287 Sample Type: (Standard)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 13.40 (13.40) min Calculated conc: 1.01 ng/ml Area Ratio: 0.094 Sample Type: (Standard)	

Data File	LM23235.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	12/18/2013 6:42:37 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG456864-06 STD (2.0 ug/L)	**Injection Vial**	6.00
Data File	LM23235.wiff	**Injection Volume**	10.00
Acquisition Date	12/18/2013 6:42:37 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Standard
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG456864-06	**Dilution Factor**	1.00
Sample Comment	1,1 STD61802	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.770e+05	13.40	5.00	-

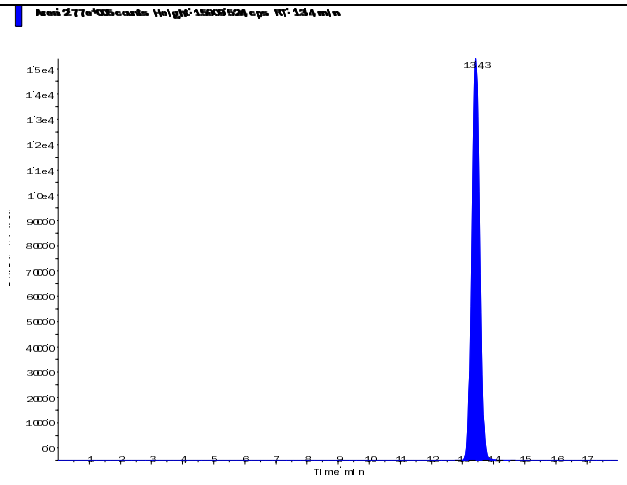
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	1.570e+05	13.40	2.00	2.00
Perchlorate conf	5.150e+04	13.40	2.00	2.02

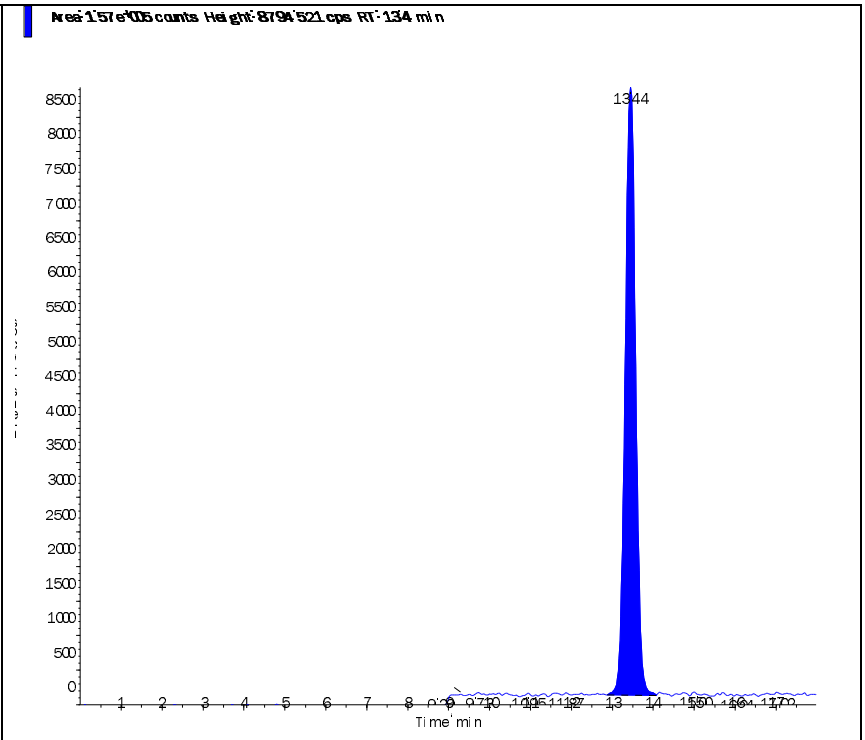
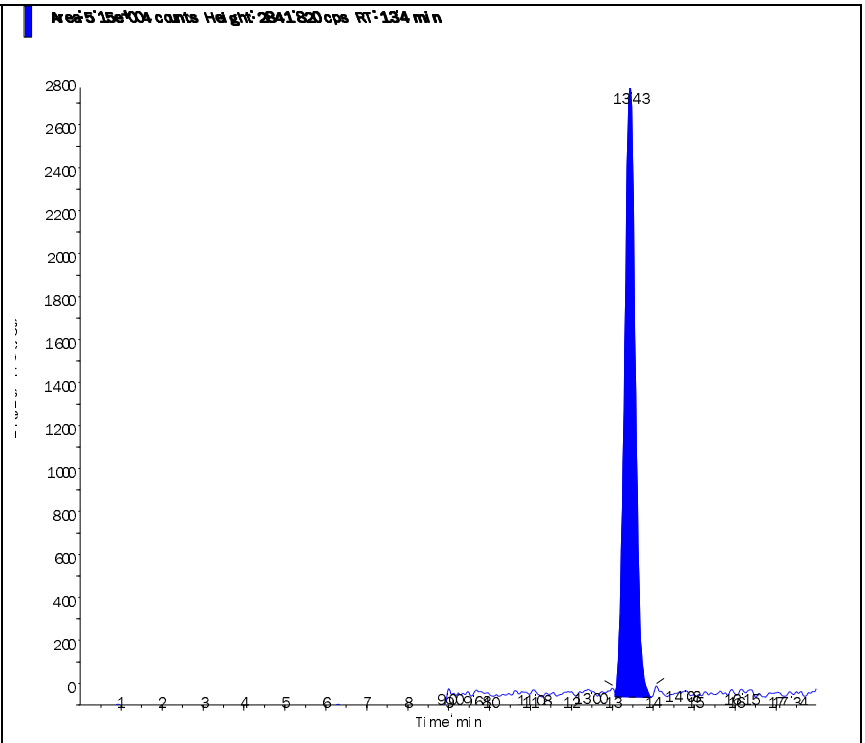
O18LP (Internal Standard)

RT (Exp. RT): 13.40(13.40) min

Concentration: 5.00 ug/L

Sample Type: (Standard)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 13.40 (13.40) min Calculated conc: 2.00 ng/ml Area Ratio: 0.566 Sample Type: (Standard)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 13.40 (13.40) min Calculated conc: 2.02 ng/ml Area Ratio: 0.186 Sample Type: (Standard)	

Data File	LM23236.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	12/18/2013 7:01:33 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG456864-07 STD (5.0 ug/L)	**Injection Vial**	7.00
Data File	LM23236.wiff	**Injection Volume**	10.00
Acquisition Date	12/18/2013 7:01:33 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Standard
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG456864-07	**Dilution Factor**	1.00
Sample Comment	1,1 STD61802	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.790e+05	13.40	5.00	-

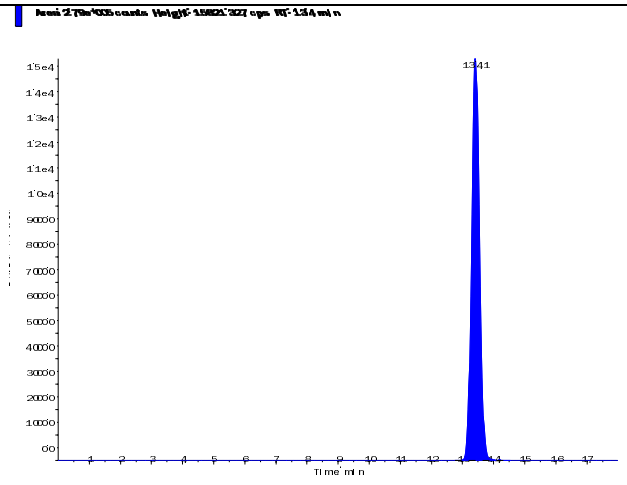
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	3.930e+05	13.40	5.00	5.00
Perchlorate conf	1.290e+05	13.40	5.00	5.06

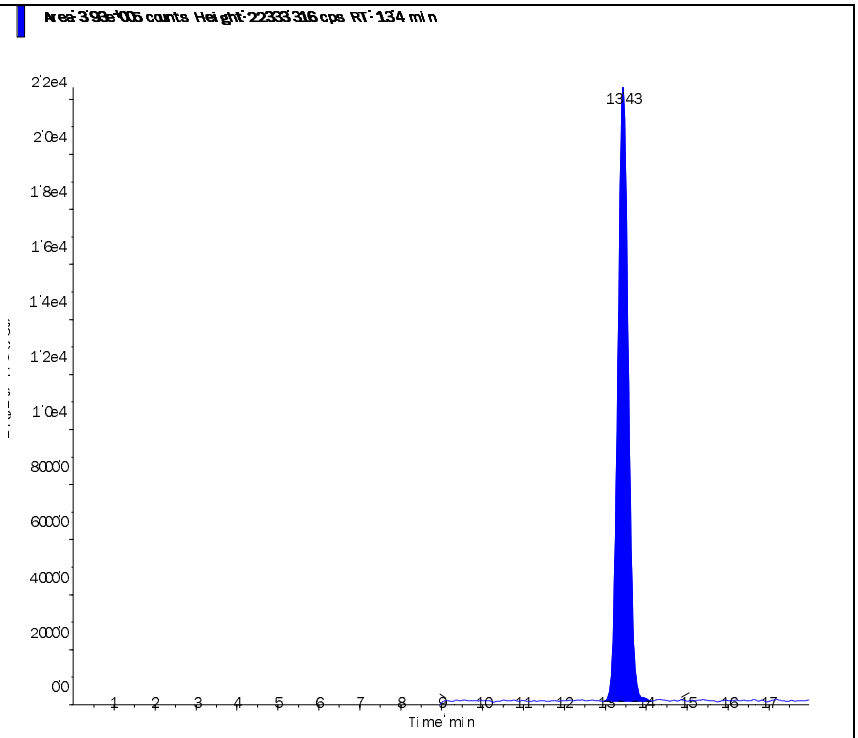
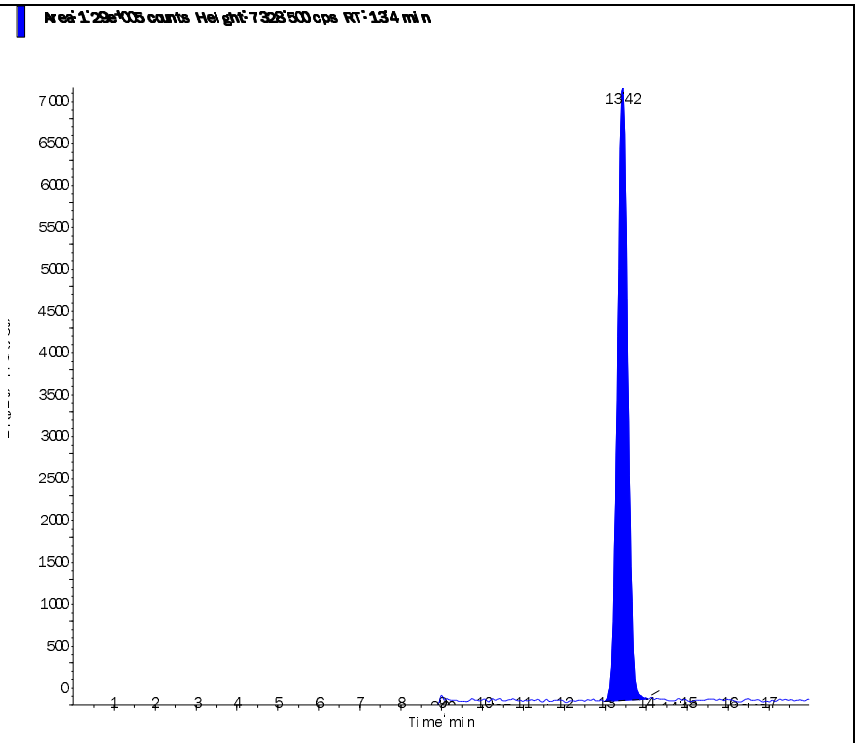
O18LP (Internal Standard)

RT (Exp. RT): 13.40(13.40) min

Concentration: 5.00 ug/L

Sample Type: (Standard)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 13.40 (13.40) min Calculated conc: 5.00 ng/ml Area Ratio: 1.409 Sample Type: (Standard)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 13.40 (13.40) min Calculated conc: 5.06 ng/ml Area Ratio: 0.464 Sample Type: (Standard)	

Data File	LM23237.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	12/18/2013 7:20:30 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG456864-08 STD (10 ug/L)	**Injection Vial**	8.00
Data File	LM23237.wiff	**Injection Volume**	10.00
Acquisition Date	12/18/2013 7:20:30 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Standard
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG456864-08	**Dilution Factor**	1.00
Sample Comment	1,1 STD61802	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.790e+05	13.40	5.00	-

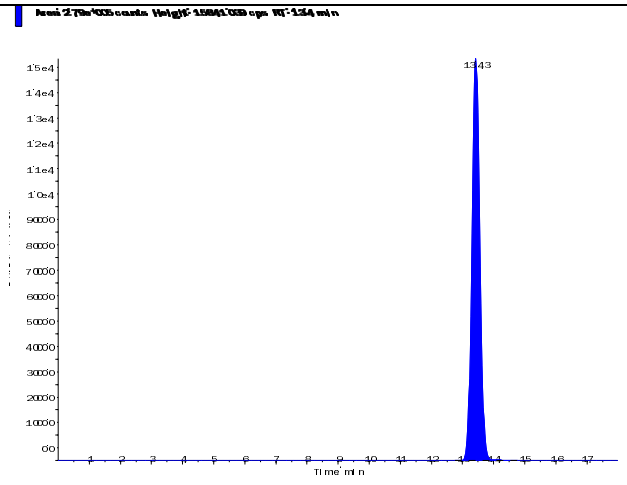
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	7.840e+05	13.40	10.00	9.99
Perchlorate conf	2.530e+05	13.40	10.00	9.92

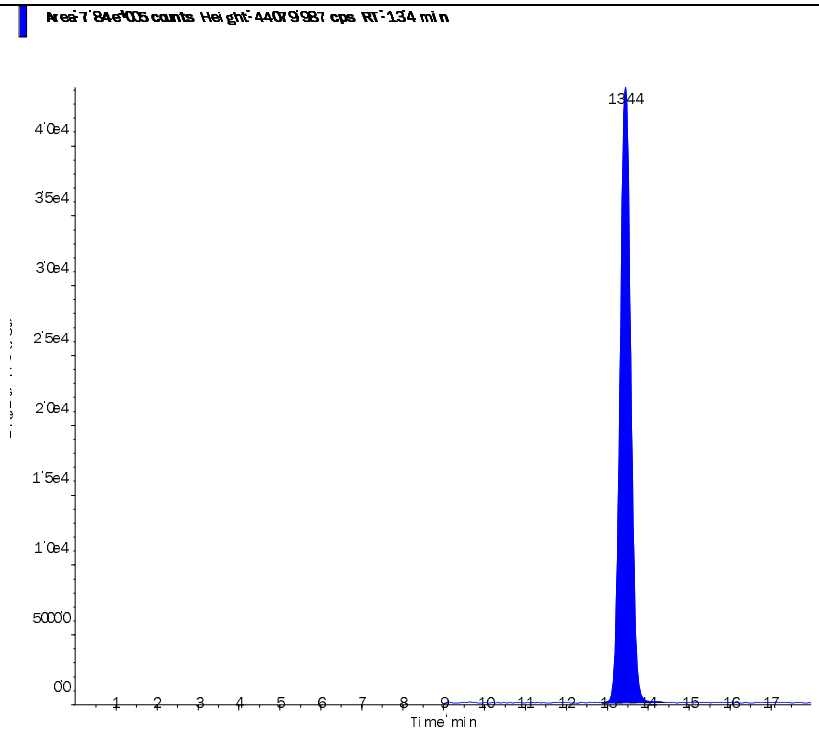
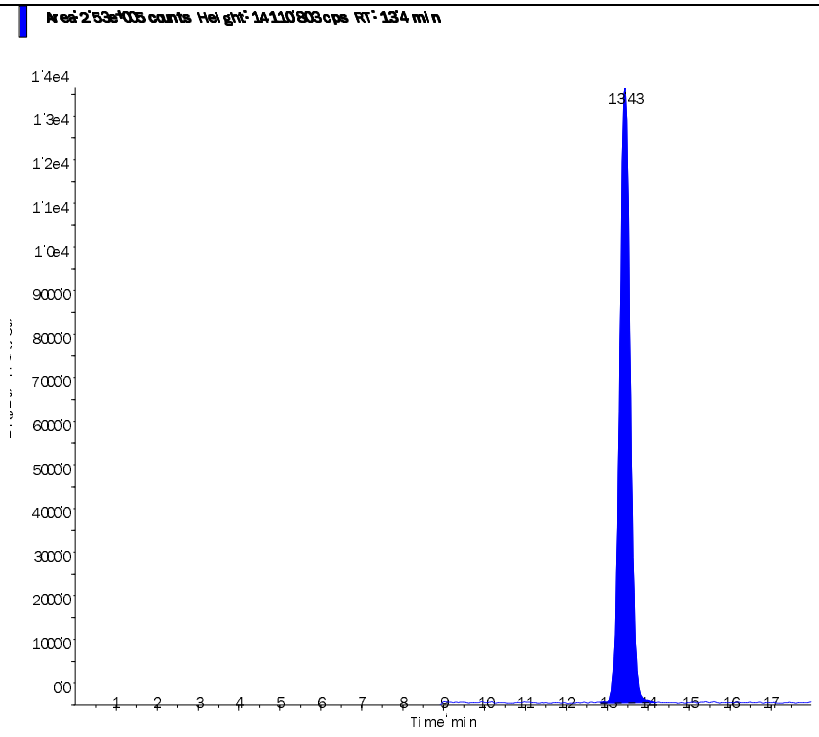
O18LP (Internal Standard)

RT (Exp. RT): 13.40(13.40) min

Concentration: 5.00 ug/L

Sample Type: (Standard)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 13.40 (13.40) min Calculated conc: 9.99 ng/ml Area Ratio: 2.812 Sample Type: (Standard)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 13.40 (13.40) min Calculated conc: 9.92 ng/ml Area Ratio: 0.909 Sample Type: (Standard)	

Data File	LM23238.wiff	**Result Table**	121813_JWR.rdb
Acquisition Date	12/18/2013 7:39:25 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG456864-09 SSCV (1.0 ug/L)	**Injection Vial**	9.00
Data File	LM23238.wiff	**Injection Volume**	10.00
Acquisition Date	12/18/2013 7:39:25 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Quality Control
Instrument Name	API 4000	**Result Table**	121813_JWR.rdb
Sample ID	WG456864-09	**Dilution Factor**	1.00
Sample Comment	1,1 STD61185	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.910e+05	13.40	5.00	-

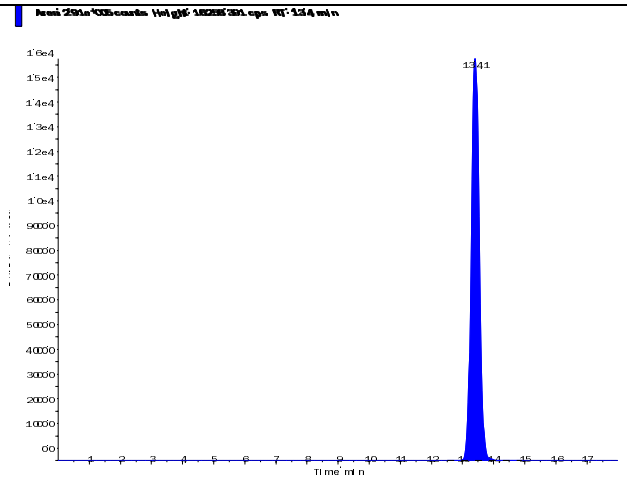
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	8.100e+04	13.40	1.00	0.978
Perchlorate conf	2.680e+04	13.40	1.00	0.994

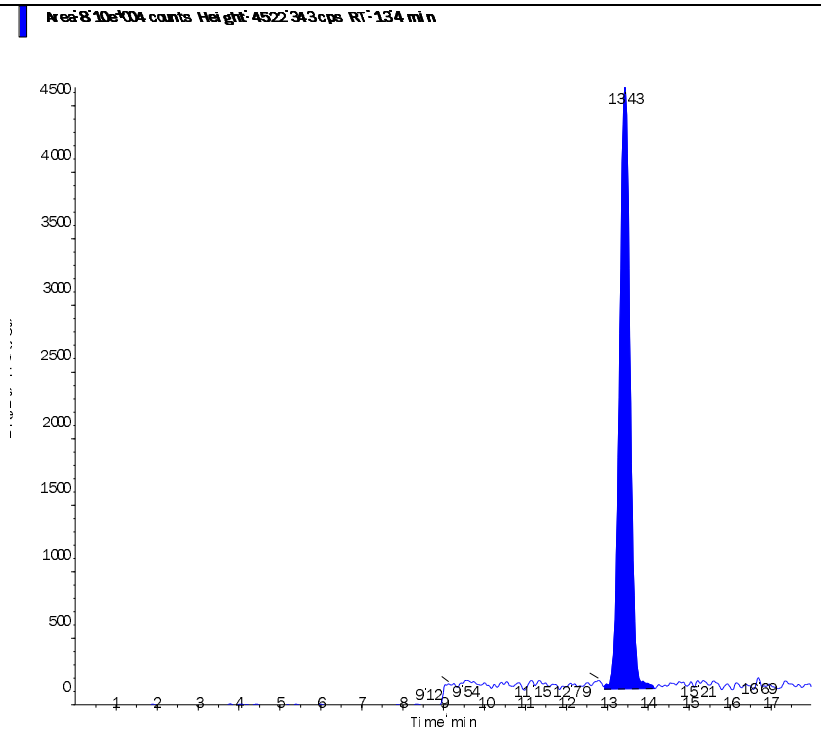
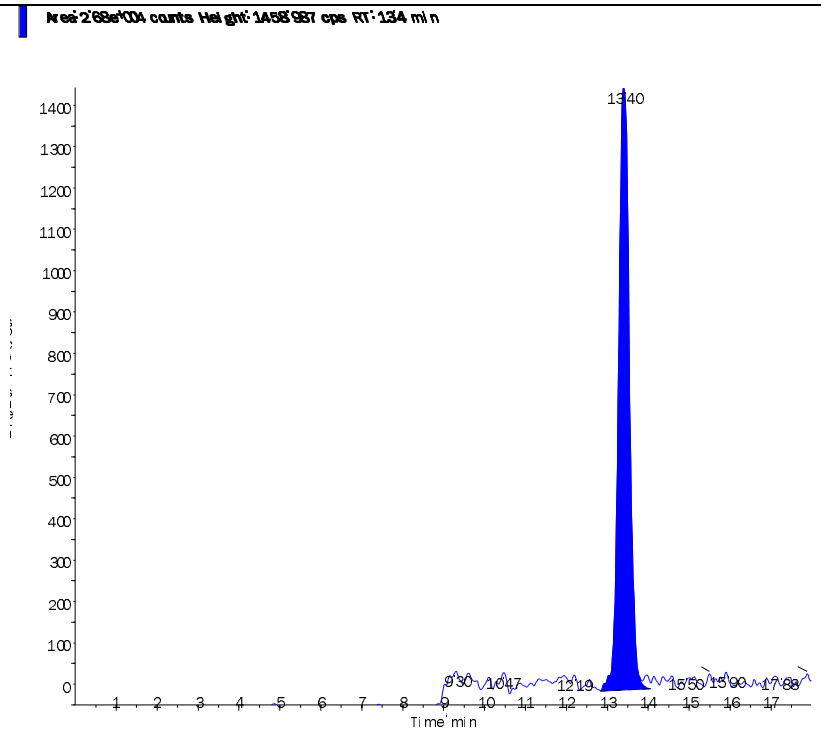
O18LP (Internal Standard)

RT (Exp. RT): 13.40(13.40) min

Concentration: 5.00 ug/L

Sample Type: (Quality Control)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 13.40 (13.40) min Calculated conc: 0.978 ng/ml Area Ratio: 0.278 Sample Type: (Quality Control)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 13.40 (13.40) min Calculated conc: 0.994 ng/ml Area Ratio: 0.092 Sample Type: (Quality Control)	

Data File	LM24167.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 3:14:46 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG469639-02 CCV (1.0ug/L)	**Injection Vial**	3.00
Data File	LM24167.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 3:14:46 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Quality Control
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG469639-02	**Dilution Factor**	1.00
Sample Comment	1,1 STD63472	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.640e+05	12.70	5.00	-

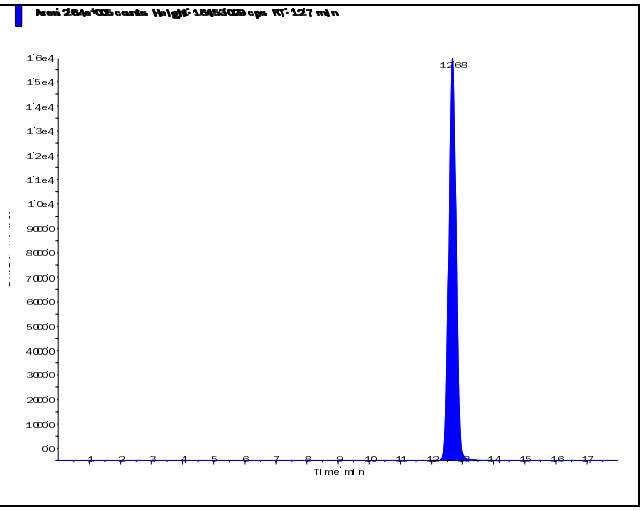
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	7.560e+04	12.70	1.00	1.01
Perchlorate conf	2.410e+04	12.70	1.00	0.986

O18LP (Internal Standard)

RT (Exp. RT): 12.70(13.40) min

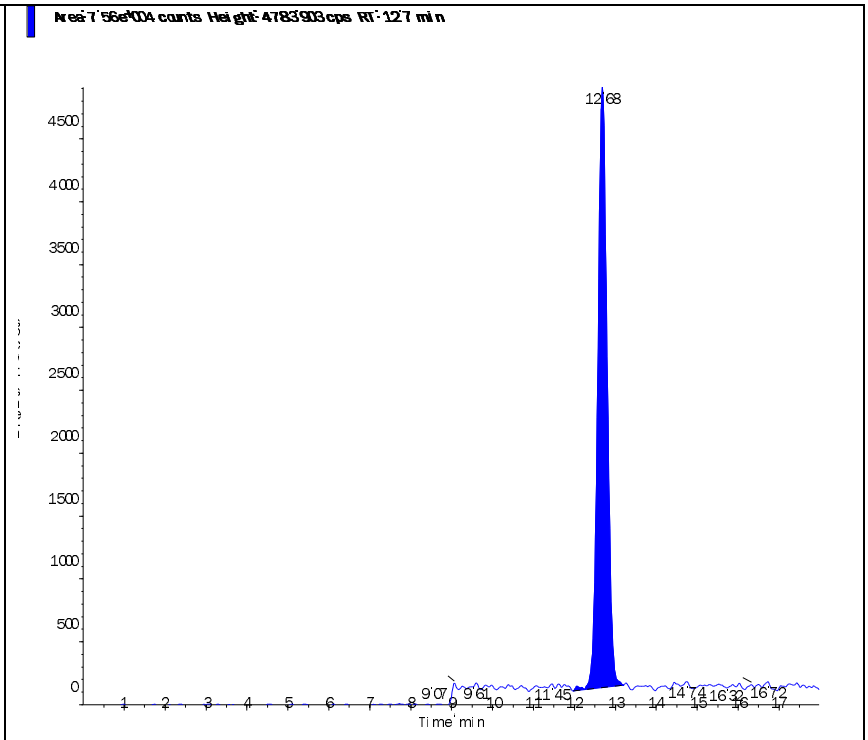
Concentration: 5.00 ug/L

Sample Type: (Quality Control)



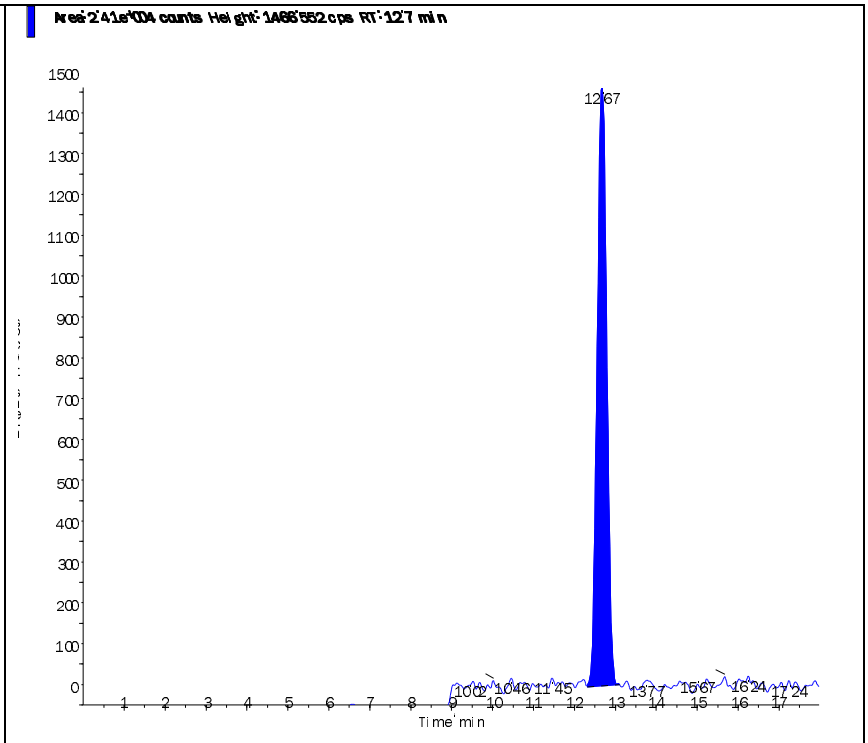
Perchlorate (98.8/83.3 amu)

RT (Exp. RT):	12.70 (13.40) min
Calculated conc:	1.01 ng/ml
Area Ratio:	0.286
Sample Type:	(Quality Control)



Perchlorate conf (100.8/85.2 amu)

RT (Exp. RT):	12.70 (13.40) min
Calculated conc:	0.986 ng/ml
Area Ratio:	0.091
Sample Type:	(Quality Control)



Data File	LM24179.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 7:01:59 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG469639-03 CCV (1.0ug/L)	**Injection Vial**	3.00
Data File	LM24179.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 7:01:59 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Quality Control
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG469639-03	**Dilution Factor**	1.00
Sample Comment	1,1 STD63472	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.900e+05	12.70	5.00	-

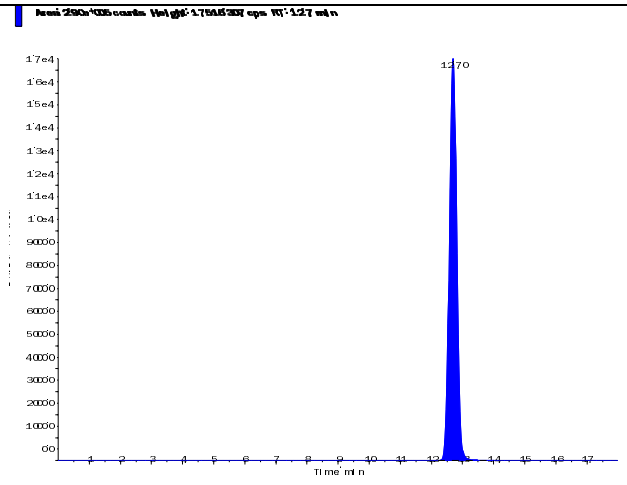
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	8.260e+04	12.70	1.00	1.00
Perchlorate conf	2.690e+04	12.70	1.00	1.00

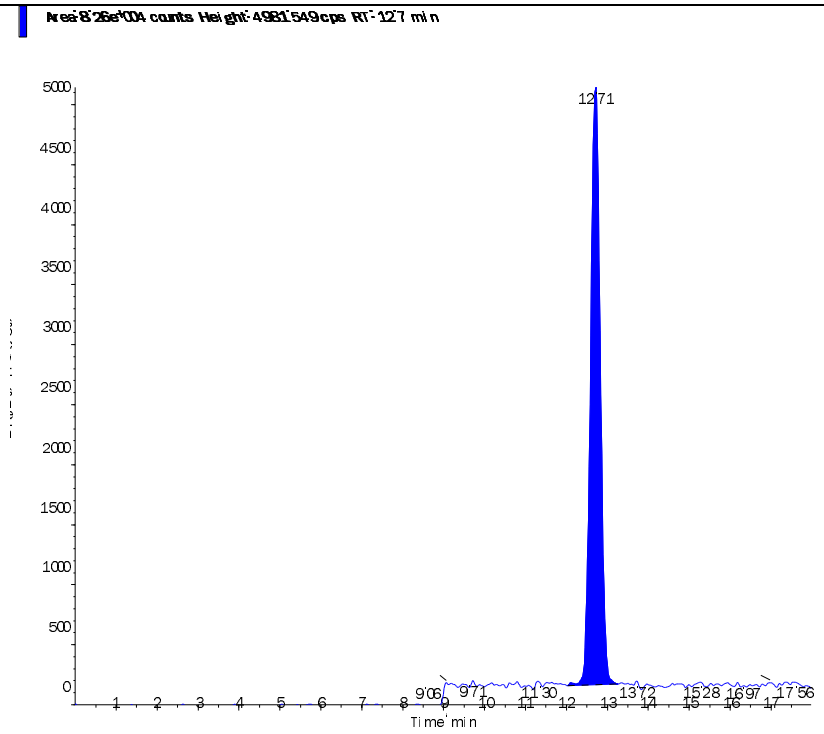
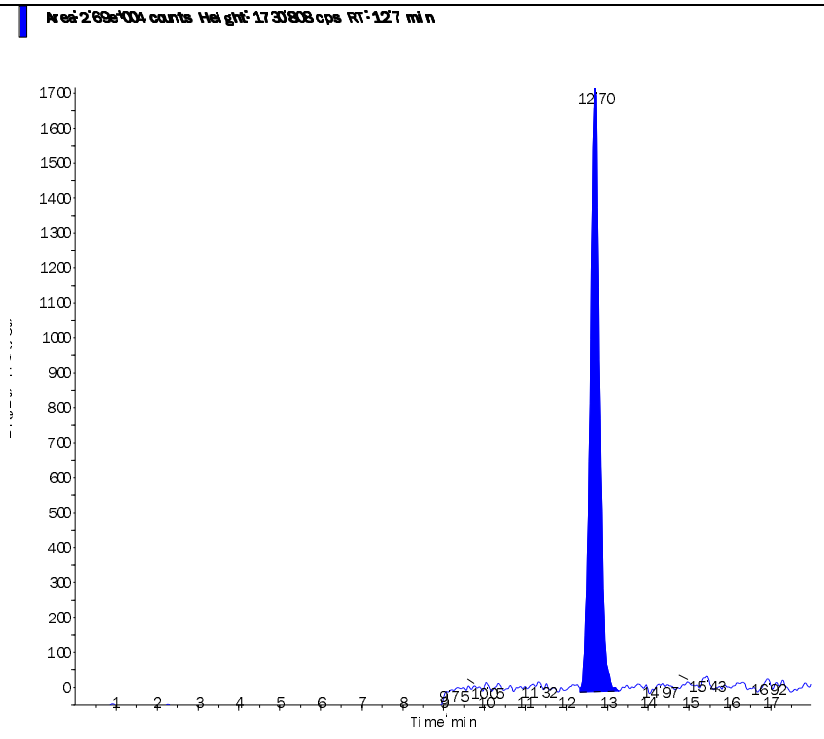
O18LP (Internal Standard)

RT (Exp. RT): 12.70(13.40) min

Concentration: 5.00 ug/L

Sample Type: (Quality Control)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 12.70 (13.40) min Calculated conc: 1.00 ng/ml Area Ratio: 0.285 Sample Type: (Quality Control)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 12.70 (13.40) min Calculated conc: 1.00 ng/ml Area Ratio: 0.093 Sample Type: (Quality Control)	

Data File	LM24189.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 10:11:24 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG469639-05 CCV (1.0ug/L)	**Injection Vial**	3.00
Data File	LM24189.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 10:11:24 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Quality Control
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG469639-05	**Dilution Factor**	1.00
Sample Comment	1,1 STD63472	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	3.000e+05	12.80	5.00	-

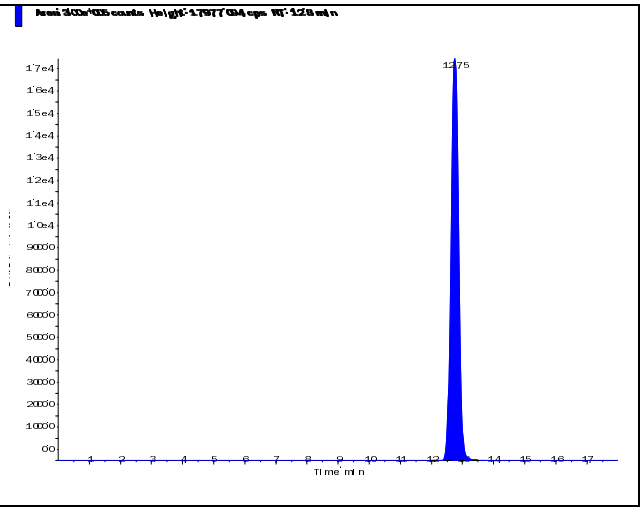
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	8.350e+04	12.80	1.00	0.979
Perchlorate conf	2.720e+04	12.70	1.00	0.977

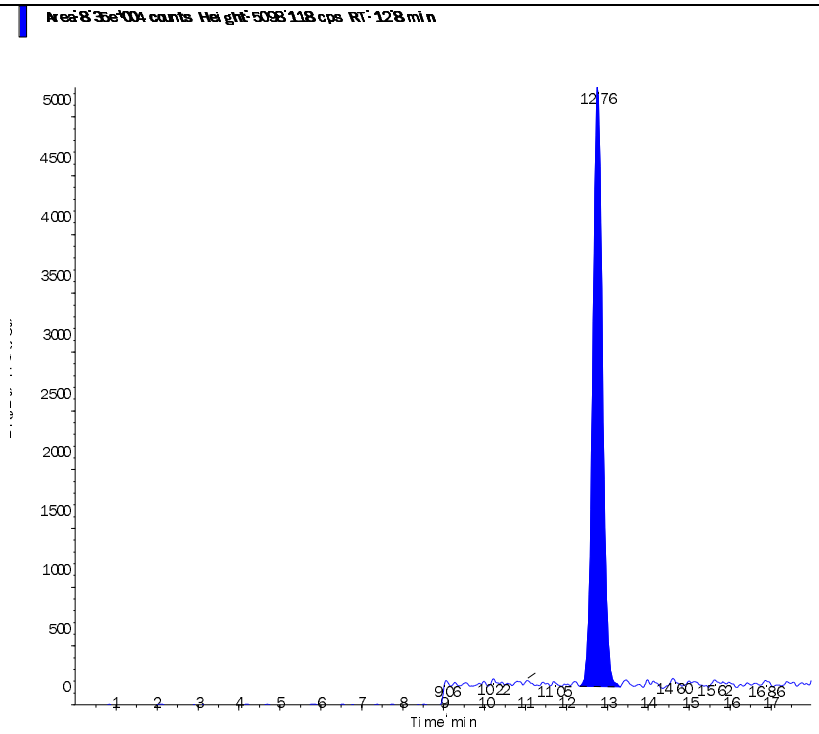
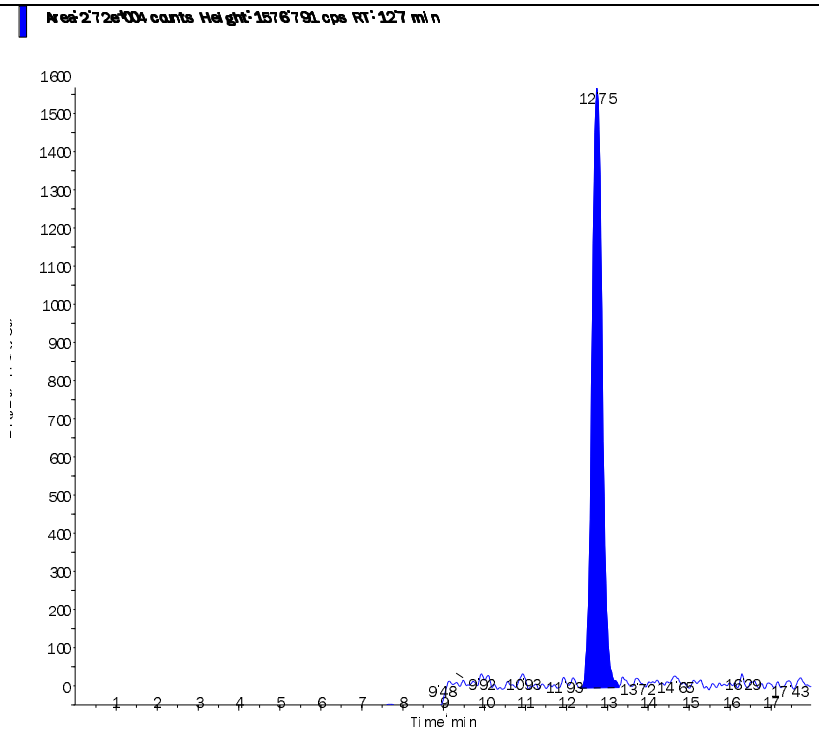
O18LP (Internal Standard)

RT (Exp. RT): 12.80(13.40) min

Concentration: 5.00 ug/L

Sample Type: (Quality Control)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 12.80 (13.40) min Calculated conc: 0.979 ng/ml Area Ratio: 0.278 Sample Type: (Quality Control)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 12.70 (13.40) min Calculated conc: 0.977 ng/ml Area Ratio: 0.09 Sample Type: (Quality Control)	

Data File	LM24168.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 3:33:41 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG469638-07 MRL (0.2ug/L)	**Injection Vial**	2.00
Data File	LM24168.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 3:33:41 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG469638-07	**Dilution Factor**	1.00
Sample Comment	1,1 STD63472	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.590e+05	12.70	5.00	-

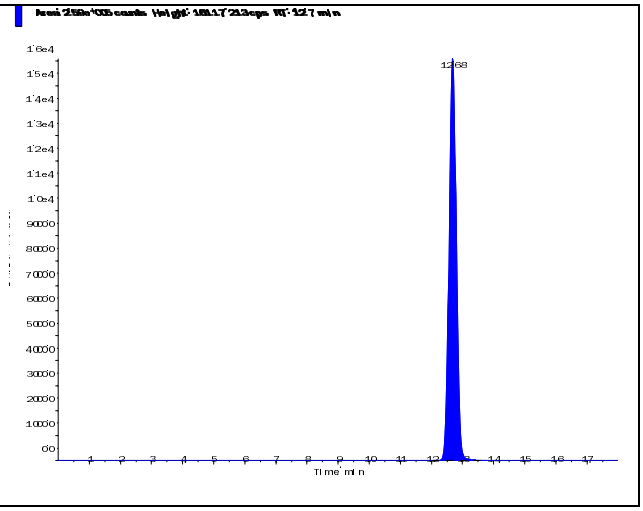
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	1.450e+04	12.70	N/A	0.189
Perchlorate conf	4.960e+03	12.70	N/A	0.198

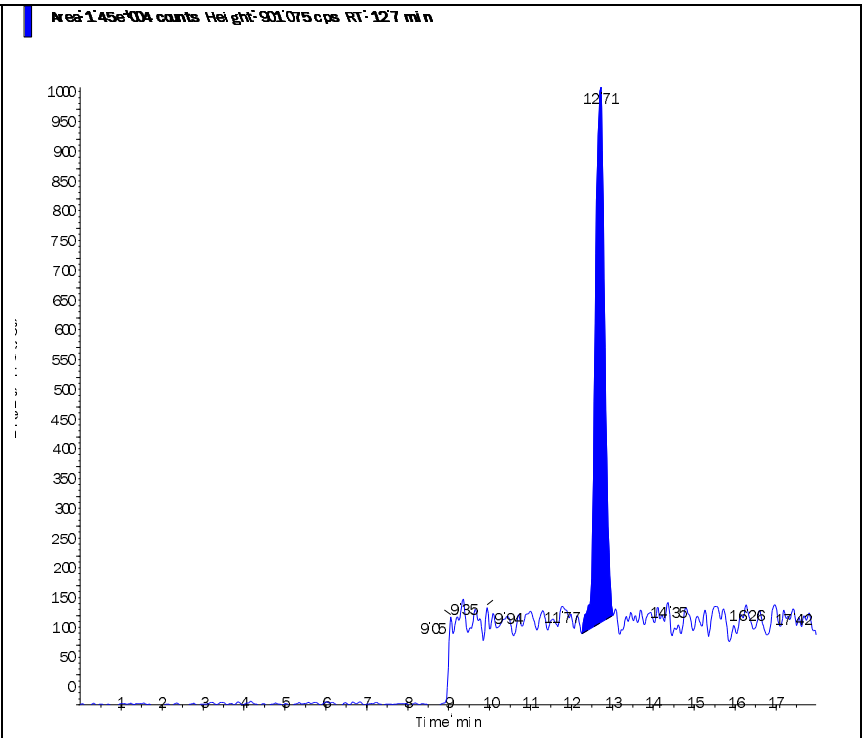
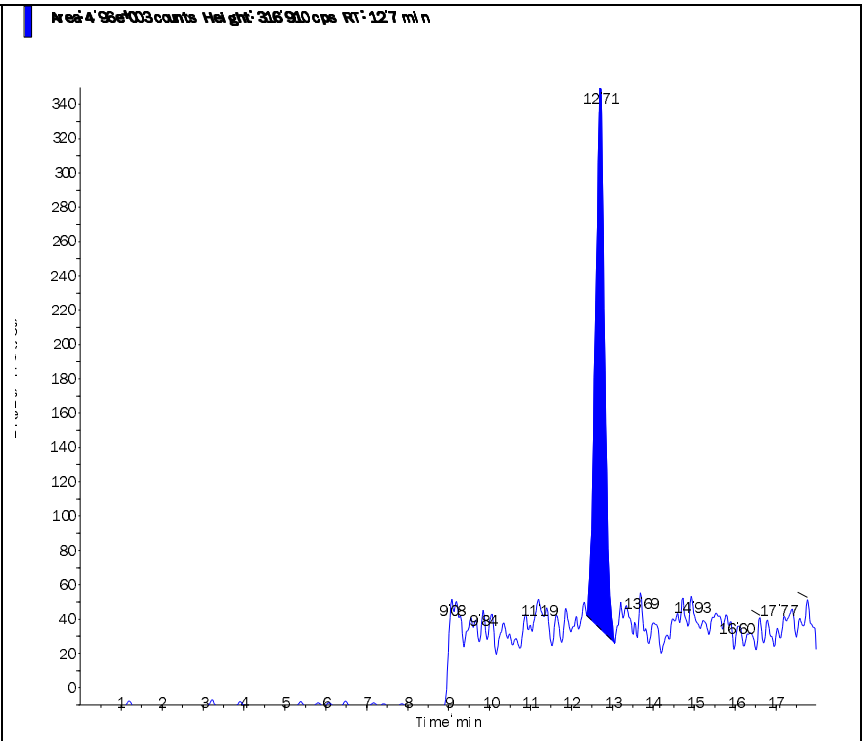
O18LP (Internal Standard)

RT (Exp. RT): 12.70(13.40) min

Concentration: 5.00 ug/L

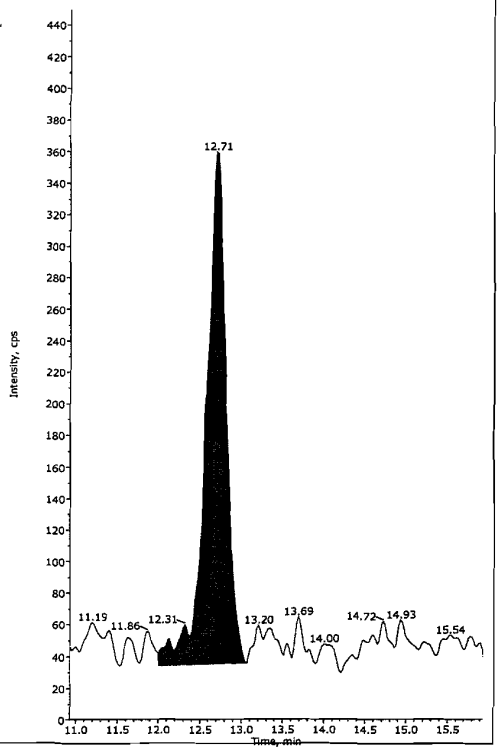
Sample Type: (Unknown)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 12.70 (13.40) min Calculated conc: 0.189 ng/ml Area Ratio: 0.056 Sample Type: (Unknown)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 12.70 (13.40) min Calculated conc: 0.198 ng/ml Area Ratio: 0.019 Sample Type: (Unknown)	

Sample Name: "WG469638-07 MRL (0.2ug/L)" Sample ID: "WG469638-07" File: "LM24168.wiff"
Peak Name: "Perchlorate conf" Mass(es): "100.8/85.2 amu"
Comment: "1,1 STD63472" Annotation: ""

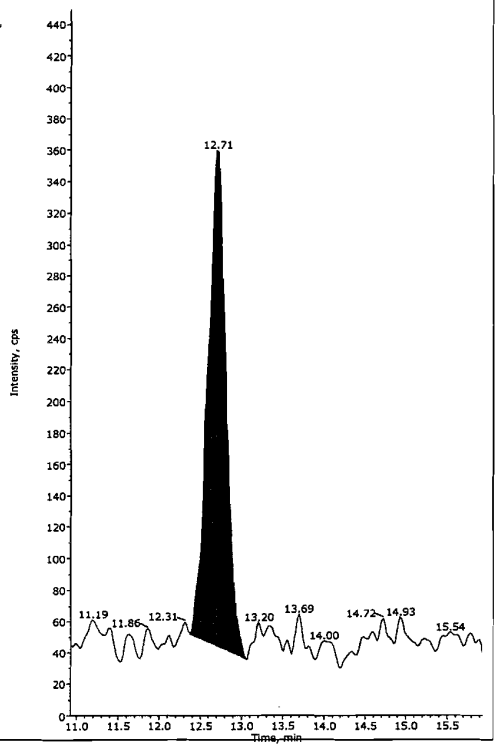
Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.228 ug/L
Acq. Date:	4/2/2014
Acq. Time:	3:33:41 PM
Modified:	No
Proc. Algorithm:	Analyst Classic
Bunching Factor:	2
Noise Threshold:	2.40 cps
Area Threshold:	12.01 cps
Num. Smooths:	5
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.000 sec
Expected RT:	13.4 min
Use Relative RT:	Yes
Int. Type:	Valley
Retention Time:	12.7 min
Area:	5.66e+003 counts
Height:	325.748 cps
Start Time:	11.989 min
End Time:	13.062 min



Collected by: N/A
Electronic Signature: no
Operator: lcms1

Sample Name: "WG469638-07 MRL (0.2ug/L)" Sample ID: "WG469638-07" File: "LM24168.wiff"
Peak Name: "Perchlorate conf" Mass(es): "100.8/85.2 amu"
Comment: "1,1 STD63472" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.198 ug/L
Acq. Date:	4/2/2014
Acq. Time:	3:33:41 PM
Modified:	Yes
Proc. Algorithm:	Analyst Classic
Bunching Factor:	2
Noise Threshold:	2.40 cps
Area Threshold:	12.01 cps
Num. Smooths:	5
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.000 sec
Expected RT:	13.4 min
Use Relative RT:	Yes
Int. Type:	Manual
Retention Time:	12.7 min
Area:	4.96e+003 counts
Height:	316.910 cps
Start Time:	12.374 min
End Time:	13.062 min



#4
JWR 04/03/14

VEC 4-3-14

Collected by: N/A
Electronic Signature: no
Operator: lcms1

Data File	LM24180.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 7:20:53 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG469638-08 MRL (0.2ug/L)	**Injection Vial**	2.00
Data File	LM24180.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 7:20:53 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG469638-08	**Dilution Factor**	1.00
Sample Comment	1,1 STD63472	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	3.000e+05	12.70	5.00	-

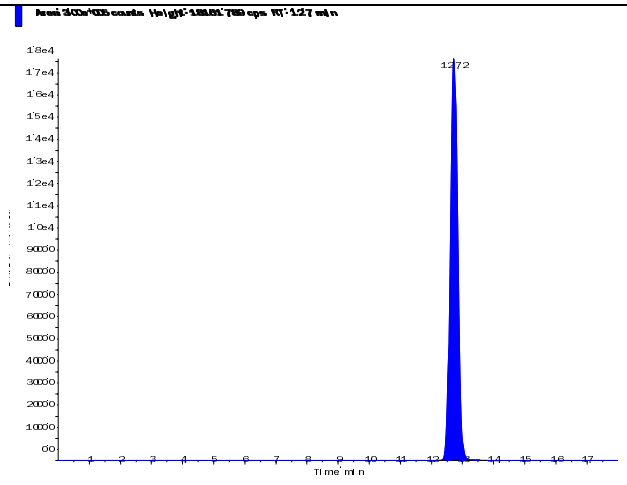
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	1.680e+04	12.70	N/A	0.189
Perchlorate conf	5.400e+03	12.70	N/A	0.186

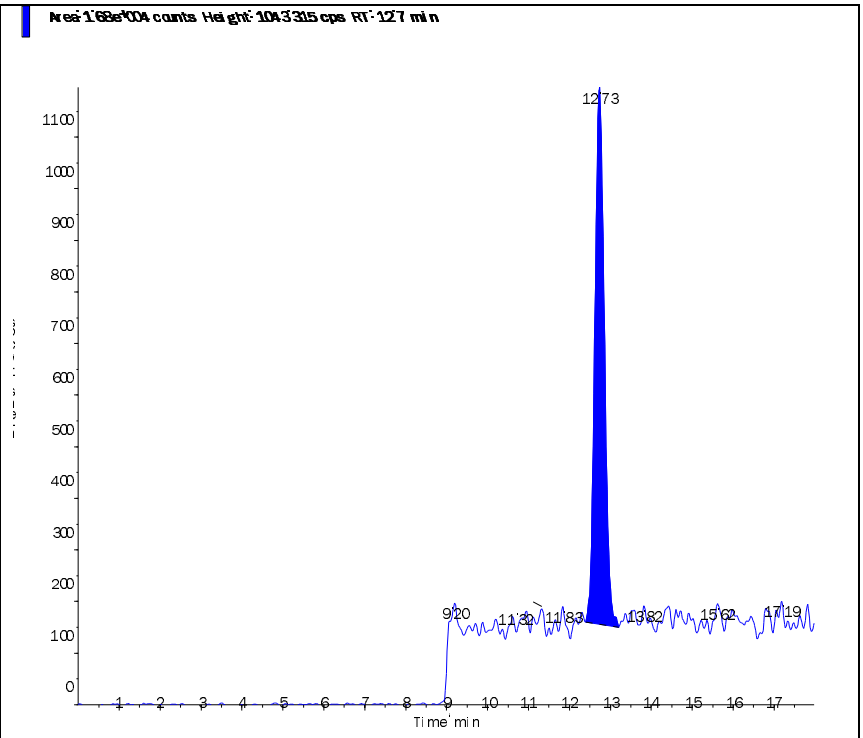
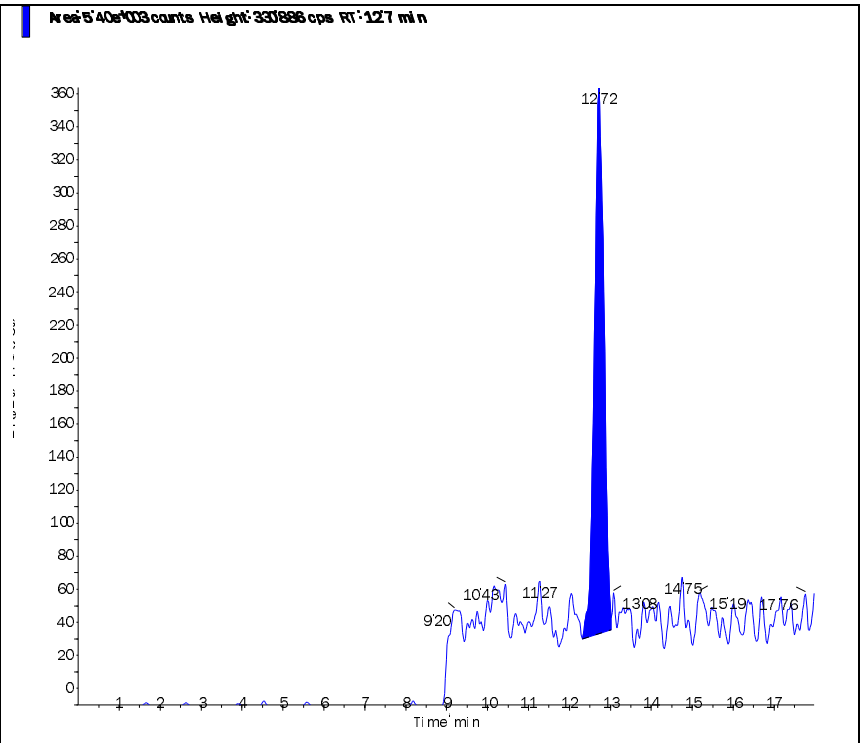
O18LP (Internal Standard)

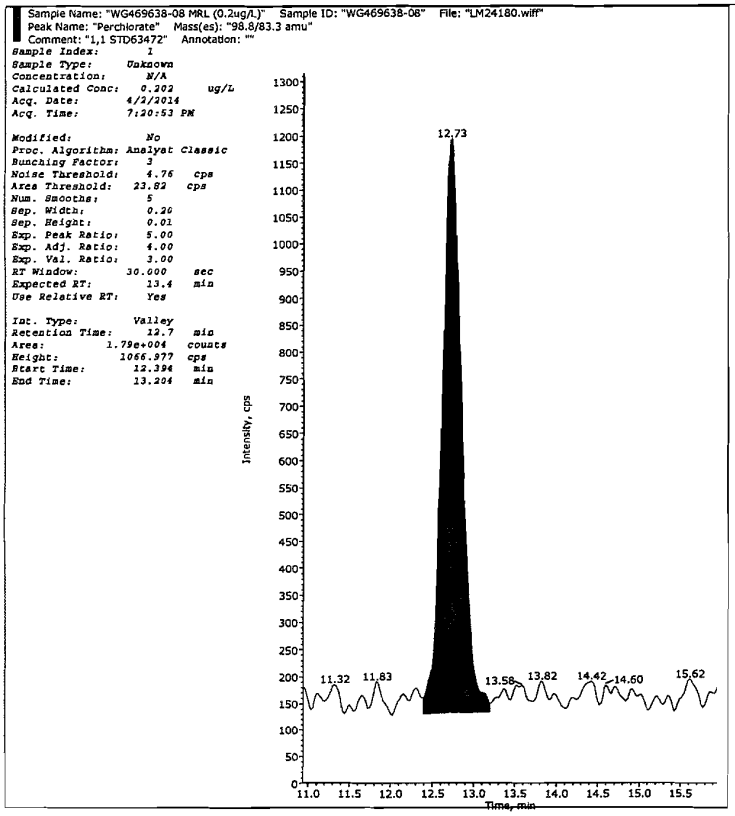
RT (Exp. RT): 12.70(13.40) min

Concentration: 5.00 ug/L

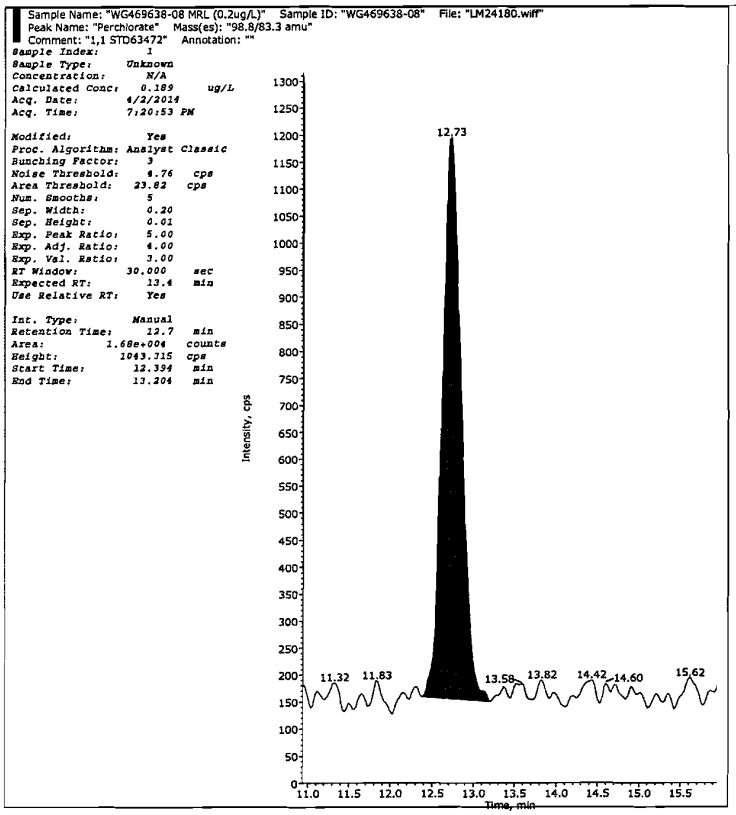
Sample Type: (Unknown)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 12.70 (13.40) min Calculated conc: 0.189 ng/ml Area Ratio: 0.056 Sample Type: (Unknown)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 12.70 (13.40) min Calculated conc: 0.186 ng/ml Area Ratio: 0.018 Sample Type: (Unknown)	



Collected by: N/A
Electronic Signature: no
Operator: lcms1



#4
JWR 04/03/14

JEC 4-3-14

Collected by: N/A
Electronic Signature: no
Operator: lcms1

Data File	LM24190.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 10:30:20 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG469638-09 MRL (0.2ug/L)	**Injection Vial**	2.00
Data File	LM24190.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 10:30:20 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG469638-09	**Dilution Factor**	1.00
Sample Comment	1,1 STD63472	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.980e+05	12.80	5.00	-

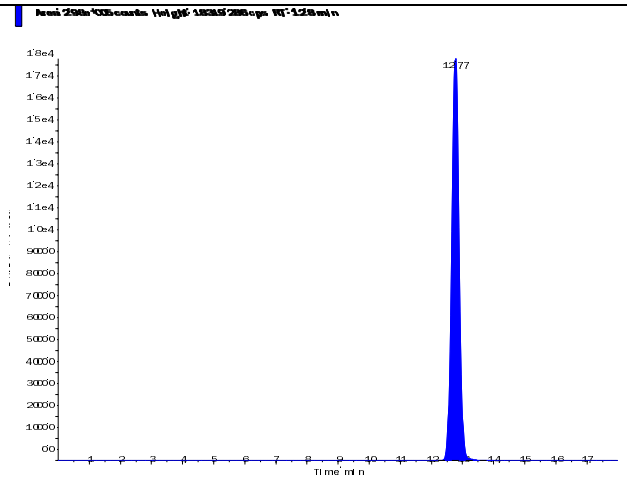
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	1.740e+04	12.80	N/A	0.198
Perchlorate conf	5.820e+03	12.80	N/A	0.203

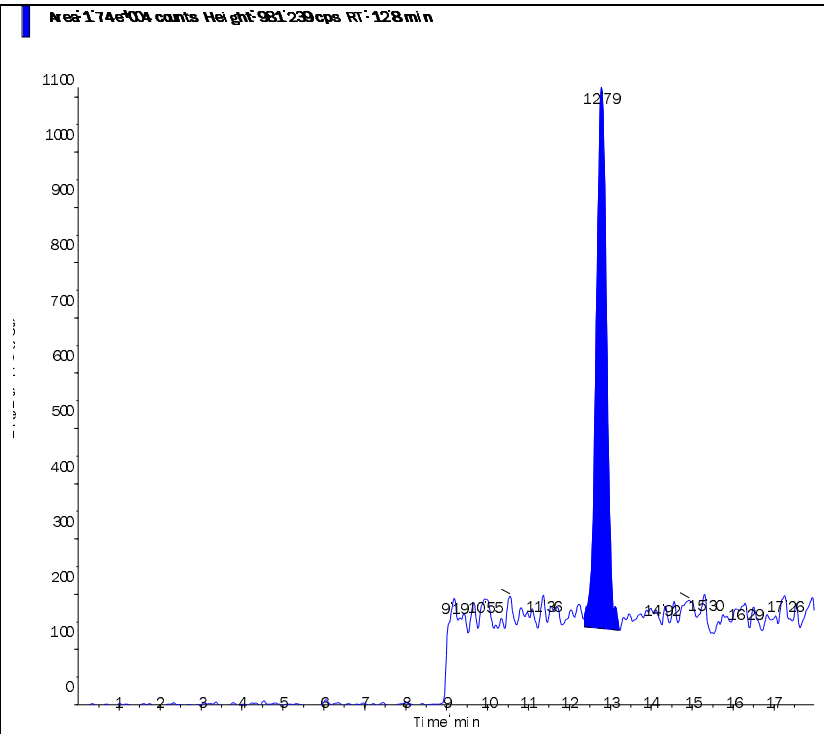
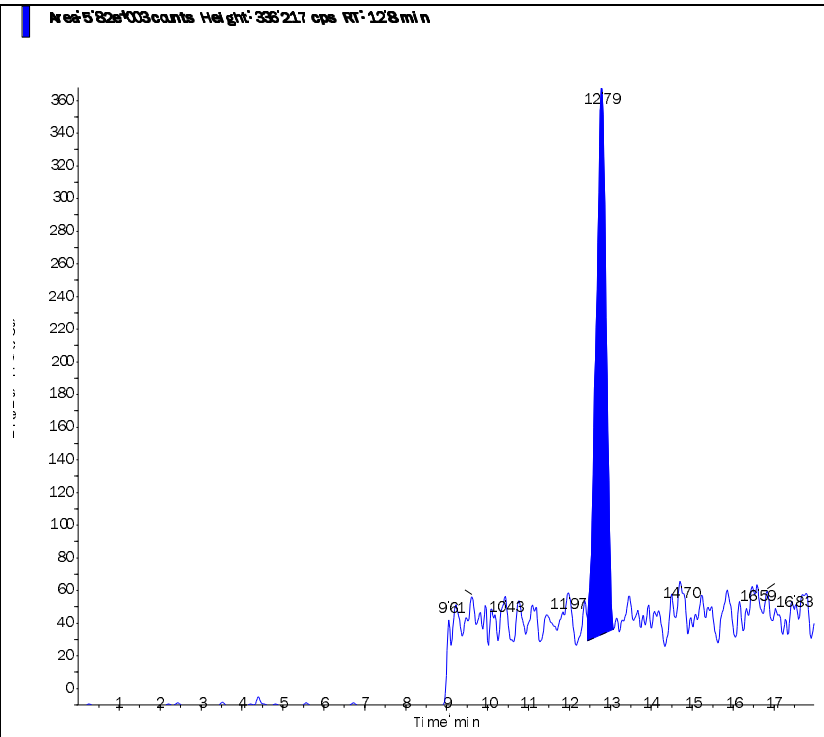
O18LP (Internal Standard)

RT (Exp. RT): 12.80(13.40) min

Concentration: 5.00 ug/L

Sample Type: (Unknown)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 12.80 (13.40) min Calculated conc: 0.198 ng/ml Area Ratio: 0.058 Sample Type: (Unknown)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 12.80 (13.40) min Calculated conc: 0.203 ng/ml Area Ratio: 0.02 Sample Type: (Unknown)	

Data File	LM24166.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 2:55:52 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG469639-01 CCB	**Injection Vial**	1.00
Data File	LM24166.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 2:55:52 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG469639-01	**Dilution Factor**	1.00
Sample Comment	11.00	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.650e+05	12.70	5.00	-

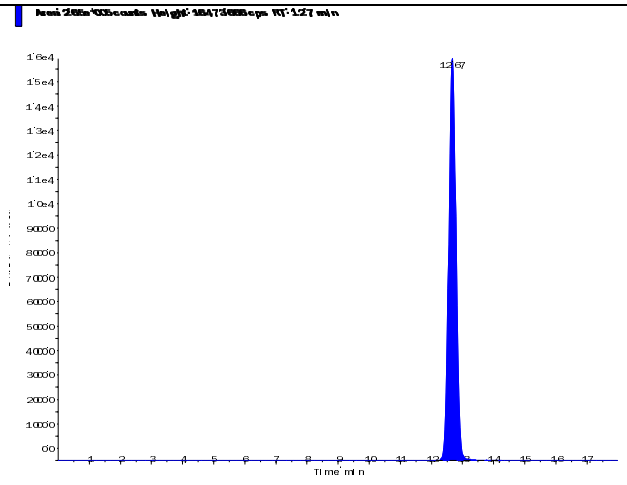
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	1.880e+02	12.60	N/A	< 0
Perchlorate conf	1.230e+02	12.70	N/A	< 0

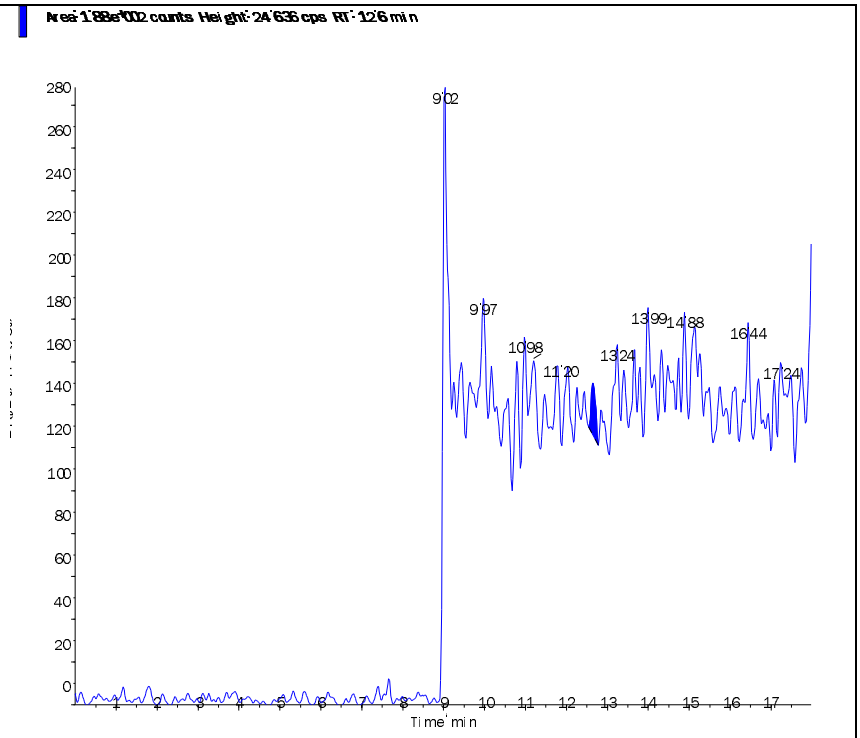
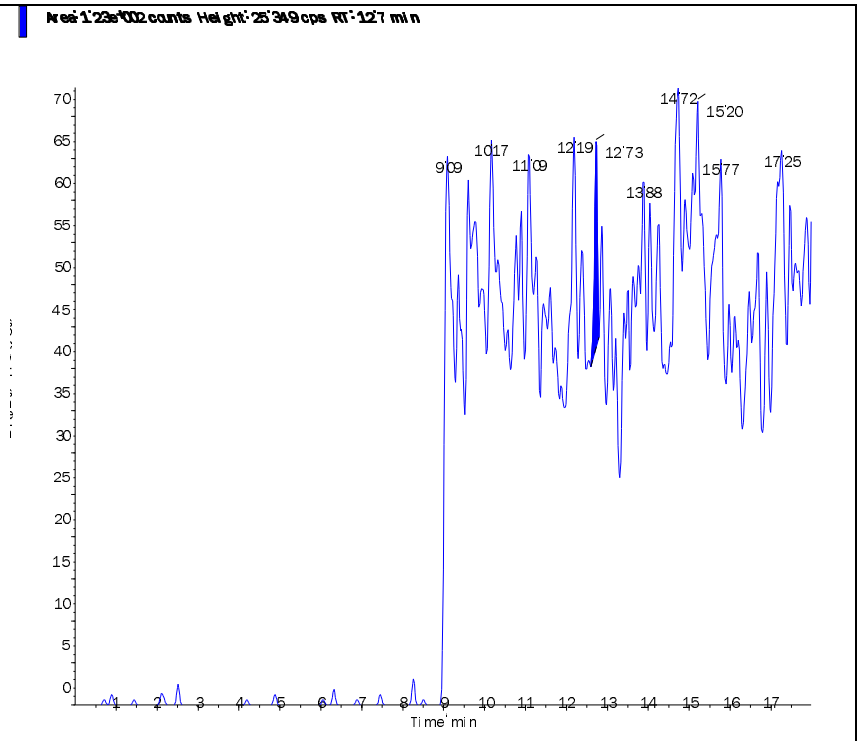
O18LP (Internal Standard)

RT (Exp. RT): 12.70(13.40) min

Concentration: 5.00 ug/L

Sample Type: (Unknown)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): 12.60 (13.40) min Calculated conc: < 0 ng/ml Area Ratio: 0.001 Sample Type: (Unknown)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 12.70 (13.40) min Calculated conc: < 0 ng/ml Area Ratio: 0.00 Sample Type: (Unknown)	

Data File	LM24181.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 7:39:49 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG469639-04 CCB	**Injection Vial**	1.00
Data File	LM24181.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 7:39:49 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG469639-04	**Dilution Factor**	1.00
Sample Comment	11.00	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.940e+05	12.70	5.00	-

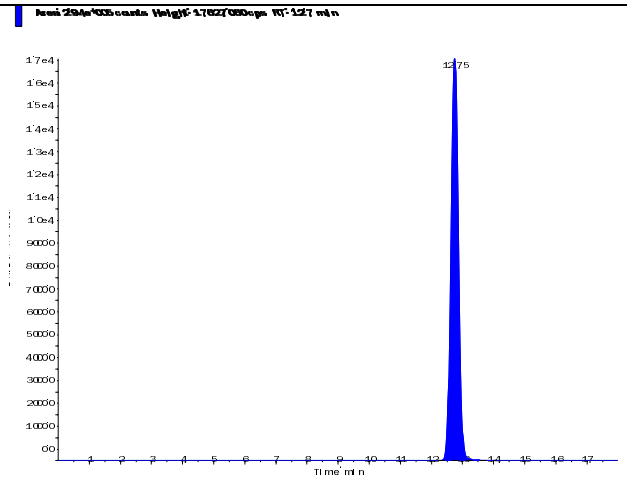
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	0.000e+00	0.00	N/A	No Peak
Perchlorate conf	0.000e+00	0.00	N/A	No Peak

O18LP (Internal Standard)

RT (Exp. RT): 12.70(13.40) min

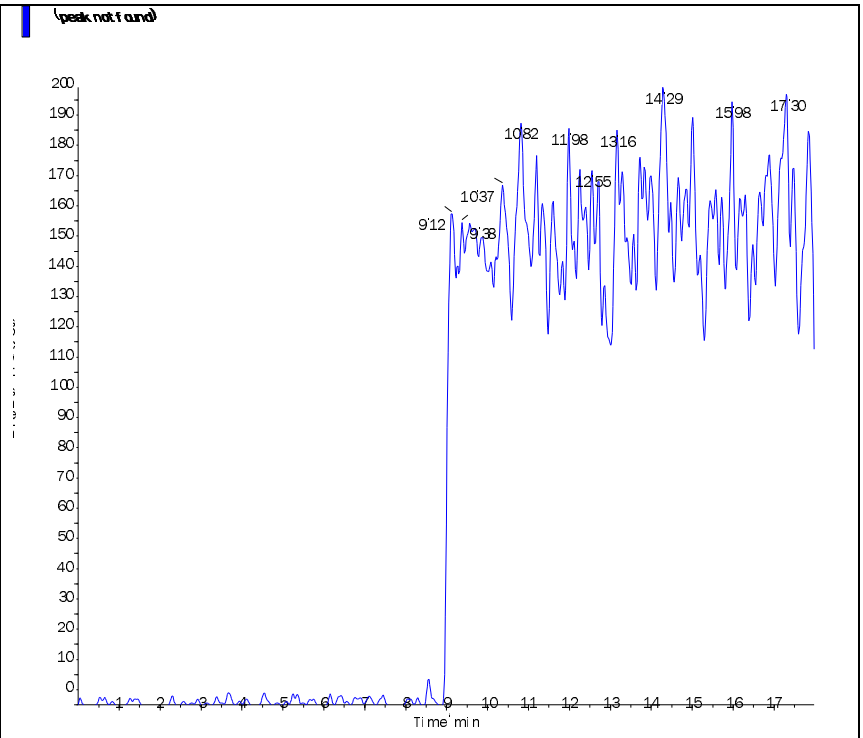
Concentration: 5.00 ug/L

Sample Type: (Unknown)



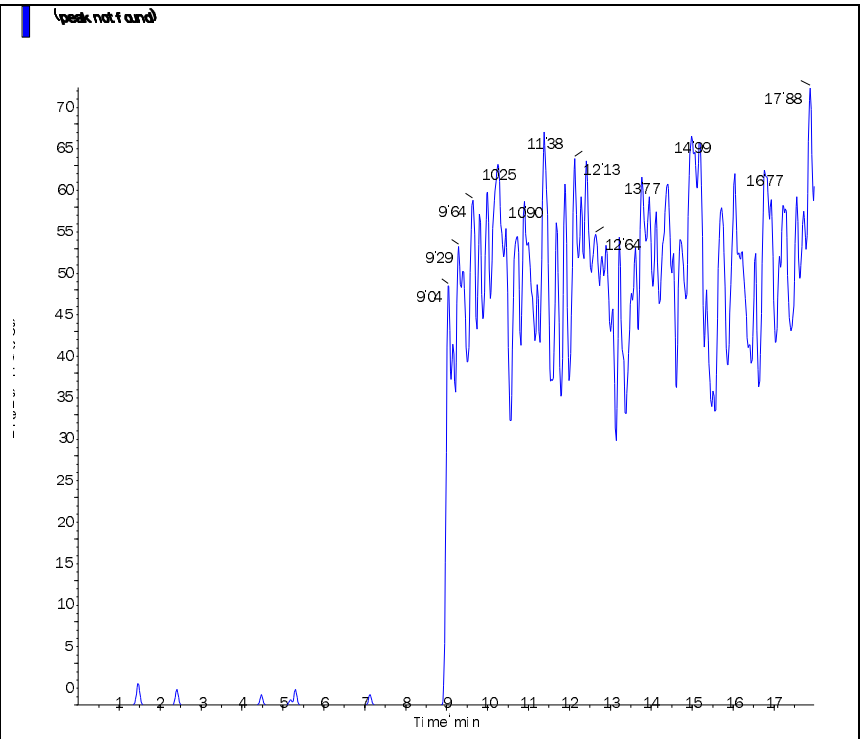
Perchlorate (98.8/83.3 amu)

RT (Exp. RT):	0.00 (13.40) min
Calculated conc:	No Peak ng/ml
Area Ratio:	0.00
Sample Type:	(Unknown)



Perchlorate conf (100.8/85.2 amu)

RT (Exp. RT):	0.00 (13.40) min
Calculated conc:	No Peak ng/ml
Area Ratio:	0.00
Sample Type:	(Unknown)



Data File	LM24191.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 10:49:19 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG469639-06 CCB	**Injection Vial**	1.00
Data File	LM24191.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 10:49:19 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG469639-06	**Dilution Factor**	1.00
Sample Comment	11.00	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	3.020e+05	12.80	5.00	-

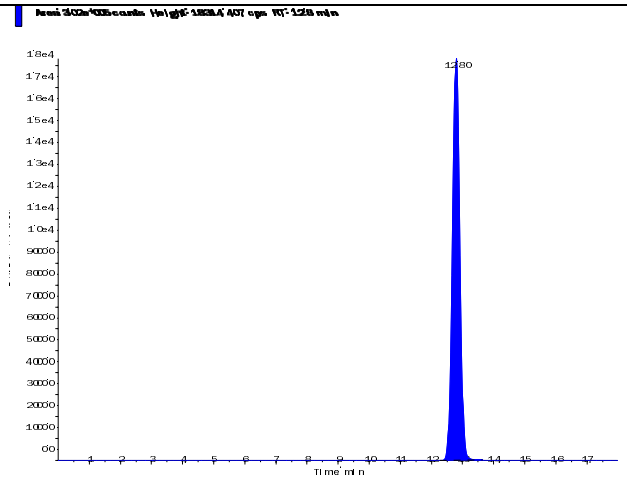
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	1.020e+03	12.60	N/A	0.0023
Perchlorate conf	0.000e+00	0.00	N/A	No Peak

O18LP (Internal Standard)

RT (Exp. RT): 12.80(13.40) min

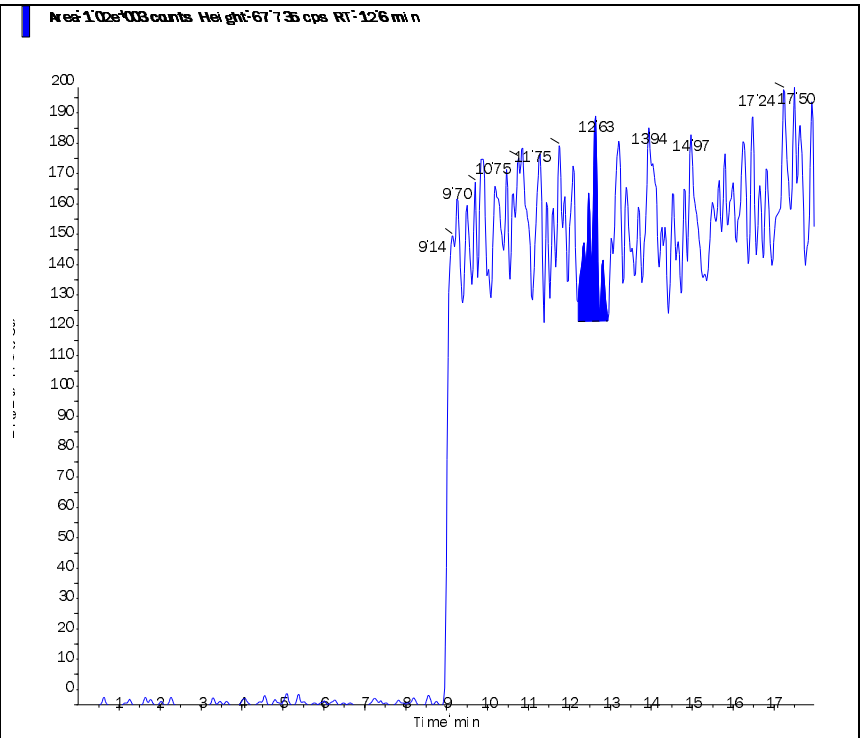
Concentration: 5.00 ug/L

Sample Type: (Unknown)



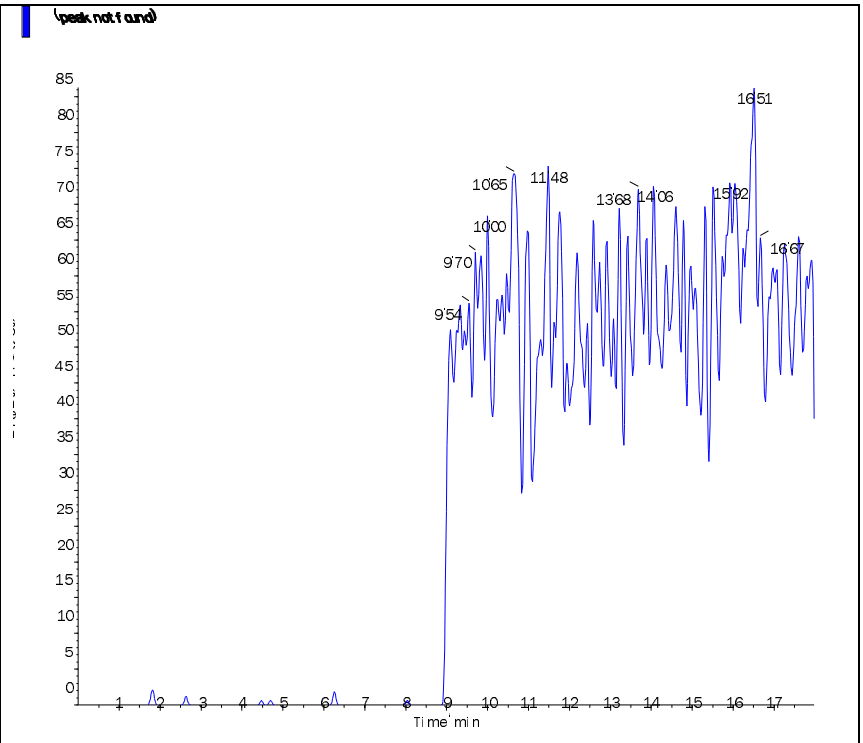
Perchlorate (98.8/83.3 amu)

RT (Exp. RT):	12.60 (13.40) min
Calculated conc:	0.0023 ng/ml
Area Ratio:	0.003
Sample Type:	(Unknown)



Perchlorate conf (100.8/85.2 amu)

RT (Exp. RT):	0.00 (13.40) min
Calculated conc:	No Peak ng/ml
Area Ratio:	0.00
Sample Type:	(Unknown)



Data File	LM24169.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 3:52:37 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG469638-01 MCT (0.2ug/L)	**Injection Vial**	4.00
Data File	LM24169.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 3:52:37 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG469638-01	**Dilution Factor**	1.00
Sample Comment	1,1 STD63472	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.660e+05	9.74	5.00	-

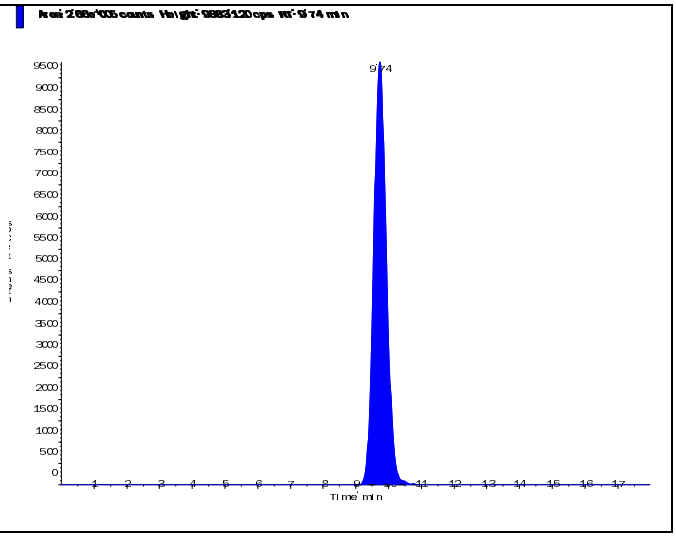
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	1.780e+04	9.75	N/A	0.228
Perchlorate conf	5.620e+03	9.72	N/A	0.22

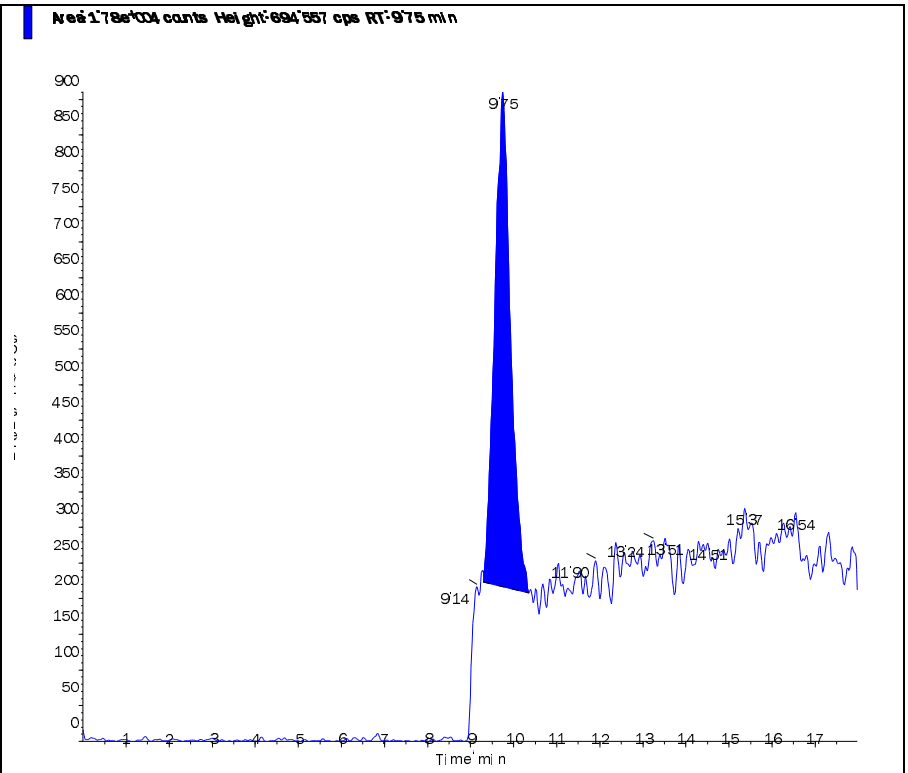
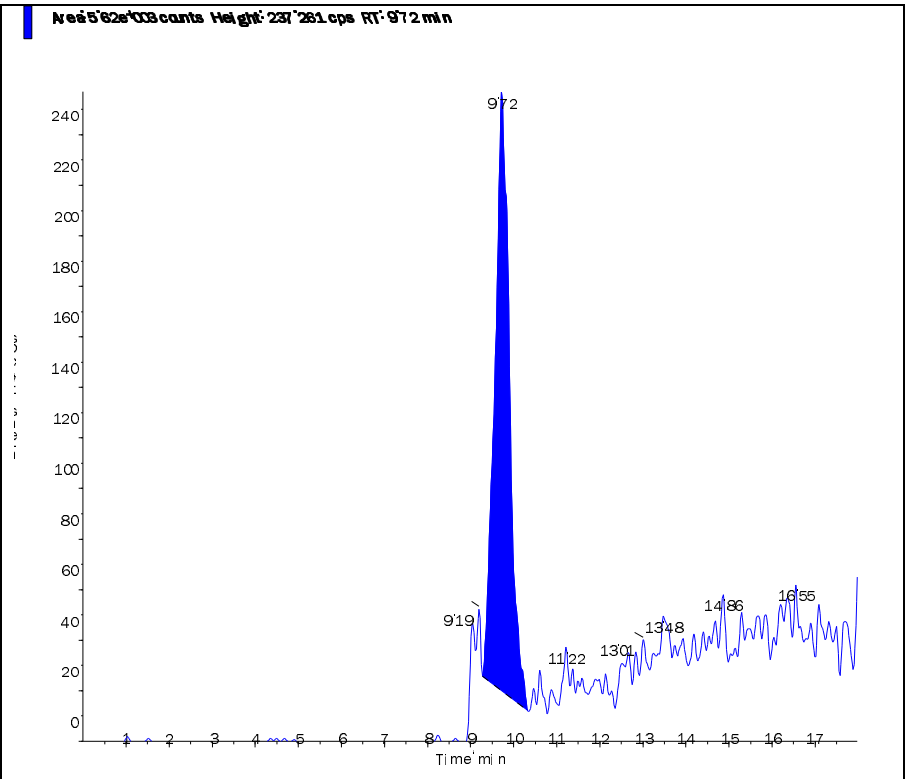
O18LP (Internal Standard)

RT (Exp. RT): 9.74(13.40) min

Concentration: 5.00 ug/L

Sample Type: (Unknown)

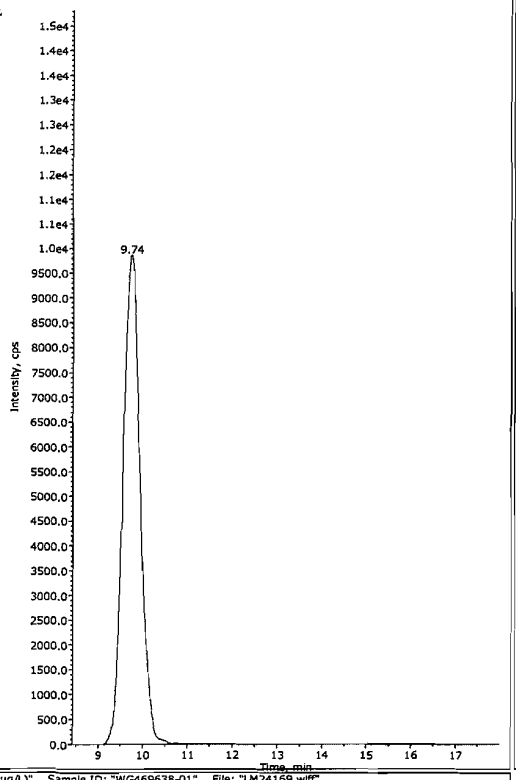


Perchlorate (98.8/83.3 amu) RT (Exp. RT): 9.75 (13.40) min Calculated conc: 0.228 ng/ml Area Ratio: 0.067 Sample Type: (Unknown)	
Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): 9.72 (13.40) min Calculated conc: 0.22 ng/ml Area Ratio: 0.021 Sample Type: (Unknown)	

Printing Time: 11:06:35 AM
Printing Date: Thursday, April 03, 2014

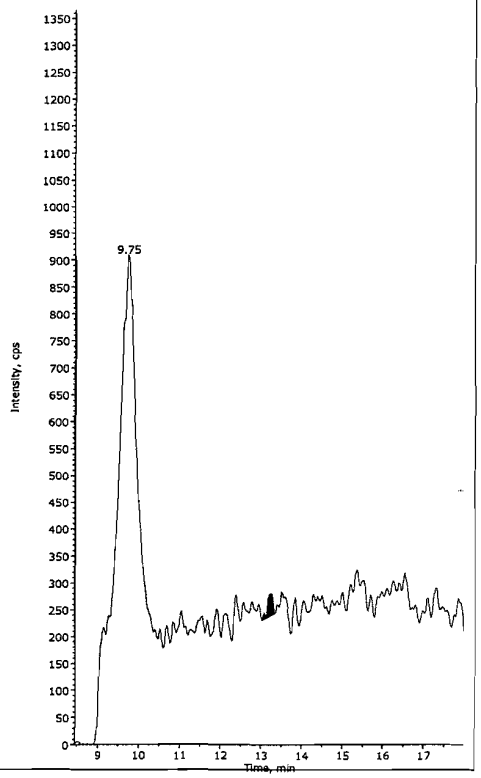
Sample Name: "WG469638-01 MCT (0.2ug/L)" Sample ID: "WG469638-01" File: "LM24169.wiff"
Peak Name: "O18LP(IS)" Mass(es): "107.0/89.0 amu"
Comment: "1,1 STD63472" Annotation: ""

```
Sample Index:        1
Sample Type:     Unknown
Concentration:     5.00     ug/L
Calculated Conc:   N/A
Acq. Date:       4/2/2014
Acq. Time:       3:52:37 PM

Modified:          No
```



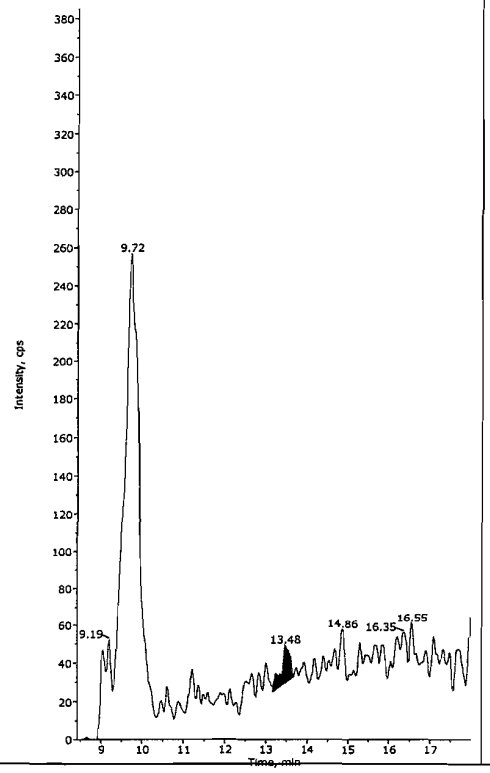
Sample Name: "WG469638-01 MCT (0.2ug/L)" Sample ID: "WG469638-01" File: "LM24169.wiff"
Peak Name: "Perchlorate" Mass(es): "98.8/83.3 amu"
Comment: "1,1 STD63472" Annotation: ""

```
Sample Index:        1
Sample Type:     Unknown
Concentration:     N/A
Calculated Conc: No Intercept
Acq. Date:       4/2/2014
Acq. Time:       3:52:37 PM

Modified:          No
Proc. Algorithm: Analyst Classic
Bunching Factor:     2
Noise Threshold:   4.76   cps
Area Threshold:   23.82   cps
Num. Smooths:        5
Sep. Width:       0.20
Sep. Height:      0.01
Exp. Peak Ratio:  5.00
Exp. Adj. Ratio:  4.00
Exp. Val. Ratio:  3.00
RT Window:       30.000   sec
Expected RT:      13.4    min
Use Relative RT:  Yes

Int. Type:       Base To Base
Retention Time:    13.2   min
Area:          4.01e+002  counts
Height:          40.330   cps
Start Time:       13.001  min
End Time:         13.346  min
```



Sample Name: "WG469638-01 MCT (0.2ug/L)" Sample ID: "WG469638-01" File: "LM24169.wiff"
Peak Name: "Perchlorate conf" Mass(es): "100.8/85.2 amu"
Comment: "1,1 STD63472" Annotation: ""

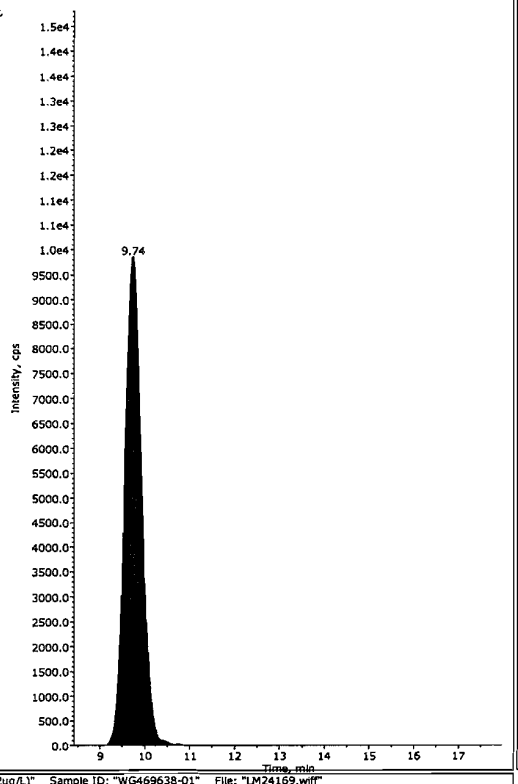
```
Sample Index:        1
Sample Type:     Unknown
Concentration:     N/A
Calculated Conc: No Intercept
Acq. Date:       4/2/2014
Acq. Time:       3:52:37 PM

Modified:          No
Proc. Algorithm: Analyst Classic
Bunching Factor:     2
Noise Threshold:   2.40   cps
Area Threshold:   12.01   cps
Num. Smooths:        5
Sep. Width:       0.20
Sep. Height:      0.01
Exp. Peak Ratio:  5.00
Exp. Adj. Ratio:  4.00
Exp. Val. Ratio:  3.00
RT Window:       30.000   sec
Expected RT:      13.4    min
Use Relative RT:  Yes

Int. Type:         Valley
Retention Time:    13.5    min
Area:          2.94e+002   counts
Height:          19.696    cps
Start Time:       13.163   min
End Time:         13.670   min
```



Collected by: N/A
Electronic Signature: no
Operator: lcms1

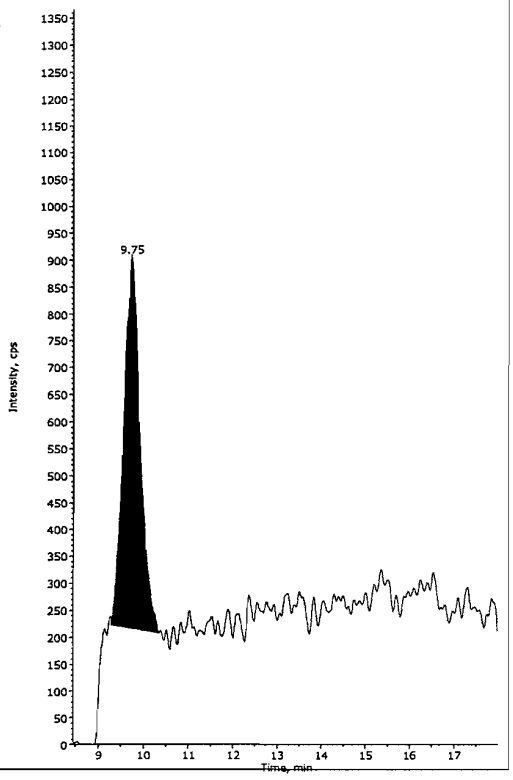
Sample Name: "WG469638-01 MCT (0.2ug/L)" Sample ID: "WG469638-01" File: "LM24169.wiff"
Peak Name: "O18LP(IS)" Mass(es): "107.0/89.0 amu"
Comment: "1,1 STD63472" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	5.00 ug/L
Calculated Conc:	N/A
Acq. Date:	4/2/2014
Acq. Time:	3:52:37 PM
Modified:	Yes
Proc. Algorithm:	Analyst Classic
Bunching Factor:	5
Noise Threshold:	5.47 cps
Area Threshold:	27.34 cps
Num. Smooths:	5
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	420.000 sec
Expected RT:	13.4 min
Use Relative RT:	No
Int. Type:	Manual
Retention Time:	9.74 min
Area:	2.66e+005 counts
Height:	9883.120 cps
Start Time:	8.931 min
End Time:	10.875 min



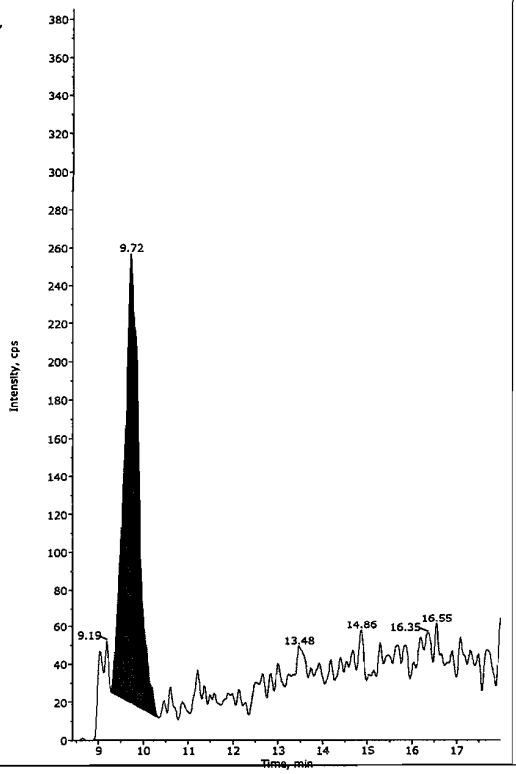
Sample Name: "WG469638-01 MCT (0.2ug/L)" Sample ID: "WG469638-01" File: "LM24169.wiff"
Peak Name: "Perchlorate" Mass(es): "98.8/83.3 amu"
Comment: "1,1 STD63472" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.228 ug/L
Acq. Date:	4/2/2014
Acq. Time:	3:52:37 PM
Modified:	Yes
Proc. Algorithm:	Analyst Classic
Bunching Factor:	3
Noise Threshold:	4.76 cps
Area Threshold:	23.82 cps
Num. Smooths:	5
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.000 sec
Expected RT:	13.4 min
Use Relative RT:	Yes
Int. Type:	Manual
Retention Time:	9.75 min
Area:	1.78e+004 counts
Height:	694.557 cps
Start Time:	9.395 min
End Time:	10.348 min



Sample Name: "WG469638-01 MCT (0.2ug/L)" Sample ID: "WG469638-01" File: "LM24169.wiff"
Peak Name: "Perchlorate conf" Mass(es): "100.8/85.2 amu"
Comment: "1,1 STD63472" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.220 ug/L
Acq. Date:	4/2/2014
Acq. Time:	3:52:37 PM
Modified:	Yes
Proc. Algorithm:	Analyst Classic
Bunching Factor:	2
Noise Threshold:	2.40 cps
Area Threshold:	12.01 cps
Num. Smooths:	5
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.000 sec
Expected RT:	13.4 min
Use Relative RT:	Yes
Int. Type:	Manual
Retention Time:	9.72 min
Area:	5.62e+003 counts
Height:	237.261 cps
Start Time:	9.275 min
End Time:	10.348 min



#1
JWR 04/03/14

SEC 24-314

Collected by: N/A
Electronic Signature: no
Operator: lcms1

2.2.2.5 Raw QC Data

Data File	LM24170.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 4:11:32 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG469638-02 BLANK	**Injection Vial**	5.00
Data File	LM24170.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 4:11:32 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG469638-02	**Dilution Factor**	1.00
Sample Comment	11.00	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.830e+05	12.70	5.00	-

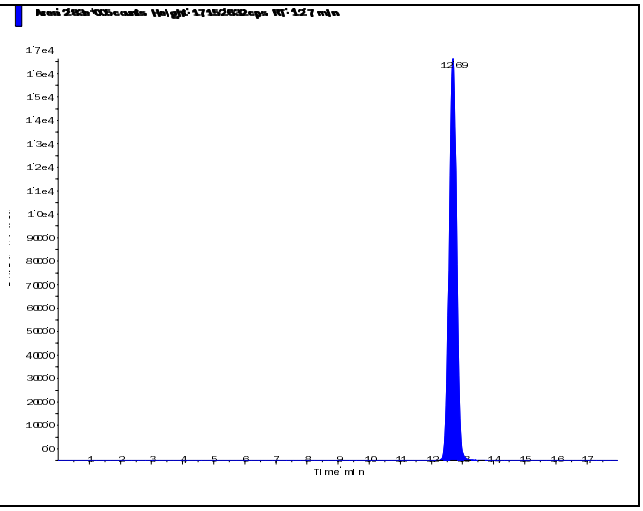
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	0.000e+00	0.00	N/A	No Peak
Perchlorate conf	5.150e+02	12.50	N/A	0.0094

O18LP (Internal Standard)

RT (Exp. RT): 12.70(13.40) min

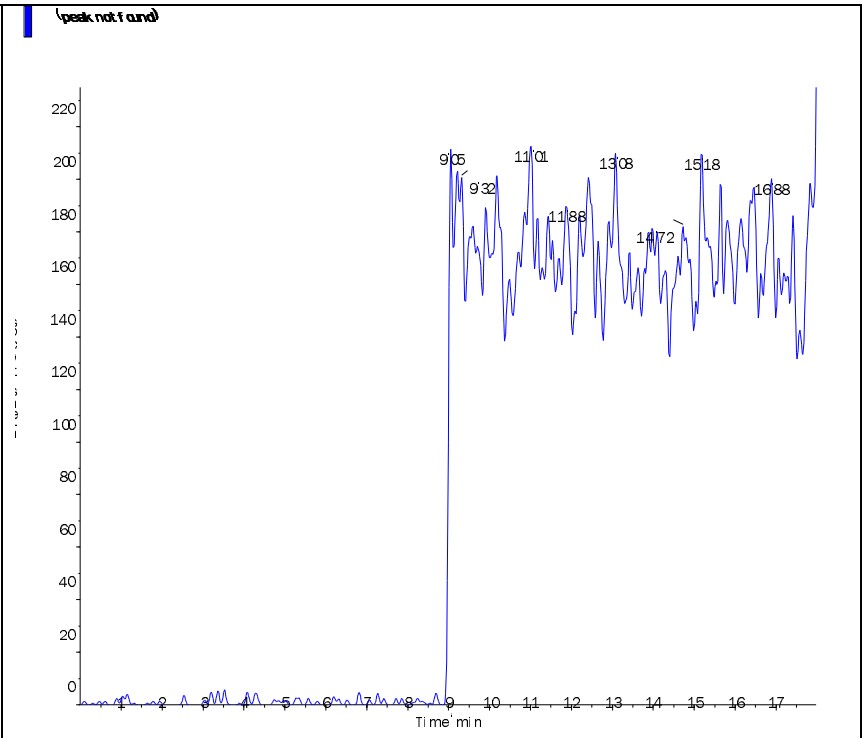
Concentration: 5.00 ug/L

Sample Type: (Unknown)



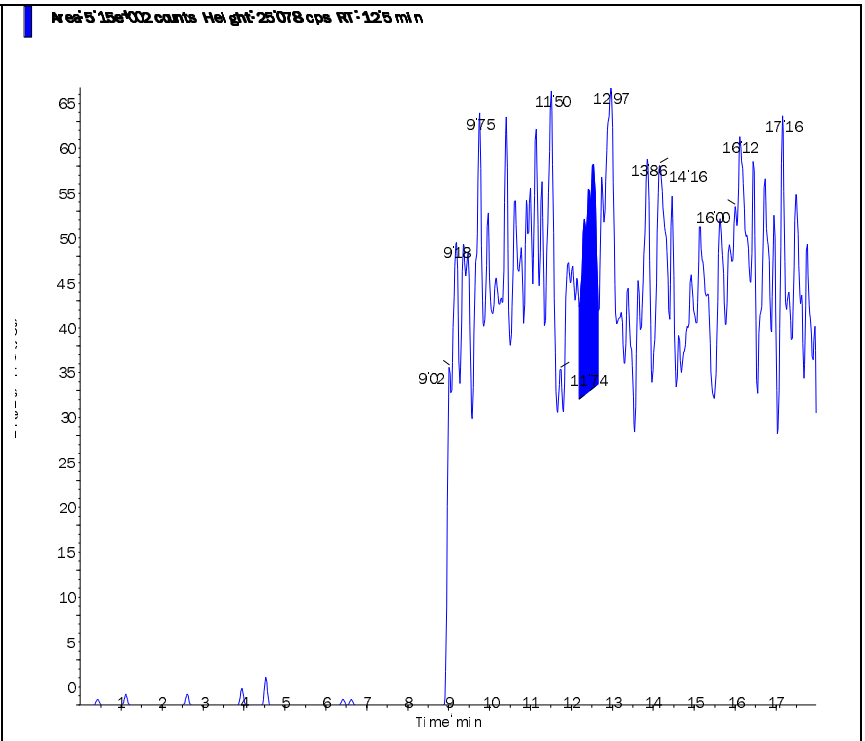
Perchlorate (98.8/83.3 amu)

RT (Exp. RT):	0.00 (13.40) min
Calculated conc:	No Peak ng/ml
Area Ratio:	0.00
Sample Type:	(Unknown)



Perchlorate conf (100.8/85.2 amu)

RT (Exp. RT):	12.50 (13.40) min
Calculated conc:	0.0094 ng/ml
Area Ratio:	0.002
Sample Type:	(Unknown)



Data File	LM24171.wiff	**Result Table**	040214_JWR.rdb
Acquisition Date	4/2/2014 4:30:31 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Instrument Name**	API 4000
Project	Perchlorate\2009_07_22		

Sample Name	WG469638-03 LCS (0.2ug/L)	**Injection Vial**	6.00
Data File	LM24171.wiff	**Injection Volume**	10.00
Acquisition Date	4/2/2014 4:30:31 PM	**Algorithm Used**	Analyst Classic
Acquisition Method	062911.dam	**Sample Type**	Unknown
Instrument Name	API 4000	**Result Table**	040214_JWR.rdb
Sample ID	WG469638-03	**Dilution Factor**	1.00
Sample Comment	1,1 STD63472	**Weight to Volume**	0.00

Internal Standard	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
O18LP	2.610e+05	12.70	5.00	-

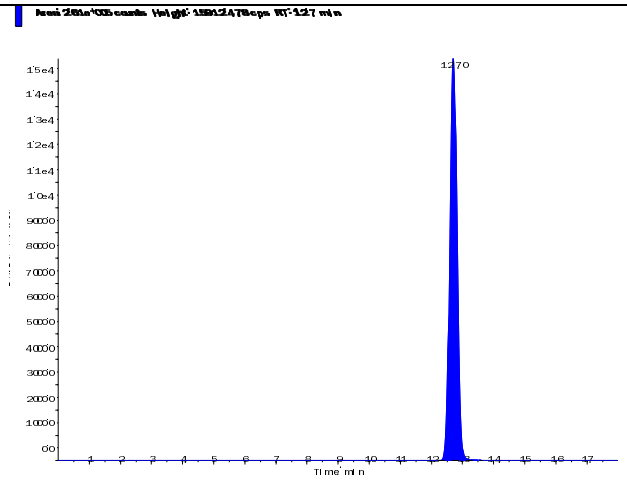
Target Analyte	Area (cps)	RT (min)	Target conc. (ug/L)	Calc. Conc. (ug/L)
Perchlorate	1.610e+04	12.70	N/A	0.209
Perchlorate conf	4.770e+03	12.70	N/A	0.19

O18LP (Internal Standard)

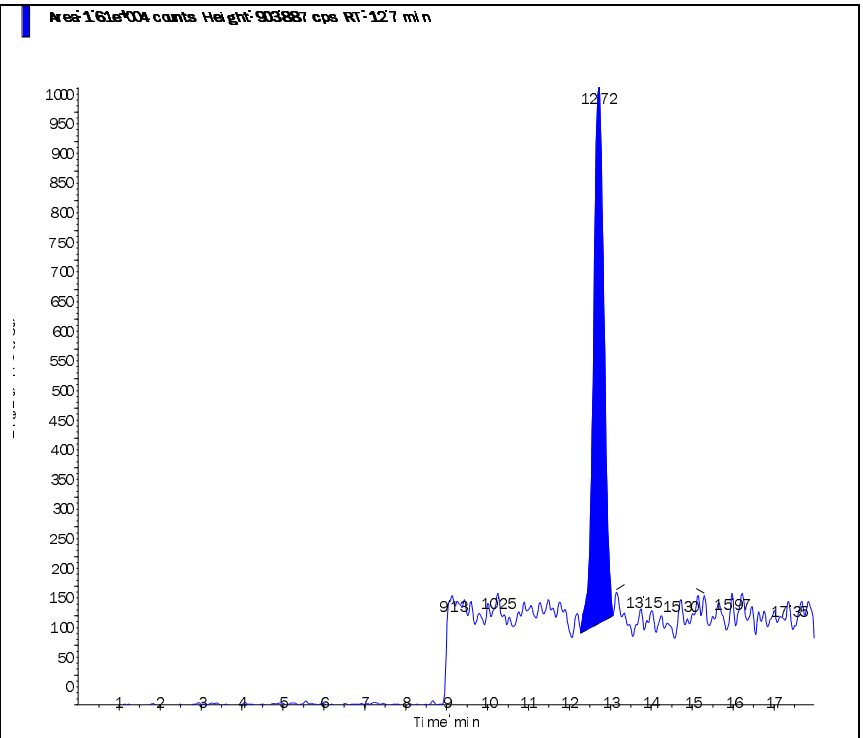
RT (Exp. RT): 12.70(13.40) min

Concentration: 5.00 ug/L

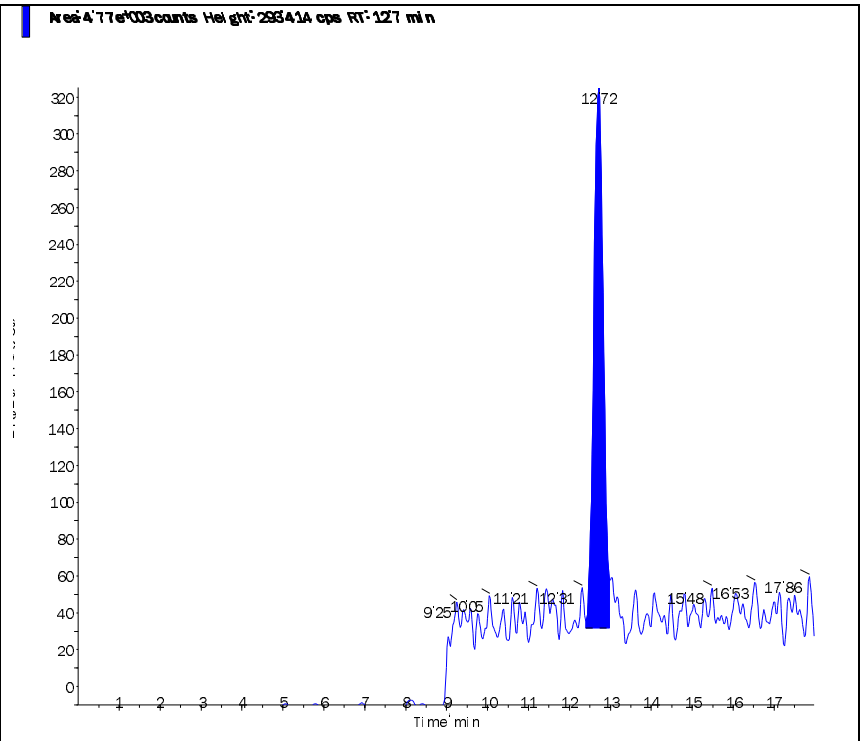
Sample Type: (Unknown)



Perchlorate (98.8/83.3 amu) RT (Exp. RT): Calculated conc: Area Ratio: Sample Type:	12.70 (13.40) min 0.209 ng/ml 0.062 (Unknown)

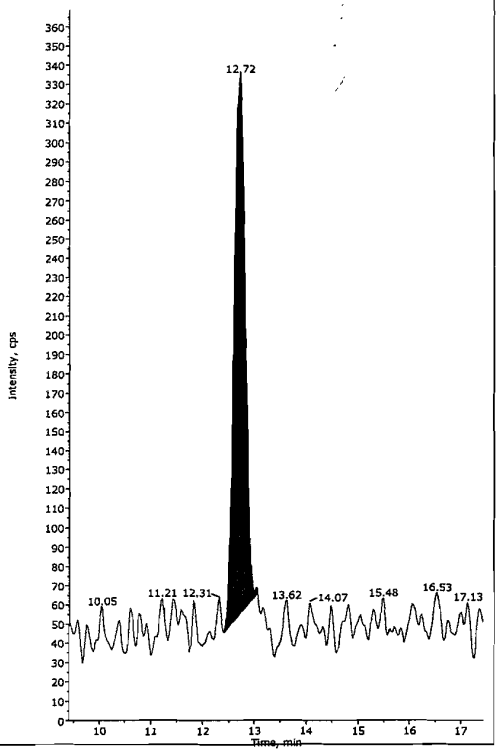


Perchlorate conf (100.8/85.2 amu) RT (Exp. RT): Calculated conc: Area Ratio: Sample Type:	12.70 (13.40) min 0.19 ng/ml 0.018 (Unknown)



Sample Name: "WG469638-03 LCS (0.2ug/L)" Sample ID: "WG469638-03" File: "LM24171.wiff"
Peak Name: "Perchlorate conf" Mass(es): "100.8/85.2 amu"
Comment: "1,1 STD63472" Annotation: ""

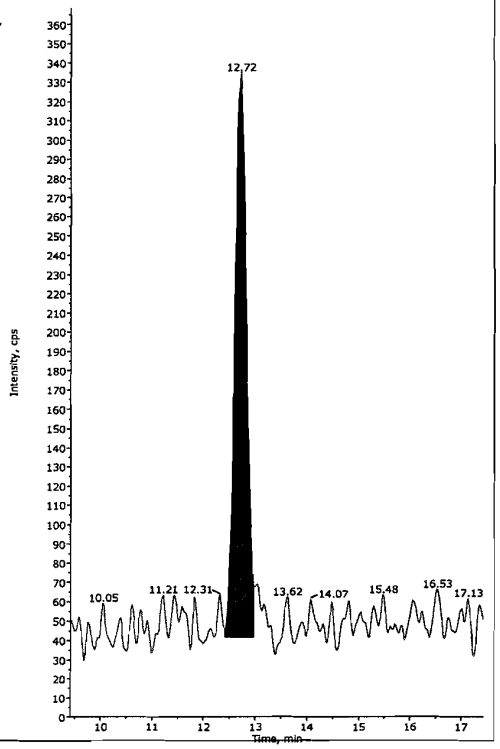
Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.172 ug/L
Acq. Date:	4/2/2014
Acq. Time:	4:30:31 PM
Modified:	No
Proc. Algorithm:	Analyst Classic
Bunching Factor:	2
Noise Threshold:	2.40 cps
Area Threshold:	12.01 cps
Num. Smooths:	5
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.000 sec
Expected RT:	13.4 min
Use Relative RT:	Yes
Int. Type:	Base To Base
Retention Time:	12.7 min
Area:	4.35e+003 counts
Height:	279.948 cps
Start Time:	12.414 min
End Time:	13.062 min



Collected by: N/A
Electronic Signature: no
Operator: lcms1

Sample Name: "WG469638-03 LCS (0.2ug/L)" Sample ID: "WG469638-03" File: "LM24171.wiff"
Peak Name: "Perchlorate conf" Mass(es): "100.8/85.2 amu"
Comment: "1,1 STD63472" Annotation: ""

Sample Index:	1
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	0.190 ug/L
Acq. Date:	4/2/2014
Acq. Time:	4:30:31 PM
Modified:	Yes
Proc. Algorithm:	Analyst Classic
Bunching Factor:	2
Noise Threshold:	2.40 cps
Area Threshold:	12.01 cps
Num. Smooths:	5
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.000 sec
Expected RT:	13.4 min
Use Relative RT:	Yes
Int. Type:	Manual
Retention Time:	12.7 min
Area:	4.77e+003 counts
Height:	293.414 cps
Start Time:	12.394 min
End Time:	12.981 min



#4
JWR 10/03/14
JE02 9-314

Collected by: N/A
Electronic Signature: no
Operator: lcms1

2.3 Metals Data

2.3.1 Metals I C P Data

2.3.1.1 Summary Data

Login Number: L14031621
Department: Metals
Analyst: Qin Xu
Analyst #2: Ji Hu

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6010

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration Verification: All acceptance criteria were met.

Continuing Calibration Blank: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG469838 - All acceptance criteria were met.

Matrix Spikes: WG469838 - Sample 07 was chosen by the client for MS/MSD analysis. Samples 08(MS) and 09(MSD) yielded noncompliant recoveries for two analytes.

SAMPLES

Samples: WG469838 - Client samples 01, 04, 05, 07, 08 and 09 required dilution analyses in order to obtain results for calcium within the calibration range. Client samples 01, 07, 08 and 09 required dilution analyses in order to obtain results for magnesium within the calibration range.

Narrative ID: 80723
Approved By: Sheri Pfalzgraf

Certificate of Analysis

Sample #:	L14031621-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	40MW7GW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/03/2014 09:11
Workgroup #:	WG469838	**Analyst:**	QX	**Run Date:**	04/03/2014 22:49
Collect Date:	03/27/2014 09:57	**Dilution:**	1	**File ID:**	T2.040314.224943
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5		U	0.200	0.100
Iron, Total	7439-89-6	0.213		0.100	0.0500
Potassium, Total	7440-09-7	1.57		1.00	0.500
Sodium, Total	7440-23-5	3.66		0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	40MW7GW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/07/2014 10:08
Workgroup #:	WG469838	**Analyst:**	JYH	**Run Date:**	04/07/2014 15:21
Collect Date:	03/27/2014 09:57	**Dilution:**	10	**File ID:**	T2.040714.152107
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	81.5		5.00	2.50
Magnesium, Total	7439-95-4	32.6		5.00	2.50

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-02	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	40EQR32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/03/2014 09:11
Workgroup #:	WG469838	**Analyst:**	QX	**Run Date:**	04/03/2014 22:53
Collect Date:	03/27/2014 10:45	**Dilution:**	1	**File ID:**	T2.040314.225317
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5		U	0.200	0.100
Calcium, Total	7440-70-2		U	0.500	0.250
Iron, Total	7439-89-6		U	0.100	0.0500
Magnesium, Total	7439-95-4		U	0.500	0.250
Potassium, Total	7440-09-7		U	1.00	0.500
Sodium, Total	7440-23-5	0.803		0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-03	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	40FB32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/03/2014 09:11
Workgroup #:	WG469838	**Analyst:**	QX	**Run Date:**	04/03/2014 22:56
Collect Date:	03/27/2014 11:00	**Dilution:**	1	**File ID:**	T2.040314.225652
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5		U	0.200	0.100
Calcium, Total	7440-70-2		U	0.500	0.250
Iron, Total	7439-89-6		U	0.100	0.0500
Magnesium, Total	7439-95-4		U	0.500	0.250
Potassium, Total	7440-09-7		U	1.00	0.500
Sodium, Total	7440-23-5		U	0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-04	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	40MW5GW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/03/2014 09:11
Workgroup #:	WG469838	**Analyst:**	QX	**Run Date:**	04/03/2014 23:00
Collect Date:	03/27/2014 14:02	**Dilution:**	1	**File ID:**	T2.040314.230027
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5	0.169	J	0.200	0.100
Iron, Total	7439-89-6	0.125		0.100	0.0500
Magnesium, Total	7439-95-4	19.0		0.500	0.250
Potassium, Total	7440-09-7	0.946	J	1.00	0.500
Sodium, Total	7440-23-5	5.37		0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-04	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	40MW5GW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/07/2014 10:08
Workgroup #:	WG469838	**Analyst:**	JYH	**Run Date:**	04/07/2014 15:24
Collect Date:	03/27/2014 14:02	**Dilution:**	10	**File ID:**	T2.040714.152442
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	68.3		5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-05	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	40DUPGW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/03/2014 09:11
Workgroup #:	WG469838	**Analyst:**	QX	**Run Date:**	04/03/2014 23:03
Collect Date:	03/27/2014 14:02	**Dilution:**	1	**File ID:**	T2.040314.230358
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5	0.366		0.200	0.100
Iron, Total	7439-89-6	0.339		0.100	0.0500
Magnesium, Total	7439-95-4	19.5		0.500	0.250
Potassium, Total	7440-09-7	1.02		1.00	0.500
Sodium, Total	7440-23-5	5.64		0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-05	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	40DUPGW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/07/2014 10:08
Workgroup #:	WG469838	**Analyst:**	JYH	**Run Date:**	04/07/2014 15:28
Collect Date:	03/27/2014 14:02	**Dilution:**	10	**File ID:**	T2.040714.152817
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	72.7		5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-06	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	40MW6GW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/03/2014 09:11
Workgroup #:	WG469838	**Analyst:**	QX	**Run Date:**	04/03/2014 23:07
Collect Date:	03/27/2014 15:42	**Dilution:**	1	**File ID:**	T2.040314.230731
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5	0.288		0.200	0.100
Calcium, Total	7440-70-2	23.5		0.500	0.250
Iron, Total	7439-89-6	0.292		0.100	0.0500
Magnesium, Total	7439-95-4	7.56		0.500	0.250
Potassium, Total	7440-09-7	0.738	J	1.00	0.500
Sodium, Total	7440-23-5	7.74		0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-07	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	LFMW01GW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/03/2014 09:11
Workgroup #:	WG469838	**Analyst:**	QX	**Run Date:**	04/03/2014 23:36
Collect Date:	03/27/2014 17:50	**Dilution:**	1	**File ID:**	T2.040314.233648
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5	0.124	J	0.200	0.100
Iron, Total	7439-89-6	0.172		0.100	0.0500
Potassium, Total	7440-09-7	1.73		1.00	0.500
Sodium, Total	7440-23-5	5.26		0.500	0.250
Vanadium, Total	7440-62-2		U	0.0100	0.00500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-07	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	LFMW01GW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/07/2014 10:08
Workgroup #:	WG469838	**Analyst:**	JYH	**Run Date:**	04/07/2014 15:42
Collect Date:	03/27/2014 17:50	**Dilution:**	10	**File ID:**	T2.040714.154227
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	92.4		5.00	2.50
Magnesium, Total	7439-95-4	34.6		5.00	2.50

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-08	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	LFMW01MSGW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/03/2014 09:11
Workgroup #:	WG469838	**Analyst:**	QX	**Run Date:**	04/03/2014 23:40
Collect Date:	03/27/2014 18:15	**Dilution:**	1	**File ID:**	T2.040314.234022
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5	7.26		0.200	0.100
Iron, Total	7439-89-6	3.37		0.100	0.0500
Potassium, Total	7440-09-7	33.3		1.00	0.500
Sodium, Total	7440-23-5	34.9		0.500	0.250
Vanadium, Total	7440-62-2	0.618		0.0100	0.00500

Sample #:	L14031621-08	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	LFMW01MSGW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/07/2014 10:08
Workgroup #:	WG469838	**Analyst:**	JYH	**Run Date:**	04/07/2014 15:46
Collect Date:	03/27/2014 18:15	**Dilution:**	10	**File ID:**	T2.040714.154602
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	93.8		5.00	2.50
Magnesium, Total	7439-95-4	39.6		5.00	2.50

Sample #:	L14031621-09	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	LFMW01MSDGW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/03/2014 09:11
Workgroup #:	WG469838	**Analyst:**	QX	**Run Date:**	04/03/2014 23:43
Collect Date:	03/27/2014 18:15	**Dilution:**	1	**File ID:**	T2.040314.234340
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Aluminum, Total	7429-90-5	6.89		0.200	0.100
Iron, Total	7439-89-6	3.10		0.100	0.0500
Potassium, Total	7440-09-7	33.2		1.00	0.500
Sodium, Total	7440-23-5	34.6		0.500	0.250
Vanadium, Total	7440-62-2	0.633		0.0100	0.00500

Certificate of Analysis

Sample #:	L14031621-09	**PrePrep Method:**	N/A	**Instrument:**	ICP-THERMO2
Client ID:	LFMW01MSDGW32714	**Prep Method:**	3015	**Prep Date:**	04/02/2014 08:21
Matrix:	Water	**Analytical Method:**	6010B	**Cal Date:**	04/07/2014 10:08
Workgroup #:	WG469838	**Analyst:**	JYH	**Run Date:**	04/07/2014 15:49
Collect Date:	03/27/2014 18:15	**Dilution:**	10	**File ID:**	T2.040714.154933
Sample Tag:	DL01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Calcium, Total	7440-70-2	97.6		5.00	2.50
Magnesium, Total	7439-95-4	41.0		5.00	2.50

2.3.1.2 QC Summary Data

Example 6010 Calculations
Thermo Scientific iCAP 6500

1.0 Initial Calibration (ICAL) Parameters
For a multi-point calibration, the system performs linear regression from data consisting of a blank and four standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:	**Example:**
Cs = Concentration computed by the data system in ug/mL (ppm)	0.1
Vf = Final volume (mL)	50
Vi = Initial volume (mL)	50
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in ug/mL (mg/L)	0.1

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:	**Example:**
Cs = Concentration computed by the data system (mg/L) (ppm)	0.1
Vf = Final volume (mL)	50
Vi = Initial weight (g)	1
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in ug/g (mg/kg)	5

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:	**Example:**
Cx = Concentration calculated as received (wet basis)	5
Px = Percent solids of sample (%wt)	80
$Cdry$ = Concentration calculated as dry weight (mg/kg)	6.25

Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup:	WG469555	**SOP:**	ME407 Revison 15
Analyst:	VC	**Spike Solution:**	STD63274
Spike Analyst:	VC	**Spike Witness:**	BRG
Run Date:	04/02/2014 08:21	**HNO3 Lot #:**	COA17409
Method:	3015	**HCL Lot #:**	COA17250
Balance:	BAL016	**40 & 50 ML. DIGESTION TU**	COA17392
Instrument:	MW-3	**ICP Filters- fisher-Lot#**	RGT28961
Instrument Start:	04/02/2014 08:52		

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG469555-02	BLANK	1	40 mL	50 mL	203.682 g	203.667 g		
2	WG469555-03	LCS	1	40 mL	50 mL	209.178 g	209.17 g	5 mL	
3	L14031621-01	SAMP	1	40 mL	50 mL	205.133 g	205.118 g		04/04/14
4	L14031621-02	SAMP	1	40 mL	50 mL	204.424 g	204.409 g		04/04/14
5	L14031621-03	SAMP	1	40 mL	50 mL	203.292 g	203.241 g		04/04/14
6	L14031621-04	SAMP	1	40 mL	50 mL	201.991 g	201.98 g		04/04/14
7	L14031621-05	SAMP	1	40 mL	50 mL	206.385 g	206.367 g		04/04/14
8	L14031621-06	SAMP	1	40 mL	50 mL	204.525 g	204.513 g		04/04/14
9	WG469555-01	REF	1	40 mL	50 mL	204.71 g	204.694 g		
10	L14031621-07	RS01	1	40 mL	50 mL	204.71 g	204.694 g		04/04/14
11	WG469555-04	MS	1	40 mL	50 mL	207.819 g	207.805 g	5 mL	
12	L14031621-08	MS01	1	40 mL	50 mL	207.819 g	207.805 g	5 mL	04/04/14
13	WG469555-05	MSD	1	40 mL	50 mL	208.148 g	208.128 g	5 mL	
14	L14031621-09	SD01	1	40 mL	50 mL	208.148 g	208.128 g	5 mL	04/04/14
15	L14031622-01	SAMP	1	40 mL	50 mL	203.717 g	203.707 g		04/08/14
16	L14031622-02	SAMP	1	40 mL	50 mL	205.207 g	205.195 g		04/08/14
17	L14031651-01	SAMP	1	40 mL	50 mL	202.958 g	202.945 g		04/07/14
18	L14031651-02	SAMP	1	40 mL	50 mL	203.921 g	203.909 g		04/07/14
19	L14031651-03	SAMP	1	40 mL	50 mL	206.362 g	206.351 g		04/07/14
20	L14031651-04	SAMP	1	40 mL	50 mL	203.765 g	203.748 g		04/07/14
21	L14031651-05	SAMP	1	40 mL	50 mL	205.53 g	205.476 g		04/07/14
22	L14031651-06	SAMP	1	40 mL	50 mL	202.376 g	202.37 g		04/07/14
23	L14031651-07	SAMP	1	40 mL	50 mL	205.852 g	205.848 g		04/07/14
24	L14040036-01	SAMP	1	40 mL	50 mL	209.549 g	209.523 g		04/04/14
25	L14040036-02	SAMP	1	40 mL	50 mL	207.767 g			04/04/14
26	L14040036-03	SAMP	1	40 mL	50 mL	208.557 g			04/04/14

L14031651-03	filtered digestate
L14031651-04	filtered digestate

Analyst: Vicki Collins

Reviewer: Brenda Gregory

MW_DIG - Modified 09/30/2009
PDF ID: 3453714
Report generated: 04/02/2014 10:02

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 040314T2.1R.TXT
Analyst1: QX Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 49648

Calibration Std: STD62568 ICV Std: STD62569 Post Spike: STD62250
ICSA: STD62570 ICSAB: STD62571 Int. Std: RGT27583
CCV: STD62567 LLCCV: STD63679 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 469158, 469601, 469676, 469828, 469625, 469831,469835,469839,4

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T2.040314.085717	WG469892-01	Calibration Point		1		04/03/14 08:57
2	T2.040314.090052	WG469892-02	Calibration Point		1		04/03/14 09:00
3	T2.040314.090427	WG469892-03	Calibration Point		1		04/03/14 09:04
4	T2.040314.090800	WG469892-04	Calibration Point		1		04/03/14 09:08
5	T2.040314.091116	WG469892-05	Calibration Point		1		04/03/14 09:11
6	T2.040314.091433	WG469892-06	Initial Calibration Verification		1		04/03/14 09:14
7	T2.040314.091810	WG469892-07	Initial Calib Blank		1		04/03/14 09:18
8	T2.040314.092145	WG469892-08	Low Level Initial Calibration V		1		04/03/14 09:21
9	T2.040314.092520	WG469892-09	Interference Check		1		04/03/14 09:25
10	T2.040314.092853	WG469892-10	Interference Check		1		04/03/14 09:28
11	T2.040314.093218	WG469892-11	CCV		1		04/03/14 09:32
12	T2.040314.093536	WG469892-12	CCB		1		04/03/14 09:35
13	T2.040314.100648	WG469060-02	Method/Prep Blank	40/50	1		04/03/14 10:06
14	T2.040314.101025	WG469060-03	Laboratory Control S	40/50	1		04/03/14 10:10
15	T2.040314.101343	L14031352-01	POND OUTFALL	40/50	1		04/03/14 10:13
16	T2.040314.101716	L14031353-01	FTGWIN368	40/50	1		04/03/14 10:17
17	T2.040314.102049	L14031353-02	FTGWEF368	40/50	1		04/03/14 10:20
18	T2.040314.102421	WG469060-01	Reference Sample		1	L14031524-11	04/03/14 10:24
19	T2.040314.102755	WG469060-04	Matrix Spike	40/50	1	L14031524-11	04/03/14 10:27
20	T2.040314.103113	WG469060-05	Matrix Spike Duplica	40/50	1	L14031524-11	04/03/14 10:31
21	T2.040314.103431	WG469158-03	Post Digestion Spike		1	L14031352-01	04/03/14 10:34
22	T2.040314.103750	WG469158-04	Serial Dilution		5	L14031352-01	04/03/14 10:37
23	T2.040314.104128	WG469892-13	CCV		1		04/03/14 10:41
24	T2.040314.104444	WG469892-14	CCB		1		04/03/14 10:44
25	T2.040314.104826	WG469397-02	Method/Prep Blank	40/50	1		04/03/14 10:48
26	T2.040314.105204	WG469397-03	Laboratory Control S	40/50	1		04/03/14 10:52
27	T2.040314.105524	WG469308-01	Fluid Blank 1		1		04/03/14 10:55
28	T2.040314.105859	WG469308-02	Fluid Blank 2		1		04/03/14 10:58
29	T2.040314.110233	L14031688-01	1403-314-1	5/50	1		04/03/14 11:02
30	T2.040314.110605	L14031688-02	1403-314-2	5/50	1		04/03/14 11:06
31	T2.040314.110939	L14031688-03	1403-314-3	5/50	1		04/03/14 11:09
32	T2.040314.111314	WG469601-03	Post Digestion Spike		1	L14031688-03	04/03/14 11:13
33	T2.040314.111633	WG469601-04	Serial Dilution		5	L14031688-03	04/03/14 11:16
34	T2.040314.112011	WG469892-15	CCV		1		04/03/14 11:20

Page: 1 Approved: April 04, 2014

Maren Berry

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 040314T2.1R.TXT
Analyst1: QX Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 49648

Calibration Std: STD62568 ICV Std: STD62569 Post Spike: STD62250
ICSA: STD62570 ICSAB: STD62571 Int. Std: RGT27583
CCV: STD62567 LLCCV: STD63679 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 469158, 469601, 469676, 469828, 469625, 469831,469835,469839,4

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T2.040314.112328	WG469892-16	CCB		1		04/03/14 11:23
36	T2.040314.112706	WG469397-01	Reference Sample		1	L14031541-03	04/03/14 11:27
37	T2.040314.113039	WG469397-04	Matrix Spike	5/50	1	L14031541-03	04/03/14 11:30
38	T2.040314.113401	WG469397-05	Matrix Spike Duplica	5/50	1	L14031541-03	04/03/14 11:34
39	T2.040314.113724	WG469383-01	Reference Sample		100	L14031488-01	04/03/14 11:37
40	T2.040314.114058	WG469383-05	Duplicate	40/50	100	L14031488-01	04/03/14 11:40
41	T2.040314.114435	WG469383-06	Matrix Spike	40/50	100	L14031488-01	04/03/14 11:44
42	T2.040314.114810	L14031488-03	BPD06	40/50	100		04/03/14 11:48
43	T2.040314.115144	L14031488-09	BPD04	40/50	50		04/03/14 11:51
44	T2.040314.115519	L14031488-11	BPD21	40/50	50		04/03/14 11:55
45	T2.040314.115858	WG469892-17	CCV		1		04/03/14 11:58
46	T2.040314.120214	WG469892-18	CCB		1		04/03/14 12:02
47	T2.040314.120553	WG469892-19	Low Level Continuing Calibra		1		04/03/14 12:05
48	T2.040314.120927	WG469166-02	Method/Prep Blank	40/50	1		04/03/14 12:09
49	T2.040314.121303	WG469166-03	Laboratory Control S	40/50	1		04/03/14 12:13
50	T2.040314.121619	WG469056-01	Fluid Blank		1		04/03/14 12:16
51	T2.040314.121955	WG469166-04	Filter Blank		1		04/03/14 12:19
52	T2.040314.122329	WG469166-01	Reference Sample		1	L14031538-01	04/03/14 12:23
53	T2.040314.122701	WG469166-04	Filter Blank	5/50	1		04/03/14 12:27
54	T2.040314.123018	WG469166-05	Matrix Spike	5/50	1	L14031538-01	04/03/14 12:30
55	T2.040314.123334	L14031445-01	POWDP09-140324	40/50	1		04/03/14 12:33
56	T2.040314.123715	WG	L1403144501PS		1		04/03/14 12:37
57	T2.040314.124043	L1403144501S-DL	L1403144501SDL		5		04/03/14 12:40
58	T2.040314.124427	WG469892-20	CCV		1		04/03/14 12:44
59	T2.040314.124743	WG469892-21	CCB		1		04/03/14 12:47
60	T2.040314.125123	L14030032-53	QIN/ANYONE	40/50	1		04/03/14 12:51
61	T2.040314.125439	L14030032-54	QIN/ANYONE	40/50	1		04/03/14 12:54
62	T2.040314.125755	L14030032-55	QIN/ANYONE	40/50	1		04/03/14 12:57
63	T2.040314.130111	L14030032-56	QIN/ANYONE	40/50	1		04/03/14 13:01
64	T2.040314.130428	L14031649-01	TCF-EB01-32714	40/50	1		04/03/14 13:04
65	T2.040314.130803	L14031649-02	730-WL-032714	40/50	1		04/03/14 13:08
66	T2.040314.131152	L14031649-03	BW02-GW-032714	40/50	1		04/03/14 13:11
67	T2.040314.131529	WG469892-22	CCV		1		04/03/14 13:15
68	T2.040314.131846	WG469892-23	CCB		1		04/03/14 13:18

Page: 2 Approved: April 04, 2014

Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 040314T2.1R.TXT
Analyst1: QX Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 49648

Calibration Std: STD62568 ICV Std: STD62569 Post Spike: STD62250
ICSA: STD62570 ICSAB: STD62571 Int. Std: RGT27583
CCV: STD62567 LLCCV: STD63679 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 469158, 469601, 469676, 469828, 469625, 469831,469835,469839,4

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T2.040314.133027	WG468982-02	Method/Prep Blank	40/50	1		04/03/14 13:30
70	T2.040314.133429	WG468982-03	Laboratory Control S	40/50	1		04/03/14 13:34
71	T2.040314.133745	L14031550-01	P06-GW-032514	40/50	1		04/03/14 13:37
72	T2.040314.134126	L14031550-02	P11-GW-032614	40/50	1		04/03/14 13:41
73	T2.040314.134508	L14031550-03	MW32-GW-032614	40/50	1		04/03/14 13:45
74	T2.040314.134841	WG468982-01	Reference Sample		1	L14031550-04	04/03/14 13:48
75	T2.040314.135214	WG468982-04	Matrix Spike	40/50	1	L14031550-04	04/03/14 13:52
76	T2.040314.135532	WG468982-05	Matrix Spike Duplica	40/50	1	L14031550-04	04/03/14 13:55
77	T2.040314.135850	WG469625-03	Post Digestion Spike		1	L14031550-03	04/03/14 13:58
78	T2.040314.140211	WG469625-04	Serial Dilution		5	L14031550-03	04/03/14 14:02
79	T2.040314.140547	WG469892-24	CCV		1		04/03/14 14:05
80	T2.040314.140903	WG469892-25	CCB		1		04/03/14 14:09
81	T2.040314.141240	WG469892-26	Interference Check		1		04/03/14 14:12
82	T2.040314.141609	WG469892-27	Interference Check		1		04/03/14 14:16
83	T2.040314.141934	WG469892-28	CCV		1		04/03/14 14:19
84	T2.040314.142250	WG469892-29	CCB		1		04/03/14 14:22
85	T2.040314.142627	WG469369-03	Method/Prep Blank	40/50	1		04/03/14 14:26
86	T2.040314.143002	WG469369-04	Laboratory Control S	40/50	1		04/03/14 14:30
87	T2.040314.143337	L14031401-01	DSRFLF	40/50	1		04/03/14 14:33
88	T2.040314.143709	WG469369-01	Reference Sample		1	L14031408-09	04/03/14 14:37
89	T2.040314.144043	WG469369-05	Duplicate	40/50	1	L14031408-09	04/03/14 14:40
90	T2.040314.144416	WG469369-06	Matrix Spike	40/50	1	L14031408-09	04/03/14 14:44
91	T2.040314.144747	L14031408-12	DLFOLFRB	40/50	1		04/03/14 14:47
92	T2.040314.145121	L14031408-14	3066	40/50	1		04/03/14 14:51
93	T2.040314.145453	WG469831-01	Post Digestion Spike		1	L14031408-14	04/03/14 14:54
94	T2.040314.145813	WG469831-02	Serial Dilution		5	L14031408-14	04/03/14 14:58
95	T2.040314.150147	WG469892-30	CCV		1		04/03/14 15:01
96	T2.040314.150504	WG469892-31	CCB		1		04/03/14 15:05
97	T2.040314.150841	L14031571-01	EM-007	40/50	1		04/03/14 15:08
98	T2.040314.151214	L14031571-03	EM-019	40/50	1		04/03/14 15:12
99	T2.040314.151547	L14031575-01	4028	40/50	1		04/03/14 15:15
100	T2.040314.151920	L14031575-03	4121	40/50	1		04/03/14 15:19
101	T2.040314.152253	L14031575-05	DDBSW	40/50	1		04/03/14 15:22
102	T2.040314.152626	L14031575-07	DLFDBSW	40/50	1		04/03/14 15:26

Page: 3 Approved: April 04, 2014

Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 040314T2.1R.TXT
Analyst1: QX Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 49648

Calibration Std: STD62568 ICV Std: STD62569 Post Spike: STD62250
ICSA: STD62570 ICSAB: STD62571 Int. Std: RGT27583
CCV: STD62567 LLCCV: STD63679 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 469158, 469601, 469676, 469828, 469625, 469831,469835,469839,4

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T2.040314.153001	L14031407-01	ES-001		1		04/03/14 15:30
104	T2.040314.153335	WG469676-01	Post Digestion Spike		1	L14031407-01	04/03/14 15:33
105	T2.040314.153653	WG469676-02	Serial Dilution		5	L14031407-01	04/03/14 15:36
106	T2.040314.154031	WG469892-32	CCV		1		04/03/14 15:40
107	T2.040314.154347	WG469892-33	CCB		1		04/03/14 15:43
108	T2.040314.154725	WG469369-02	Reference Sample		1	L14031575-09	04/03/14 15:47
109	T2.040314.155059	WG469369-07	Matrix Spike	40/50	1	L14031575-09	04/03/14 15:50
110	T2.040314.155430	L14031575-11	4223	40/50	1		04/03/14 15:54
111	T2.040314.155804	L14031580-03	EM-010	40/50	1		04/03/14 15:58
112	T2.040314.160136	L14031480-05	32504-01	40/50	1		04/03/14 16:01
113	T2.040314.160509	L14031480-07	L1403148007	40/50	1		04/03/14 16:05
114	T2.040314.160841	L14031480-09	L1403148009	40/50	1		04/03/14 16:08
115	T2.040314.161213	L14031480-11	L1403148011	40/50	1		04/03/14 16:12
116	T2.040314.161546	L14031480-13	L1403148013	40/50	1		04/03/14 16:15
117	T2.040314.161918	L14031480-15	L1403148015	40/50	1		04/03/14 16:19
118	T2.040314.162254	WG469892-34	CCV		1		04/03/14 16:22
119	T2.040314.162609	WG469892-35	CCB		1		04/03/14 16:26
120	T2.040314.162950	L14031397-09	TV-010	40/50	1		04/03/14 16:29
121	T2.040314.163322	WG469652-04	Serial Dilution		5	L14031397-09	04/03/14 16:33
122	T2.040314.163657	WG469652-03	Post Digestion Spike		1	L14031397-09	04/03/14 16:36
123	T2.040314.165044	L14031407-03	WT-001	40/50	1		04/03/14 16:50
124	T2.040314.165418	WG469676-03	Post Digestion Spike		1	L14031407-03	04/03/14 16:54
125	T2.040314.165743	WG469892-36	CCV		1		04/03/14 16:57
126	T2.040314.170059	WG469892-37	CCB		1		04/03/14 17:00
127	T2.040314.170438	WG469458-03	Method/Prep Blank	40/50	1		04/03/14 17:04
128	T2.040314.170814	WG469458-04	Laboratory Control S	40/50	1		04/03/14 17:08
129	T2.040314.171146	WG469458-01	Reference Sample		1	L14031555-02	04/03/14 17:11
130	T2.040314.171520	WG469458-05	Duplicate	40/50	1	L14031555-02	04/03/14 17:15
131	T2.040314.171853	WG469458-06	Matrix Spike	40/50	1	L14031555-02	04/03/14 17:18
132	T2.040314.172225	L14031555-03	350.15	40/50	1		04/03/14 17:22
133	T2.040314.172559	L14031557-01	WM-009	40/50	1		04/03/14 17:25
134	T2.040314.172932	L14031557-03	4033	40/50	1		04/03/14 17:29
135	T2.040314.173304	WG469835-01	Post Digestion Spike		1	L14031557-03	04/03/14 17:33
136	T2.040314.173623	WG469835-02	Serial Dilution		1	L14031557-03	04/03/14 17:36

Page: 4 Approved: April 04, 2014

Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 040314T2.1R.TXT
Analyst1: QX Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 49648

Calibration Std: STD62568 ICV Std: STD62569 Post Spike: STD62250
ICSA: STD62570 ICSAB: STD62571 Int. Std: RGT27583
CCV: STD62567 LLCCV: STD63679 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 469158, 469601, 469676, 469828, 469625, 469831,469835,469839,4

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	T2.040314.173959	WG469892-38	CCV		1		04/03/14 17:39
138	T2.040314.174315	WG469892-39	CCB		1		04/03/14 17:43
139	T2.040314.174653	L14031557-05	4005	40/50	1		04/03/14 17:46
140	T2.040314.175025	L14031557-07	CM-001	40/50	1		04/03/14 17:50
141	T2.040314.175356	L14031557-09	DT-001	40/50	1		04/03/14 17:53
142	T2.040314.175730	L14031557-11	4007	40/50	1		04/03/14 17:57
143	T2.040314.180102	L14031557-13	TDR-008	40/50	1		04/03/14 18:01
144	T2.040314.180435	WG469458-02	Reference Sample		1	L14031557-15	04/03/14 18:04
145	T2.040314.180807	WG469458-07	Matrix Spike	40/50	1	L14031557-15	04/03/14 18:08
146	T2.040314.181137	L14031558-01	NM-003	40/50	1		04/03/14 18:11
147	T2.040314.181510	L14031558-03	NM-004	40/50	1		04/03/14 18:15
148	T2.040314.181843	L14031558-05	DNB1	40/50	1		04/03/14 18:18
149	T2.040314.182218	WG469892-40	CCV		1		04/03/14 18:22
150	T2.040314.182534	WG469892-41	CCB		1		04/03/14 18:25
151	T2.040314.182912	L14031558-07	4143	40/50	1		04/03/14 18:29
152	T2.040314.183247	L14031558-09	NMAR-001	40/50	1		04/03/14 18:32
153	T2.040314.183619	L14031580-17	4041	40/50	1		04/03/14 18:36
154	T2.040314.183953	L14031580-19	4039	40/50	1		04/03/14 18:39
155	T2.040314.184326	L14031580-21	4221	40/50	1		04/03/14 18:43
156	T2.040314.184659	L14031580-22	4048	40/50	1		04/03/14 18:46
157	T2.040314.185035	WG469892-42	CCV		1		04/03/14 18:50
158	T2.040314.185351	WG469892-43	CCB		1		04/03/14 18:53
159	T2.040314.185730	WG469459-03	Method/Prep Blank	40/50	1		04/03/14 18:57
160	T2.040314.190106	WG469459-04	Laboratory Control S	40/50	1		04/03/14 19:01
161	T2.040314.190439	WG469459-01	Reference Sample		1	L14031562-01	04/03/14 19:04
162	T2.040314.190812	WG469459-05	Duplicate	40/50	1	L14031562-01	04/03/14 19:08
163	T2.040314.191145	WG469459-06	Matrix Spike	40/50	1	L14031562-01	04/03/14 19:11
164	T2.040314.191516	L14031562-08	4107	40/50	1		04/03/14 19:15
165	T2.040314.191848	L14031562-10	4119	40/50	1		04/03/14 19:18
166	T2.040314.192221	L14031562-12	4124	40/50	1		04/03/14 19:22
167	T2.040314.192554	WG469839-01	Post Digestion Spike		1	L14031562-12	04/03/14 19:25
168	T2.040314.192914	WG469839-02	Serial Dilution		5	L14031562-12	04/03/14 19:29
169	T2.040314.193252	WG469892-44	CCV		1		04/03/14 19:32
170	T2.040314.193608	WG469892-45	CCB		1		04/03/14 19:36

Page: 5 Approved: April 04, 2014

Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 040314T2.1R.TXT
Analyst1: QX Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 49648

Calibration Std: STD62568 ICV Std: STD62569 Post Spike: STD62250
ICSA: STD62570 ICSAB: STD62571 Int. Std: RGT27583
CCV: STD62567 LLCCV: STD63679 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 469158, 469601, 469676, 469828, 469625, 469831,469835,469839,4

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
171	T2.040314.193946	L14031562-13	4131	40/50	1		04/03/14 19:39
172	T2.040314.194319	L14031565-01	TBSK1-001	40/50	1		04/03/14 19:43
173	T2.040314.194651	L14031565-03	TBSK1-050	40/50	1		04/03/14 19:46
174	T2.040314.195024	L14031565-06	DSB1	40/50	1		04/03/14 19:50
175	T2.040314.195356	L14031565-08	4125	40/50	1		04/03/14 19:53
176	T2.040314.195729	L14031565-10	TT-095	40/50	1		04/03/14 19:57
177	T2.040314.200102	WG469459-02	Reference Sample		1	L14031565-17	04/03/14 20:01
178	T2.040314.200435	WG469459-07	Matrix Spike	40/50	1	L14031565-17	04/03/14 20:04
179	T2.040314.200806	L14031654-03	TUCKER FORK	40/50	1		04/03/14 20:08
180	T2.040314.201140	L14031654-06	6N	40/50	1		04/03/14 20:11
181	T2.040314.201518	WG469892-46	CCV		1		04/03/14 20:15
182	T2.040314.201835	WG469892-47	CCB		1		04/03/14 20:18
183	T2.040314.202214	L14031654-08	MARGARET POND 1	40/50	1		04/03/14 20:22
184	T2.040314.202546	L14031656-01	11-D RAW	40/50	1		04/03/14 20:25
185	T2.040314.202919	L14031656-04	9 SOUTH RAW	40/50	1		04/03/14 20:29
186	T2.040314.203250	L14031656-06	METZ RAW	40/50	1		04/03/14 20:32
187	T2.040314.203623	L14031656-08	MIRACLE RUN RAW	40/50	1		04/03/14 20:36
188	T2.040314.203956	L14031656-10	SOUTHGATE RAW	40/50	1		04/03/14 20:39
189	T2.040314.204332	WG469892-48	CCV		1		04/03/14 20:43
190	T2.040314.204648	WG469892-49	CCB		1		04/03/14 20:46
191	T2.040314.205026	WG469536-03	Method/Prep Blank	40/50	1		04/03/14 20:50
192	T2.040314.205401	WG469536-04	Laboratory Control S	40/50	1		04/03/14 20:54
193	T2.040314.205721	WG469536-01	Reference Sample		1	L14031567-01	04/03/14 20:57
194	T2.040314.210053	WG469536-05	Duplicate	40/50	1	L14031567-01	04/03/14 21:00
195	T2.040314.210425	WG469536-06	Matrix Spike	40/50	1	L14031567-01	04/03/14 21:04
196	T2.040314.210744	L14031567-04	TBSK2-008	40/50	1		04/03/14 21:07
197	T2.040314.211118	L14031567-06	TBSK2-010	40/50	1		04/03/14 21:11
198	T2.040314.211449	L14031567-08	TBSK2-011	40/50	1		04/03/14 21:14
199	T2.040314.211822	WG469837-01	Post Digestion Spike		1	L14031567-08	04/03/14 21:18
200	T2.040314.212140	WG469837-02	Serial Dilution		5	L14031567-08	04/03/14 21:21
201	T2.040314.212517	WG469892-50	CCV		1		04/03/14 21:25
202	T2.040314.212833	WG469892-51	CCB		1		04/03/14 21:28
203	T2.040314.213210	L14031567-13	4118	40/50	1		04/03/14 21:32
204	T2.040314.213543	L14031567-15	4117	40/50	1		04/03/14 21:35

Page: 6 Approved: April 04, 2014

Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 040314T2.1R.TXT
Analyst1: QX Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 49648

Calibration Std: STD62568 ICV Std: STD62569 Post Spike: STD62250
ICSA: STD62570 ICSAB: STD62571 Int. Std: RGT27583
CCV: STD62567 LLCCV: STD63679 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 469158, 469601, 469676, 469828, 469625, 469831,469835,469839,4

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
205	T2.040314.213916	L14031567-17	4116	40/50	1		04/03/14 21:39
206	T2.040314.214249	L14031567-19	4122	40/50	1		04/03/14 21:42
207	T2.040314.214620	L14031567-20	4114	40/50	1		04/03/14 21:46
208	T2.040314.214953	WG469536-02	Reference Sample		1	L14031576-01	04/03/14 21:49
209	T2.040314.215321	WG469536-07	Matrix Spike	40/50	1	L14031576-01	04/03/14 21:53
210	T2.040314.215639	L14031657-01	BIS-39	40/50	1		04/03/14 21:56
211	T2.040314.220012	L14031658-01	SQJ4-IS-05	40/50	1		04/03/14 22:00
212	T2.040314.220345	L14031658-03	SQJ4-IS-06	40/50	1		04/03/14 22:03
213	T2.040314.220724	WG469892-52	CCV		1		04/03/14 22:07
214	T2.040314.221040	WG469892-53	CCB		1		04/03/14 22:10
215	T2.040314.221420	L14031658-05	SQJ4-IS-07	40/50	1		04/03/14 22:14
216	T2.040314.221754	L14031662-01	CRA-IS-15	40/50	1		04/03/14 22:17
217	T2.040314.222127	L14031662-03	CRA-IS-16	40/50	1		04/03/14 22:21
218	T2.040314.222500	L14031663-01	SQJ-01	40/50	1		04/03/14 22:25
219	T2.040314.222836	L14031663-03	SQJ-IS-01	40/50	1		04/03/14 22:28
220	T2.040314.223210	L14040039-01	14C1309-01	40/50	1		04/03/14 22:32
221	T2.040314.223556	WG469892-54	CCV		1		04/03/14 22:35
222	T2.040314.223912	WG469892-55	CCB		1		04/03/14 22:39
223	T2.040314.224251	WG469555-02	Method/Prep Blank	40/50	1		04/03/14 22:42
224	T2.040314.224626	WG469555-03	Laboratory Control S	40/50	1		04/03/14 22:46
225	T2.040314.224943	L14031621-01	40MW7GW32714	40/50	1		04/03/14 22:49
226	T2.040314.225317	L14031621-02	40EQR32714	40/50	1		04/03/14 22:53
227	T2.040314.225652	L14031621-03	40FB32714	40/50	1		04/03/14 22:56
228	T2.040314.230027	L14031621-04	40MW5GW32714	40/50	1		04/03/14 23:00
229	T2.040314.230358	L14031621-05	40DUPGW32714	40/50	1		04/03/14 23:03
230	T2.040314.230731	L14031621-06	40MW6GW32714	40/50	1		04/03/14 23:07
231	T2.040314.231103	WG469838-01	Post Digestion Spike		1	L14031621-06	04/03/14 23:11
232	T2.040314.231422	WG469838-02	Serial Dilution		5	L14031621-06	04/03/14 23:14
233	T2.040314.231758	WG469892-56	CCV		1		04/03/14 23:17
234	T2.040314.232114	WG469892-57	CCB		1		04/03/14 23:21
235	T2.040314.232450	L14040036-01	701 3H	40/50	10		04/03/14 23:24
236	T2.040314.232848	L14040036-02	701 6H	40/50	10		04/03/14 23:28
237	T2.040314.233246	L14040036-03	BFT	40/50	10		04/03/14 23:32
238	T2.040314.233648	WG469555-01	Reference Sample		1	L14031621-07	04/03/14 23:36

Page: 7 Approved: April 04, 2014

Maren Berry

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 040314T2.1R.TXT
Analyst1: QX Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 49648

Calibration Std: STD62568 ICV Std: STD62569 Post Spike: STD62250
ICSA: STD62570 ICSAB: STD62571 Int. Std: RGT27583
CCV: STD62567 LLCCV: STD63679 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 469158, 469601, 469676, 469828, 469625, 469831,469835,469839,4

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
239	T2.040314.234022	WG469555-04	Matrix Spike	40/50	1	L14031621-07	04/03/14 23:40
240	T2.040314.234340	WG469555-05	Matrix Spike Duplica	40/50	1	L14031621-07	04/03/14 23:43
241	T2.040314.234658	L14031622-01	2842BMW01-14D	40/50	1		04/03/14 23:46
242	T2.040314.235039	L14031622-02	2842BMW06-14D	40/50	1		04/03/14 23:50
243	T2.040314.235418	L14031651-01	1801-106 W1	40/50	1		04/03/14 23:54
244	T2.040314.235751	L14031651-02	1801-106 W3	40/50	1		04/03/14 23:57
245	T2.040414.000126	WG469892-58	CCV		1		04/04/14 00:01
246	T2.040414.000441	WG469892-59	CCB		1		04/04/14 00:04
247	T2.040414.000819	L14031651-03	1801-106 W4	40/50	1		04/04/14 00:08
248	T2.040414.001149	L14031651-04	1801-106 S2	40/50	1		04/04/14 00:11
249	T2.040414.001521	L14031651-05	1801-106 P1	40/50	1		04/04/14 00:15
250	T2.040414.001854	L14031651-06	1801-106 P2	40/50	1		04/04/14 00:18
251	T2.040414.002226	L14031651-07	1801-106 P3	40/50	1		04/04/14 00:22
252	T2.040414.002601	WG469892-60	CCV		1		04/04/14 00:26
253	T2.040414.002917	WG469892-61	CCB		1		04/04/14 00:29
254	T2.040414.003255	WG469565-03	Method/Prep Blank		1		04/04/14 00:32
255	T2.040414.003631	WG469565-04	Laboratory Control S		1		04/04/14 00:36
256	T2.040414.003949	WG469565-01	Reference Sample		1	L14031580-24	04/04/14 00:39
257	T2.040414.004322	WG469565-05	Duplicate		1	L14031580-24	04/04/14 00:43
258	T2.040414.004654	WG469565-06	Matrix Spike		1	L14031580-24	04/04/14 00:46
259	T2.040414.005012	L14031580-26	4164		1		04/04/14 00:50
260	T2.040414.005344	L14031580-27	4034		1		04/04/14 00:53
261	T2.040414.005716	L14031624-01	OA-033		1		04/04/14 00:57
262	T2.040414.010035	WG469868-01	Post Digestion Spike		1	L14031624-01	04/04/14 01:00
263	T2.040414.010408	WG469868-02	Serial Dilution		5	L14031624-01	04/04/14 01:04
264	T2.040414.010743	WG469892-62	CCV		1		04/04/14 01:07
265	T2.040414.011059	WG469892-63	CCB		1		04/04/14 01:10
266	T2.040414.011434	L14031661-01	ITM-29		1		04/04/14 01:14
267	T2.040414.011807	L14031661-03	ITM-45		1		04/04/14 01:18
268	T2.040414.012141	L14031661-05	ITM-63		1		04/04/14 01:21
269	T2.040414.012514	L14031661-07	ITM-IS-24		1		04/04/14 01:25
270	T2.040414.012847	L14031661-09	ITM-IS-23		1		04/04/14 01:28
271	T2.040414.013220	WG469565-02	Reference Sample		1	L14040030-01	04/04/14 01:32
272	T2.040414.013538	WG469565-07	Matrix Spike		1	L14040030-01	04/04/14 01:35

Page: 8 Approved: April 04, 2014

Maren Berry

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 040314T2.1R.TXT
Analyst1: QX Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 49648

Calibration Std: STD62568 ICV Std: STD62569 Post Spike: STD62250
ICSA: STD62570 ICSAB: STD62571 Int. Std: RGT27583
CCV: STD62567 LLCCV: STD63679 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 469158, 469601, 469676, 469828, 469625, 469831,469835,469839,4

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
273	T2.040414.013912	L14040030-03	DJCSW4		1		04/04/14 01:39
274	T2.040414.014245	L14040030-05	4147		1		04/04/14 01:42
275	T2.040414.014618	L14040030-07	BASDJC1		1		04/04/14 01:46
276	T2.040414.014950	WG469892-64	CCV		1		04/04/14 01:49
277	T2.040414.015305	WG469892-65	CCB		1		04/04/14 01:53
278	T2.040414.015641	L14040030-09	BCGW3		1		04/04/14 01:56
279	T2.040414.020014	L14040030-10	TT-002		1		04/04/14 02:00
280	T2.040414.020345	L14040045-01	053		1		04/04/14 02:03
281	T2.040414.020717	L14040047-01	002		1		04/04/14 02:07
282	T2.040414.021050	L14040048-01	001		1		04/04/14 02:10
283	T2.040414.021422	L14040049-01	010		1		04/04/14 02:14
284	T2.040414.021756	WG469892-66	CCV		1		04/04/14 02:17
285	T2.040414.022112	WG469892-67	CCB		1		04/04/14 02:21
286	T2.040414.022449	ACID WATER	ACID WATER		1		04/04/14 02:24
287	T2.040414.022827	ACID WATER	ACID WATER		1		04/04/14 02:28
288	T2.040414.023203	ACID WATER	ACID WATER		1		04/04/14 02:32
289	T2.040414.023540	ACID WATER	ACID WATER		1		04/04/14 02:35

Comments

Seq.	Rerun	Dil.	Reason	Analytes
53			Wrong wg\#, should be wg469166-05. - QX	
54			Wrong WG\#, should be wg469166-06. - QX	
56			Missing WG\#, should be WG469828-01. - QX	
57			Missing WG\#, should be WG469828-02. - QX	
112			Wrong L\#, should be L1403158005. - QX	
113			Wrong L \#, should be L1403158007. - QX	
114			Wrong L \#, should be L1403158009.- QX	
115			Wrong L\#, should be L1403158011.- QX	
116			Wrong L \#, should be L1403158013. _ QX	
117			Wrong L\#, should be L1403158015. -QX	

Page: 9 Approved: April 04, 2014

Maren Berry

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 040714T2.1
Analyst1: JYH Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 49675

Calibration Std: STD62568 ICV Std: STD62569 Post Spike: STD62250
ICSA: STD62570 ICSAB: STD62571 Int. Std: RGT27583
CCV: STD62567 LLCCV: STD63679 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 469981,470190,469896,470272,469838,470014,470015

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	T2.040714.095418	WG470310-01	Calibration Point		1		04/07/14 09:54
2	T2.040714.095754	WG470310-02	Calibration Point		1		04/07/14 09:57
3	T2.040714.100129	WG470310-03	Calibration Point		1		04/07/14 10:01
4	T2.040714.100503	WG470310-04	Calibration Point		1		04/07/14 10:05
5	T2.040714.100819	WG470310-05	Calibration Point		1		04/07/14 10:08
6	T2.040714.101134	WG470310-06	Initial Calibration Verification		1		04/07/14 10:11
7	T2.040714.101450	WG470310-07	Initial Calib Blank		1		04/07/14 10:14
8	T2.040714.101825	WG470310-08	Interference Check		1		04/07/14 10:18
9	T2.040714.102154	WG470310-09	Interference Check		1		04/07/14 10:21
10	T2.040714.102519	WG470310-10	CCV		1		04/07/14 10:25
11	T2.040714.102835	WG470310-11	CCB		1		04/07/14 10:28
12	T2.040714.103214	WG469613-03	Method/Prep Blank	40/50	1		04/07/14 10:32
13	T2.040714.104001	WG469613-04	Laboratory Control S	40/50	1		04/07/14 10:40
14	T2.040714.104319	L14031578-01	OUTFALL 101	40/50	1		04/07/14 10:43
15	T2.040714.104659	WG469613-01	Reference Sample		1	L14040003-02	04/07/14 10:46
16	T2.040714.105040	WG469613-05	Duplicate	40/50	1	L14040003-02	04/07/14 10:50
17	T2.040714.105421	WG469613-06	Matrix Spike	40/50	1	L14040003-02	04/07/14 10:54
18	T2.040714.105748	L14040003-04	BNW23	40/50	1		04/07/14 10:57
19	T2.040714.110126	L14040003-05	BNW25	40/50	1		04/07/14 11:01
20	T2.040714.110507	WG469981-01	Post Digestion Spike		1	L14040003-05	04/07/14 11:05
21	T2.040714.110834	WG469981-02	Serial Dilution		5	L14040003-05	04/07/14 11:08
22	T2.040714.111211	WG470310-12	CCV		1		04/07/14 11:12
23	T2.040714.111526	WG470310-13	CCB		1		04/07/14 11:15
24	T2.040714.111905	L14040003-06	BNW26	40/50	1		04/07/14 11:19
25	T2.040714.112243	L14040024-01	NM-010	40/50	1		04/07/14 11:22
26	T2.040714.112617	L14040024-03	NM-011	40/50	1		04/07/14 11:26
27	T2.040714.112950	L14040024-05	NM-012	40/50	1		04/07/14 11:29
28	T2.040714.113321	L14040024-07	4145	40/50	1		04/07/14 11:33
29	T2.040714.113654	WG469613-02	Reference Sample		1	L14040024-09	04/07/14 11:36
30	T2.040714.114027	WG469613-07	Matrix Spike	40/50	1	L14040024-09	04/07/14 11:40
31	T2.040714.114345	L14040037-01	ITM-IS-35S2	40/50	1		04/07/14 11:43
32	T2.040714.114718	L14040037-03	ITM-IS-34S2	40/50	1		04/07/14 11:47
33	T2.040714.115050	L14040040-02	ITM-64	40/50	1		04/07/14 11:50
34	T2.040714.115425	WG470310-14	CCV		1		04/07/14 11:54

Page: 1 Approved: April 08, 2014

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 040714T2.1
Analyst1: JYH Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 49675

Calibration Std: STD62568 ICV Std: STD62569 Post Spike: STD62250
ICSA: STD62570 ICSAB: STD62571 Int. Std: RGT27583
CCV: STD62567 LLCCV: STD63679 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 469981,470190,469896,470272,469838,470014,470015

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	T2.040714.115741	WG470310-15	CCB		1		04/07/14 11:57
36	T2.040714.120120	L14040040-08	ITM-IS-04	40/50	1		04/07/14 12:01
37	T2.040714.120454	L14040040-10	ITM-IS-41	40/50	1		04/07/14 12:04
38	T2.040714.120826	L14040040-12	ITM-IS-35	40/50	1		04/07/14 12:08
39	T2.040714.121159	L14040040-14	ITM-IS-03	40/50	1		04/07/14 12:11
40	T2.040714.121532	L14040040-16	ITM-IS-40	40/50	1		04/07/14 12:15
41	T2.040714.121905	L14040040-18	ITM-IS-34	40/50	1		04/07/14 12:19
42	T2.040714.122241	WG470310-16	CCV		1		04/07/14 12:22
43	T2.040714.122556	WG470310-17	CCB		1		04/07/14 12:25
44	T2.040714.122935	WG470004-03	Method/Prep Blank	40/50	1		04/07/14 12:29
45	T2.040714.123310	WG470004-05	Filter Blank		1		04/07/14 12:33
46	T2.040714.123645	WG470004-04	Laboratory Control S	40/50	1		04/07/14 12:36
47	T2.040714.124003	WG470004-01	Reference Sample		1	L14040215-02	04/07/14 12:40
48	T2.040714.124336	WG470004-06	Duplicate	40/50	1	L14040215-02	04/07/14 12:43
49	T2.040714.124706	WG470004-07	Matrix Spike	40/50	1	L14040215-02	04/07/14 12:47
50	T2.040714.125022	L14040230-04	4	40/50	1		04/07/14 12:50
51	T2.040714.125401	L14040238-01	CHMIX-011	40/50	1		04/07/14 12:54
52	T2.040714.125733	WG470190-01	Post Digestion Spike		1	L14040238-01	04/07/14 12:57
53	T2.040714.130052	WG470190-02	Serial Dilution		5	L14040238-01	04/07/14 13:00
54	T2.040714.130431	WG470310-18	CCV		1		04/07/14 13:04
55	T2.040714.130748	WG470310-19	CCB		1		04/07/14 13:07
56	T2.040714.131127	L14040238-03	CHMIX-0122	40/50	1		04/07/14 13:11
57	T2.040714.131503	L14040239-01	CU-STMWTR3040114-01NS	40/50	1		04/07/14 13:15
58	T2.040714.131835	L14040239-03	CU-STMWTR4040114-01NS	40/50	1		04/07/14 13:18
59	T2.040714.132207	L14040245-04	OUTFALL 003/COMP	40/50	1		04/07/14 13:22
60	T2.040714.132545	L14040292-01	1	40/50	1		04/07/14 13:25
61	T2.040714.132918	L14040292-03	3	40/50	1		04/07/14 13:29
62	T2.040714.133249	L14040292-04	4	40/50	1		04/07/14 13:32
63	T2.040714.133620	L14040304-01	CATAGORIAL END OF PIPE	40/50	1		04/07/14 13:36
64	T2.040714.133958	L14040304-02	CATAGORIAL END OF PIPE	40/50	1		04/07/14 13:39
65	T2.040714.134338	L14040305-01	001	40/50	1		04/07/14 13:43
66	T2.040714.134710	WG470310-20	CCV		1		04/07/14 13:47
67	T2.040714.135026	WG470310-21	CCB		1		04/07/14 13:50
68	T2.040714.135405	L14040306-01	001/COMP	40/50	1		04/07/14 13:54

Page: 2 Approved: April 08, 2014

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 040714T2.1
Analyst1: JYH Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 49675

Calibration Std: STD62568 ICV Std: STD62569 Post Spike: STD62250
ICSA: STD62570 ICSAB: STD62571 Int. Std: RGT27583
CCV: STD62567 LLCCV: STD63679 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 469981,470190,469896,470272,469838,470014,470015

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	T2.040714.135745	L14040318-01	OUTFALL 001/COMP	40/50	1		04/07/14 13:57
70	T2.040714.140111	L14040326-01	003 OUTFALL 2ND QUARTE	40/50	1		04/07/14 14:01
71	T2.040714.140452	L14040328-02	EFFLUENT/COMP	40/50	1		04/07/14 14:04
72	T2.040714.140831	WG470004-02	Reference Sample		1	L14040329-01	04/07/14 14:08
73	T2.040714.141208	WG470004-08	Matrix Spike		1	L14040329-01	04/07/14 14:12
74	T2.040714.141542	WG470310-22	CCV		1		04/07/14 14:15
75	T2.040714.141858	WG470310-23	CCB		1		04/07/14 14:18
76	T2.040714.142235	WG470310-24	Low Level Initial Calibration V		1		04/07/14 14:22
77	T2.040714.142611	WG469562-03	Method/Prep Blank	40/50	1		04/07/14 14:26
78	T2.040714.142948	WG469562-04	Laboratory Control S	40/50	1		04/07/14 14:29
79	T2.040714.143321	WG469562-01	Reference Sample		1	L14031659-03	04/07/14 14:33
80	T2.040714.143655	WG469562-05	Duplicate	40/50	1	L14031659-03	04/07/14 14:36
81	T2.040714.144028	WG469562-06	Matrix Spike	40/50	1	L14031659-03	04/07/14 14:40
82	T2.040714.144400	L14031667-05	BIS-04	40/50	1		04/07/14 14:44
83	T2.040714.144733	WG469896-03	Post Digestion Spike		1	L14031667-05	04/07/14 14:47
84	T2.040714.145052	WG469896-04	Serial Dilution		5	L14031667-05	04/07/14 14:50
85	T2.040714.145430	WG470310-25	CCV		1		04/07/14 14:54
86	T2.040714.145747	WG470310-26	CCB		1		04/07/14 14:57
87	T2.040714.150125	WG470240-03	Method/Prep Blank	40/50	1		04/07/14 15:01
88	T2.040714.150501	WG470240-04	Laboratory Control S	40/50	1		04/07/14 15:05
89	T2.040714.150834	WG470240-01	Reference Sample		1	L14040335-01	04/07/14 15:08
90	T2.040714.151206	WG470240-05	Duplicate	40/50	1	L14040335-01	04/07/14 15:12
91	T2.040714.151538	WG470240-06	Matrix Spike	40/50	1	L14040335-01	04/07/14 15:15
92	T2.040714.152107	L14031621-01	40MW7GW32714	40/50	10		04/07/14 15:21
93	T2.040714.152442	L14031621-04	40MW5GW32714	40/50	10		04/07/14 15:24
94	T2.040714.152817	L14031621-05	40DUPGW32714	40/50	10		04/07/14 15:28
95	T2.040714.153156	WG470310-27	CCV		1		04/07/14 15:31
96	T2.040714.153513	WG470310-28	CCB		1		04/07/14 15:35
97	T2.040714.153850	L14040045-01	053	40/50	1		04/07/14 15:38
98	T2.040714.154227	WG469555-01	Reference Sample		10	L14031621-07	04/07/14 15:42
99	T2.040714.154602	WG469555-04	Matrix Spike	40/50	10	L14031621-07	04/07/14 15:46
100	T2.040714.154933	WG469555-05	Matrix Spike Duplica	40/50	10	L14031621-07	04/07/14 15:49
101	T2.040714.155305	WG470310-29	CCV		1		04/07/14 15:53
102	T2.040714.155622	WG470310-30	CCB		1		04/07/14 15:56

Page: 3 Approved: April 08, 2014

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 040714T2.1
Analyst1: JYH Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 49675

Calibration Std: STD62568 ICV Std: STD62569 Post Spike: STD62250
ICSA: STD62570 ICSAB: STD62571 Int. Std: RGT27583
CCV: STD62567 LLCCV: STD63679 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 469981,470190,469896,470272,469838,470014,470015

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	T2.040714.155959	L14040335-04	005	40/50	1		04/07/14 15:59
104	T2.040714.160332	L14040335-08	DHAR-2	40/50	1		04/07/14 16:03
105	T2.040714.160704	L14040335-10	DHOR-2	40/50	1		04/07/14 16:07
106	T2.040714.161038	WG470272-01	Post Digestion Spike		1	L14040335-10	04/07/14 16:10
107	T2.040714.161402	WG470272-02	Serial Dilution		5	L14040335-10	04/07/14 16:14
108	T2.040714.161739	WG470310-31	CCV		1		04/07/14 16:17
109	T2.040714.162056	WG470310-32	CCB		1		04/07/14 16:20
110	T2.040714.162435	L14040335-12	UHAR-1	40/50	1		04/07/14 16:24
111	T2.040714.162808	L14040335-14	UHOR-1	40/50	1		04/07/14 16:28
112	T2.040714.163142	L14040336-01	002	40/50	1		04/07/14 16:31
113	T2.040714.163514	L14040338-01	M7A01	40/50	1		04/07/14 16:35
114	T2.040714.163847	L14040338-02	M7A03	40/50	1		04/07/14 16:38
115	T2.040714.164220	WG470240-02	Reference Sample		1	L14040339-02	04/07/14 16:42
116	T2.040714.164553	WG470240-07	Matrix Spike	40/50	1	L14040339-02	04/07/14 16:45
117	T2.040714.164925	L14040339-04	008	40/50	1		04/07/14 16:49
118	T2.040714.165307	WG470310-33	CCV		1		04/07/14 16:53
119	T2.040714.165623	WG470310-34	CCB		1		04/07/14 16:56
120	T2.040714.170000	L14040339-06	DUHR-1	40/50	1		04/07/14 17:00
121	T2.040714.170334	L14040347-02	I0A02	40/50	1		04/07/14 17:03
122	T2.040714.170707	L14040451-01	OUTFALL 002	40/50	1		04/07/14 17:07
123	T2.040714.171039	L14040451-02	OUTFALL 003	40/50	1		04/07/14 17:10
124	T2.040714.171410	L14040451-03	OUTFALL 005	40/50	1		04/07/14 17:14
125	T2.040714.171741	L14040451-04	OUTFALL 008	40/50	1		04/07/14 17:17
126	T2.040714.172111	L14040451-05	OUTFALL 009	40/50	1		04/07/14 17:21
127	T2.040714.172443	L14040451-06	OUTFALL 010	40/50	1		04/07/14 17:24
128	T2.040714.172814	WG470004-02	Reference Sample		50	L14040329-01	04/07/14 17:28
129	T2.040714.173149	WG470004-08	Matrix Spike	40/50	50	L14040329-01	04/07/14 17:31
130	T2.040714.173524	WG470310-35	CCV		1		04/07/14 17:35
131	T2.040714.173839	WG470310-36	CCB		1		04/07/14 17:38
132	T2.040714.174217	L14040102-10	BMG11	40/50	1		04/07/14 17:42
133	T2.040714.174548	WG470014-01	Post Digestion Spike		1	L14040102-10	04/07/14 17:45
134	T2.040714.174906	WG470014-02	Serial Dilution		5	L14040102-10	04/07/14 17:49
135	T2.040714.175239	L14040128-02	CWA02	40/50	1		04/07/14 17:52
136	T2.040714.175611	WG470015-01	Post Digestion Spike		1	L14040128-02	04/07/14 17:56

Page: 4 Approved: April 08, 2014

Sheri L. Babgard

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-THERMO2 Dataset: 040714T2.1
Analyst1: JYH Analyst2: N/A
Method: 6010B/6010C SOP: ME600G Rev: 13
Maintenance Log ID: 49675

Calibration Std: STD62568 ICV Std: STD62569 Post Spike: STD62250
ICSA: STD62570 ICSAB: STD62571 Int. Std: RGT27583
CCV: STD62567 LLCCV: STD63679 Tuning Sol :
Stannous : Hydroxylamine :

Workgroups: 469981,470190,469896,470272,469838,470014,470015

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	T2.040714.175929	WG470015-02	Serial Dilution		5	L14040128-02	04/07/14 17:59
138	T2.040714.180305	WG470310-37	CCV		1		04/07/14 18:03
139	T2.040714.180621	WG470310-38	CCB		1		04/07/14 18:06

 Approved: April 08, 2014

Microbac

Microbac Laboratories Inc.

Data Checklist

Date: 03-APR-2014
Analyst: QX
Analyst: NA
Method: 6010B/6010C/200.7
Instrument: ICP-THERMO2
Curve Workgroup: 469892
Runlog ID: 59945
Analytical Workgroups: 469158,469601,469676,469828,469625,469831,469839,469838,469837

Add'l WG	
Calibration/Linearity	X
ICV/CCV	X
ICV RSD < 3% (EPA 200.7 only)	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	40039,40036
Client Forms	X
Level X	
Level 3	1352,1353,1538,
Level 4	1550,1649,1621,1622
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	QX
Secondary Reviewer	MMB
Comments	

Primary Reviewer:
04-APR-2014

Secondary Reviewer:
04-APR-2014

CHECKLIST1 - Modified 03/05/2008
Generated: APR-04-2014 14:22:56

Microbac Laboratories Inc.

Data Checklist

Date: 07-APR-2014
Analyst: JYH
Analyst: NA
Method: 6010B/6010C/200.7
Instrument: ICP-THERMO2
Curve Workgroup: 470310
Runlog ID: 59986
Analytical Workgroups: 469981,470190,469896,470272,469838,470014,470015

Additional Workgroup	470015
Calibration/Linearity	X
ICV/CCV	X
ICV RSD < 3% (EPA 200.7 only)	X
ICB/CCB	X
ICSA/ICSAB	X
CRI	X
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	215,238
Client Forms	X
Level X	
Level 3	
Level 4	1621
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	JYH
Secondary Reviewer	SLP
Comments	

Primary Reviewer:
08-APR-2014

Secondary Reviewer:
08-APR-2014

CHECKLIST1 - Modified 03/05/2008
Generated: APR-08-2014 10:42:03

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 6010B AAB#: WG469838

Login Number: L14031621

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
40MW7GW32714	01	03/27/14					04/02/2014	5.9	180		04/03/14	7.5	180	
40MW7GW32714	01	03/27/14					04/02/2014	5.9	180		04/07/14	11.2	180	
40EQR32714	02	03/27/14					04/02/2014	5.9	180		04/03/14	7.5	180	
40FB32714	03	03/27/14					04/02/2014	5.9	180		04/03/14	7.5	180	
40MW5GW32714	04	03/27/14					04/02/2014	5.8	180		04/07/14	11.1	180	
40MW5GW32714	04	03/27/14					04/02/2014	5.8	180		04/03/14	7.4	180	
40DUPGW32714	05	03/27/14					04/02/2014	5.8	180		04/07/14	11.1	180	
40DUPGW32714	05	03/27/14					04/02/2014	5.8	180		04/03/14	7.4	180	
40MW6GW32714	06	03/27/14					04/02/2014	5.7	180		04/03/14	7.3	180	
LFMW01GW32714	07	03/27/14					04/02/2014	5.6	180		04/07/14	10.9	180	
LFMW01GW32714	07	03/27/14					04/02/2014	5.6	180		04/03/14	7.2	180	
LFMW01MSGW32714	08	03/27/14					04/02/2014	5.6	180		04/07/14	10.9	180	
LFMW01MSGW32714	08	03/27/14					04/02/2014	5.6	180		04/03/14	7.2	180	
LFMW01MSDGW32714	09	03/27/14					04/02/2014	5.6	180		04/07/14	10.9	180	
LFMW01MSDGW32714	09	03/27/14					04/02/2014	5.6	180		04/03/14	7.2	180	

* = SEE PROJECT QAPP REQUIREMENTS

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3459220
Report generated 04/07/2014 16:17

METHOD BLANK SUMMARY

Login Number: L14031621
Work Group: WG469838
Blank File ID: T2.040314.224251
Blank Sample ID: WG469555-02
Prep Date: 04/02/14 08:21
Instrument ID: ICP-THERMO2
Analyzed Date: 04/03/14 22:42
Method: 6010B
Analyst: QX

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
LCS	WG469555-03	T2.040314.224626	04/03/14 22:46	01
40MW7GW32714	L14031621-01	T2.040314.224943	04/03/14 22:49	01
40EQR32714	L14031621-02	T2.040314.225317	04/03/14 22:53	01
40FB32714	L14031621-03	T2.040314.225652	04/03/14 22:56	01
40MW5GW32714	L14031621-04	T2.040314.230027	04/03/14 23:00	01
40DUPGW32714	L14031621-05	T2.040314.230358	04/03/14 23:03	01
40MW6GW32714	L14031621-06	T2.040314.230731	04/03/14 23:07	01
LFMW01GW32714	L14031621-07	T2.040314.233648	04/03/14 23:36	01
LFMW01MSGW32714	L14031621-08	T2.040314.234022	04/03/14 23:40	01
LFMW01MSDGW32714	L14031621-09	T2.040314.234340	04/03/14 23:43	01
40MW7GW32714	L14031621-01	T2.040714.152107	04/07/14 15:21	DL01
40MW5GW32714	L14031621-04	T2.040714.152442	04/07/14 15:24	DL01
40DUPGW32714	L14031621-05	T2.040714.152817	04/07/14 15:28	DL01
LFMW01GW32714	L14031621-07	T2.040714.154227	04/07/14 15:42	DL01
LFMW01MSGW32714	L14031621-08	T2.040714.154602	04/07/14 15:46	DL01
LFMW01MSDGW32714	L14031621-09	T2.040714.154933	04/07/14 15:49	DL01

Report Name: BLANK_SUMMARY
PDF File ID: 3459263
Report generated 04/07/2014 16:17

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L14031621 Prep Date: 04/02/14 08:21 Sample ID: WG469555-02
Instrument ID: ICP-THERMO2 Run Date: 04/03/14 22:42 Prep Method: 3015
File ID: T2.040314.224251 Analyst: QX Method: 6010B
Workgroup (AAB#): WG469838 Matrix: Water Units: mg/L
Contract #: Cal ID: ICP-TH-03-APR-14

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Aluminum, Total	0.100	0.200	0.100	1	U
Calcium, Total	0.250	0.500	0.250	1	U
Iron, Total	0.0500	0.100	0.0500	1	U
Magnesium, Total	0.250	0.500	0.250	1	U
Potassium, Total	0.500	1.00	0.500	1	U
Sodium, Total	0.250	0.500	0.250	1	U
Vanadium, Total	0.00500	0.0100	0.00500	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3459265
07-APR-2014 16:17

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L14031621 **Run Date:** 04/03/2014 **Sample ID:** WG469555-03
Instrument ID: ICP-THERMO2 **Run Time:** 22:46 **Prep Method:** 3015
File ID: T2.040314.224626 **Analyst:** QX **Method:** 6010B
Workgroup (AAB#): WG469838 **Matrix:** Water **Units:** mg/L
QC Key: DOD4 **Lot#:** STD63274 **Cal ID:** ICP-TH-03-APR-14

Analytes	Expected	Found	% Rec	LCS Limits	Q
Aluminum, Total	6.25	6.19	99.1	80 - 120	
Calcium, Total	6.25	6.30	101	80 - 120	
Iron, Total	2.50	2.43	97.3	80 - 120	
Magnesium, Total	6.25	6.00	96.1	80 - 120	
Potassium, Total	31.3	31.1	99.7	80 - 120	
Sodium, Total	31.3	29.5	94.2	80 - 120	
Vanadium, Total	0.625	0.630	101	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 3459266
Report generated: 04/07/2014 16:17

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L14031621 Cal ID: ICP-THERMO2- 03-APR-14 Worknum:WG469838

Instrument ID:ICP-THERMO2 Contract #: Prep Method:3015

Parent ID:L14031621-07 File ID:T2.040314.233648 Dil:1 Method:6010B

Sample ID:L14031621-08 MS File ID:T2.040314.234022 Dil:1 Matrix:Water

Sample ID:L14031621-09 MSD File ID:T2.040314.234340 Dil:1 Units:mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Aluminum, Total	0.124	6.25	7.26	114	6.25	6.89	108	5.30	80 - 120	20	
Iron, Total	0.172	2.50	3.37	128	2.50	3.10	117	8.14	80 - 120	20	*
Potassium, Total	1.73	31.3	33.3	101	31.3	33.2	101	0.301	80 - 120	20	
Sodium, Total	5.26	31.3	34.9	94.8	31.3	34.6	93.9	0.824	80 - 120	20	
Vanadium, Total	U	0.625	0.618	98.9	0.625	0.633	101	2.35	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008

PDF File ID: 3459267

Report generated 04/07/2014 16:29

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum: L14031621 Cal ID: ICP-THERMO2- 07-APR-14 Worknum: WG469838

Instrument ID: ICP-THERMO2 Contract #: Prep Method: 3015

Parent ID: L14031621-07 File ID: T2.040714.154227 Dil: 10 Method: 6010B

Sample ID: L14031621-08 MS File ID: T2.040714.154602 Dil: 10 Matrix: Water

Sample ID: L14031621-09 MSD File ID: T2.040714.154933 Dil: 10 Units: mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Calcium, Total	92.4	6.25	93.8	22.5	6.25	97.6	83	3.95	80 - 120	20	*
Magnesium, Total	34.6	6.25	39.6	80.4	6.25	41.0	102	3.41	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008

PDF File ID: 3459267

Report generated 04/07/2014 16:29

Microbac Laboratories Inc.
Serial Dilution Report

Login: L14031621 **Worknum:** WG469838
Instrument: ICP-THERMO2 **Method:** 6010B
Serial Dil: WG469838-02 **File ID:** T2.040314.231422 **Dil:** 5 **Units:** mg/L
Sample: L14031621-06 **File ID:** T2.040314.230731 **Dil:** 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Aluminum	0.231	X	ND	U		
Calcium	18.8		19.2		2.50	
Iron	0.234	X	0.256	F	9.68	
Magnesium	6.05	X	6.14	X	1.43	
Potassium	0.590	F	ND	U		
Sodium	6.19	X	6.24	X	0.73	
Vanadium	ND	U	ND	U		

U = Result is below MDL.
F = Result is greater than or equal to MDL and less than the RL.
X = Result is greater than or equal to RL and less than 50 times the MDL.
E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 50 times the MDL.

SERIAL_DIL - Modified 09/22/2008
PDF File ID: 3459261
04/07/2014 16:17

Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L14031621 **Worknum:** WG469838
Instrument ID: ICP-THERMO2 **Method:** 6010B
Post Spike ID: WG469838-01 **File ID:** T2.040314.231103 **Dil:** 1 **Units:** mg/L
Sample ID: L14031621-06 **File ID:** T2.040314.230731 **Dil:** 1 **Matrix:** Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ALUMINUM	5.28		0.231		5	101.4	75 - 125	
CALCIUM	22.1		18.8		5	104.0	75 - 125	
IRON	2.23		0.234		2	100.7	75 - 125	
MAGNESIUM	10.2		6.05		5	96.1	75 - 125	
POTASSIUM	25.8		0.590	F	25	101.0	75 - 125	
SODIUM	30.3		6.19		25	98.8	75 - 125	
VANADIUM	0.510		0	U	.5	102.1	75 - 125	

N = % Recovery exceeds control limits
F = Result is between MDL and RL
U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 3459262
Report generated: 04/07/2014 16:17

Microbac Laboratories Inc.
Initial Calibration Summary

Login:	**L14031621**	Workgroup (AAB#):	**WG469838**
Analytical Method:	**6010B**	Instrument ID:	**ICP-THERMO2**
ICAL Worknum:	**WG469892**	Initial Calibration Date:	**03-APR-2014 09:11**

	WG469892-01		WG469892-02		WG469892-03		WG469892-04		WG469892-05			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
ALUMINUM	0	0.000830	.1	0.00144	.2	0.00204	10	0.0717	20	0.140	.999948	
CALCIUM	0	-0.00289	.1	-0.000700	.2	0.00130	10	0.245	20	0.486	.999956	
IRON	0	0	.04	0.000530	.08	0.00108	4	0.0648	8	0.125	.999862	
MAGNESIUM	0	0.0000500	.1	0.000400	.2	0.000770	10	0.0434	20	0.0834	.999807	
POTASSIUM	0	-0.000810	.5	0.00438	1	0.00963	50	0.649	100	1.28	.999981	
SODIUM	0	-0.00168	.5	0.0157	1	0.0344	50	2.24	100	4.38	.999938	
VANADIUM	0	0.0000500	.01	0.00593	.02	0.0125	1	0.739	2	1.45	.999947	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
*** = Out of Compliance; R < 0.995**

INT_CAL_ICP - Modified 03/06/2008
PDF File ID: 3459268
Report generated: 07-APR-2014 16:18

Microbac Laboratories Inc.
Initial Calibration Summary

Login:	**L14031621**	Workgroup (AAB#):	**WG469838**
Analytical Method:	**6010B**	Instrument ID:	**ICP-THERMO2**
ICAL Worknum:	**WG470310**	Initial Calibration Date:	**07-APR-2014 10:08**

	WG470310-01		WG470310-02		WG470310-03		WG470310-04		WG470310-05			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
ALUMINUM	0	0.000870	.1	0.00153	.2	0.00223	10	0.0735	20	0.145	.9999	
CALCIUM	0	-0.00289	.1	-0.000660	.2	0.00142	10	0.254	20	0.508	.99998	
IRON	0	0.0000100	.04	0.000490	.08	0.00106	4	0.0653	8	0.130	.999989	
MAGNESIUM	0	0.000100	.1	0.000400	.2	0.000720	10	0.0437	20	0.0866	.999944	
POTASSIUM	0	-0.000150	.5	0.00463	1	0.0104	50	0.688	100	1.38	.999972	
SODIUM	0	-0.00279	.5	0.0134	1	0.0293	50	2.08	100	4.17	.999995	
VANADIUM	0	0.0000100	.01	0.00636	.02	0.0125	1	0.755	2	1.52	.999991	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
*** = Out of Compliance; R < 0.995**

INT_CAL_ICP - Modified 03/06/2008
PDF File ID: 3459268
Report generated: 07-APR-2014 16:18

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L14031621 Run Date: 04/03/2014 Sample ID: WG469892-07
Instrument ID: ICP-THERMO2 Run Time: 09:18 Method: 6010B
File ID: T2.040314.091810 Analyst: QX Units: mg/L
Workgroup (AAB#): WG469838 Cal ID: ICP-THERI - 03-APR-14
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
ALUMINUM	.08	.16	.08	U
CALCIUM	.2	.4	.2	U
IRON	.04	.08	.04	U
MAGNESIUM	.2	.4	.2	U
POTASSIUM	.4	.8	.4	U
SODIUM	.2	.4	.2	U
VANADIUM	.004	.008	.004	U

U = Result is less than 2 x MDL

F = Result is between MDL and 2 x MDL

* = Result is above 2 x MDL

ICB - Modified 07/14/2009
PDF File ID: 3459270
Report generated 04/07/2014 16:18

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L14031621 Run Date: 04/07/2014 Sample ID: WG470310-07
Instrument ID: ICP-THERMO2 Run Time: 10:14 Method: 6010B
File ID: T2.040714.101450 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG469838 Cal ID: ICP-THERI - 07-APR-14
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
ALUMINUM	.08	.16	.08	U
CALCIUM	.2	.4	.2	U
IRON	.04	.08	.04	U
MAGNESIUM	.2	.4	.2	U
POTASSIUM	.4	.8	.4	U
SODIUM	.2	.4	.2	U
VANADIUM	.004	.008	.004	U

U = Result is less than 2 x MDL
F = Result is between MDL and 2 x MDL
* = Result is above 2 x MDL

ICB - Modified 07/14/2009
PDF File ID: 3459270
Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L14031621 Run Date: 04/03/2014 Sample ID: WG469892-12

Instrument ID: ICP-THERMO2 Run Time: 09:35 Method: 6010B

File ID: T2.040314.093536 Analyst: QX Units: mg/L

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 03-APR-14

Matrix: WATER QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0800	0.160	0.0800	U
Calcium	0.200	0.400	0.200	U
Iron	0.0400	0.0800	0.0400	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3459233
Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L14031621 Run Date: 04/03/2014 Sample ID: WG469892-25

Instrument ID: ICP-THERMO2 Run Time: 14:09 Method: 6010B

File ID: T2.040314.140903 Analyst: QX Units: mg/L

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 03-APR-14

Matrix: WATER QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0800	0.160	0.0800	U
Calcium	0.200	0.400	0.200	U
Iron	0.0400	0.0800	0.0400	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3459233
Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L14031621 Run Date: 04/03/2014 Sample ID: WG469892-29

Instrument ID: ICP-THERMO2 Run Time: 14:22 Method: 6010B

File ID: T2.040314.142250 Analyst: QX Units: mg/L

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 03-APR-14

Matrix: WATER QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0800	0.160	0.0800	U
Calcium	0.200	0.400	0.200	U
Iron	0.0400	0.0800	0.0400	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3459233
Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L14031621 Run Date: 04/03/2014 Sample ID: WG469892-55

Instrument ID: ICP-THERMO2 Run Time: 22:39 Method: 6010B

File ID: T2.040314.223912 Analyst: QX Units: mg/L

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 03-APR-14

Matrix: WATER QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0800	0.160	0.0800	U
Calcium	0.200	0.400	0.200	U
Iron	0.0400	0.0800	0.0400	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3459233
Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L14031621 Run Date: 04/03/2014 Sample ID: WG469892-57

Instrument ID: ICP-THERMO2 Run Time: 23:21 Method: 6010B

File ID: T2.040314.232114 Analyst: QX Units: mg/L

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 03-APR-14

Matrix: WATER QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0800	0.160	0.0800	U
Calcium	0.200	0.400	0.200	U
Iron	0.0400	0.0800	0.0400	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3459233
Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L14031621 Run Date: 04/04/2014 Sample ID: WG469892-59

Instrument ID: ICP-THERMO2 Run Time: 00:04 Method: 6010B

File ID: T2.040414.000441 Analyst: QX Units: mg/L

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 03-APR-14

Matrix: WATER QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0800	0.160	0.0800	U
Calcium	0.200	0.400	0.200	U
Iron	0.0400	0.0800	0.0400	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3459233
Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L14031621 Run Date: 04/07/2014 Sample ID: WG470310-11

Instrument ID: ICP-THERMO2 Run Time: 10:28 Method: 6010B

File ID: T2.040714.102835 Analyst: JYH Units: mg/L

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 07-APR-14

Matrix: WATER QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0800	0.160	0.0800	U
Calcium	0.200	0.400	0.200	U
Iron	0.0400	0.0800	0.0400	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3459233
Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L14031621 Run Date: 04/07/2014 Sample ID: WG470310-26

Instrument ID: ICP-THERMO2 Run Time: 14:57 Method: 6010B

File ID: T2.040714.145747 Analyst: JYH Units: mg/L

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 07-APR-14

Matrix: WATER QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0800	0.160	0.0800	U
Calcium	0.200	0.400	0.200	U
Iron	0.0400	0.0800	0.0400	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3459233
Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L14031621 Run Date: 04/07/2014 Sample ID: WG470310-28

Instrument ID: ICP-THERMO2 Run Time: 15:35 Method: 6010B

File ID: T2.040714.153513 Analyst: JYH Units: mg/L

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 07-APR-14

Matrix: WATER QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0800	0.160	0.0800	U
Calcium	0.200	0.400	0.200	U
Iron	0.0400	0.0800	0.0400	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3459233
Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L14031621 Run Date: 04/07/2014 Sample ID: WG470310-30

Instrument ID: ICP-THERMO2 Run Time: 15:56 Method: 6010B

File ID: T2.040714.155622 Analyst: JYH Units: mg/L

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 07-APR-14

Matrix: WATER QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Aluminum	0.0800	0.160	0.0800	U
Calcium	0.200	0.400	0.200	U
Iron	0.0400	0.0800	0.0400	U
Magnesium	0.200	0.400	0.200	U
Potassium	0.400	0.800	0.400	U
Sodium	0.200	0.400	0.200	U
Vanadium	0.00400	0.00800	0.00400	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3459233
Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L14031621 Run Date: 04/03/2014 Sample ID: WG469892-06
Instrument ID: ICP-THERMO2 Run Time: 09:14 Method: 6010B
File ID: T2.040314.091433 Analyst: QX Units: mg/L
Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 03-APR-14
QC Key: DOD4

Analyte		Expected	Found	%REC	LIMITS	Q
Aluminum		10	10.2	102	90 - 110	
Calcium		10	10.2	102	90 - 110	
Iron		4	4.04	101	90 - 110	
Magnesium		10	10.2	102	90 - 110	
Potassium		50	50.4	101	90 - 110	
Sodium		50	49.3	98.6	90 - 110	
Vanadium		1	0.985	98.5	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 3459269
Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L14031621 Run Date: 04/07/2014 Sample ID: WG470310-06
Instrument ID: ICP-THERMO2 Run Time: 10:11 Method: 6010B
File ID: T2.040714.101134 Analyst: JYH Units: mg/L
Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 07-APR-14
QC Key: DOD4

Analyte		Expected	Found	%REC	LIMITS	Q
Aluminum		10	9.94	99.4	90 - 110	
Calcium		10	9.98	99.8	90 - 110	
Iron		4	4.04	101	90 - 110	
Magnesium		10	10.1	101	90 - 110	
Potassium		50	49.9	99.8	90 - 110	
Sodium		50	50.2	100	90 - 110	
Vanadium		1	1.02	102	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 3459269
Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/03/2014 Sample ID: WG469892-11

Instrument ID: ICP-THERMO2 Run Time: 09:32 Method: 6010B

File ID: T2.040314.093218 Analyst: QX QC Key: DOD4

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 03-APR-14

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Aluminum		10.0	10.1	mg/L	101	90 - 110		
Calcium		10.0	9.99	mg/L	99.9	90 - 110		
Iron		4.00	3.95	mg/L	98.7	90 - 110		
Magnesium		10.0	9.94	mg/L	99.4	90 - 110		
Potassium		50.0	49.7	mg/L	99.4	90 - 110		
Sodium		50.0	48.7	mg/L	97.5	90 - 110		
Vanadium		1.00	0.986	mg/L	98.6	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3459232

Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/03/2014 Sample ID: WG469892-24

Instrument ID: ICP-THERMO2 Run Time: 14:05 Method: 6010B

File ID: T2.040314.140547 Analyst: QX QC Key: DOD4

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 03-APR-14

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Aluminum		10.0	9.93	mg/L	99.3	90 - 110		
Calcium		10.0	9.90	mg/L	99.0	90 - 110		
Iron		4.00	3.96	mg/L	99.1	90 - 110		
Magnesium		10.0	9.84	mg/L	98.4	90 - 110		
Potassium		50.0	49.5	mg/L	98.9	90 - 110		
Sodium		50.0	49.4	mg/L	98.7	90 - 110		
Vanadium		1.00	0.998	mg/L	99.8	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3459232

Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/03/2014 Sample ID: WG469892-28

Instrument ID: ICP-THERMO2 Run Time: 14:19 Method: 6010B

File ID: T2.040314.141934 Analyst: QX QC Key: DOD4

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 03-APR-14

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Aluminum		10.0	10.0	mg/L	100	90 - 110		
Calcium		10.0	10.0	mg/L	100	90 - 110		
Iron		4.00	4.01	mg/L	100	90 - 110		
Magnesium		10.0	10.1	mg/L	101	90 - 110		
Potassium		50.0	50.2	mg/L	100	90 - 110		
Sodium		50.0	49.0	mg/L	98.0	90 - 110		
Vanadium		1.00	1.00	mg/L	100	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3459232

Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/03/2014 Sample ID: WG469892-54

Instrument ID: ICP-THERMO2 Run Time: 22:35 Method: 6010B

File ID: T2.040314.223556 Analyst: QX QC Key: DOD4

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 03-APR-14

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Aluminum		10.0	10.3	mg/L	103	90 - 110		
Calcium		10.0	10.3	mg/L	103	90 - 110		
Iron		4.00	4.09	mg/L	102	90 - 110		
Magnesium		10.0	10.2	mg/L	102	90 - 110		
Potassium		50.0	51.6	mg/L	103	90 - 110		
Sodium		50.0	50.5	mg/L	101	90 - 110		
Vanadium		1.00	1.04	mg/L	104	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3459232

Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/03/2014 Sample ID: WG469892-56

Instrument ID: ICP-THERMO2 Run Time: 23:17 Method: 6010B

File ID: T2.040314.231758 Analyst: QX QC Key: DOD4

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 03-APR-14

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Aluminum		10.0	10.4	mg/L	104	90 - 110		
Calcium		10.0	10.4	mg/L	104	90 - 110		
Iron		4.00	4.04	mg/L	101	90 - 110		
Magnesium		10.0	10.2	mg/L	102	90 - 110		
Potassium		50.0	52.1	mg/L	104	90 - 110		
Sodium		50.0	49.4	mg/L	98.7	90 - 110		
Vanadium		1.00	1.01	mg/L	101	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3459232

Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/04/2014 Sample ID: WG469892-58

Instrument ID: ICP-THERMO2 Run Time: 00:01 Method: 6010B

File ID: T2.040414.000126 Analyst: QX QC Key: DOD4

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 03-APR-14

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Aluminum		10.0	10.4	mg/L	104	90 - 110		
Calcium		10.0	10.4	mg/L	104	90 - 110		
Iron		4.00	4.05	mg/L	101	90 - 110		
Magnesium		10.0	10.2	mg/L	102	90 - 110		
Potassium		50.0	52.6	mg/L	105	90 - 110		
Sodium		50.0	49.2	mg/L	98.5	90 - 110		
Vanadium		1.00	1.04	mg/L	104	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3459232

Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/07/2014 Sample ID: WG470310-10

Instrument ID: ICP-THERMO2 Run Time: 10:25 Method: 6010B

File ID: T2.040714.102519 Analyst: JYH QC Key: DOD4

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 07-APR-14

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Aluminum		10.0	10.2	mg/L	102	90 - 110		
Calcium		10.0	10.1	mg/L	101	90 - 110		
Iron		4.00	4.01	mg/L	100	90 - 110		
Magnesium		10.0	10.1	mg/L	101	90 - 110		
Potassium		50.0	50.4	mg/L	101	90 - 110		
Sodium		50.0	49.5	mg/L	99.0	90 - 110		
Vanadium		1.00	0.997	mg/L	99.7	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3459232

Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/07/2014 Sample ID: WG470310-25

Instrument ID: ICP-THERMO2 Run Time: 14:54 Method: 6010B

File ID: T2.040714.145430 Analyst: JYH QC Key: DOD4

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 07-APR-14

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Aluminum		10.0	10.2	mg/L	102	90 - 110		
Calcium		10.0	10.2	mg/L	102	90 - 110		
Iron		4.00	3.97	mg/L	99.2	90 - 110		
Magnesium		10.0	9.95	mg/L	99.5	90 - 110		
Potassium		50.0	51.2	mg/L	102	90 - 110		
Sodium		50.0	51.1	mg/L	102	90 - 110		
Vanadium		1.00	0.986	mg/L	98.6	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3459232

Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/07/2014 Sample ID: WG470310-27

Instrument ID: ICP-THERMO2 Run Time: 15:31 Method: 6010B

File ID: T2.040714.153156 Analyst: JYH QC Key: DOD4

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 07-APR-14

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Aluminum		10.0	10.2	mg/L	102	90 - 110		
Calcium		10.0	10.1	mg/L	101	90 - 110		
Iron		4.00	3.99	mg/L	99.6	90 - 110		
Magnesium		10.0	9.93	mg/L	99.3	90 - 110		
Potassium		50.0	51.0	mg/L	102	90 - 110		
Sodium		50.0	51.5	mg/L	103	90 - 110		
Vanadium		1.00	1.00	mg/L	100	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3459232

Report generated 04/07/2014 16:18

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/07/2014 Sample ID: WG470310-29

Instrument ID: ICP-THERMO2 Run Time: 15:53 Method: 6010B

File ID: T2.040714.155305 Analyst: JYH QC Key: DOD4

Workgroup (AAB#): WG469838 Cal ID: ICP-TH - 07-APR-14

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Aluminum		10.0	9.74	mg/L	97.4	90 - 110		
Calcium		10.0	9.79	mg/L	97.9	90 - 110		
Iron		4.00	3.86	mg/L	96.6	90 - 110		
Magnesium		10.0	9.55	mg/L	95.5	90 - 110		
Potassium		50.0	49.6	mg/L	99.2	90 - 110		
Sodium		50.0	50.2	mg/L	100	90 - 110		
Vanadium		1.00	0.976	mg/L	97.6	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3459232

Report generated 04/07/2014 16:18

Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L14031621 **Workgroup (AAB#):** WG469838
Instrument ID: ICP-THERMO2 **Method:** 6010B
Sol. A : WG469892-09 **File ID:** T2.040314.092520 **Units:** mg/L
Sol. AB : WG469892-10 **File ID:** T2.040314.092853 **Matrix:** Water

	Sol. A			Sol. AB			
ANALYTE	True	Found	%Recovery	True	Found	%Recovery	Q
Aluminum	250	251	100	250	254	102	
Calcium	250	251	100	250	252	101	
Iron	100	97.7	97.7	100	98.0	98.0	
Magnesium	250	250	100	250	253	101	
Potassium	NS	0.0258	NS	5.00	5.18	104	
Sodium	NS	0.0227	NS	5.00	5.00	100	
Vanadium	NS	0.000810	NS	0.250	0.249	99.6	

NS = Not spiked
*** = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.**
 # = Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).
+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.

ICS - Modified 03/06/2008
PDF File ID: 3459271
Report generated 04/07/2014 16:18

Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L14031621 **Workgroup (AAB#):** WG469838
Instrument ID: ICP-THERMO2 **Method:** 6010B
Sol. A : WG469892-26 **File ID:** T2.040314.141240 **Units:** mg/L
Sol. AB : WG469892-27 **File ID:** T2.040314.141609 **Matrix:** Water

	Sol. A			Sol. AB			
ANALYTE	True	Found	%Recovery	True	Found	%Recovery	Q
Aluminum	250	245	98.0	250	249	99.6	
Calcium	250	244	97.6	250	249	99.6	
Iron	100	93.6	93.6	100	95.1	95.1	
Magnesium	250	241	96.4	250	245	98.0	
Potassium	NS	0.0516	NS	5.00	5.23	105	
Sodium	NS	0.0199	NS	5.00	5.25	105	
Vanadium	NS	0.00111	NS	0.250	0.249	99.6	

NS = Not spiked
*** = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.**
 # = Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).
+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.

ICS - Modified 03/06/2008
PDF File ID: 3459271
Report generated 04/07/2014 16:18

Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L14031621 **Workgroup (AAB#):** WG469838
Instrument ID: ICP-THERMO2 **Method:** 6010B
Sol. A : WG470310-08 **File ID:** T2.040714.101825 **Units:** mg/L
Sol. AB : WG470310-09 **File ID:** T2.040714.102154 **Matrix:** Water

	Sol. A			Sol. AB			
ANALYTE	True	Found	%Recovery	True	Found	%Recovery	Q
Aluminum	250	253	101	250	254	102	
Calcium	250	252	101	250	253	101	
Iron	100	98.2	98.2	100	98.0	98.0	
Magnesium	250	253	101	250	253	101	
Potassium	NS	-0.0613	NS	5.00	5.02	100	
Sodium	NS	0.0337	NS	5.00	4.90	98.0	
Vanadium	NS	0.00116	NS	0.250	0.247	98.8	

NS = Not spiked
*** = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.**
 # = Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).
+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.

ICS - Modified 03/06/2008
PDF File ID: 3459271
Report generated 04/07/2014 16:18

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L14031621 **Date:** 01/02/2014
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Wave Length	AL	AS	B	BA	BE
ALUMINUM	308.20	0	0	0	0	0
ANTIMONY	206.80	0.00000200	0	0	0	0
ARSENIC	189.00	0	0	0	0	0
BARIUM	455.40	-0.00000100	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	0	0.00756	0	-0.0000140	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	-0.000660	0	0	0
COBALT	228.60	0	0	0	0	0
COPPER	224.70	0	0	0	0	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0.000234	0	0	0	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	-0.000690	0	0	0	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	-0.0000120	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	-0.0000120	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	0
ZINC	206.20	0.00000100	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
PDF File ID: 3459227
Report generated: 04/07/2014 16:18

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L14031621 **Date:** 01/02/2014
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Wave Length	CA	CD	CO	CR	CU
ALUMINUM	308.20	0	0	-0.000820	0	0
ANTIMONY	206.80	0	0	0	0.00950	0
ARSENIC	189.00	0	0	0	-0.00220	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0.00343	0	0
CADMIUM	228.80	0	0	-0.00247	0	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	-0.000160	0	0
COBALT	228.60	0	0	0	-0.000108	0
COPPER	224.70	0	0	0.0000770	0	0
IRON	261.20	-0.000120	-0.00000600	0	-0.0000460	-0.0000290
LEAD	220.30	0	0	-0.0000930	-0.000172	0.000809
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	0	-0.0000910	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0.000100	0	0
PHOSPHORUS	214.90	0	0	0	0	0.00200
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0.0000310	0	0	0	0
THALLIUM	190.80	0	0	0.00397	0.000276	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	0
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
PDF File ID: 3459227
Report generated: 04/07/2014 16:18

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L14031621 **Date:** 01/02/2014
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Wave Length	FE	LI	MG	MN	MO
ALUMINUM	308.20	0	0	0	0	0.0153
ANTIMONY	206.80	0.0000560	0	0	0	0.000670
ARSENIC	189.00	-0.0000190	0	0	0	0.0000100
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	-0.000259	0	0	0	-0.00169
CADMIUM	228.80	0.00000900	0	0	0	0.0000220
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0.0000220	0	0	0.000160	0
COBALT	228.60	0	0	0	0	0.00300
COPPER	224.70	0.000519	0	0	0	0.00260
IRON	261.20	0	0	0	0	0
LEAD	220.30	0	0	0	0	-0.00110
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	-0.00190	-0.0110
MANGANESE	257.60	0	0	0.00000700	0	-0.0000720
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0.0000320	0	0	0	0
PHOSPHORUS	214.90	0.00120	0	0	0	0.00800
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0.000156
SILICON	212.40	0	0	0	0	0.0187
SILVER	328.00	0	0	0	0	-0.0000440
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	-0.000153
VANADIUM	292.40	-0.00000200	0	0	0	-0.00600
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	-0.0000300	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
PDF File ID: 3459227
Report generated: 04/07/2014 16:18

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L14031621 **Date:** 01/02/2014
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Wave Length	NA	NI	PB	SB	SN
ALUMINUM	308.20	0	0	0	0	0
ANTIMONY	206.80	0	0	0	0	-0.00840
ARSENIC	189.00	0	0	0	0	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	0	0	0	0
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	0	-0.000180	0	0	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0	0	0	0
COBALT	228.60	0	0.000420	0	0	0
COPPER	224.70	0	-0.00402	0.00173	0	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0	0.000110	0	0	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	0	0	0	0
MANGANESE	257.60	0	0	0	0	0
MOLYBDENUM	202.03	0	0	0	0	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	0	0	0	0	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	0	0	0	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	0	0	0	0
TIN	189.90	0	0	0	0	0
TITANIUM	337.30	0	0	0	0	0
VANADIUM	292.40	0	0	0	0	0
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
PDF File ID: 3459227
Report generated: 04/07/2014 16:18

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L14031621 **Date:** 01/02/2014
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Wave Length	SR	TI	TL	V	ZN
ALUMINUM	308.20	0	0	0	0.00300	0
ANTIMONY	206.80	0	-0.000990	0	-0.00120	0
ARSENIC	189.00	0	0	0	0.000107	0
BARIUM	455.40	0	0	0	0	0
BERYLLIUM	313.00	0	-0.00160	0	0.000170	0
BORON	249.70	0	0	0	0	0
CADMIUM	228.80	0	0	0	0.0000820	0
CALCIUM	422.70	0	0	0	0	0
CHROMIUM	267.70	0	0.0000550	0	-0.000120	-0.000740
COBALT	228.60	0	0.00200	-0.00120	0.0000200	0
COPPER	224.70	0	0.000460	0	0	0
IRON	261.20	0	0	0	0	0
LEAD	220.30	0	0	0	-0.000126	0
LITHIUM	670.80	0	0	0	0	0
MAGNESIUM	279.10	0	-0.00290	0	0	0
MANGANESE	257.60	0	0	0	-0.00000600	0
MOLYBDENUM	202.03	0	0	0	-0.000110	0
NICKEL	231.60	0	0	0	0	0
PHOSPHORUS	214.90	0	0	0	-0.00500	0
POTASSIUM	766.40	0	0	0	0	0
SELENIUM	196.00	0	0	0	0	0
SILICON	212.40	0	0	0	0	0
SILVER	328.00	0	-0.00620	0	-0.00617	0
SODIUM	589.50	0	0	0	0	0
STRONTIUM	407.80	0	0	0	0	0
THALLIUM	190.80	0	-0.00120	0	-0.00540	0
TIN	189.90	0	-0.00220	0	0	0
TITANIUM	337.30	0	0	0	0.000200	0
VANADIUM	292.40	0	0.00104	0	0	0
ZINC	206.20	0	0	0	0	0
ZIRCONIUM	339.20	0	0	0	0	0

CORR_FACTORS - Modified 03/05/2008
PDF File ID: 3459227
Report generated: 04/07/2014 16:18

Microbac Laboratories Inc.
INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Login Number: L14031621 **Date:** 01/02/2014
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Wave Length	ZR
ALUMINUM	308.20	0
ANTIMONY	206.80	0
ARSENIC	189.00	0
BARIUM	455.40	0
BERYLLIUM	313.00	0
BORON	249.70	0
CADMIUM	228.80	0
CALCIUM	422.70	0
CHROMIUM	267.70	0
COBALT	228.60	0
COPPER	224.70	0
IRON	261.20	0
LEAD	220.30	0
LITHIUM	670.80	0
MAGNESIUM	279.10	0
MANGANESE	257.60	0
MOLYBDENUM	202.03	0
NICKEL	231.60	0
PHOSPHORUS	214.90	0.00200
POTASSIUM	766.40	0
SELENIUM	196.00	0
SILICON	212.40	0
SILVER	328.00	0
SODIUM	589.50	0
STRONTIUM	407.80	0
THALLIUM	190.80	0
TIN	189.90	0
TITANIUM	337.30	0
VANADIUM	292.40	
ZINC	206.20	0
ZIRCONIUM	339.20	0

CORR_FACTORS - Modified 03/05/2008
PDF File ID: 3459227
Report generated: 04/07/2014 16:18

Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L14031621 **Date:** 01/07/2014
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Integration Time (Sec.)	Concentration (mg/L)
Antimony	10.00	90.0
Arsenic	10.00	90.0
Boron	10.00	90.0
Cadmium	10.00	9.0
Cobalt	10.00	9.0
Copper	10.00	180.0
Magnesium	15.00	900.0
Molybdenum	10.00	9.0
Phosphorus	10.00	810.0
Potassium	10.00	360.0
Selenium	10.00	90.0
Silicon	10.00	81.0
Sodium	10.00	360.0
Strontium	10.00	4.5
Thallium	10.00	9.0
Tin	10.00	90.0
Titanium	15.00	90.0
Vanadium	10.00	90.0
Zinc	10.00	45.0
Zirconium	10.00	36.0

LINEAR_RANGE - Modified 03/06/2008
PDF File ID: 3459226
Report generated: 04/07/2014 16:18

Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L14031621 **Date:** 01/22/2014
Insturment ID: ICP-THERMO2 **Method:** 6010B

Analyte	Integration Time (Sec.)	Concentration (mg/L)
Aluminum	10.00	810.0
Barium	10.00	81.0
Beryllium	15.00	9.0
Calcium	10.00	900.0
Chromium	10.00	45.0
Iron	5.00	900.0
Lead	10.00	225.0
Lithium	10.00	90.0
Manganese	15.00	27.0
Nickel	10.00	90.0
Silver	5.00	9.0

Comments:
All analytes passed acceptance criteria at the specified concentration.

LINEAR_RANGE - Modified 03/06/2008
PDF File ID: 3459226
Report generated: 04/07/2014 16:18

2.3.1.3 Raw Data

Sample Name: S0 Acquired: 4/3/2014 8:57:17 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2979) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

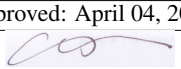
Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00140**	**.00083**	**-.00008**	**.00068**	**.00550**	**-.00294**	**-.00289**
Stddev	.00030	.00005	.00003	.00016	.00009	.00014	.00024
%RSD	21.089	5.6372	38.634	23.006	1.5718	4.7912	8.2534
#1	-.00144	.00087	-.00007	.00086	.00540	-.00280	-.00292
#2	-.00109	.00085	-.00005	.00060	.00554	-.00295	-.00311
#3	-.00167	.00078	-.00011	.00058	.00557	-.00308	-.00263

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00003**	**-.00007**	**-.00001**	**.00001**	**.00000**	**-.00081**	**-.00049**
Stddev	.00003	.00005	.00023	.00003	.00011	.00027	.00092
%RSD	95.496	81.547	2691.8	565.07	13562.	33.149	186.24
#1	.00000	-.00008	-.00022	.00001	.00006	-.00111	.00054
#2	.00003	-.00011	-.00005	.00003	-.00012	-.00063	-.00121
#3	.00006	-.00001	.00025	-.00002	.00006	-.00068	-.00081

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00005**	**.00063**	**-.00002**	**-.00168**	**-.00034**	**.00017**	**-.00040**
Stddev	.00001	.00012	.00002	.00022	.00004	.00002	.00006
%RSD	18.038	19.390	94.701	13.045	10.746	14.096	15.236
#1	.00005	.00076	-.00004	-.00149	-.00038	.00018	-.00047
#2	.00006	.00061	.00000	-.00163	-.00032	.00014	-.00036
#3	.00004	.00052	-.00001	-.00192	-.00031	.00018	-.00036

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00005**	**-.00001**	**.00055**	**.00003**	**.00080**	**-.00065**	**-.00009**
Stddev	.00004	.00000	.00001	.00000	.00015	.00001	.00001
%RSD	79.357	14.347	2.3298	11.588	18.248	.97052	12.710
#1	.00006	-.00001	.00056	.00003	.00071	-.00064	-.00009
#2	.00008	-.00001	.00056	.00003	.00097	-.00065	-.00008
#3	.00001	-.00001	.00054	.00003	.00071	-.00065	-.00009

Approved: April 04, 2014



Sample Name: S0 Acquired: 4/3/2014 8:57:17 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2979) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**.00005**	**-.00024**	**-.00257**
Stddev	.00004	.00001	.00012
%RSD	81.396	4.1548	4.6035
#1	.00007	-.00024	-.00260
#2	.00007	-.00025	-.00268
#3	.00000	-.00023	-.00244

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20666.**	**22165.**
Stddev	89.	571.
%RSD	.43247	2.5739
#1	20769.	22572.
#2	20622.	21513.
#3	20607.	22411.

Approved: April 04, 2014

Sample Name: S1 Acquired: 4/3/2014 9:00:52 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2979) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

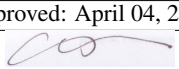
Elem	Ag3280	Al3082	Ba4554	Be3131	Ca4226	Cd2288	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00096**	**.00144**	**.01201**	**-.00041**	**-.00070**	**.00024**	**.00039**
Stddev	.00023	.00004	.00013	.00016	.00013	.00004	.00004
%RSD	23.571	2.9259	1.0825	39.832	19.235	14.551	10.421
#1	.00113	.00140	.01211	-.00024	-.00060	.00023	.00039
#2	.00104	.00149	.01186	-.00057	-.00085	.00028	.00036
#3	.00070	.00144	.01205	-.00042	-.00065	.00022	.00044

Elem	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00206**	**.00046**	**.00053**	**.00438**	**.00216**	**.00040**	**.00950**
Stddev	.00009	.00002	.00009	.00017	.00034	.00008	.00029
%RSD	4.5598	4.3507	16.643	3.7758	15.600	19.338	3.0513
#1	.00207	.00044	.00043	.00420	.00198	.00044	.00952
#2	.00215	.00044	.00060	.00453	.00255	.00046	.00978
#3	.00196	.00048	.00057	.00440	.00195	.00031	.00920

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Si2124
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00115**	**.01565**	**-.00007**	**.00085**	**-.00026**	**.00027**	**.00148**
Stddev	.00001	.00034	.00006	.00004	.00003	.00003	.00003
%RSD	.77754	2.1728	82.349	4.1901	12.544	11.029	1.7149
#1	.00115	.01529	-.00001	.00087	-.00022	.00029	.00148
#2	.00116	.01569	-.00012	.00088	-.00028	.00027	.00151
#3	.00114	.01596	-.00009	.00081	-.00029	.00023	.00146

Elem	Sn1899	Sr4077	Ti3372	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00059**	**.01451**	**.00063**	**.00593**	**.00275**	**-.00270**
Stddev	.00003	.00043	.00020	.00016	.00009	.00023
%RSD	4.7155	2.9707	31.484	2.6201	3.1563	8.3347
#1	.00056	.01411	.00048	.00577	.00266	-.00291
#2	.00061	.01445	.00086	.00593	.00277	-.00246
#3	.00059	.01496	.00056	.00608	.00283	-.00272

Approved: April 04, 2014



Sample Name: S1 Acquired: 4/3/2014 9:00:52 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2979) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20453.**	**22323.**
Stddev	43.	46.
%RSD	.20791	.20622
#1	20489.	22270.
#2	20406.	22343.
#3	20464.	22355.

Approved: April 04, 2014

Sample Name: S2 Acquired: 4/3/2014 9:04:27 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2979) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

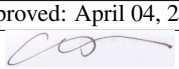
Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00329**	**.00204**	**.00006**	**.00203**	**.01946**	**.00218**	**.00130**
Stddev	.00014	.00018	.00002	.00009	.00029	.00009	.00034
%RSD	4.3143	8.8321	39.800	4.3974	1.5006	3.9962	26.322
#1	.00345	.00215	.00009	.00211	.01939	.00220	.00102
#2	.00322	.00214	.00006	.00203	.01978	.00225	.00168
#3	.00319	.00183	.00004	.00193	.01921	.00208	.00119

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00048**	**.00095**	**.00442**	**.00089**	**.00108**	**.00963**	**.00543**
Stddev	.00000	.00001	.00016	.00003	.00007	.00026	.00054
%RSD	.95622	1.5466	3.6867	3.4287	6.3487	2.6869	10.032
#1	.00049	.00095	.00455	.00086	.00102	.00945	.00546
#2	.00048	.00097	.00424	.00089	.00115	.00993	.00487
#3	.00048	.00094	.00447	.00092	.00107	.00952	.00596

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00077**	**.01881**	**.00251**	**.03443**	**.00026**	**.00163**	**-.00007**
Stddev	.00007	.00011	.00002	.00064	.00004	.00002	.00006
%RSD	9.3023	.58436	.98543	1.8510	16.408	1.1030	94.796
#1	.00073	.01879	.00248	.03415	.00021	.00163	-.00007
#2	.00086	.01893	.00252	.03516	.00029	.00162	-.00013
#3	.00073	.01871	.00252	.03398	.00028	.00165	.00000

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00054**	**.00004**	**.00258**	**.00123**	**.03000**	**.00204**	**.00009**
Stddev	.00002	.00001	.00001	.00001	.00009	.00004	.00002
%RSD	4.3939	14.761	.32561	.75286	.30788	2.1932	25.728
#1	.00052	.00003	.00258	.00124	.02990	.00205	.00008
#2	.00056	.00005	.00258	.00122	.03002	.00199	.00012
#3	.00053	.00004	.00257	.00122	.03008	.00208	.00007

Approved: April 04, 2014



Sample Name: S2 Acquired: 4/3/2014 9:04:27 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2979) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**.01254**	**.00575**	**-.00230**
Stddev	.00029	.00013	.00011
%RSD	2.3037	2.2824	4.6490
#1	.01225	.00568	-.00221
#2	.01283	.00567	-.00227
#3	.01252	.00590	-.00242

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20387.**	**22055.**
Stddev	21.	177.
%RSD	.10235	.80269
#1	20363.	22162.
#2	20395.	21851.
#3	20402.	22153.

Approved: April 04, 2014

Sample Name: S3 Acquired: 4/3/2014 9:08:00 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2979) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

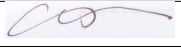
Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.25729**	**.07169**	**.00859**	**.09907**	**.84006**	**.30729**	**.24481**
Stddev	.00247	.00041	.00007	.00101	.00312	.00348	.00100
%RSD	.96185	.57066	.84834	1.0160	.37098	1.1334	.40656
#1	.26010	.07149	.00854	.10023	.83799	.31084	.24369
#2	.25637	.07216	.00867	.09846	.83854	.30716	.24558
#3	.25542	.07141	.00856	.09852	.84364	.30388	.24516

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02548**	**.05816**	**.25853**	**.04964**	**.06483**	**.64868**	**.36109**
Stddev	.00023	.00027	.00292	.00030	.00028	.00229	.00109
%RSD	.89033	.46679	1.1289	.60813	.42815	.35244	.30255
#1	.02533	.05802	.26170	.04941	.06453	.64618	.36069
#2	.02574	.05847	.25794	.04998	.06488	.65066	.36025
#3	.02538	.05799	.25595	.04951	.06508	.64920	.36232

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.04344**	**1.0376**	**.15036**	**2.2428**	**.03393**	**.08533**	**.02069**
Stddev	.00010	.0055	.00096	.0084	.00025	.00067	.00021
%RSD	.22869	.52581	.63943	.37361	.72702	.78572	1.0272
#1	.04337	1.0338	.14939	2.2440	.03376	.08458	.02048
#2	.04355	1.0439	.15132	2.2339	.03421	.08554	.02091
#3	.04339	1.0352	.15037	2.2505	.03381	.08587	.02067

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02790**	**.00468**	**.12027**	**.07127**	**1.6875**	**.15530**	**.01005**
Stddev	.00024	.00007	.00102	.00035	.0112	.00051	.00004
%RSD	.85277	1.5032	.84605	.48995	.66061	.32991	.34957
#1	.02766	.00460	.11928	.07105	1.6755	.15479	.01001
#2	.02814	.00472	.12132	.07167	1.6974	.15529	.01008
#3	.02789	.00472	.12021	.07109	1.6897	.15582	.01006

Approved: April 04, 2014



Sample Name: S3 Acquired: 4/3/2014 9:08:00 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2979) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**.73938**	**.33201**	**-.00223**
Stddev	.00612	.00065	.00030
%RSD	.82836	.19473	13.259
#1	.74626	.33189	-.00223
#2	.73737	.33271	-.00253
#3	.73452	.33144	-.00194

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20010.**	**21636.**
Stddev	104.	163.
%RSD	.52204	.75160
#1	19897.	21799.
#2	20029.	21474.
#3	20103.	21634.

Approved: April 04, 2014

Sample Name: S4 Acquired: 4/3/2014 9:11:16 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2979) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.50264**	**.14035**	**.01680**	**.19080**	**1.6606**	**.61420**	**.48648**
Stddev	.00125	.00079	.00005	.00055	.0023	.00136	.00064
%RSD	.24906	.56362	.28591	.28597	.13659	.22129	.13201
#1	.50159	.13950	.01675	.19029	1.6620	.61314	.48606
#2	.50402	.14048	.01681	.19074	1.6580	.61573	.48617
#3	.50230	.14107	.01684	.19137	1.6617	.61372	.48722

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.04881**	**.11184**	**.50913**	**.09481**	**.12540**	**1.2816**	**.71779**
Stddev	.00011	.00016	.00092	.00014	.00017	.0042	.00124
%RSD	.21585	.14377	.18113	.15229	.13176	.32684	.17206
#1	.04882	.11169	.50818	.09476	.12534	1.2789	.71810
#2	.04891	.11181	.51002	.09497	.12527	1.2796	.71643
#3	.04870	.11201	.50919	.09470	.12559	1.2864	.71884

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.08342**	**1.9522**	**.29414**	**4.3838**	**.06514**	**.16513**	**.03963**
Stddev	.00020	.0107	.00031	.0079	.00005	.00018	.00016
%RSD	.23834	.54997	.10604	.18034	.07291	.10975	.39157
#1	.08334	1.9398	.29445	4.3916	.06519	.16502	.03945
#2	.08327	1.9575	.29413	4.3758	.06515	.16534	.03970
#3	.08365	1.9593	.29383	4.3840	.06509	.16503	.03973

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.05380**	**.00895**	**.23290**	**.13550**	**3.3847**	**.30577**	**.01880**
Stddev	.00009	.00003	.00017	.00036	.0111	.00033	.00005
%RSD	.16604	.35546	.07135	.26270	.32740	.10703	.25414
#1	.05371	.00898	.23289	.13509	3.3727	.30575	.01874
#2	.05380	.00892	.23307	.13570	3.3869	.30546	.01882
#3	.05389	.00895	.23273	.13571	3.3946	.30611	.01882

Approved: April 04, 2014

Sample Name: S4 Acquired: 4/3/2014 9:11:16 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2979) Mode: IR Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**1.4508**	**.64249**	**-.00186**
Stddev	.0050	.00151	.00014
%RSD	.34105	.23501	7.5275
#1	1.4466	.64074	-.00182
#2	1.4563	.64331	-.00202
#3	1.4496	.64340	-.00175

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19851.**	**22238.**
Stddev	9.	106.
%RSD	.04296	.47722
#1	19842.	22342.
#2	19852.	22242.
#3	19859.	22130.

Approved: April 04, 2014

Sample Name: ICV Acquired: 4/3/2014 9:14:33 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.39570**	**10.221**	**.41013**	**.51210**	**.99207**	**.05122**	**10.176**
Stddev	.00534	.052	.00147	.00643	.00428	.00078	.045
%RSD	1.3485	.50945	.35731	1.2555	.43096	1.5320	.43988
#1	.39291	10.179	.41052	.50958	.98714	.05101	10.125
#2	.40186	10.205	.40851	.51941	.99431	.05209	10.199
#3	.39234	10.280	.41136	.50731	.99477	.05056	10.205
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05056**	**.20594**	**.50892**	**.50787**	**4.0396**	**50.387**	**.99946**
Stddev	.00009	.00047	.00707	.00088	.0243	.286	.00214
%RSD	.17061	.22751	1.3901	.17275	.60175	.56716	.21435
#1	.05063	.20628	.50501	.50815	4.0118	50.095	.99700
#2	.05046	.20540	.51708	.50689	4.0570	50.401	1.0005
#3	.05059	.20613	.50466	.50857	4.0499	50.666	1.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.165**	**.51218**	**.98008**	**49.289**	**.50134**	**10.238**	**.50673**
Stddev	.029	.00148	.00242	.158	.00060	.071	.00193
%RSD	.28090	.28818	.24697	.32126	.11927	.69704	.38105
#1	10.132	.51097	.97804	49.106	.50195	10.202	.50626
#2	10.177	.51175	.98275	49.383	.50075	10.321	.50509
#3	10.184	.51382	.97943	49.378	.50132	10.193	.50886
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

Sample Name: ICV Acquired: 4/3/2014 9:14:33 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2097**	**.41707**	**4.9479**	**1.0335**	**1.0130**	**1.0009**	**.50806**
Stddev	.0084	.00352	.0427	.0077	.0059	.0028	.00285
%RSD	.69860	.84378	.86382	.74658	.58505	.28201	.56113
#1	1.2134	.41481	4.9697	1.0272	1.0070	.99768	.50672
#2	1.2000	.41528	4.8986	1.0313	1.0131	1.0021	.50613
#3	1.2156	.42112	4.9753	1.0421	1.0189	1.0029	.51134
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.98476**	**1.0297**	F **1.4415**
Stddev	.01322	.0088	.4848
%RSD	1.3429	.85831	33.630
#1	.97859	1.0225	1.5856
#2	.99994	1.0396	1.8379
#3	.97574	1.0271	.90100
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			5.0000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19954.**	**21642.**
Stddev	260.	87.
%RSD	1.3013	.40291
#1	20109.	21724.
#2	19655.	21651.
#3	20100.	21550.

Approved: April 04, 2014

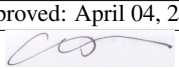
Sample Name: ICB Acquired: 4/3/2014 9:18:10 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**-.01285**	**.00226**	**.00227**	**.00036**	**.00002**	**.00169**
Stddev	.00029	.00958	.00125	.00056	.00016	.00001	.00470
%RSD	481.29	74.496	55.310	24.748	44.857	68.646	277.43
#1	.00021	-.01559	.00316	.00162	.00031	.00002	-.00207
#2	-.00003	-.02076	.00083	.00255	.00023	.00003	.00019
#3	-.00036	-.00221	.00279	.00264	.00054	.00000	.00696
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**-.00008**	**-.00018**	**.00018**	**.00287**	**-.00582**	**-.00018**
Stddev	.00003	.00014	.00029	.00019	.00594	.03487	.00053
%RSD	80.630	167.00	164.53	101.87	207.18	598.99	296.74
#1	.00000	-.00003	-.00047	-.00002	-.00132	-.00230	-.00043
#2	-.00005	-.00024	-.00017	.00023	.00967	.02715	.00043
#3	-.00005	.00002	.00011	.00035	.00025	-.04232	-.00055
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00304**	**-.00004**	**.00027**	**-.00233**	**-.00014**	**.00050**	**-.00089**
Stddev	.02377	.00002	.00012	.00481	.00033	.00421	.00161
%RSD	781.61	53.418	44.216	206.70	228.62	845.99	181.56
#1	-.00163	-.00003	.00041	.00078	.00019	-.00436	-.00243
#2	.02880	-.00007	.00021	-.00787	-.00047	.00291	-.00101
#3	-.01805	-.00003	.00020	.00011	-.00016	.00294	.00078
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: ICB Acquired: 4/3/2014 9:18:10 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00081**	**.00371**	**.00009**	**.00021**	**.00007**	**-.00067**	**-.00022**
Stddev	.00131	.00429	.00063	.00035	.00015	.00060	.00048
%RSD	160.69	115.66	728.11	165.62	218.59	88.669	212.22
#1	-.00232	.00734	.00063	.00049	.00004	-.00011	-.00071
#2	-.00011	.00480	-.00061	.00034	.00023	-.00129	-.00021
#3	-.00001	-.00102	.00024	-.00019	-.00006	-.00062	.00024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00001**	**.00042**	F **1.1744**
Stddev	.00027	.00003	.1463
%RSD	5335.7	8.3031	12.456
#1	.00002	.00044	1.0183
#2	-.00029	.00038	1.1964
#3	.00025	.00043	1.3084
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20465.**	**21916.**
Stddev	97.	257.
%RSD	.47498	1.1707
#1	20560.	22190.
#2	20469.	21681.
#3	20366.	21877.

Approved: April 04, 2014

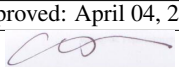
Sample Name: LLICV Acquired: 4/3/2014 9:21:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01134**	**.00915**	**.10465**	**.00133**	**.01176**	**.00002**	**.01179**	**.01244**
Stddev	.00038	.01392	.00073	.00035	.00013	.00001	.00948	.00005
%RSD	3.3500	152.08	.70038	26.150	1.0909	36.820	80.416	.41212
#1	.01176	.02417	.10412	.00137	.01169	.00001	.01079	.01239
#2	.01103	.00659	.10435	.00166	.01191	.00001	.00285	.01249
#3	.01123	-.00331	.10549	.00097	.01169	.00002	.02173	.01245
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.02284**	**-.00033**	**.00246**	**-.02269**	**-.00109**	**.00585**	**.00081**
Stddev	.00006	.00015	.00019	.00673	.00388	.00036	.02249	.00006
%RSD	216.84	.65645	58.864	273.20	17.121	33.202	384.39	7.1783
#1	-.00004	.02274	-.00040	-.00469	-.02191	-.00122	.00455	.00081
#2	.00007	.02301	-.00048	.00867	-.02690	-.00137	.02896	.00075
#3	.00005	.02277	-.00011	.00341	-.01925	-.00068	-.01596	.00086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**.00970**	**-.00030**	**.00259**	**.10747**	**-.00164**	**.08886**	**.00409**
Stddev	.00008	.01487	.00011	.00493	.00083	.00064	.00459	.00582
%RSD	50.312	153.26	36.997	190.60	.77209	38.775	5.1625	142.32
#1	.00009	.01745	-.00039	.00128	.10698	-.00228	.09395	.00016
#2	.00013	.01910	-.00032	.00804	.10843	-.00165	.08757	.01077
#3	.00024	-.00744	-.00018	-.00156	.10701	-.00100	.08505	.00134
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: LLICV Acquired: 4/3/2014 9:21:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00039**	**.00013**	**-.00094**	**-.00015**	**-.00012**	**.00238**	**.08974**
Stddev	.00024	.00015	.00120	.00143	.00026	.00005	.49153
%RSD	62.227	115.90	127.58	924.61	221.45	2.2333	547.72
#1	.00032	.00011	-.00201	-.00165	.00013	.00243	.59567
#2	.00019	.00030	-.00116	-.00002	-.00039	.00233	-.38599
#3	.00066	-.00001	.00035	.00120	-.00009	.00237	.05955
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20515.**	**22155.**
Stddev	7.	254.
%RSD	.03317	1.1458
#1	20523.	22415.
#2	20513.	22143.
#3	20510.	21908.

Approved: April 04, 2014

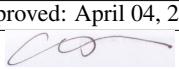
Sample Name: ICSA Acquired: 4/3/2014 9:25:20 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00047**	**251.03**	**-.00129**	**-.00214**	**.00026**	**-.00006**	**250.60**
Stddev	.00045	.40	.00127	.00137	.00019	.00003	.42
%RSD	94.703	.15849	98.507	64.191	72.424	51.126	.16623
#1	-.00024	250.68	-.00144	-.00346	.00020	-.00010	250.12
#2	-.00099	250.94	.00005	-.00224	.00011	-.00004	250.85
#3	-.00019	251.46	-.00249	-.00072	.00046	-.00005	250.83
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**-.00020**	**-.00062**	**-.00025**	**97.730**	**.02583**	**.00787**
Stddev	.00014	.00025	.00010	.00029	.286	.01119	.00095
%RSD	701.59	126.02	15.691	118.63	.29241	43.323	12.135
#1	.00008	-.00038	-.00068	-.00055	97.407	.03832	.00687
#2	-.00014	-.00030	-.00051	.00003	97.950	.02247	.00797
#3	.00012	.00009	-.00068	-.00022	97.834	.01671	.00877
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**250.37**	**.00023**	**-.00057**	**.02271**	**-.00052**	**-.06904**	**-.00004**
Stddev	.24	.00003	.00025	.01060	.00068	.00600	.00179
%RSD	.09430	13.059	44.506	46.665	130.18	8.6856	4915.0
#1	250.10	.00021	-.00082	.03044	-.00106	-.06948	.00135
#2	250.45	.00023	-.00031	.01063	-.00075	-.06284	-.00205
#3	250.55	.00027	-.00057	.02705	.00024	-.07481	.00059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: ICSA Acquired: 4/3/2014 9:25:20 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00462**	**-.00016**	**.18340**	**.00127**	**.00004**	**-.00341**	**-.00181**
Stddev	.00136	.00381	.00119	.00048	.00016	.00078	.00170
%RSD	29.463	2330.9	.65048	37.919	425.45	22.804	94.089
#1	-.00380	-.00060	.18319	.00181	.00022	-.00365	-.00377
#2	-.00620	-.00374	.18232	.00089	-.00009	-.00254	-.00088
#3	-.00388	.00384	.18468	.00109	-.00001	-.00405	-.00077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00081**	**.00089**	F **-15.930**
Stddev	.00031	.00005	.963
%RSD	38.299	5.9138	6.0461
#1	.00053	.00095	-16.513
#2	.00074	.00085	-16.458
#3	.00114	.00087	-14.818
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.08000
Low Limit			-.08000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18877.**	**21397.**
Stddev	111.	167.
%RSD	.58859	.77908
#1	18776.	21228.
#2	18859.	21561.
#3	18996.	21400.

Approved: April 04, 2014

Sample Name: ICSAB Acquired: 4/3/2014 9:28:53 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49176**	**253.72**	**.25362**	**-.02413**	**.24778**	**.25315**	**252.34**
Stddev	.00080	1.50	.00102	.00053	.00032	.00081	1.13
%RSD	.16184	.59136	.40321	2.2074	.13031	.31823	.44791
#1	.49095	252.08	.25420	-.02429	.24744	.25407	251.19
#2	.49254	254.04	.25422	-.02353	.24809	.25277	252.36
#3	.49178	255.03	.25244	-.02456	.24781	.25260	253.45
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.45928**	**.24536**	**.25083**	**.24494**	**98.025**	**5.1846**	**.00716**
Stddev	.00167	.00190	.00136	.00188	.240	.0599	.00119
%RSD	.36449	.77495	.54334	.76564	.24436	1.1544	16.648
#1	.46091	.24598	.25241	.24534	97.749	5.1862	.00853
#2	.45756	.24323	.25004	.24290	98.145	5.1240	.00637
#3	.45939	.24687	.25005	.24659	98.180	5.2436	.00657
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**253.24**	**.24253**	**-.00070**	**5.0042**	**.47828**	**-.06650**	**.48180**
Stddev	.51	.00150	.00026	.0151	.00352	.00241	.00683
%RSD	.20262	.62035	37.313	.30209	.73667	3.6189	1.4182
#1	252.65	.24091	-.00047	4.9925	.48046	-.06892	.48429
#2	253.49	.24278	-.00065	5.0213	.47421	-.06647	.47407
#3	253.59	.24389	-.00099	4.9989	.48016	-.06410	.48703
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014

Sample Name: ICSAB Acquired: 4/3/2014 9:28:53 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50159**	**.24948**	**-.00162**	**.00191**	**-.00001**	**-.00542**	**.46326**
Stddev	.00297	.00496	.00105	.00044	.00012	.00111	.00611
%RSD	.59167	1.9898	64.801	22.962	1578.4	20.422	1.3183
#1	.50446	.25244	-.00283	.00185	-.00001	-.00643	.46948
#2	.49854	.24375	-.00090	.00238	-.00012	-.00559	.45727
#3	.50178	.25226	-.00114	.00151	.00011	-.00423	.46303
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.24850**	**.48165**	F **-16.418**
Stddev	.00047	.00108	.668
%RSD	.19096	.22332	4.0671
#1	.24874	.48171	-15.648
#2	.24795	.48054	-16.768
#3	.24881	.48269	-16.837
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18747.**	**20884.**
Stddev	21.	131.
%RSD	.11430	.62727
#1	18722.	21032.
#2	18760.	20837.
#3	18759.	20782.

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 9:32:18 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.39905**	**10.057**	**.40153**	**.50396**	**.98077**	**.05049**	**9.9877**
Stddev	.00109	.045	.00459	.00273	.00596	.00016	.0510
%RSD	.27306	.44398	1.1423	.54170	.60796	.30949	.51020
#1	.39785	10.075	.39625	.50450	.98689	.05062	10.041
#2	.39929	10.090	.40455	.50100	.98044	.05032	9.9836
#3	.39999	10.006	.40379	.50638	.97497	.05055	9.9389
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05016**	**.20276**	**.50283**	**.50574**	**3.9492**	**49.688**	**.98595**
Stddev	.00052	.00154	.00137	.00403	.0217	.148	.00608
%RSD	1.0285	.75812	.27154	.79699	.55019	.29814	.61701
#1	.04963	.20102	.50251	.50109	3.9688	49.795	.99200
#2	.05018	.20332	.50166	.50830	3.9530	49.750	.98602
#3	.05066	.20394	.50433	.50781	3.9258	49.519	.97984
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.9375**	**.49834**	**.99046**	**48.741**	**.50341**	**10.018**	**.50602**
Stddev	.0256	.00200	.00903	.304	.00436	.123	.00364
%RSD	.25795	.40122	.91193	.62375	.86632	1.2240	.71980
#1	9.9647	.49650	.98013	49.067	.49850	9.8859	.50254
#2	9.9138	.49805	.99683	48.692	.50490	10.128	.50570
#3	9.9341	.50047	.99443	48.465	.50683	10.040	.50981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

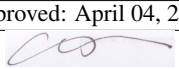
Sample Name: CCV Acquired: 4/3/2014 9:32:18 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2005**	**.40782**	**4.9960**	**1.0130**	**1.0063**	**.99042**	**.50498**
Stddev	.0163	.00690	.0544	.0130	.0048	.00539	.00658
%RSD	1.3561	1.6928	1.0881	1.2865	.47700	.54398	1.3035
#1	1.1823	.40293	4.9333	1.0088	1.0090	.99558	.49991
#2	1.2059	.41572	5.0277	1.0275	1.0091	.99084	.51242
#3	1.2135	.40480	5.0271	1.0025	1.0007	.98483	.50261
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.98599**	**1.0068**	F **.64870**
Stddev	.00115	.0047	.41288
%RSD	.11685	.46990	63.647
#1	.98467	1.0014	1.1122
#2	.98680	1.0084	.51346
#3	.98649	1.0105	.32040
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20105.**	**22119.**
Stddev	44.	103.
%RSD	.22116	.46352
#1	20085.	22155.
#2	20156.	22198.
#3	20074.	22003.

Approved: April 04, 2014



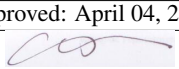
Sample Name: CCB Acquired: 4/3/2014 9:35:36 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00039**	**-.00114**	**.00026**	**.00156**	**.00009**	**.00005**	**.01256**
Stddev	.00013	.02459	.00064	.00100	.00030	.00001	.00652
%RSD	33.455	2165.9	249.22	64.066	330.76	23.273	51.894
#1	.00048	-.02950	.00089	.00269	.00035	.00005	.01257
#2	.00024	.01188	-.00039	.00123	.00017	.00004	.01907
#3	.00045	.01421	.00026	.00077	-.00024	.00007	.00604
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**-.00017**	**.00049**	**.00012**	**.00215**	**.00498**	**-.00175**
Stddev	.00011	.00019	.00005	.00027	.00151	.02390	.00093
%RSD	210.84	110.70	9.4696	219.17	70.437	479.53	53.304
#1	-.00007	-.00036	.00049	-.00002	.00227	.01175	-.00136
#2	.00010	-.00017	.00054	-.00004	.00359	-.02157	-.00107
#3	.00012	.00002	.00045	.00044	.00058	.02477	-.00281
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01244**	**.00003**	**.00006**	**-.01182**	**-.00080**	**-.00235**	**-.00078**
Stddev	.02372	.00005	.00006	.01610	.00051	.00182	.00095
%RSD	190.71	184.11	102.63	136.20	64.205	77.585	121.93
#1	-.03748	-.00002	.00010	-.02646	-.00089	-.00074	-.00184
#2	.00968	.00002	.00008	-.01442	-.00025	-.00199	-.00051
#3	-.00951	.00007	-.00001	.00542	-.00127	-.00433	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: CCB Acquired: 4/3/2014 9:35:36 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00037**	**-.00204**	**.00001**	**.00018**	**.00018**	**-.00008**	**-.00007**
Stddev	.00197	.00125	.00040	.00020	.00007	.00062	.00099
%RSD	536.92	61.445	3179.8	113.37	38.193	740.04	1375.9
#1	-.00189	-.00348	.00036	.00005	.00020	.00062	-.00121
#2	.00186	-.00119	-.00043	.00041	.00022	-.00033	.00048
#3	-.00107	-.00145	.00010	.00008	.00010	-.00054	.00052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00007**	**.00120**	F **-.26239**
Stddev	.00032	.00004	1.1153
%RSD	445.89	3.6308	425.06
#1	-.00023	.00119	.88714
#2	.00004	.00115	-1.3400
#3	.00041	.00124	-.33429
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20527.**	**22141.**
Stddev	56.	224.
%RSD	.27450	1.0099
#1	20577.	21962.
#2	20539.	22069.
#3	20466.	22392.

Approved: April 04, 2014

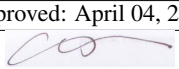
Sample Name: PBW 2C Acquired: 4/3/2014 10:06:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469060-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00035**	**.00815**	**.00118**	**.00093**	**.00031**	**.00003**	**.03140**
Stddev	.00035	.00509	.00180	.00080	.00031	.00004	.00452
%RSD	99.688	62.436	152.47	85.561	99.083	148.34	14.383
#1	.00058	.00864	.00290	.00053	.00056	.00005	.02804
#2	-.00005	.00284	-.00069	.00185	.00042	.00004	.03653
#3	.00053	.01299	.00133	.00042	-.00004	-.00002	.02962
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**-.00034**	**.00023**	**.00320**	**.00412**	**.01715**	**-.00036**
Stddev	.00009	.00018	.00049	.00006	.00261	.02750	.00065
%RSD	118.18	50.969	208.21	1.9067	63.372	160.36	179.56
#1	.00003	-.00027	-.00026	.00314	.00397	-.01117	.00022
#2	.00019	-.00054	.00024	.00327	.00680	.01887	-.00107
#3	.00002	-.00022	.00072	.00320	.00159	.04375	-.00024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01213**	**.00009**	**.00010**	**.01465**	**-.00073**	F **-.00535**	**-.00185**
Stddev	.01381	.00000	.00010	.01196	.00009	.00789	.00194
%RSD	113.86	1.9772	102.52	81.641	12.223	147.45	104.70
#1	.00303	.00008	.00005	.02630	-.00070	-.00692	-.00326
#2	.02802	.00009	.00021	.01527	-.00083	-.01234	.00036
#3	.00533	.00009	.00003	.00240	-.00066	.00320	-.00266
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014



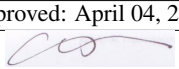
Sample Name: PBW 2C Acquired: 4/3/2014 10:06:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469060-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00048**	**.00162**	**-.00321**	**.00050**	**.00019**	**-.00080**	**-.00186**
Stddev	.00300	.00349	.00210	.00038	.00004	.00029	.00030
%RSD	620.90	214.67	65.374	76.632	20.725	36.193	16.019
#1	-.00369	.00564	-.00145	.00013	.00024	-.00089	-.00207
#2	-.00001	-.00070	-.00553	.00047	.00017	-.00104	-.00198
#3	.00225	-.00006	-.00265	.00089	.00017	-.00048	-.00152
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00009**	**.00274**	**.22883**
Stddev	.00016	.00012	.70383
%RSD	169.67	4.3666	307.58
#1	-.00018	.00288	.44775
#2	-.00019	.00267	.79718
#3	.00009	.00268	-.55845
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19624.**	**21482.**
Stddev	276.	200.
%RSD	1.4052	.93005
#1	19752.	21525.
#2	19813.	21264.
#3	19308.	21656.

Approved: April 04, 2014



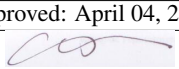
Sample Name: LCSW 2C Acquired: 4/3/2014 10:10:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469060-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.19773**	**4.9551**	**.19617**	**.99012**	**.48361**	**.02475**	**4.9489**	**.02515**
Stddev	.00142	.0212	.00159	.00522	.00096	.00007	.0190	.00008
%RSD	.72056	.42730	.81096	.52708	.19822	.26434	.38350	.30184
#1	.19867	4.9309	.19801	.99372	.48468	.02476	4.9490	.02515
#2	.19844	4.9699	.19520	.99252	.48283	.02481	4.9299	.02507
#3	.19609	4.9646	.19532	.98414	.48332	.02468	4.9679	.02522
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10176**	**.24902**	**.25551**	**1.9808**	**24.361**	**.49182**	**4.9027**	**.25640**
Stddev	.00018	.00060	.00064	.0057	.080	.00072	.0303	.00229
%RSD	.17592	.24176	.25044	.28587	.32902	.14664	.61737	.89138
#1	.10172	.24967	.25553	1.9771	24.371	.49160	4.9118	.25435
#2	.10161	.24893	.25614	1.9873	24.276	.49263	4.8689	.25599
#3	.10196	.24847	.25486	1.9779	24.435	.49124	4.9273	.25886
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50390**	**24.479**	**.25442**	**-.00317**	**.25653**	**.59612**	**.19996**	**2.5362**
Stddev	.00032	.018	.00137	.00380	.00201	.00463	.00301	.0200
%RSD	.06291	.07165	.53719	120.09	.78312	.77652	1.5051	.79013
#1	.50353	24.496	.25549	-.00134	.25485	.59622	.19968	2.5450
#2	.50408	24.461	.25489	-.00062	.25876	.60070	.20310	2.5503
#3	.50407	24.481	.25288	-.00754	.25600	.59144	.19710	2.5132
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: LCSW 2C Acquired: 4/3/2014 10:10:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469060-03

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49730**	**.48733**	**.49053**	**.25912**	**.49101**	**.50369**	**.32907**
Stddev	.00366	.00072	.00166	.00373	.00198	.00108	.32333
%RSD	.73572	.14756	.33808	1.4405	.40422	.21408	98.256
#1	.49877	.48791	.49243	.25967	.49293	.50259	.31500
#2	.49999	.48653	.48978	.26254	.49115	.50475	.65922
#3	.49313	.48755	.48939	.25514	.48896	.50372	.01301
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19662.**	**21020.**
Stddev	30.	242.
%RSD	.15011	1.1535
#1	19635.	21266.
#2	19658.	21011.
#3	19694.	20782.

Approved: April 04, 2014

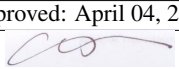
Sample Name: L1403135201 Acquired: 4/3/2014 10:13:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00014**	**.11991**	**.00022**	**.01048**	**.01209**	**.00000**	**23.870**	**.00028**
Stddev	.00006	.01474	.00139	.00143	.00008	.00002	.105	.00002
%RSD	38.986	12.295	645.07	13.682	.66475	575.87	.43899	5.4626
#1	-.00012	.10343	-.00127	.01185	.01216	.00001	23.774	.00028
#2	-.00010	.13184	.00149	.00899	.01201	.00002	23.854	.00027
#3	-.00020	.12447	.00043	.01061	.01211	-.00002	23.982	.00030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**.00062**	**.00171**	**.33467**	**2.2422**	**.00152**	**4.0145**	**.07226**
Stddev	.00018	.00024	.00027	.00359	.0359	.00078	.0487	.00066
%RSD	590.01	39.200	15.669	1.0726	1.6008	51.044	1.2129	.90909
#1	.00016	.00084	.00162	.33821	2.2050	.00176	3.9850	.07301
#2	-.00021	.00036	.00150	.33103	2.2766	.00066	3.9877	.07198
#3	-.00004	.00064	.00201	.33477	2.2451	.00216	4.0707	.07179
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00081**	**3.9777**	**.00053**	**.02353**	**-.00168**	**-.00011**	**.00278**	**1.9569**
Stddev	.00016	.0239	.00111	.00238	.00150	.00198	.00129	.0043
%RSD	20.338	.59984	210.09	10.128	89.398	1880.1	46.495	.21868
#1	.00098	3.9568	-.00032	.02567	-.00011	.00162	.00202	1.9525
#2	.00078	3.9727	.00178	.02096	-.00310	.00033	.00427	1.9574
#3	.00066	4.0037	.00012	.02395	-.00183	-.00227	.00205	1.9610
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403135201 Acquired: 4/3/2014 10:13:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00041**	**.08053**	**.00275**	**-.00224**	**.00074**	**.01238**	**1.2969**
Stddev	.00003	.00060	.00132	.00133	.00004	.00029	.9085
%RSD	8.4077	.74288	47.963	59.408	5.8151	2.3214	70.052
#1	.00040	.07984	.00381	-.00283	.00077	.01258	1.6632
#2	.00039	.08091	.00318	-.00072	.00075	.01205	1.9652
#3	.00045	.08084	.00127	-.00318	.00069	.01252	.26246
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19736.**	**21536.**
Stddev	113.	120.
%RSD	.57452	.55681
#1	19636.	21427.
#2	19859.	21665.
#3	19714.	21518.

Approved: April 04, 2014

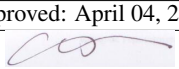
Sample Name: L1403135301 Acquired: 4/3/2014 10:17:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**-.00918**	**.00058**	**.03091**	**.00678**	**.00001**	**53.903**	**.00043**
Stddev	.00020	.02636	.00206	.00061	.00021	.00002	.075	.00005
%RSD	338.45	287.10	355.29	1.9704	3.0437	306.15	.13829	11.098
#1	-.00022	-.02770	-.00143	.03157	.00683	-.00001	53.969	.00038
#2	.00017	.02100	.00269	.03036	.00655	.00003	53.918	.00048
#3	-.00012	-.02084	.00048	.03081	.00695	.00000	53.822	.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00023**	**.00086**	**.00120**	**.26222**	**1.2747**	**.00185**	**16.148**	**.11310**
Stddev	.00005	.00031	.00084	.00352	.0556	.00138	.008	.00023
%RSD	22.973	36.166	70.031	1.3442	4.3591	74.525	.04870	.19905
#1	-.00026	.00085	.00199	.26304	1.2295	.00089	16.148	.11332
#2	-.00017	.00117	.00129	.26527	1.2580	.00123	16.155	.11312
#3	-.00026	.00055	.00032	.25836	1.3368	.00344	16.139	.11287
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00034**	**15.165**	**.00060**	**.00267**	**-.00184**	**.00235**	**.00052**	**5.5275**
Stddev	.00009	.028	.00055	.00600	.00199	.00060	.00109	.0200
%RSD	26.541	.18324	91.334	224.42	107.89	25.690	211.88	.36251
#1	.00026	15.168	.00049	.00774	.00010	.00298	.00097	5.5144
#2	.00033	15.136	.00012	.00424	-.00387	.00231	.00131	5.5176
#3	.00044	15.192	.00120	-.00396	-.00175	.00177	-.00073	5.5506
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403135301 Acquired: 4/3/2014 10:17:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00056**	**.17485**	**-.00266**	**-.00361**	**.00044**	**.00824**	**.08745**
Stddev	.00013	.00019	.00059	.00053	.00030	.00008	.29523
%RSD	22.865	.11050	22.097	14.796	68.066	1.0151	337.59
#1	.00055	.17503	-.00323	-.00373	.00009	.00822	.42462
#2	.00069	.17488	-.00206	-.00302	.00062	.00833	-.03752
#3	.00043	.17464	-.00268	-.00407	.00061	.00817	-.12474
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19808.**	**21937.**
Stddev	19.	85.
%RSD	.09671	.38594
#1	19786.	21840.
#2	19817.	21981.
#3	19821.	21991.

Approved: April 04, 2014

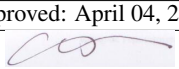
Sample Name: L1403135302 Acquired: 4/3/2014 10:20:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00045**	**.01074**	**.00086**	**.02743**	**.00657**	**.00001**	**49.626**
Stddev	.00081	.01890	.00027	.00024	.00059	.00004	.106
%RSD	180.70	175.94	31.617	.85728	8.9313	320.44	.21280
#1	.00011	.02701	.00071	.02761	.00647	-.00003	49.665
#2	-.00014	-.00999	.00069	.02752	.00721	.00003	49.706
#3	.00137	.01521	.00117	.02716	.00605	.00003	49.506
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00035**	**-.00017**	**.00056**	**.00159**	**.23061**	**1.1487**	**.00318**
Stddev	.00002	.00007	.00043	.00054	.00586	.0341	.00099
%RSD	6.2728	39.093	76.895	34.229	2.5404	2.9708	31.143
#1	.00037	-.00012	.00011	.00219	.23146	1.1111	.00391
#2	.00033	-.00024	.00061	.00141	.23599	1.1572	.00358
#3	.00037	-.00014	.00096	.00115	.22437	1.1777	.00205
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.984**	**.08591**	**.00007**	**13.790**	**.00013**	**.00591**	**-.00088**
Stddev	.131	.00233	.00005	.030	.00093	.00523	.00151
%RSD	.87464	2.7150	67.837	.21830	739.14	88.620	171.80
#1	14.901	.08688	.00012	13.806	-.00006	.00101	.00085
#2	15.135	.08760	.00003	13.810	.00114	.00529	-.00195
#3	14.915	.08325	.00006	13.756	-.00070	.01142	-.00154
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



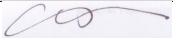
Sample Name: L1403135302 Acquired: 4/3/2014 10:20:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00048**	**.00083**	**5.0752**	**.00045**	**.16177**	**-.00161**	**-.00229**
Stddev	.00165	.00160	.0251	.00025	.00015	.00020	.00155
%RSD	340.16	193.62	.49397	55.146	.09029	12.297	67.692
#1	.00160	-.00010	5.0921	.00017	.16183	-.00181	-.00400
#2	.00126	-.00010	5.0870	.00057	.16160	-.00142	-.00186
#3	-.00141	.00268	5.0464	.00062	.16186	-.00159	-.00099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00019**	**.00801**	F **-.53809**
Stddev	.00008	.00012	.79781
%RSD	43.323	1.4610	148.27
#1	.00013	.00791	.25523
#2	.00028	.00814	-.52920
#3	.00015	.00798	-1.3403
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19764.**	**21114.**
Stddev	9.	590.
%RSD	.04314	2.7951
#1	19761.	21279.
#2	19758.	20459.
#3	19774.	21604.

Approved: April 04, 2014



Sample Name: L1304152411 Acquired: 4/3/2014 10:24:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469060-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**.02627**	**.00247**	**.07886**	**.01095**	**.00002**	**34.205**	**.00028**
Stddev	.00017	.00995	.00277	.00055	.00022	.00002	.041	.00012
%RSD	119.52	37.892	112.20	.69749	2.0287	101.36	.11923	43.048
#1	.00019	.02864	.00006	.07825	.01079	.00004	34.226	.00031
#2	.00028	.01535	.00185	.07931	.01120	.00000	34.158	.00038
#3	-.00005	.03483	.00549	.07903	.01086	.00003	34.231	.00015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00047**	**.00030**	**.00184**	**.02228**	**.93058**	**.00485**	**5.1537**	**.13593**
Stddev	.00011	.00013	.00018	.00167	.03280	.00102	.0566	.00424
%RSD	23.237	42.840	9.9110	7.5043	3.5244	20.987	1.0991	3.1155
#1	.00060	.00025	.00204	.02136	.92391	.00451	5.0978	.13106
#2	.00044	.00021	.00179	.02127	.90163	.00405	5.1524	.13806
#3	.00039	.00045	.00169	.02421	.96620	.00600	5.2110	.13868
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00606**	**45.859**	**.00045**	**.00704**	**.00020**	**-.00007**	**.00280**	**5.0505**
Stddev	.00016	.106	.00058	.00543	.00100	.00269	.00210	.0056
%RSD	2.6220	.23132	130.34	77.136	493.32	3601.1	74.933	.11194
#1	.00588	45.928	.00094	.00208	-.00082	.00102	.00336	5.0440
#2	.00617	45.737	-.00020	.01283	.00118	-.00314	.00456	5.0539
#3	.00614	45.912	.00060	.00619	.00025	.00190	.00048	5.0536
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1304152411 Acquired: 4/3/2014 10:24:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469060-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**.13404**	**-.00119**	**-.00180**	**.00042**	**.00575**	**.37399**
Stddev	.00039	.00034	.00085	.00135	.00036	.00007	.96062
%RSD	259.29	.25571	71.134	75.006	86.015	1.1556	256.86
#1	-.00012	.13443	-.00036	-.00238	.00022	.00574	1.4793
#2	-.00003	.13382	-.00116	-.00276	.00021	.00570	-.25981
#3	.00060	.13386	-.00206	-.00026	.00084	.00583	-.09747
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19696.**	**21534.**
Stddev	47.	359.
%RSD	.23671	1.6666
#1	19749.	21923.
#2	19678.	21464.
#3	19661.	21216.

Approved: April 04, 2014

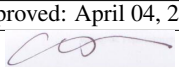
Sample Name: L1304152411MS Acquired: 4/3/2014 10:27:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469060-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.19828**	**4.8929**	**.19751**	**1.0781**	**.48384**	**.02490**	**36.432**	**.02487**
Stddev	.00117	.0651	.00095	.0059	.00244	.00011	.211	.00010
%RSD	.59085	1.3309	.47873	.54403	.50515	.44489	.57866	.40376
#1	.19693	4.8419	.19802	1.0713	.48169	.02485	36.188	.02482
#2	.19882	4.9663	.19810	1.0809	.48333	.02502	36.549	.02481
#3	.19908	4.8705	.19642	1.0820	.48650	.02482	36.557	.02499
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09969**	**.24638**	**.24755**	**1.9618**	**25.043**	**.48853**	**9.5222**	**.38328**
Stddev	.00014	.00073	.00156	.0126	.102	.00356	.1114	.01246
%RSD	.13683	.29747	.63170	.64352	.40917	.72894	1.1705	3.2513
#1	.09967	.24554	.24680	1.9558	24.959	.48549	9.4633	.38086
#2	.09983	.24684	.24935	1.9763	25.157	.48765	9.6508	.39678
#3	.09956	.24677	.24651	1.9534	25.012	.49245	9.4526	.37221
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49990**	**67.178**	**.24768**	**.00883**	**.24914**	**.59119**	**.20011**	**7.1252**
Stddev	.00152	.345	.00050	.00183	.00316	.00430	.00122	.0191
%RSD	.30392	.51363	.20092	20.666	1.2693	.72665	.60898	.26792
#1	.50022	66.793	.24711	.00732	.24889	.59438	.20084	7.1034
#2	.50123	67.285	.24793	.01086	.25243	.59287	.19870	7.1338
#3	.49825	67.457	.24800	.00832	.24612	.58630	.20079	7.1385
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1304152411MS Acquired: 4/3/2014 10:27:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469060-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.46333**	**.60245**	**.47828**	**.24847**	**.49459**	**.49431**	**1.1031**
Stddev	.00530	.00316	.00363	.00354	.00135	.00108	.3035
%RSD	1.1430	.52501	.75880	1.4256	.27303	.21786	27.519
#1	.46590	.59909	.47461	.25036	.49304	.49307	.87426
#2	.46685	.60290	.47835	.25066	.49551	.49483	.98754
#3	.45724	.60536	.48187	.24438	.49522	.49502	1.4474
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19487.**	**20879.**
Stddev	27.	685.
%RSD	.13729	3.2811
#1	19492.	20932.
#2	19459.	20169.
#3	19511.	21536.

Approved: April 04, 2014

Sample Name: L1304152411MSD Acquired: 4/3/2014 10:31:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469060-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.19909**	**4.9772**	**.19919**	**1.0845**	**.49196**	**.02518**	**39.146**	**.02531**
Stddev	.00139	.0549	.00090	.0027	.00663	.00010	.388	.00001
%RSD	.69959	1.1030	.44947	.24888	1.3477	.40179	.99138	.04048
#1	.20066	4.9480	.19828	1.0874	.49656	.02530	39.242	.02530
#2	.19860	5.0405	.20007	1.0820	.49497	.02513	39.477	.02532
#3	.19800	4.9431	.19923	1.0842	.48436	.02513	38.719	.02531
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10080**	**.24903**	**.24992**	**1.9914**	**25.526**	**.49633**	**9.9998**	**.38270**
Stddev	.00028	.00153	.00076	.0199	.237	.00778	.0965	.00366
%RSD	.27342	.61469	.30418	1.0010	.93014	1.5680	.96536	.95723
#1	.10103	.25074	.25074	2.0052	25.595	.49889	10.014	.37847
#2	.10088	.24854	.24977	2.0005	25.721	.50250	10.088	.38465
#3	.10050	.24779	.24924	1.9685	25.261	.48758	9.8968	.38497
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50493**	**70.860**	**.24893**	**.01043**	**.25196**	**.59915**	**.20159**	**7.4635**
Stddev	.00135	1.048	.00075	.00235	.00130	.00180	.00379	.0033
%RSD	.26810	1.4785	.30138	22.549	.51776	.30025	1.8801	.04367
#1	.50549	71.631	.24815	.00966	.25061	.59893	.20576	7.4601
#2	.50591	71.281	.24965	.01307	.25322	.60105	.19834	7.4666
#3	.50338	69.667	.24900	.00856	.25204	.59748	.20068	7.4637
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1304152411MSD Acquired: 4/3/2014 10:31:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469060-05

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.47336**	**.62179**	**.48682**	**.25376**	**.49528**	**.50254**	**.50658**
Stddev	.00083	.00639	.00480	.00008	.00154	.00109	.41489
%RSD	.17570	1.0277	.98562	.03206	.31080	.21656	81.900
#1	.47256	.62278	.48954	.25368	.49706	.50251	.13707
#2	.47422	.62763	.48964	.25377	.49438	.50365	.42727
#3	.47329	.61496	.48128	.25384	.49441	.50147	.95540
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19323.**	**21186.**
Stddev	30.	251.
%RSD	.15763	1.1844
#1	19288.	21474.
#2	19335.	21062.
#3	19345.	21020.

Approved: April 04, 2014

Sample Name: L1403135201PS Acquired: 4/3/2014 10:34:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469158-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20343**	**5.1133**	**.19746**	**1.0386**	**.49216**	**.02571**	**26.222**	**.02515**
Stddev	.00286	.0081	.00244	.0141	.00007	.00038	.060	.00020
%RSD	1.4062	.15754	1.2370	1.3551	.01418	1.4833	.22757	.79344
#1	.20013	5.1108	.19707	1.0224	.49210	.02527	26.172	.02535
#2	.20493	5.1223	.20008	1.0475	.49214	.02594	26.206	.02516
#3	.20523	5.1067	.19524	1.0460	.49224	.02592	26.288	.02495
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10149**	**.25683**	**.25425**	**2.2559**	**26.547**	**.49352**	**8.4520**	**.32555**
Stddev	.00094	.00398	.00121	.0053	.027	.00117	.0555	.00305
%RSD	.92418	1.5486	.47554	.23608	.10337	.23670	.65718	.93619
#1	.10221	.25226	.25508	2.2497	26.578	.49217	8.3879	.32213
#2	.10182	.25945	.25481	2.2590	26.526	.49429	8.4838	.32656
#3	.10043	.25879	.25287	2.2589	26.536	.49408	8.4843	.32796
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50234**	**27.992**	**.25309**	**.01607**	**.25681**	**.60967**	**.20145**	**4.2706**
Stddev	.00443	.090	.00204	.00314	.00177	.00626	.00120	.0326
%RSD	.88276	.32017	.80611	19.513	.68973	1.0262	.59590	.76283
#1	.50479	28.035	.25451	.01336	.25476	.61199	.20200	4.2933
#2	.50501	28.052	.25401	.01950	.25771	.61443	.20007	4.2852
#3	.49722	27.889	.25075	.01533	.25794	.60258	.20228	4.2333
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403135201PS Acquired: 4/3/2014 10:34:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469158-03

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00057**	**.55923**	**.49386**	**.25767**	**.50786**	**.51258**	**1.8545**
Stddev	.00027	.00322	.00127	.00200	.00686	.00343	.4327
%RSD	47.692	.57508	.25729	.77584	1.3508	.66987	23.332
#1	.00028	.55780	.49294	.25810	.49996	.51420	1.7408
#2	.00061	.55697	.49531	.25942	.51135	.51490	1.4900
#3	.00083	.56291	.49334	.25549	.51227	.50863	2.3326
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19606.**	**21212.**
Stddev	102.	39.
%RSD	.51773	.18204
#1	19694.	21247.
#2	19495.	21171.
#3	19629.	21219.

Approved: April 04, 2014

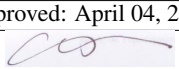
Sample Name: L1403135201SDL Acquired: 4/3/2014 10:37:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469158-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00001**	**.04204**	**.00105**	**.00717**	**.00256**	**.00003**	**4.5838**	**.00000**
Stddev	.00076	.01141	.00044	.00026	.00026	.00003	.0191	.0000
%RSD	8021.7	27.148	41.618	3.6516	10.134	105.17	.41721	909.66
#1	.00040	.02898	.00091	.00717	.00257	.00005	4.5701	.00002
#2	-.00087	.04704	.00154	.00690	.00230	.00000	4.5758	.00001
#3	.00049	.05011	.00070	.00743	.00282	.00003	4.6057	-.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00015**	**.00023**	**.00071**	**.06422**	**.43392**	**-.00028**	**.75059**	**.01434**
Stddev	.00009	.00020	.00020	.00510	.01374	.00090	.01073	.00029
%RSD	58.481	87.542	27.812	7.9461	3.1662	324.55	1.4289	1.9896
#1	-.00011	.00022	.00089	.06461	.44356	-.00128	.74446	.01434
#2	-.00008	.00044	.00050	.06912	.44001	-.00004	.76297	.01406
#3	-.00025	.00004	.00073	.05894	.41819	.00048	.74433	.01463
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**.71746**	**-.00041**	**.00233**	**-.00158**	**.00068**	**-.00091**	**.40304**
Stddev	.00015	.02008	.00094	.00619	.00150	.00011	.00101	.01401
%RSD	79.837	2.7984	226.41	265.41	94.981	15.860	110.97	3.4757
#1	.00034	.70931	-.00082	-.00415	-.00007	.00055	-.00048	.40637
#2	.00016	.70274	-.00107	.00817	-.00159	.00075	-.00018	.41507
#3	.00005	.74033	.00066	.00297	-.00306	.00072	-.00206	.38766
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403135201SDL Acquired: 4/3/2014 10:37:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469158-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**.01523**	**.00048**	**-.00112**	**-.00019**	**.00360**	**.53711**
Stddev	.00014	.00023	.00100	.00075	.00028	.00002	.98682
%RSD	78.899	1.4921	209.31	67.286	145.85	.50206	183.73
#1	.00018	.01496	.00053	-.00039	-.00002	.00358	.86367
#2	.00030	.01535	-.00055	-.00189	-.00004	.00361	-.57160
#3	.00003	.01536	.00146	-.00108	-.00051	.00360	1.3193
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20161.**	**21491.**
Stddev	269.	108.
%RSD	1.3340	.50268
#1	20379.	21561.
#2	19861.	21545.
#3	20244.	21366.

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 10:41:28 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40051**	**10.061**	**.40216**	**.51177**	**.97245**	**.05112**	**10.021**
Stddev	.00368	.035	.00224	.00690	.00218	.00056	.014
%RSD	.91915	.34737	.55804	1.3490	.22457	1.0985	.14346
#1	.39728	10.067	.40181	.50744	.97420	.05053	10.021
#2	.39974	10.093	.40011	.50813	.97315	.05117	10.036
#3	.40452	10.024	.40456	.51973	.97000	.05165	10.007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05019**	**.20408**	**.50780**	**.50657**	**3.9257**	**50.016**	**.97756**
Stddev	.00029	.00084	.00681	.00252	.0069	.107	.00560
%RSD	.57006	.41165	1.3403	.49735	.17515	.21455	.57258
#1	.05001	.20345	.50044	.50658	3.9307	49.897	.98344
#2	.05003	.20377	.50908	.50404	3.9178	50.106	.97695
#3	.05052	.20504	.51387	.50908	3.9285	50.046	.97230
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.8994**	**.50271**	**.99066**	**47.908**	**.50345**	**9.9962**	**.50413**
Stddev	.0347	.00757	.00609	.176	.00179	.0483	.00206
%RSD	.35087	1.5056	.61477	.36837	.35580	.48350	.40797
#1	9.8708	.49733	.98754	48.103	.50230	9.9930	.50446
#2	9.8893	.49943	.98677	47.862	.50253	9.9495	.50194
#3	9.9380	.51136	.99768	47.760	.50551	10.046	.50601
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

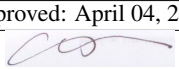
Sample Name: CCV Acquired: 4/3/2014 10:41:28 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.1967**	**.41126**	**4.9943**	**1.0299**	**1.0186**	**.97994**	**.50557**
Stddev	.0043	.00462	.0390	.0031	.0031	.00246	.00249
%RSD	.35846	1.1230	.78005	.29997	.30103	.25110	.49261
#1	1.1964	.41123	4.9890	1.0269	1.0160	.98279	.50567
#2	1.1926	.40665	4.9583	1.0298	1.0220	.97849	.50302
#3	1.2011	.41589	5.0357	1.0330	1.0178	.97856	.50800
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.98977**	**1.0185**	F **1.1388**
Stddev	.01007	.0045	.7335
%RSD	1.0172	.44330	64.411
#1	.98031	1.0134	1.0142
#2	.98864	1.0217	1.9267
#3	1.0004	1.0206	.47558
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19872.**	**21822.**
Stddev	136.	138.
%RSD	.68277	.63311
#1	19982.	21959.
#2	19720.	21825.
#3	19913.	21682.

Approved: April 04, 2014



Sample Name: CCB Acquired: 4/3/2014 10:44:44 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**.00649**	**.00100**	**.00396**	**.00072**	**.00004**	**.00335**
Stddev	.00032	.01163	.00069	.00096	.00054	.00002	.00212
%RSD	2971.6	179.32	68.862	24.248	75.951	51.847	63.151
#1	-.00034	.01747	.00027	.00500	.00087	.00002	.00120
#2	.00029	.00768	.00164	.00374	.00117	.00005	.00343
#3	.00002	-.00569	.00109	.00312	.00011	.00007	.00543
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**.00001**	**-.00013**	**.00044**	**-.00124**	**-.00758**	**.00139**
Stddev	.00012	.00013	.00003	.00063	.00372	.01910	.00138
%RSD	265.40	1513.0	20.165	142.31	300.78	252.00	99.100
#1	-.00009	.00009	-.00016	.00103	-.00538	.01448	-.00017
#2	.00014	.00007	-.00012	-.00023	-.00016	-.01881	.00245
#3	.00008	-.00014	-.00011	.00053	.00182	-.01841	.00190
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.02359**	**.00001**	**-.00001**	**.01001**	**-.00095**	**-.00402**	**-.00054**
Stddev	.01052	.00003	.00027	.00090	.00018	.00142	.00063
%RSD	44.618	336.93	3322.1	9.0030	18.883	35.270	115.69
#1	-.01875	.00000	-.00014	.01087	-.00081	-.00268	-.00020
#2	-.03566	.00005	.00030	.00907	-.00115	-.00387	-.00016
#3	-.01635	-.00002	-.00019	.01010	-.00088	-.00550	-.00126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/3/2014 10:44:44 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00040**	**-.00029**	**-.00034**	**.00033**	**.00018**	**-.00009**	**.00009**
Stddev	.00053	.00041	.00095	.00034	.00014	.00056	.00232
%RSD	130.93	142.59	280.64	103.84	78.666	603.39	2470.3
#1	-.00004	-.00064	-.00037	.00005	.00033	-.00004	-.00258
#2	.00099	.00016	-.00127	.00072	.00014	-.00068	.00151
#3	.00026	-.00038	.00063	.00022	.00006	.00044	.00135
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00004**	**.00083**	F **.31842**
Stddev	.00015	.00005	.45405
%RSD	374.54	5.5101	142.59
#1	-.00013	.00081	.11559
#2	-.00012	.00079	.00115
#3	.00013	.00088	.83853
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20158.**	**21478.**
Stddev	419.	103.
%RSD	2.0774	.47893
#1	19683.	21540.
#2	20320.	21359.
#3	20472.	21536.

Approved: April 04, 2014

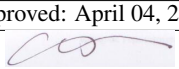
Sample Name: PBW 24 Acquired: 4/3/2014 10:48:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469397-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**-.00986**	**.00062**	**.00294**	**.00006**	**.00003**	**.03675**	**.00014**
Stddev	.00028	.00815	.00141	.00022	.00017	.00004	.00965	.00001
%RSD	142.82	82.684	227.28	7.5506	259.19	148.52	26.249	9.5519
#1	-.00011	-.01828	-.00025	.00268	-.00011	-.00001	.04629	.00015
#2	.00025	-.00201	.00224	.00305	.00022	.00003	.03697	.00015
#3	.00045	-.00928	-.00014	.00307	.00008	.00007	.02700	.00013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00032**	**.00010**	**.00043**	**.00538**	**.01477**	**.00009**	**.00412**	**.00028**
Stddev	.00006	.00017	.00048	.00278	.03372	.00116	.01808	.00009
%RSD	20.307	162.25	111.67	51.674	228.29	1289.2	438.70	31.170
#1	-.00038	-.00006	.00010	.00767	.00403	.00143	-.01279	.00023
#2	-.00030	.00027	.00099	.00619	.05255	-.00067	.02318	.00023
#3	-.00026	.00010	.00021	.00229	-.01227	-.00049	.00197	.00038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**-.00228**	**-.00014**	**-.00107**	**-.00019**	**.00060**	**.00078**	**-.00260**
Stddev	.00008	.00921	.00053	.00458	.00120	.00252	.00174	.00040
%RSD	415.89	404.82	371.17	425.96	625.51	422.28	223.91	15.486
#1	.00007	.00419	.00046	.00350	-.00153	.00305	.00261	-.00300
#2	-.00005	.00180	-.00051	-.00108	.00017	-.00199	.00057	-.00260
#3	-.00008	-.01282	-.00037	-.00565	.00078	.00072	-.00085	-.00220
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: PBW 24 Acquired: 4/3/2014 10:48:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469397-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00063**	**.00008**	**-.00076**	**-.00146**	**-.00002**	**.00277**	**.10174**
Stddev	.00024	.00009	.00130	.00131	.00023	.00011	.35773
%RSD	38.262	109.07	170.76	89.840	1455.7	3.9344	351.62
#1	.00037	-.00002	-.00018	-.00089	-.00026	.00266	-.30334
#2	.00068	.00010	.00015	-.00296	.00019	.00276	.23425
#3	.00085	.00015	-.00225	-.00053	.00002	.00287	.37430
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19742.**	**21579.**
Stddev	72.	485.
%RSD	.36706	2.2488
#1	19684.	21870.
#2	19720.	21848.
#3	19823.	21019.

Approved: April 04, 2014

Sample Name: LCSW 24 Acquired: 4/3/2014 10:52:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469397-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20299**	**5.0760**	**.19892**	**1.0247**	**.49794**	**.02534**	**5.1107**
Stddev	.00037	.0145	.00156	.0008	.00222	.00022	.0216
%RSD	.18335	.28521	.78248	.07856	.44649	.87661	.42246
#1	.20288	5.0695	.20012	1.0238	.49781	.02557	5.0882
#2	.20268	5.0926	.19948	1.0252	.50022	.02534	5.1312
#3	.20340	5.0660	.19717	1.0251	.49578	.02512	5.1128
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02561**	**.10384**	**.25514**	**.25855**	**2.0402**	**25.145**	**.50450**
Stddev	.00009	.00027	.00071	.00014	.0077	.054	.00178
%RSD	.36423	.26359	.27878	.05492	.37775	.21325	.35262
#1	.02551	.10381	.25546	.25865	2.0346	25.091	.50419
#2	.02565	.10413	.25563	.25839	2.0490	25.198	.50641
#3	.02568	.10359	.25432	.25862	2.0370	25.145	.50289
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.0810**	**.26316**	**.51200**	**24.936**	**.25818**	F **-.00589**	**.26083**
Stddev	.0093	.00063	.00118	.116	.00115	.00338	.00197
%RSD	.18314	.23933	.23138	.46590	.44434	57.343	.75712
#1	5.0889	.26379	.51194	25.007	.25808	-.00215	.25902
#2	5.0833	.26253	.51322	25.000	.25937	-.00683	.26055
#3	5.0708	.26315	.51085	24.802	.25708	-.00871	.26294
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

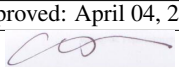
Sample Name: LCSW 24 Acquired: 4/3/2014 10:52:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469397-03

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.62080**	**.20434**	**2.5930**	**.00909**	**.50442**	**.49905**	**.26321**
Stddev	.00147	.00089	.0138	.00035	.00223	.00173	.00140
%RSD	.23730	.43661	.53142	3.8614	.44177	.34611	.53257
#1	.62211	.20400	2.5802	.00870	.50252	.49856	.26201
#2	.61921	.20535	2.6076	.00921	.50687	.50096	.26287
#3	.62107	.20366	2.5914	.00937	.50386	.49761	.26475
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.50367**	**.51322**	**10.940**
Stddev	.00125	.00059	.247
%RSD	.24767	.11533	2.2550
#1	.50400	.51320	11.219
#2	.50229	.51382	10.850
#3	.50472	.51264	10.751
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19689.**	**21093.**
Stddev	32.	42.
%RSD	.16430	.19784
#1	19658.	21047.
#2	19687.	21104.
#3	19723.	21128.

Approved: April 04, 2014



Sample Name: FBLK1 24 Acquired: 4/3/2014 10:55:24 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469308-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00030**	**.00608**	**.00084**	**.00440**	**.00056**	**-.00001**	**.00798**
Stddev	.00039	.02367	.00140	.00017	.00047	.00000	.00705
%RSD	128.51	389.58	165.87	3.9710	82.981	72.156	88.300
#1	-.00054	.02470	-.00071	.00439	.00002	-.00001	.00402
#2	-.00051	-.02056	.00200	.00423	.00084	-.00001	.00380
#3	.00015	.01409	.00124	.00457	.00082	.00000	.01612
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**-.00047**	**.00020**	**.00348**	**.00992**	**.01893**	**-.00002**
Stddev	.00004	.00008	.00054	.00018	.00149	.02461	.00133
%RSD	36.652	16.768	273.41	5.0650	15.051	129.99	8002.3
#1	.00009	-.00046	.00011	.00333	.00909	.02739	-.00107
#2	.00010	-.00039	.00078	.00343	.00903	-.00879	-.00046
#3	.00017	-.00055	-.00029	.00367	.01165	.03819	.00148
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00381**	**.00026**	**.00003**	**154.91**	**-.00007**	F **-.00367**	**-.00133**
Stddev	.01082	.00008	.00006	.34	.00029	.00122	.00062
%RSD	283.65	31.209	174.88	.22253	405.52	33.299	46.865
#1	-.00791	.00035	.00010	155.15	-.00030	-.00372	-.00121
#2	.00596	.00027	.00001	155.07	-.00017	-.00486	-.00077
#3	.01340	.00018	-.00001	154.52	.00026	-.00242	-.00200
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

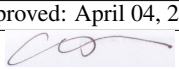
Sample Name: FBLK1 24 Acquired: 4/3/2014 10:55:24 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469308-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00064**	**.00279**	**.00086**	**.00070**	**.00007**	**-.00133**	**-.00245**
Stddev	.00190	.00107	.00096	.00037	.00013	.00033	.00080
%RSD	297.63	38.553	111.80	52.524	176.00	24.992	32.659
#1	-.00121	.00198	.00001	.00081	.00017	-.00154	-.00280
#2	.00258	.00401	.00191	.00029	-.00008	-.00149	-.00153
#3	.00055	.00237	.00066	.00101	.00013	-.00094	-.00301
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00010**	**.00381**	**.02286**
Stddev	.00030	.00009	.31930
%RSD	310.00	2.4612	1397.0
#1	.00019	.00371	-.10551
#2	-.00041	.00389	-.21229
#3	-.00007	.00383	.38636
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19596.**	**21002.**
Stddev	104.	194.
%RSD	.52859	.92568
#1	19483.	21194.
#2	19618.	21006.
#3	19687.	20805.

Approved: April 04, 2014



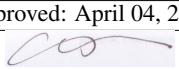
Sample Name: FBLK2 24 Acquired: 4/3/2014 10:58:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469308-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00007**	**.01903**	**-.00075**	**.00221**	**.00016**	**.00004**	**.01638**
Stddev	.00010	.01332	.00094	.00071	.00007	.00004	.01047
%RSD	154.23	69.989	125.43	32.345	47.229	88.760	63.915
#1	.00000	.02603	-.00176	.00284	.00024	.00003	.01329
#2	-.00019	.00367	-.00059	.00235	.00009	.00001	.02806
#3	-.00001	.02740	.00010	.00143	.00015	.00008	.00781
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00016**	**-.00029**	**.00052**	**.00092**	**.00140**	**.02274**	**-.00025**
Stddev	.00012	.00013	.00059	.00021	.00354	.03747	.00089
%RSD	80.218	44.247	111.94	22.822	253.51	164.78	356.39
#1	.00028	-.00040	.00111	.00073	-.00247	.01469	-.00112
#2	.00015	-.00015	.00053	.00090	.00446	-.01005	-.00030
#3	.00003	-.00030	-.00006	.00115	.00220	.06359	.00067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00454**	**.00036**	**.00020**	**.01625**	**-.00030**	F **-.00340**	**-.00104**
Stddev	.03854	.00009	.00012	.02617	.00019	.00785	.00097
%RSD	849.80	24.067	58.956	160.98	65.180	230.75	93.218
#1	.04384	.00029	.00024	.03406	-.00009	-.01237	-.00122
#2	-.03319	.00034	.00007	.02849	-.00034	.00221	-.00191
#3	.00296	.00046	.00029	-.01379	-.00047	-.00004	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014



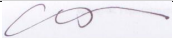
Sample Name: FBLK2 24 Acquired: 4/3/2014 10:58:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469308-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00140**	**.00176**	**-.00190**	**.00094**	**.00018**	**-.00138**	**-.00352**
Stddev	.00059	.00130	.00148	.00018	.00008	.00092	.00024
%RSD	42.365	74.093	77.816	19.382	45.156	66.737	6.8345
#1	.00132	.00063	-.00231	.00113	.00009	-.00105	-.00380
#2	.00085	.00146	-.00314	.00091	.00021	-.00241	-.00337
#3	.00203	.00318	-.00026	.00077	.00025	-.00066	-.00340
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00005**	**.00328**	**.07270**
Stddev	.00026	.00014	.92285
%RSD	509.55	4.2471	1269.5
#1	.00025	.00342	1.0322
#2	-.00019	.00328	-.00552
#3	-.00021	.00314	-.80856
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19836.**	**21496.**
Stddev	33.	283.
%RSD	.16505	1.3176
#1	19815.	21788.
#2	19819.	21223.
#3	19874.	21476.

Approved: April 04, 2014



Sample Name: L1403168801 Acquired: 4/3/2014 11:02:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00033**	**.01503**	**.00196**	**.01020**	**.00159**	**.00004**	**.70072**	**.00019**
Stddev	.00066	.03475	.00090	.00021	.00024	.00002	.00972	.00008
%RSD	202.13	231.22	45.898	2.0737	14.913	54.485	1.3866	41.569
#1	-.00103	-.01567	.00159	.01042	.00136	.00007	.71041	.00013
#2	.00029	.00801	.00299	.01000	.00157	.00003	.69098	.00017
#3	-.00025	.05275	.00131	.01017	.00183	.00002	.70078	.00028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01231**	**.00125**	**.01758**	**.01049**	**.22298**	**-.00034**	**.08266**	**.01524**
Stddev	.00005	.00010	.00048	.00351	.05341	.00029	.00442	.00032
%RSD	.41164	7.8623	2.7594	33.480	23.955	86.204	5.3455	2.1125
#1	.01235	.00115	.01760	.01000	.16211	-.00009	.08589	.01488
#2	.01232	.00134	.01805	.00726	.24477	-.00066	.08447	.01533
#3	.01225	.00126	.01708	.01423	.26205	-.00026	.07762	.01550
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00060**	**2.7377**	**.00736**	**-.00181**	**-.00255**	**.00077**	**.00047**	**.12597**
Stddev	.00002	.0186	.00006	.00187	.00166	.00065	.00236	.00251
%RSD	3.1484	.67870	.87662	103.52	65.091	84.576	506.47	1.9945
#1	.00058	2.7361	.00732	-.00378	-.00415	.00030	-.00210	.12520
#2	.00060	2.7571	.00732	-.00005	-.00268	.00151	.00254	.12878
#3	.00062	2.7200	.00743	-.00159	-.00083	.00049	.00095	.12393
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403168801 Acquired: 4/3/2014 11:02:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00056**	**.00133**	**-.00092**	**-.00089**	**.00024**	**1.1704**	**.03831**
Stddev	.00022	.00005	.00130	.00182	.00033	.0069	.75606
%RSD	38.520	3.5301	141.60	204.57	139.34	.59317	1973.6
#1	.00031	.00128	.00033	-.00142	.00018	1.1784	.77242
#2	.00067	.00134	-.00081	.00114	.00059	1.1660	-.73794
#3	.00071	.00137	-.00226	-.00238	-.00006	1.1669	.08045
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20283.**	**21374.**
Stddev	171.	336.
%RSD	.84518	1.5739
#1	20085.	21762.
#2	20373.	21168.
#3	20390.	21192.

Approved: April 04, 2014

Sample Name: L1403168802 Acquired: 4/3/2014 11:06:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**.01859**	**.00097**	**.01257**	**.00080**	**.00005**	**.19599**
Stddev	.0002	.02940	.00065	.00125	.00036	.00002	.01070
%RSD	92538.	158.15	66.606	9.9128	45.267	32.543	5.4608
#1	-.00018	.05104	.00171	.01154	.00079	.00004	.20806
#2	.00012	-.00625	.00070	.01396	.00045	.00005	.19227
#3	.00006	.01097	.00051	.01222	.00117	.00007	.18765
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**.00425**	**.00052**	**.00601**	**.00823**	**.02879**	**.00030**
Stddev	.00004	.00008	.00041	.00039	.00187	.04467	.00051
%RSD	43.738	1.9357	77.653	6.4332	22.672	155.15	172.20
#1	.00008	.00421	.00048	.00564	.00930	-.01723	.00004
#2	.00006	.00419	.00014	.00599	.00931	.03163	-.00004
#3	.00013	.00434	.00095	.00641	.00607	.07198	.00088
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02753**	**.00323**	**.00052**	**2.6904**	**.00316**	F **-.00534**	**-.00117**
Stddev	.02103	.00011	.00016	.0098	.00050	.00048	.00052
%RSD	76.403	3.4800	30.734	.36383	15.724	9.0178	44.754
#1	.01158	.00310	.00045	2.7008	.00372	-.00509	-.00107
#2	.01963	.00328	.00041	2.6813	.00298	-.00504	-.00173
#3	.05136	.00331	.00071	2.6892	.00278	-.00590	-.00070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

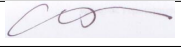
Sample Name: L1403168802 Acquired: 4/3/2014 11:06:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00061**	**-.00124**	**.09055**	**.00127**	**.00204**	**.00077**	**-.00028**
Stddev	.00195	.00348	.00171	.00001	.00005	.00047	.00034
%RSD	321.48	280.91	1.8873	.58269	2.2991	61.088	120.81
#1	-.00084	.00249	.09038	.00126	.00202	.00119	-.00016
#2	.00283	-.00439	.08893	.00127	.00209	.00085	-.00067
#3	-.00016	-.00181	.09234	.00128	.00200	.00026	-.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00043**	**.35047**	**3.0005**
Stddev	.00019	.00101	.6591
%RSD	44.906	.28953	21.967
#1	.00041	.34930	2.8108
#2	.00063	.35104	3.7337
#3	.00024	.35108	2.4570
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20266.**	**21861.**
Stddev	19.	440.
%RSD	.09612	2.0146
#1	20256.	22317.
#2	20288.	21827.
#3	20253.	21438.

Approved: April 04, 2014



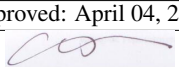
Sample Name: L1403168803 Acquired: 4/3/2014 11:09:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00007**	**.02683**	**-.00062**	**.01179**	**.00050**	**.00003**	**.15897**
Stddev	.00037	.01851	.00162	.00075	.00011	.00002	.00952
%RSD	543.34	68.990	260.31	6.3779	22.625	43.503	5.9857
#1	-.00049	.02190	-.00219	.01110	.00061	.00002	.16833
#2	.00015	.04731	.00104	.01259	.00038	.00004	.14930
#3	.00014	.01129	-.00071	.01168	.00050	.00005	.15927
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**.00017**	**.00501**	**.00090**	**.01924**	**-.01481**	**-.00021**
Stddev	.00003	.00006	.00032	.00037	.00611	.02043	.00080
%RSD	35.269	32.253	6.3368	40.714	31.773	137.93	371.76
#1	.00011	.00023	.00496	.00116	.01239	-.03839	.00024
#2	.00005	.00012	.00472	.00048	.02119	-.00231	.00025
#3	.00011	.00016	.00535	.00106	.02413	-.00374	-.00114
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01336**	**.00162**	**.00028**	**2.6982**	**.00282**	**-.00264**	**-.00172**
Stddev	.01609	.00006	.00006	.0143	.00044	.00242	.00156
%RSD	120.39	3.7382	22.948	.53124	15.478	91.667	90.689
#1	.02067	.00157	.00020	2.7114	.00331	-.00016	.00007
#2	.02451	.00169	.00031	2.7002	.00268	-.00500	-.00277
#3	-.00508	.00161	.00031	2.6830	.00247	-.00277	-.00245
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403168803 Acquired: 4/3/2014 11:09:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00210**	**.00177**	**.06939**	**.00035**	**.00037**	**-.00131**	**-.00237**
Stddev	.00039	.00252	.00031	.00016	.00006	.00029	.00147
%RSD	18.547	142.23	.44905	46.935	15.983	21.866	62.293
#1	.00243	.00251	.06914	.00040	.00033	-.00123	-.00387
#2	.00220	-.00104	.06974	.00048	.00043	-.00162	-.00093
#3	.00167	.00384	.06930	.00017	.00034	-.00107	-.00230
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00013**	**.13861**	F **-.11341**
Stddev	.00030	.00040	.51377
%RSD	236.05	.29123	453.01
#1	-.00010	.13839	-.66806
#2	.00002	.13907	-.01842
#3	.00046	.13836	.34623
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20033.**	**21758.**
Stddev	71.	312.
%RSD	.35255	1.4357
#1	19966.	22094.
#2	20026.	21701.
#3	20107.	21477.

Approved: April 04, 2014

Sample Name: L1403168803PS Acquired: 4/3/2014 11:13:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469601-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.19924**	**5.0265**	**.19969**	**1.0135**	**.49039**	**.02490**	**5.2191**
Stddev	.00057	.0082	.00076	.0042	.00287	.00004	.0123
%RSD	.28796	.16328	.37912	.41207	.58467	.17843	.23637
#1	.19927	5.0172	.19887	1.0150	.49353	.02493	5.2253
#2	.19865	5.0327	.20037	1.0088	.48972	.02491	5.2270
#3	.19979	5.0295	.19982	1.0167	.48792	.02485	5.2049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02542**	**.10378**	**.25548**	**.25722**	**2.0219**	**25.070**	**.49586**
Stddev	.00003	.00028	.00109	.00067	.0115	.096	.00066
%RSD	.12343	.26707	.42713	.26071	.56739	.38209	.13288
#1	.02539	.10410	.25634	.25674	2.0350	25.180	.49659
#2	.02545	.10359	.25425	.25694	2.0170	25.012	.49566
#3	.02542	.10365	.25584	.25799	2.0136	25.017	.49532
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.0336**	**.26125**	**.50861**	**26.956**	**.25891**	F **-.00601**	**.26065**
Stddev	.0483	.00550	.00008	.076	.00091	.00158	.00145
%RSD	.95955	2.1047	.01551	.28055	.35247	26.303	.55802
#1	5.0338	.25777	.50852	27.043	.25992	-.00751	.26102
#2	4.9852	.25839	.50866	26.913	.25814	-.00436	.26187
#3	5.0818	.26759	.50866	26.911	.25869	-.00614	.25904
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

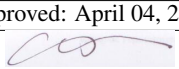
Sample Name: L1403168803PS Acquired: 4/3/2014 11:13:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469601-03

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.61555**	**.20306**	**2.6796**	**.00078**	**.50447**	**.49135**	**.25996**
Stddev	.00246	.00070	.0173	.00030	.00206	.00118	.00172
%RSD	.39980	.34688	.64665	38.971	.40875	.24081	.66266
#1	.61317	.20227	2.6600	.00061	.50667	.49209	.25934
#2	.61540	.20363	2.6860	.00113	.50415	.48999	.26191
#3	.61808	.20327	2.6929	.00060	.50258	.49198	.25864
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.49417**	**.63754**	**.71871**
Stddev	.00083	.00326	.55405
%RSD	.16862	.51072	77.090
#1	.49513	.63821	1.3268
#2	.49373	.64041	.58694
#3	.49364	.63400	.24242
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19851.**	**21367.**
Stddev	148.	293.
%RSD	.74395	1.3696
#1	19739.	21584.
#2	19796.	21484.
#3	20018.	21035.

Approved: April 04, 2014



Sample Name: L1403168803SDL Acquired: 4/3/2014 11:16:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469601-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00046**	**.01887**	**.00104**	**.00646**	**.00012**	**.00000**	**.04183**	**.00011**
Stddev	.00048	.00489	.00111	.00025	.00003	.00004	.00111	.00011
%RSD	106.10	25.924	107.12	3.8753	28.617	843.38	2.6481	96.822
#1	.00086	.01451	.00051	.00666	.00016	-.00004	.04307	.00024
#2	-.00008	.02416	.00028	.00655	.00012	.00002	.04146	.00006
#3	.00059	.01793	.00231	.00618	.00009	.00003	.04095	.00005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.00127**	**.00030**	**.00490**	**.02999**	**.00010**	**.00213**	**.00040**
Stddev	.00016	.00031	.00044	.00540	.01915	.00062	.00439	.00004
%RSD	159.37	24.322	144.60	110.30	63.867	629.35	205.94	10.054
#1	.00027	.00162	.00065	.00840	.03061	.00051	.00234	.00041
#2	-.00004	.00104	-.00019	.00762	.04883	-.00062	.00641	.00035
#3	.00007	.00115	.00044	-.00132	.01053	.00040	-.00236	.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**.54680**	**-.00045**	**-.00250**	**-.00246**	**-.00025**	**-.00080**	**.01251**
Stddev	.00029	.01505	.00003	.00238	.00117	.00096	.00043	.00092
%RSD	2510.5	2.7528	7.0280	95.075	47.521	379.28	53.753	7.3479
#1	.00032	.55348	-.00043	-.00062	-.00380	-.00074	-.00126	.01318
#2	-.00015	.55736	-.00044	-.00171	-.00195	.00085	-.00072	.01146
#3	-.00021	.52956	-.00049	-.00517	-.00163	-.00086	-.00041	.01288
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403168803SDL Acquired: 4/3/2014 11:16:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469601-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00026**	**.00028**	**-.00199**	**-.00008**	**.00003**	**.02871**	**1.0703**
Stddev	.00036	.00001	.00088	.00145	.00017	.00006	.2800
%RSD	141.51	3.4714	44.089	1834.1	551.47	.20945	26.164
#1	-.00005	.00028	-.00148	-.00174	.00006	.02865	1.2689
#2	.00066	.00029	-.00150	.00094	-.00015	.02872	1.1920
#3	.00016	.00028	-.00301	.00057	.00019	.02877	.75003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20399.**	**22195.**
Stddev	203.	23.
%RSD	.99538	.10394
#1	20537.	22213.
#2	20494.	22203.
#3	20166.	22169.

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 11:20:11 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.39119**	**10.029**	**.40064**	**.50008**	**.96851**	**.04987**	**9.9442**
Stddev	.00105	.026	.00180	.00274	.00657	.00023	.0529
%RSD	.26849	.25792	.44878	.54773	.67851	.45659	.53233
#1	.39168	10.053	.40246	.50233	.97568	.05010	10.002
#2	.39191	10.031	.39887	.50088	.96708	.04985	9.9328
#3	.38999	10.001	.40058	.49703	.96278	.04965	9.8980
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04971**	**.20312**	**.49616**	**.50650**	**3.9228**	**49.809**	**.97018**
Stddev	.00010	.00072	.00187	.00084	.0315	.192	.00457
%RSD	.20857	.35445	.37695	.16523	.80193	.38635	.47071
#1	.04983	.20325	.49754	.50689	3.9586	49.974	.97536
#2	.04968	.20235	.49692	.50553	3.8996	49.855	.96844
#3	.04963	.20377	.49403	.50706	3.9102	49.598	.96674
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.9076**	**.50514**	**.99025**	**47.810**	**.50254**	**10.054**	**.50420**
Stddev	.0463	.00240	.00477	.342	.00062	.056	.00277
%RSD	.46760	.47596	.48121	.71622	.12338	.55684	.54997
#1	9.9600	.50792	.98645	48.153	.50307	9.9890	.50237
#2	9.8910	.50366	.99559	47.809	.50186	10.083	.50285
#3	9.8719	.50386	.98870	47.469	.50270	10.088	.50739
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 11:20:11 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.1939**	**.41223**	**4.9829**	**1.0267**	**1.0099**	**.97389**	**.50356**
Stddev	.0076	.00186	.0152	.0012	.0052	.00354	.00327
%RSD	.63813	.45075	.30517	.12034	.51776	.36301	.64842
#1	1.1897	.41149	4.9802	1.0270	1.0157	.97750	.50119
#2	1.1893	.41435	4.9692	1.0253	1.0084	.97373	.50220
#3	1.2027	.41086	4.9992	1.0277	1.0055	.97044	.50728
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.96705**	**1.0157**	F **.75352**
Stddev	.00445	.0014	.34935
%RSD	.46006	.13309	46.363
#1	.97016	1.0143	1.0877
#2	.96904	1.0160	.39077
#3	.96196	1.0169	.78207
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20162.**	**21579.**
Stddev	59.	55.
%RSD	.29463	.25370
#1	20183.	21523.
#2	20095.	21632.
#3	20209.	21583.

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/3/2014 11:23:28 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00035**	**.00204**	**.00165**	**.00305**	**.00031**	**.00004**	**.00061**	**-.00003**
Stddev	.00017	.00524	.00080	.00106	.00041	.00001	.00384	.00013
%RSD	49.763	257.66	48.239	34.685	135.21	34.556	625.80	449.28
#1	-.00015	.00041	.00204	.00192	.00053	.00004	.00274	-.00018
#2	-.00040	-.00220	.00218	.00319	.00056	.00006	-.00382	.00008
#3	-.00048	.00790	.00074	.00402	-.00017	.00003	.00292	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00014**	**-.00014**	**.00035**	**-.00213**	**-.00343**	**.00086**	**.00207**	**-.00007**
Stddev	.00022	.00014	.00034	.00214	.03530	.00082	.02291	.00005
%RSD	161.28	99.396	98.241	100.54	1029.7	94.954	1108.6	69.767
#1	.00004	.00000	.00017	-.00461	.00729	.00008	-.02144	-.00013
#2	-.00039	-.00027	.00075	-.00097	-.04285	.00079	.02432	-.00002
#3	-.00006	-.00014	.00013	-.00082	.02528	.00172	.00332	-.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**-.01003**	**-.00042**	**-.00151**	**-.00046**	**.00040**	**.00097**	**.00048**
Stddev	.00008	.01013	.00026	.00439	.00022	.00242	.00130	.00111
%RSD	125.35	101.01	63.134	290.69	47.109	602.14	134.32	230.93
#1	.00001	-.01579	-.00061	-.00652	-.00028	.00143	.00013	.00126
#2	.00015	-.01596	-.00012	.00162	-.00071	-.00236	.00247	.00097
#3	.00003	.00167	-.00052	.00037	-.00040	.00213	.00031	-.00079
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/3/2014 11:23:28 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00059**	**.00014**	**-.00073**	**-.00042**	**.00019**	**.00077**	**.09055**
Stddev	.00010	.00001	.00117	.00044	.00017	.00005	.27639
%RSD	17.430	10.800	160.98	106.17	90.427	6.5020	305.23
#1	.00068	.00014	-.00056	-.00081	-.00001	.00072	-.06627
#2	.00062	.00015	-.00197	.00006	.00027	.00082	-.07176
#3	.00048	.00012	.00035	-.00050	.00031	.00078	.40968
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20613.**	**22184.**
Stddev	74.	363.
%RSD	.36033	1.6377
#1	20634.	22013.
#2	20674.	21938.
#3	20530.	22601.

Approved: April 04, 2014

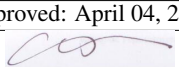
Sample Name: L1403154103 Acquired: 4/3/2014 11:27:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469397-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00050**	**.43666**	**.00396**	**.15497**	**.17812**	**.00029**	**7.2686**	**.00027**
Stddev	.00050	.01667	.00195	.00293	.00041	.00002	.0186	.00002
%RSD	101.26	3.8168	49.327	1.8936	.22831	5.4029	.25588	5.8058
#1	-.00007	.44267	.00546	.15836	.17832	.00031	7.2477	.00028
#2	.00067	.41782	.00175	.15334	.17839	.00029	7.2833	.00029
#3	.00089	.44948	.00466	.15321	.17766	.00028	7.2748	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00094**	**.00145**	**.00712**	**.16343**	**.52063**	**.00813**	**1.4684**	**.07395**
Stddev	.00024	.00032	.00027	.00163	.00596	.00109	.0094	.00071
%RSD	25.133	22.393	3.7411	.99839	1.1443	13.363	.63782	.96664
#1	.00067	.00171	.00684	.16528	.52654	.00881	1.4738	.07315
#2	.00106	.00154	.00717	.16285	.52073	.00688	1.4738	.07451
#3	.00109	.00109	.00736	.16218	.51463	.00870	1.4576	.07420
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00054**	**151.11**	**.00427**	**.00223**	**-.00105**	**.00112**	**.00210**	**.85014**
Stddev	.00030	.47	.00025	.00440	.00124	.00068	.00219	.00380
%RSD	55.794	.31202	5.8055	197.37	118.24	61.040	104.29	.44753
#1	.00029	150.63	.00402	.00726	-.00221	.00186	.00421	.85390
#2	.00087	151.57	.00428	.00034	-.00120	.00052	.00227	.84630
#3	.00046	151.11	.00452	-.00091	.00026	.00097	-.00017	.85023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403154103 Acquired: 4/3/2014 11:27:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469397-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00050**	**.05741**	**.01814**	**-.00262**	**.00240**	**.02090**	**2.9175**
Stddev	.00033	.00091	.00117	.00187	.00015	.00012	.8216
%RSD	66.224	1.5841	6.4614	71.180	6.0661	.57181	28.160
#1	.00081	.05819	.01889	-.00272	.00246	.02103	2.4467
#2	.00015	.05762	.01875	-.00444	.00249	.02081	3.8662
#3	.00054	.05641	.01679	-.00071	.00223	.02085	2.4396
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19484.**	**21403.**
Stddev	181.	200.
%RSD	.92998	.93528
#1	19287.	21633.
#2	19523.	21309.
#3	19643.	21268.

Approved: April 04, 2014

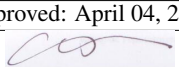
Sample Name: L1403154103MS Acquired: 4/3/2014 11:30:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469397-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20494**	**5.5959**	**.20941**	**1.2144**	**.67669**	**.02621**	**12.402**	**.02564**
Stddev	.00122	.0345	.00029	.0162	.00530	.00020	.042	.00003
%RSD	.59445	.61742	.13627	1.3358	.78301	.74944	.33882	.11535
#1	.20416	5.6358	.20955	1.2098	.67344	.02623	12.364	.02567
#2	.20431	5.5751	.20908	1.2010	.67383	.02600	12.393	.02564
#3	.20634	5.5768	.20959	1.2324	.68280	.02639	12.447	.02561
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10367**	**.25695**	**.26122**	**2.1949**	**25.901**	**.49882**	**6.4751**	**.33536**
Stddev	.00054	.00189	.00033	.0213	.028	.00438	.0378	.00755
%RSD	.52391	.73597	.12504	.97224	.10634	.87753	.58425	2.2516
#1	.10418	.25714	.26134	2.1746	25.869	.49654	6.4693	.33913
#2	.10372	.25498	.26085	2.1930	25.918	.49605	6.5155	.34029
#3	.10310	.25875	.26147	2.2171	25.916	.50387	6.4405	.32667
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.51036**	**182.32**	**.25726**	**-.00017**	**.25579**	**.61513**	**.21109**	**3.9247**
Stddev	.00174	.72	.00030	.00428	.00191	.00625	.00253	.0063
%RSD	.34117	.39595	.11551	2518.7	.74511	1.0155	1.1993	.16182
#1	.51050	182.10	.25759	.00305	.25797	.61767	.21245	3.9248
#2	.51203	181.74	.25715	.00147	.25490	.61970	.21265	3.9311
#3	.50855	183.13	.25703	-.00503	.25449	.60801	.20817	3.9183
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403154103MS Acquired: 4/3/2014 11:30:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469397-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00868**	**.56359**	**.51676**	**.24691**	**.51280**	**.53882**	**16.102**
Stddev	.00021	.00227	.00211	.00283	.00413	.00167	.698
%RSD	2.4702	.40266	.40755	1.1457	.80516	.31074	4.3361
#1	.00845	.56100	.51519	.24826	.51239	.53888	16.877
#2	.00886	.56454	.51593	.24882	.50890	.53712	15.524
#3	.00875	.56523	.51916	.24366	.51712	.54047	15.903
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19316.**	**21089.**
Stddev	113.	527.
%RSD	.58309	2.4994
#1	19375.	20832.
#2	19387.	20739.
#3	19186.	21695.

Approved: April 04, 2014

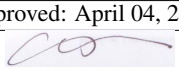
Sample Name: L1403154103MSD Acquired: 4/3/2014 11:34:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469397-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20443**	**5.5801**	**.20708**	**1.2017**	**.67759**	**.02622**	**12.323**	**.02570**
Stddev	.00198	.0525	.00184	.0060	.00164	.00019	.016	.00026
%RSD	.96674	.94025	.88623	.49763	.24206	.71899	.12846	.99729
#1	.20259	5.5241	.20886	1.1954	.67940	.02607	12.305	.02595
#2	.20420	5.6280	.20519	1.2023	.67619	.02616	12.336	.02570
#3	.20652	5.5882	.20720	1.2074	.67718	.02643	12.327	.02544
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10289**	**.25617**	**.26009**	**2.1938**	**25.877**	**.50227**	**6.4739**	**.33425**
Stddev	.00016	.00180	.00071	.0066	.068	.00148	.0839	.00936
%RSD	.15363	.70242	.27272	.29926	.26230	.29429	1.2966	2.7999
#1	.10307	.25529	.26090	2.1892	25.812	.50308	6.3798	.32636
#2	.10283	.25498	.25957	2.1909	25.947	.50056	6.5409	.34459
#3	.10277	.25824	.25981	2.2013	25.873	.50316	6.5011	.33180
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50863**	**183.14**	**.25684**	**.00313**	**.25372**	**.61273**	**.21151**	**3.7918**
Stddev	.00175	.95	.00138	.00198	.00072	.00556	.00251	.0237
%RSD	.34317	.52051	.53868	63.374	.28438	.90801	1.1844	.62515
#1	.51063	182.10	.25706	.00131	.25451	.61876	.21325	3.8181
#2	.50781	183.35	.25536	.00284	.25309	.60779	.20864	3.7852
#3	.50744	183.97	.25810	.00525	.25357	.61165	.21264	3.7721
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403154103MSD Acquired: 4/3/2014 11:34:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469397-05

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00887**	**.55636**	**.51767**	**.24715**	**.51124**	**.53749**	**16.153**
Stddev	.00024	.00070	.00160	.00145	.00268	.00258	.821
%RSD	2.7409	.12599	.30863	.58584	.52426	.47950	5.0799
#1	.00859	.55607	.51848	.24617	.50897	.53491	16.075
#2	.00906	.55586	.51582	.24648	.51055	.53751	17.010
#3	.00894	.55716	.51869	.24882	.51420	.54006	15.374
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18950.**	**20656.**
Stddev	212.	639.
%RSD	1.1168	3.0926
#1	19170.	21279.
#2	18933.	20003.
#3	18748.	20686.

Approved: April 04, 2014

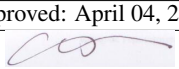
Sample Name: L1403148801 Acquired: 4/3/2014 11:37:24 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment: WG469383-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**-.00328**	**.00134**	**.00863**	**.00061**	**.00000**	**2.9800**	**-.00006**
Stddev	.00049	.05190	.00162	.00138	.00028	.0000	.0264	.00005
%RSD	436.20	1583.1	121.23	16.039	45.114	1418.9	.88734	76.510
#1	.00035	-.04203	.00156	.01001	.00088	.00000	3.0103	-.00008
#2	.00044	-.02349	-.00038	.00863	.00033	-.00003	2.9613	-.00001
#3	-.00045	.05569	.00284	.00724	.00062	.00003	2.9685	-.00010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00013**	**.00015**	**-.00001**	**-.00093**	**.05190**	**.00120**	**.57126**	**.01407**
Stddev	.00020	.00059	.00039	.00104	.03023	.00133	.01043	.00025
%RSD	151.34	389.53	4913.3	112.33	58.239	111.07	1.8254	1.7718
#1	-.00022	-.00047	.00007	.00023	.02349	-.00016	.57526	.01382
#2	.00010	.00072	-.00043	-.00181	.04855	.00251	.55942	.01407
#3	-.00028	.00021	.00034	-.00121	.08367	.00125	.57910	.01432
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**10.489**	**-.00102**	**-.00108**	**-.00156**	**-.00150**	**.00017**	**.01541**
Stddev	.00005	.053	.00073	.00340	.00111	.00073	.00226	.00157
%RSD	74.335	.50517	71.592	314.71	71.309	48.535	1363.5	10.178
#1	.00005	10.535	-.00084	-.00239	-.00273	-.00071	-.00224	.01362
#2	.00003	10.431	-.00182	.00278	-.00143	-.00165	.00224	.01610
#3	.00012	10.502	-.00039	-.00363	-.00052	-.00214	.00050	.01652
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403148801 Acquired: 4/3/2014 11:37:24 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment: WG469383-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00009**	**.03312**	**-.00164**	**-.00054**	**.00007**	**.00081**	**.20416**
Stddev	.00026	.00011	.00102	.00096	.00010	.00011	1.0177
%RSD	299.73	.33772	62.327	178.79	155.08	13.577	498.46
#1	-.00039	.03299	-.00175	-.00074	.00010	.00069	.81844
#2	.00004	.03316	-.00260	-.00138	.00015	.00089	-.97052
#3	.00009	.03320	-.00057	.00051	-.00005	.00086	.76457
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20196.**	**21767.**
Stddev	296.	234.
%RSD	1.4642	1.0753
#1	20299.	22025.
#2	19863.	21710.
#3	20427.	21568.

Approved: April 04, 2014

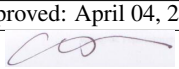
Sample Name: L1403148801DUP Acquired: 4/3/2014 11:40:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment: WG469383-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00026**	**.01257**	**.00135**	**.00481**	**.00054**	**.00001**	**2.8894**	**.00004**
Stddev	.00015	.02440	.00074	.00030	.00038	.00004	.0562	.00011
%RSD	59.790	194.14	55.092	6.1566	70.826	405.13	1.9459	259.27
#1	-.00039	.01750	.00190	.00476	.00051	.00005	2.9439	-.00005
#2	-.00030	-.01392	.00163	.00455	.00018	.00002	2.8927	.00016
#3	-.00009	.03412	.00050	.00513	.00094	-.00003	2.8316	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**.00000**	**.00011**	**.00246**	**.03118**	**-.00082**	**.56681**	**.01345**
Stddev	.00011	.0004	.00035	.00177	.01684	.00066	.02761	.00011
%RSD	135.29	35884.	328.36	71.909	54.031	80.205	4.8716	.80748
#1	-.00001	-.00040	.00027	.00429	.04991	-.00066	.53576	.01350
#2	.00020	.00046	.00036	.00231	.01727	-.00026	.58861	.01353
#3	.00005	-.00007	-.00030	.00077	.02635	-.00155	.57605	.01333
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**10.078**	**-.00065**	**-.00076**	**-.00041**	**-.00031**	**-.00094**	**.01435**
Stddev	.00011	.186	.00058	.00525	.00148	.00058	.00472	.00053
%RSD	48.395	1.8453	89.327	686.97	359.70	185.18	500.72	3.6634
#1	.00014	10.181	-.00005	.00423	.00090	-.00096	-.00402	.01375
#2	.00018	10.190	-.00069	-.00624	-.00012	.00017	.00449	.01473
#3	.00034	9.8635	-.00121	-.00028	-.00201	-.00015	-.00329	.01456
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403148801DUP Acquired: 4/3/2014 11:40:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment: WG469383-05

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00028**	**.03220**	**-.00111**	**-.00064**	**.00008**	**.00094**	**.51044**
Stddev	.00015	.00042	.00044	.00084	.00040	.00010	.24982
%RSD	52.898	1.2930	39.715	129.87	527.85	10.842	48.942
#1	-.00024	.03233	-.00091	.00031	-.00037	.00097	.68586
#2	-.00016	.03254	-.00161	-.00125	.00040	.00102	.62106
#3	-.00044	.03174	-.00080	-.00099	.00019	.00083	.22441
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20074.**	**21835.**
Stddev	256.	157.
%RSD	1.2775	.71923
#1	20327.	22005.
#2	20081.	21695.
#3	19815.	21806.

Approved: April 04, 2014

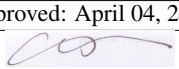
Sample Name: L1403148801MS Acquired: 4/3/2014 11:44:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment: WG469383-06

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00192**	**.05653**	**.00227**	**.01419**	**.00449**	**.00025**	**2.7965**	**.00027**
Stddev	.00016	.00425	.00098	.00048	.00042	.00001	.0083	.00013
%RSD	8.3132	7.5173	43.035	3.3698	9.4457	3.4223	.29755	48.026
#1	.00193	.05424	.00193	.01396	.00427	.00024	2.8044	.00042
#2	.00176	.06144	.00338	.01388	.00423	.00024	2.7972	.00021
#3	.00207	.05392	.00152	.01474	.00498	.00026	2.7878	.00019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00092**	**.00221**	**.00254**	**.01954**	**.24175**	**.00558**	**.54825**	**.01505**
Stddev	.00009	.00042	.00016	.00315	.02541	.00117	.00507	.00041
%RSD	9.6061	18.814	6.1207	16.138	10.513	21.034	.92436	2.7115
#1	.00087	.00189	.00271	.01706	.22277	.00432	.54954	.01466
#2	.00088	.00268	.00248	.01847	.27062	.00580	.55255	.01500
#3	.00103	.00205	.00242	.02309	.23185	.00663	.54266	.01548
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00440**	**9.6636**	**.00186**	**.05038**	**.00095**	**.00643**	**.00227**	**.03765**
Stddev	.00023	.0409	.00011	.00406	.00153	.00110	.00086	.00031
%RSD	5.1468	.42363	6.1550	8.0524	160.38	17.162	37.940	.81723
#1	.00416	9.7106	.00174	.04705	.00219	.00596	.00305	.03731
#2	.00461	9.6445	.00186	.05490	-.00076	.00564	.00134	.03791
#3	.00444	9.6358	.00197	.04920	.00142	.00769	.00241	.03773
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403148801MS Acquired: 4/3/2014 11:44:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment: WG469383-06

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00487**	**.03567**	**.00365**	**.00172**	**.00462**	**.00544**	**.08883**
Stddev	.00047	.00056	.00104	.00177	.00019	.00013	.50423
%RSD	9.7335	1.5810	28.418	102.83	4.1469	2.4635	567.61
#1	.00473	.03508	.00468	.00262	.00454	.00537	.32542
#2	.00448	.03621	.00366	-.00032	.00448	.00535	-.49018
#3	.00540	.03573	.00261	.00285	.00484	.00559	.43127
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20340.**	**21945.**
Stddev	30.	440.
%RSD	.14626	2.0071
#1	20350.	22286.
#2	20364.	22100.
#3	20307.	21447.

Approved: April 04, 2014

Sample Name: L1403148803 Acquired: 4/3/2014 11:48:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**.02122**	**.00195**	**.00573**	**.00061**	**.00001**	**2.3834**	**.00009**
Stddev	.00036	.00575	.00325	.00089	.00003	.00002	.0077	.00013
%RSD	392.23	27.097	166.71	15.625	4.2287	164.88	.32494	143.14
#1	-.00026	.02652	.00487	.00505	.00059	-.00001	2.3749	.00004
#2	.00047	.01511	.00252	.00674	.00062	.00003	2.3852	.00023
#3	.00007	.02204	-.00155	.00539	.00064	.00001	2.3901	.00000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00016**	**-.00042**	**.00036**	**.77862**	**.07850**	**.00110**	**1.0076**	**.02818**
Stddev	.00015	.00013	.00020	.00454	.03347	.00084	.0307	.00071
%RSD	94.130	31.566	54.786	.58309	42.634	76.924	3.0463	2.5088
#1	-.00032	-.00027	.00049	.77340	.09918	.00013	.98137	.02759
#2	-.00003	-.00052	.00045	.78167	.03989	.00149	1.0002	.02896
#3	-.00012	-.00046	.00013	.78079	.09643	.00167	1.0414	.02800
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**25.309**	**-.00035**	**-.00190**	**-.00187**	**-.00070**	**.00016**	**.04949**
Stddev	.00011	.023	.00108	.00222	.00010	.00267	.00182	.00062
%RSD	552.40	.09149	305.92	116.74	5.3318	380.65	1115.5	1.2481
#1	.00013	25.297	.00046	.00044	-.00197	.00224	.00074	.04952
#2	.00001	25.336	-.00158	-.00397	-.00177	-.00138	.00163	.05009
#3	-.00008	25.294	.00006	-.00217	-.00188	-.00298	-.00187	.04886
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403148803 Acquired: 4/3/2014 11:48:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 100 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**.11699**	**-.00052**	**-.00093**	**-.00019**	**.00055**	**.06082**
Stddev	.00019	.00054	.00034	.00075	.00019	.00006	.41492
%RSD	99.487	.45980	65.391	81.086	96.111	10.666	682.19
#1	.00022	.11730	-.00075	-.00008	-.00002	.00060	-.02668
#2	-.00001	.11637	-.00013	-.00116	-.00016	.00048	.51251
#3	.00037	.11730	-.00069	-.00153	-.00039	.00056	-.30337
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20156.**	**21305.**
Stddev	52.	230.
%RSD	.26026	1.0798
#1	20126.	21556.
#2	20125.	21104.
#3	20217.	21255.

Approved: April 04, 2014

Sample Name: L1403148809 Acquired: 4/3/2014 11:51:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 50 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**.01860**	**.00004**	**.00622**	**.00039**	**-.00001**	**3.2408**	**-.00002**
Stddev	.00051	.01630	.00101	.00047	.00009	.00003	.0212	.00011
%RSD	265.99	87.652	2648.2	7.4943	23.741	347.78	.65363	708.24
#1	.00027	.03740	.00116	.00655	.00037	.00000	3.2194	.00009
#2	-.00073	.00999	-.00080	.00568	.00049	.00002	3.2618	-.00001
#3	-.00011	.00840	-.00025	.00641	.00031	-.00005	3.2410	-.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**.00031**	**.00024**	**.00860**	**.08063**	**.00194**	**.66367**	**.01508**
Stddev	.00010	.00012	.00015	.00510	.03753	.00169	.02294	.00012
%RSD	127.78	39.925	64.197	59.302	46.551	87.030	3.4565	.78741
#1	.00013	.00021	.00033	.00273	.08947	.00369	.64860	.01495
#2	.00013	.00027	.00006	.01113	.03946	.00033	.69007	.01510
#3	-.00004	.00045	.00032	.01194	.11295	.00179	.65234	.01519
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**28.678**	**.00005**	**.00301**	**-.00116**	**-.00032**	**-.00116**	**.02967**
Stddev	.00009	.091	.00041	.00654	.00154	.00163	.00248	.00063
%RSD	38.757	.31752	840.04	217.05	132.82	503.45	214.40	2.1098
#1	.00024	28.595	-.00039	.00325	.00008	.00103	-.00328	.03019
#2	.00033	28.775	.00011	.00944	-.00068	.00013	.00157	.02984
#3	.00015	28.663	.00042	-.00364	-.00289	-.00213	-.00175	.02898
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403148809 Acquired: 4/3/2014 11:51:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 50 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**.11784**	**-.00032**	**-.00029**	**.00013**	**.00090**	**.24293**
Stddev	.00030	.00040	.00091	.00067	.00011	.00006	.98684
%RSD	181.55	.33593	287.08	230.99	78.966	6.9268	406.22
#1	.00048	.11767	-.00075	.00012	.00006	.00084	.08188
#2	-.00013	.11756	-.00093	-.00106	.00025	.00090	1.3004
#3	.00016	.11830	.00073	.00008	.00009	.00096	-.65348
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20008.**	**21928.**
Stddev	257.	131.
%RSD	1.2848	.59717
#1	19711.	22065.
#2	20152.	21805.
#3	20161.	21914.

Approved: April 04, 2014

Sample Name: L1403148811 Acquired: 4/3/2014 11:55:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 50 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00015**	**.01139**	**-.00001**	**.00709**	**.00136**	**-.00001**	**2.5227**
Stddev	.00047	.01192	.00009	.00099	.00011	.00002	.0156
%RSD	312.71	104.62	896.43	14.013	8.0401	197.04	.61863
#1	-.00070	.02030	-.00003	.00820	.00132	.00000	2.5266
#2	.00015	-.00215	-.00008	.00629	.00128	.00001	2.5055
#3	.00009	.01603	.00009	.00678	.00149	-.00003	2.5360
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.00008**	**.00037**	**.00021**	**.03099**	**.14979**	**.00270**
Stddev	.00006	.00014	.00015	.00024	.00463	.02021	.00147
%RSD	58.124	178.39	39.935	114.93	14.947	13.490	54.466
#1	.00014	-.00007	.00021	.00026	.02580	.16658	.00201
#2	.00012	.00010	.00050	-.00005	.03472	.12736	.00170
#3	.00003	.00020	.00041	.00041	.03243	.15542	.00438
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.75644**	**.00861**	**.00063**	**33.827**	**-.00046**	**-.00235**	**-.00113**
Stddev	.01985	.00015	.00024	.145	.00045	.00493	.00051
%RSD	2.6243	1.7825	37.299	.42813	97.502	209.55	45.417
#1	.73446	.00858	.00044	33.956	.00001	-.00759	-.00162
#2	.76178	.00847	.00056	33.855	-.00050	.00221	-.00060
#3	.77307	.00878	.00089	33.670	-.00088	-.00168	-.00118
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014

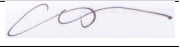
Sample Name: L1403148811 Acquired: 4/3/2014 11:55:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 50 Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00062**	**.00080**	**.03767**	**.00004**	**.12981**	**-.00089**	**.00044**
Stddev	.00239	.00268	.00164	.00005	.00101	.00059	.00063
%RSD	383.39	334.71	4.3564	112.22	.77829	65.626	142.97
#1	-.00151	.00003	.03604	.00010	.12955	-.00138	.00102
#2	.00321	-.00141	.03763	.00003	.12896	-.00106	-.00024
#3	.00018	.00378	.03932	.00001	.13093	-.00024	.00055
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00008**	**.00037**	F **-.06982**
Stddev	.00031	.00002	.64213
%RSD	397.18	5.3161	919.72
#1	.00015	.00039	.44754
#2	.00005	.00036	-.78849
#3	-.00043	.00035	.13149
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19992.**	**22200.**
Stddev	36.	213.
%RSD	.18030	.96096
#1	20033.	22339.
#2	19968.	22307.
#3	19975.	21954.

Approved: April 04, 2014



Sample Name: CCV Acquired: 4/3/2014 11:58:58 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40406**	**9.9474**	**.40359**	**.51334**	**.98877**	**.05068**	**9.8957**
Stddev	.00085	.0383	.00281	.00412	.00079	.00039	.0187
%RSD	.20920	.38480	.69712	.80314	.07975	.77865	.18901
#1	.40327	9.9113	.40056	.51228	.98922	.05036	9.9169
#2	.40395	9.9875	.40612	.50984	.98786	.05056	9.8816
#3	.40495	9.9433	.40410	.51788	.98923	.05112	9.8886
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05093**	**.20409**	**.50286**	**.51204**	**4.0071**	**49.481**	**.99133**
Stddev	.00010	.00132	.00496	.00315	.0022	.070	.00248
%RSD	.19653	.64510	.98697	.61482	.05502	.14059	.25039
#1	.05082	.20265	.49913	.50861	4.0046	49.401	.98906
#2	.05101	.20438	.50095	.51270	4.0086	49.529	.99398
#3	.05097	.20524	.50849	.51480	4.0082	49.513	.99095
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.011**	**.50948**	**.99977**	**49.697**	**.51144**	**10.096**	**.51248**
Stddev	.068	.00626	.00553	.120	.00346	.041	.00150
%RSD	.68314	1.2282	.55345	.24137	.67657	.40404	.29206
#1	9.9333	.50227	.99396	49.641	.50763	10.054	.51243
#2	10.060	.51274	1.0004	49.616	.51230	10.098	.51100
#3	10.041	.51344	1.0050	49.835	.51438	10.136	.51399
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

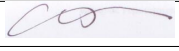
Sample Name: CCV Acquired: 4/3/2014 11:58:58 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2037**	**.41190**	**5.0117**	**1.0216**	**.98677**	**.99216**	**.52003**
Stddev	.0075	.00577	.0309	.0045	.00112	.00150	.00050
%RSD	.62264	1.4015	.61682	.44091	.11317	.15102	.09636
#1	1.1952	.40556	4.9772	1.0164	.98753	.99056	.51951
#2	1.2067	.41685	5.0209	1.0241	.98730	.99237	.52051
#3	1.2093	.41331	5.0369	1.0243	.98549	.99354	.52007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0063**	**1.0215**	F **.55533**
Stddev	.0062	.0050	.64795
%RSD	.61160	.49152	116.68
#1	1.0019	1.0167	-.11711
#2	1.0037	1.0211	1.1757
#3	1.0133	1.0267	.60743
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19374.**	**21309.**
Stddev	110.	300.
%RSD	.56861	1.4083
#1	19484.	21656.
#2	19376.	21127.
#3	19263.	21146.

Approved: April 04, 2014



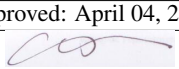
Sample Name: CCB Acquired: 4/3/2014 12:02:14 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**-.01280**	**.00030**	**.00298**	**.00021**	**.00002**	**-.00468**
Stddev	.00048	.02121	.00174	.00051	.00018	.00002	.00295
%RSD	255.56	165.79	578.63	16.978	88.783	102.49	63.011
#1	.00013	.00357	.00230	.00334	.00036	.00000	-.00490
#2	.00004	-.03677	-.00086	.00321	.00000	.00005	-.00162
#3	-.00073	-.00519	-.00054	.00240	.00026	.00002	-.00751
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00001**	**-.00002**	**.00020**	**.00010**	**-.00101**	**-.00563**	**-.00037**
Stddev	.00002	.00011	.00038	.00034	.00309	.02450	.00131
%RSD	219.19	589.30	193.06	330.58	305.80	435.51	350.82
#1	.00003	-.00008	.00063	-.00015	.00252	-.00759	-.00055
#2	.00002	.00010	-.00011	-.00003	-.00229	.01980	-.00159
#3	-.00002	-.00008	.00007	.00048	-.00326	-.02909	.00102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00252**	**.00003**	**.00012**	**-.01053**	**-.00048**	**.00423**	**-.00144**
Stddev	.01176	.00006	.00017	.00516	.00087	.00540	.00202
%RSD	467.33	240.06	143.15	49.033	182.70	127.57	139.98
#1	.01567	-.00004	-.00007	-.01261	-.00002	-.00187	-.00247
#2	-.00700	.00007	.00027	-.01433	-.00148	.00618	.00088
#3	-.00112	.00005	.00016	-.00465	.00007	.00840	-.00274
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



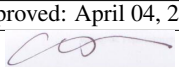
Sample Name: CCB Acquired: 4/3/2014 12:02:14 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00024**	**-.00181**	**-.00085**	**.00037**	**.00021**	**-.00133**	**-.00007**
Stddev	.00059	.00260	.00050	.00058	.00016	.00056	.00068
%RSD	247.58	143.14	57.979	157.11	75.583	42.435	950.13
#1	.00022	-.00420	-.00088	.00104	.00025	-.00113	.00026
#2	-.00090	.00095	-.00035	.00000	.00004	-.00197	-.00085
#3	-.00003	-.00220	-.00134	.00007	.00034	-.00089	.00037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00009**	**.00078**	F **-.20310**
Stddev	.00002	.00015	.42358
%RSD	21.027	19.175	208.56
#1	.00008	.00061	-.33564
#2	.00008	.00087	-.54457
#3	.00012	.00087	.27090
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20168.**	**21409.**
Stddev	72.	168.
%RSD	.35589	.78319
#1	20208.	21578.
#2	20210.	21243.
#3	20085.	21406.

Approved: April 04, 2014



Sample Name: LLCCV Acquired: 4/3/2014 12:05:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01169**	**.00481**	**.10743**	**.00173**	**.01187**	**-.00001**	**.01269**	**.01272**
Stddev	.00029	.02937	.00100	.00056	.00016	.00003	.00793	.00005
%RSD	2.5039	610.12	.93504	32.202	1.3784	331.17	62.484	.36088
#1	.01170	.01167	.10858	.00154	.01205	-.00002	.00517	.01273
#2	.01198	.03015	.10699	.00236	.01173	.00003	.01193	.01267
#3	.01139	-.02738	.10673	.00130	.01182	-.00003	.02098	.01275
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00012**	**.02368**	**.00050**	**.00522**	**.08712**	**-.00025**	**.00313**	**.00059**
Stddev	.00007	.00059	.00083	.00405	.03909	.00231	.00097	.00009
%RSD	54.240	2.4714	165.27	77.624	44.875	919.10	30.871	15.201
#1	-.00005	.02377	.00052	.00803	.13201	-.00291	.00342	.00056
#2	-.00019	.02421	.00132	.00705	.06054	.00091	.00391	.00069
#3	-.00013	.02305	-.00034	.00058	.06881	.00125	.00205	.00052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**-.00007**	**-.00008**	**.00313**	**.11162**	**-.00047**	**.09164**	**.00103**
Stddev	.00019	.00582	.00046	.00508	.00106	.00152	.00170	.00089
%RSD	129.62	8234.9	548.80	162.13	.94721	323.31	1.8513	85.938
#1	.00022	-.00676	-.00021	.00773	.11160	.00126	.09335	.00205
#2	-.00007	.00385	.00043	.00398	.11058	-.00159	.09160	.00065
#3	.00028	.00270	-.00047	-.00231	.11269	-.00107	.08996	.00041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: LLCCV Acquired: 4/3/2014 12:05:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**.00012**	**-.00068**	**-.00106**	**.00001**	**.00266**	**.12174**
Stddev	.00027	.00001	.00026	.00152	.00035	.00010	.69816
%RSD	141.98	10.180	37.819	143.83	3439.3	3.5829	573.48
#1	-.00010	.00014	-.00073	-.00032	.00023	.00277	-.68136
#2	.00042	.00011	-.00090	-.00005	.00020	.00263	.46245
#3	.00025	.00012	-.00040	-.00281	-.00040	.00258	.58413
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20144.**	**21798.**
Stddev	242.	326.
%RSD	1.2015	1.4969
#1	20342.	21428.
#2	19874.	21918.
#3	20216.	22047.

Approved: April 04, 2014

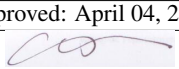
Sample Name: PBW YY Acquired: 4/3/2014 12:09:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469166-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**.00983**	**.00024**	**.00239**	**.00063**	**.00002**	**.02948**
Stddev	.00037	.02097	.00048	.00017	.00046	.00002	.00408
%RSD	264.68	213.33	201.24	7.2658	71.875	100.73	13.824
#1	.00038	.03392	-.00023	.00221	.00105	.00000	.02634
#2	.00032	-.00435	.00022	.00241	.00070	.00001	.03409
#3	-.00028	-.00008	.00072	.00256	.00015	.00004	.02801
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**-.00029**	**.00011**	**.00089**	**.00522**	**-.02162**	**.00025**
Stddev	.00003	.00006	.00029	.00006	.00754	.02693	.00156
%RSD	14.438	20.552	257.65	6.6087	144.40	124.53	618.04
#1	.00017	-.00023	.00008	.00095	.01326	-.04974	.00205
#2	.00019	-.00035	-.00016	.00087	-.00170	.00394	-.00071
#3	.00022	-.00028	.00043	.00084	.00411	-.01908	-.00059
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00379**	**.00045**	**.00021**	**.01421**	**.00028**	F **-.00369**	**-.00249**
Stddev	.00426	.00005	.00004	.00827	.00046	.00283	.00150
%RSD	112.58	11.110	20.666	58.219	164.16	76.670	60.350
#1	-.00329	.00051	.00023	.02136	-.00024	-.00587	-.00212
#2	-.00828	.00042	.00016	.00515	.00044	-.00049	-.00120
#3	.00020	.00042	.00024	.01610	.00064	-.00471	-.00414
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014



Sample Name: PBW YY Acquired: 4/3/2014 12:09:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469166-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00026**	**.00053**	**.00349**	**.00046**	**.00023**	**-.00014**	**-.00208**
Stddev	.00065	.00116	.00050	.00033	.00012	.00096	.00018
%RSD	253.64	219.11	14.286	71.316	50.235	689.63	8.7598
#1	.00039	.00118	.00323	.00022	.00035	-.00124	-.00219
#2	-.00025	-.00081	.00317	.00033	.00022	.00028	-.00219
#3	-.00092	.00122	.00406	.00084	.00012	.00054	-.00187
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00006**	**.00259**	**.25372**
Stddev	.00021	.00008	.62060
%RSD	338.07	3.0932	244.59
#1	.00029	.00268	.93261
#2	.00004	.00252	.11297
#3	-.00014	.00257	-.28441
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19879.**	**21220.**
Stddev	52.	659.
%RSD	.26369	3.1078
#1	19833.	20767.
#2	19936.	20915.
#3	19869.	21976.

Approved: April 04, 2014

Sample Name: LCSW YY Acquired: 4/3/2014 12:13:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469166-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20412**	**4.9389**	**.19584**	**1.0130**	**.48290**	**.02528**	**4.9504**
Stddev	.00116	.0522	.00115	.0013	.00097	.00009	.0107
%RSD	.56943	1.0571	.58489	.13242	.20123	.35522	.21647
#1	.20299	4.9564	.19461	1.0127	.48396	.02520	4.9585
#2	.20407	4.8802	.19688	1.0118	.48267	.02538	4.9382
#3	.20531	4.9801	.19604	1.0144	.48206	.02526	4.9544
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02490**	**.10201**	**.25148**	**.25371**	**1.9696**	**24.429**	**.48729**
Stddev	.00007	.00022	.00160	.00017	.0053	.049	.00024
%RSD	.28114	.21956	.63739	.06651	.26879	.19882	.04909
#1	.02487	.10213	.24966	.25389	1.9711	24.412	.48723
#2	.02499	.10215	.25209	.25357	1.9740	24.391	.48755
#3	.02486	.10175	.25269	.25366	1.9637	24.484	.48708
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.9321**	**.26090**	**.50166**	**24.065**	**.25373**	F **-.95004**	**.25778**
Stddev	.0112	.00570	.00049	.054	.00127	.01826	.00145
%RSD	.22760	2.1859	.09771	.22281	.50028	1.9221	.56226
#1	4.9199	.25508	.50119	24.003	.25302	-.92934	.25704
#2	4.9347	.26113	.50217	24.099	.25520	-.95689	.25685
#3	4.9419	.26648	.50163	24.094	.25298	-.96388	.25945
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

Sample Name: LCSW YY Acquired: 4/3/2014 12:13:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469166-03

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.59389**	**.19880**	**2.5305**	**.49803**	**.49294**	**.48432**	**.25795**
Stddev	.00099	.00238	.0050	.00146	.00187	.00164	.00214
%RSD	.16729	1.1989	.19879	.29227	.37871	.33891	.82912
#1	.59439	.20133	2.5248	.49688	.49479	.48361	.25561
#2	.59453	.19660	2.5345	.49967	.49296	.48619	.25980
#3	.59275	.19847	2.5321	.49754	.49106	.48315	.25844
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.49922**	**.50501**	F **3087.1**
Stddev	.00147	.00103	12.9
%RSD	.29368	.20489	.41911
#1	.49778	.50381	3073.2
#2	.49916	.50555	3089.3
#3	.50071	.50565	3098.8
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19561.**	**20969.**
Stddev	43.	448.
%RSD	.21972	2.1363
#1	19609.	21449.
#2	19550.	20896.
#3	19525.	20562.

Approved: April 04, 2014

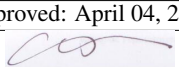
Sample Name: FBLK Acquired: 4/3/2014 12:16:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469056-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**.01578**	**.00076**	**.00433**	**.00014**	**.00000**	**.01887**	**.00005**
Stddev	.00048	.01176	.00081	.00060	.00029	.0000	.00795	.00009
%RSD	570.53	74.476	107.56	13.738	214.58	284.15	42.103	169.22
#1	.00034	.00221	.00120	.00499	-.00001	-.00002	.02783	.00000
#2	-.00061	.02236	-.00018	.00382	-.00005	-.00001	.01267	.00000
#3	.00002	.02278	.00125	.00419	.00047	.00001	.01612	.00016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00020**	**.00011**	**.00104**	**.00316**	**.01146**	**.00152**	**-.00457**	**.00047**
Stddev	.00015	.00031	.00036	.00551	.04653	.00094	.02531	.00002
%RSD	73.514	297.99	34.225	174.24	406.19	61.952	554.10	4.8597
#1	-.00013	.00001	.00141	.00858	.03596	.00107	-.02656	.00046
#2	-.00010	-.00015	.00069	-.00244	-.04221	.00089	-.01024	.00049
#3	-.00037	.00046	.00103	.00335	.04061	.00260	.02309	.00045
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**117.17**	**-.00053**	**-.00166**	**-.00206**	**.00143**	**.00058**	**-.00097**
Stddev	.00030	.41	.00074	.00177	.00050	.00129	.00426	.00038
%RSD	1778.0	.34822	139.92	107.04	24.347	90.261	731.23	39.099
#1	-.00012	117.60	.00012	-.00248	-.00239	.00047	-.00431	-.00053
#2	-.00019	117.12	-.00134	-.00287	-.00231	.00092	.00256	-.00122
#3	.00036	116.79	-.00037	.00038	-.00148	.00289	.00349	-.00117
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: FBLK Acquired: 4/3/2014 12:16:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469056-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00075**	**.00023**	**-.00088**	**-.00186**	**.00034**	**.00321**	**.48557**
Stddev	.00023	.00004	.00095	.00040	.00009	.00009	.40364
%RSD	31.244	17.236	107.83	21.670	27.399	2.7302	83.127
#1	.00074	.00027	-.00022	-.00188	.00037	.00311	.73096
#2	.00052	.00020	-.00197	-.00225	.00023	.00325	.70603
#3	.00099	.00021	-.00046	-.00145	.00041	.00328	.01971
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19071.**	**21516.**
Stddev	23.	194.
%RSD	.11854	.90115
#1	19059.	21534.
#2	19058.	21700.
#3	19098.	21313.

Approved: April 04, 2014

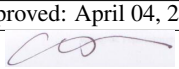
Sample Name: FBLK YY Acquired: 4/3/2014 12:19:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469166-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00005**	**.00687**	**-.00013**	**.00282**	**.00052**	**.00002**	**.01739**
Stddev	.00023	.02791	.00312	.00028	.00066	.00002	.00720
%RSD	499.94	406.46	2392.6	10.051	126.86	97.915	41.394
#1	.00010	-.01065	.00240	.00254	.00114	.00004	.00941
#2	-.00031	-.00780	-.00362	.00311	.00059	.00000	.01940
#3	.00007	.03906	.00083	.00280	-.00017	.00003	.02338
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**-.00024**	**.00003**	**.00088**	**.00268**	**.00914**	**-.00152**
Stddev	.00008	.00016	.00035	.00074	.00119	.02820	.00077
%RSD	39.724	69.159	1053.9	84.181	44.322	308.73	50.571
#1	.00028	-.00018	.00034	.00128	.00319	-.01430	-.00088
#2	.00024	-.00011	-.00034	.00134	.00132	.00127	-.00132
#3	.00012	-.00042	.00011	.00003	.00352	.04044	-.00237
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00080**	**.00011**	**.00011**	**.02671**	**.00035**	F **-.00427**	**-.00194**
Stddev	.01052	.00004	.00010	.00686	.00022	.00441	.00104
%RSD	1321.3	32.843	85.673	25.675	63.388	103.25	53.253
#1	-.00974	.00007	.00007	.02146	.00043	.00048	-.00076
#2	-.00344	.00012	.00023	.02421	.00053	-.00824	-.00243
#3	.01079	.00014	.00004	.03447	.00010	-.00505	-.00265
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014



Sample Name: FBLK YY Acquired: 4/3/2014 12:19:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469166-04

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**.00050**	**-.00337**	**.00026**	**.00011**	**-.00104**	**-.00103**
Stddev	.00105	.00375	.00161	.00033	.00007	.00084	.00037
%RSD	7930.2	746.73	47.765	129.96	61.145	81.233	35.875
#1	-.00085	-.00328	-.00295	.00056	.00006	-.00103	-.00126
#2	.00117	.00421	-.00515	.00031	.00008	-.00189	-.00124
#3	-.00036	.00057	-.00202	-.00010	.00019	-.00020	-.00061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00003**	**.00305**	**.54648**
Stddev	.00040	.00006	.79769
%RSD	1305.4	1.8220	145.97
#1	-.00040	.00304	.28231
#2	.00040	.00311	1.4427
#3	.00009	.00300	-.08562
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19881.**	**21126.**
Stddev	25.	574.
%RSD	.12818	2.7162
#1	19884.	20464.
#2	19905.	21473.
#3	19854.	21442.

Approved: April 04, 2014

Sample Name: L1403153801 Acquired: 4/3/2014 12:23:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469166-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00025**	**1.1815**	**.00295**	**.09313**	**.00209**	**.00001**	**.28508**
Stddev	.00015	.0118	.00197	.00170	.00013	.00002	.00778
%RSD	59.567	1.0018	66.907	1.8265	5.9829	253.97	2.7292
#1	-.00017	1.1810	.00411	.09502	.00223	-.00001	.28119
#2	-.00016	1.1700	.00067	.09266	.00200	.00001	.29404
#3	-.00042	1.1936	.00406	.09172	.00205	.00002	.28001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**.00186**	**1.2269**	**.00585**	**1.5747**	**.08329**	**.00128**
Stddev	.00007	.00004	.0120	.00035	.0077	.01385	.00177
%RSD	99.458	2.2232	.98047	6.0640	.48681	16.628	138.73
#1	.00003	.00187	1.2398	.00568	1.5834	.09301	.00167
#2	.00002	.00189	1.2248	.00562	1.5716	.06743	.00281
#3	.00014	.00181	1.2160	.00626	1.5690	.08942	-.00066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04371**	**.01226**	**.02071**	**150.47**	**.09686**	F **-.00797**	**.00040**
Stddev	.01381	.00022	.00020	.59	.00162	.00163	.00048
%RSD	31.603	1.8310	.94862	.39493	1.6734	20.503	122.34
#1	.03750	.01244	.02093	151.14	.09863	-.00935	-.00015
#2	.05954	.01201	.02067	150.24	.09651	-.00616	.00057
#3	.03409	.01233	.02054	150.02	.09544	-.00840	.00077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

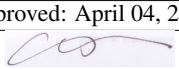
Sample Name: L1403153801 Acquired: 4/3/2014 12:23:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469166-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01286**	**.00041**	**1.5950**	**.00066**	**.00116**	**-.00021**	**-.00227**
Stddev	.00174	.00263	.0105	.00023	.00010	.00060	.00130
%RSD	13.512	634.20	.65996	33.988	8.7644	286.87	57.469
#1	.01093	.00078	1.6053	.00051	.00111	.00044	-.00229
#2	.01332	-.00238	1.5955	.00056	.00109	-.00035	-.00095
#3	.01431	.00284	1.5843	.00092	.00127	-.00072	-.00356
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00267**	**.00444**	**3.8573**
Stddev	.00037	.00005	.6905
%RSD	13.710	1.1425	17.900
#1	-.00300	.00446	4.0358
#2	-.00274	.00447	3.0952
#3	-.00227	.00438	4.4411
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19496.**	**21784.**
Stddev	166.	87.
%RSD	.85066	.40024
#1	19320.	21683.
#2	19516.	21837.
#3	19650.	21832.

Approved: April 04, 2014



Sample Name: L1403153801MS Acquired: 4/3/2014 12:27:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469166-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.19945**	**6.1123**	**.19938**	**1.0974**	**.48042**	**.02550**	**5.2301**
Stddev	.00250	.0619	.00065	.0142	.00030	.00021	.0101
%RSD	1.2524	1.0136	.32394	1.2958	.06155	.80971	.19228
#1	.19676	6.0612	.19865	1.0811	.48073	.02527	5.2293
#2	.20169	6.1812	.19958	1.1072	.48014	.02565	5.2406
#3	.19991	6.0946	.19990	1.1039	.48040	.02558	5.2205
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02470**	**.10202**	**1.4881**	**.25369**	**3.4069**	**24.709**	**.48664**
Stddev	.00015	.00053	.0099	.00180	.0108	.078	.00079
%RSD	.62187	.52388	.66518	.71145	.31592	.31637	.16211
#1	.02454	.10145	1.4771	.25162	3.4087	24.638	.48664
#2	.02484	.10211	1.4962	.25448	3.3953	24.696	.48585
#3	.02472	.10250	1.4911	.25496	3.4166	24.793	.48743
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.8441**	**.25357**	**.51429**	**174.17**	**.34101**	F **-1.1736**	**.24612**
Stddev	.0238	.00554	.00266	.22	.00071	.0182	.00356
%RSD	.49039	2.1849	.51817	.12563	.20709	1.5480	1.4445
#1	4.8170	.24718	.51125	173.93	.34022	-1.1531	.24238
#2	4.8542	.25707	.51541	174.35	.34122	-1.1800	.24946
#3	4.8612	.25645	.51621	174.24	.34159	-1.1877	.24653
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

Sample Name: L1403153801MS Acquired: 4/3/2014 12:27:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469166-04

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.60193**	**.20814**	**4.0691**	**.48563**	**.49556**	**.48172**	**.24128**
Stddev	.00545	.00354	.0918	.00547	.00066	.00135	.00208
%RSD	.90509	1.7031	2.2570	1.1267	.13267	.28086	.86083
#1	.59609	.20619	3.9918	.47959	.49510	.48110	.24102
#2	.60284	.20600	4.0449	.48707	.49631	.48327	.24348
#3	.60687	.21223	4.1706	.49024	.49526	.48078	.23935
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.48690**	**.50909**	F **3068.5**
Stddev	.00474	.00269	21.0
%RSD	.97394	.52877	.68474
#1	.48145	.50608	3044.2
#2	.49009	.50992	3081.5
#3	.48916	.51127	3079.7
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19124.**	**21278.**
Stddev	102.	361.
%RSD	.53556	1.6960
#1	19240.	21694.
#2	19086.	21084.
#3	19046.	21055.

Approved: April 04, 2014

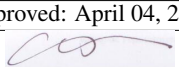
Sample Name: L1403153801MSD Acquired: 4/3/2014 12:30:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469166-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20321**	**6.0968**	**.19971**	**1.1155**	**.48269**	**.02556**	**5.2308**
Stddev	.00075	.0335	.00227	.0012	.00168	.00006	.0204
%RSD	.37122	.54944	1.1360	.10494	.34899	.24627	.38929
#1	.20238	6.0582	.20045	1.1147	.48144	.02557	5.2124
#2	.20386	6.1184	.19717	1.1168	.48203	.02562	5.2273
#3	.20339	6.1138	.20152	1.1149	.48461	.02549	5.2526
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02493**	**.10254**	**1.4762**	**.25471**	**3.4065**	**24.923**	**.48851**
Stddev	.00003	.00015	.0049	.00095	.0094	.085	.00468
%RSD	.13209	.14780	.33486	.37181	.27689	.34248	.95868
#1	.02497	.10265	1.4790	.25462	3.4052	24.847	.48576
#2	.02492	.10236	1.4791	.25570	3.4165	25.016	.48585
#3	.02491	.10259	1.4705	.25382	3.3978	24.908	.49392
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.8944**	**.26210**	**.51964**	**172.67**	**.34315**	F **-1.7051**	**.24810**
Stddev	.0569	.00597	.00090	.22	.00085	.0138	.00079
%RSD	1.1617	2.2795	.17266	.12457	.24682	.80791	.31836
#1	4.8956	.26501	.51879	172.50	.34412	-1.7167	.24811
#2	4.9507	.26607	.52058	172.61	.34271	-1.7088	.24730
#3	4.8370	.25523	.51954	172.91	.34261	-1.6899	.24888
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014



Sample Name: L1403153801MSD Acquired: 4/3/2014 12:30:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469166-05

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.60419**	**.20536**	**4.0840**	**.48556**	**.49793**	**.48459**	**.24419**
Stddev	.00407	.00059	.0709	.00284	.00254	.00082	.00378
%RSD	.67438	.28802	1.7363	.58564	.50957	.16891	1.5463
#1	.59978	.20589	4.0479	.48671	.49539	.48372	.24724
#2	.60497	.20472	4.0383	.48232	.49792	.48471	.23997
#3	.60781	.20547	4.1657	.48765	.50047	.48534	.24537
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.49358**	**.50809**	F **3358.7**
Stddev	.00073	.00072	5.6
%RSD	.14867	.14171	.16804
#1	.49440	.50765	3364.6
#2	.49335	.50892	3357.9
#3	.49299	.50769	3353.4
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19333.**	**21084.**
Stddev	14.	504.
%RSD	.07453	2.3920
#1	19320.	20836.
#2	19331.	20750.
#3	19348.	21664.

Approved: April 04, 2014

Sample Name: L1403144501 Acquired: 4/3/2014 12:33:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00047**	**.03607**	**-.00097**	**.79040**	**.00915**	**-.00007**	**333.40**
Stddev	.00024	.02744	.00138	.00812	.00016	.00003	.48
%RSD	49.798	76.066	142.07	1.0276	1.7426	40.177	.14378
#1	-.00032	.02116	.00039	.78113	.00904	-.00009	333.88
#2	-.00074	.01932	-.00238	.79379	.00933	-.00010	332.92
#3	-.00035	.06773	-.00093	.79627	.00908	-.00004	333.42
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00160**	**-.00051**	**.00555**	**.00310**	**.04489**	**10.274**	**.42618**
Stddev	.00010	.00005	.00045	.00065	.00249	.069	.00187
%RSD	6.3044	10.499	8.1124	21.123	5.5480	.67047	.43908
#1	.00170	-.00052	.00595	.00235	.04768	10.291	.42831
#2	.00160	-.00057	.00565	.00341	.04289	10.199	.42481
#3	.00150	-.00046	.00506	.00355	.04410	10.333	.42542
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**302.78**	**.08203**	**.00075**	F **1129.9**	**.00227**	**.06023**	**-.00372**
Stddev	.77	.00212	.00024	8.3	.00057	.00121	.00089
%RSD	.25465	2.5798	31.947	.73677	25.138	2.0170	23.947
#1	302.05	.07976	.00055	1129.3	.00162	.06150	-.00386
#2	302.69	.08238	.00069	1122.0	.00247	.06012	-.00453
#3	303.59	.08394	.00102	1138.6	.00271	.05908	-.00277
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 04, 2014

Sample Name: L1403144501 Acquired: 4/3/2014 12:33:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00462**	**.00241**	**5.5248**	**.00301**	F **5.6619**	**-.00637**	**-.00291**
Stddev	.00109	.00504	.0285	.00044	.0162	.00142	.00047
%RSD	23.648	209.03	.51486	14.718	.28544	22.283	16.281
#1	.00337	-.00228	5.5125	.00352	5.6806	-.00639	-.00331
#2	.00506	.00177	5.5574	.00279	5.6520	-.00494	-.00239
#3	.00542	.00773	5.5047	.00271	5.6532	-.00777	-.00304
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					4.5000		
Low Limit					-.00800		

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00016**	**.00562**	**.92710**
Stddev	.00028	.00018	.87864
%RSD	176.55	3.2333	94.773
#1	.00048	.00583	.20270
#2	-.00002	.00553	1.9045
#3	.00001	.00549	.67413
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**17153.**	**20205.**
Stddev	27.	378.
%RSD	.15602	1.8685
#1	17180.	20598.
#2	17151.	20171.
#3	17127.	19845.

Approved: April 04, 2014

Sample Name: L1403144501PS Acquired: 4/3/2014 12:37:15 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21277**	**5.0823**	**.20969**	**1.7349**	**.50486**	**.02521**	**303.97**
Stddev	.00340	.0315	.00129	.0183	.00087	.00034	.59
%RSD	1.5983	.61970	.61448	1.0537	.17191	1.3342	.19346
#1	.20907	5.0813	.20834	1.7139	.50424	.02483	303.30
#2	.21350	5.1142	.21090	1.7473	.50586	.02546	304.40
#3	.21575	5.0512	.20983	1.7434	.50450	.02535	304.22
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02753**	**.09667**	**.24810**	**.24626**	**2.0343**	**35.416**	**.90662**
Stddev	.00014	.00040	.00349	.00101	.0145	.143	.00097
%RSD	.49231	.41233	1.4064	.40919	.71170	.40330	.10659
#1	.02762	.09672	.24408	.24717	2.0238	35.251	.90726
#2	.02760	.09704	.25034	.24643	2.0283	35.502	.90708
#3	.02737	.09625	.24988	.24518	2.0508	35.495	.90551
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**275.34**	**.30714**	**.50282**	F **1047.8**	**.24090**	**.05288**	**.23667**
Stddev	1.76	.00885	.00106	2.5	.00109	.00251	.00135
%RSD	.63930	2.8811	.20983	.24215	.45087	4.7436	.57135
#1	273.36	.29743	.50365	1045.2	.24084	.05442	.23518
#2	275.90	.30922	.50316	1050.3	.24202	.05423	.23782
#3	276.74	.31476	.50163	1047.9	.23985	.04998	.23701
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 04, 2014

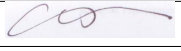
Sample Name: L1403144501PS Acquired: 4/3/2014 12:37:15 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.63891**	**.22786**	**7.6624**	**.00324**	F **5.5515**	**.49025**	**.20353**
Stddev	.00563	.00606	.0070	.00014	.0060	.00024	.00192
%RSD	.88102	2.6609	.09174	4.4510	.10858	.04908	.94098
#1	.63561	.22396	7.6584	.00308	5.5506	.49010	.20438
#2	.64541	.23484	7.6705	.00337	5.5579	.49012	.20488
#3	.63570	.22478	7.6582	.00327	5.5459	.49053	.20134
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					4.5000		
Low Limit					-.00800		

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.50581**	**.49092**	**1.0606**
Stddev	.00508	.00128	.7012
%RSD	1.0047	.26009	66.110
#1	.49994	.49190	1.3396
#2	.50861	.49137	.26286
#3	.50887	.48947	1.5792
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**17544.**	**20369.**
Stddev	40.	383.
%RSD	.22957	1.8799
#1	17509.	20781.
#2	17536.	20303.
#3	17588.	20023.

Approved: April 04, 2014



Sample Name: L1403144501SDL Acquired: 4/3/2014 12:40:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**.00107**	**.00125**	**.16942**	**.00204**	**-.00001**	**65.611**	**.00073**
Stddev	.00041	.01682	.00117	.00195	.00030	.00003	.229	.00006
%RSD	713.03	1578.4	93.286	1.1525	14.870	270.27	.34969	8.3869
#1	.00027	.01670	.00140	.17123	.00213	.00002	65.789	.00080
#2	.00007	.00323	.00234	.16735	.00228	-.00003	65.352	.00069
#3	-.00052	-.01674	.00002	.16967	.00170	-.00001	65.692	.00070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**.00146**	**.00121**	**.01551**	**2.0042**	**.08403**	**59.941**	**.01762**
Stddev	.00034	.00019	.00009	.00428	.0808	.00142	.258	.00024
%RSD	179.33	12.784	7.5003	27.581	4.0320	1.6875	.43043	1.3833
#1	.00019	.00162	.00113	.01523	2.0585	.08352	60.155	.01769
#2	-.00047	.00126	.00131	.01991	1.9114	.08294	59.654	.01782
#3	-.00028	.00152	.00120	.01137	2.0428	.08563	60.013	.01735
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00028**	**226.87**	**.00057**	**.01271**	**.00138**	**.00034**	**-.00075**	**1.1162**
Stddev	.00020	.90	.00009	.00660	.00096	.00092	.00135	.0083
%RSD	73.990	.39533	16.538	51.962	69.337	268.19	179.61	.74443
#1	.00040	227.78	.00047	.00843	.00219	.00106	-.00171	1.1200
#2	.00039	226.85	.00066	.02032	.00032	.00066	.00079	1.1219
#3	.00004	225.99	.00057	.00938	.00163	-.00069	-.00133	1.1066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403144501SDL Acquired: 4/3/2014 12:40:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00069**	**1.1143**	**-.00213**	**.00206**	**-.00012**	**.02038**	**.49662**
Stddev	.00047	.0036	.00028	.00294	.00020	.00014	.62750
%RSD	67.590	.32032	13.130	142.69	170.89	.67363	126.35
#1	.00089	1.1172	-.00185	-.00125	.00003	.02037	1.0205
#2	.00103	1.1103	-.00212	.00438	-.00035	.02053	.66812
#3	.00016	1.1155	-.00241	.00305	-.00003	.02025	-.19880
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19180.**	**21815.**
Stddev	76.	156.
%RSD	.39409	.71565
#1	19231.	21691.
#2	19215.	21763.
#3	19093.	21990.

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 12:44:27 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40089**	**10.067**	**.40208**	**.51223**	**.98774**	**.05086**	**10.006**
Stddev	.00168	.026	.00389	.00148	.00113	.00029	.018
%RSD	.41898	.25538	.96745	.28906	.11431	.56378	.17592
#1	.40256	10.068	.40623	.51393	.98649	.05101	9.9913
#2	.39920	10.092	.40150	.51152	.98805	.05104	10.000
#3	.40093	10.040	.39852	.51124	.98868	.05053	10.025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04988**	**.20287**	**.50387**	**.50644**	**3.9827**	**49.826**	**.99198**
Stddev	.00040	.00153	.00205	.00360	.0163	.171	.00073
%RSD	.80421	.75209	.40624	.71138	.40883	.34295	.07405
#1	.05031	.20402	.50524	.50877	3.9681	49.629	.99247
#2	.04982	.20346	.50486	.50825	3.9798	49.914	.99233
#3	.04951	.20114	.50152	.50229	4.0003	49.935	.99113
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.9779**	**.50605**	**1.0013**	**49.243**	**.50445**	**10.095**	**.50532**
Stddev	.0270	.00259	.0089	.037	.00326	.094	.00486
%RSD	.27100	.51134	.88698	.07552	.64594	.93498	.96118
#1	9.9724	.50635	1.0073	49.265	.50634	10.162	.50872
#2	10.007	.50847	1.0054	49.264	.50633	10.135	.50750
#3	9.9541	.50332	.99107	49.200	.50069	9.9867	.49976
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

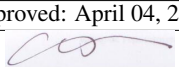
Sample Name: CCV Acquired: 4/3/2014 12:44:27 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.1987**	**.40616**	**5.0232**	**1.0026**	**1.0068**	**.99438**	**.49682**
Stddev	.0124	.00452	.0234	.0067	.0034	.00198	.00766
%RSD	1.0356	1.1124	.46588	.66621	.33644	.19951	1.5416
#1	1.2086	.40943	5.0483	1.0075	1.0033	.99211	.50340
#2	1.2026	.40805	5.0194	1.0054	1.0071	.99573	.49865
#3	1.1847	.40100	5.0020	.99499	1.0100	.99531	.48841
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.99746**	**1.0121**	F **1.5010**
Stddev	.00498	.0028	.5561
%RSD	.49897	.27461	37.046
#1	1.0024	1.0150	.88762
#2	.99754	1.0118	1.9721
#3	.99245	1.0094	1.6433
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19789.**	**21752.**
Stddev	104.	119.
%RSD	.52436	.54802
#1	19697.	21709.
#2	19767.	21661.
#3	19901.	21887.

Approved: April 04, 2014



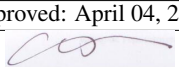
Sample Name: CCB Acquired: 4/3/2014 12:47:43 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**.00635**	**.00294**	**.00573**	**-.00012**	**.00000**	**.00108**
Stddev	.00041	.02940	.00114	.00064	.00027	.00002	.00602
%RSD	288.73	463.40	38.888	11.249	224.31	637.74	559.18
#1	.00045	.03839	.00392	.00632	-.00035	.00001	.00545
#2	.00031	.00003	.00323	.00583	.00018	-.00002	.00357
#3	-.00033	-.01939	.00168	.00504	-.00019	.00002	-.00579
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**-.00013**	**.00028**	**.00040**	**.00116**	**.00504**	**.00036**
Stddev	.00005	.00005	.00042	.00018	.00583	.03018	.00085
%RSD	235.74	34.375	148.10	45.667	504.65	598.60	235.02
#1	.00003	-.00011	-.00010	.00037	.00605	.03286	.00049
#2	.00007	-.00019	.00072	.00059	-.00530	-.02704	-.00055
#3	-.00003	-.00010	.00022	.00023	.00271	.00930	.00115
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00089**	**.00032**	**.00021**	**.04718**	**.00022**	**-.00054**	**-.00147**
Stddev	.00406	.00009	.00003	.00958	.00031	.00235	.00118
%RSD	454.04	27.581	12.624	20.300	137.02	432.82	80.424
#1	-.00373	.00023	.00018	.04264	.00018	-.00196	-.00213
#2	.00388	.00040	.00022	.04071	.00055	.00217	-.00011
#3	.00252	.00033	.00024	.05818	-.00006	-.00184	-.00218
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



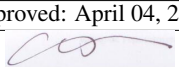
Sample Name: CCB Acquired: 4/3/2014 12:47:43 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00117**	**-.00019**	**-.00007**	**.00033**	**.00008**	**-.00156**	**-.00042**
Stddev	.00257	.00038	.00130	.00014	.00012	.00062	.00171
%RSD	218.71	202.38	1855.8	43.882	146.38	39.459	403.87
#1	.00109	.00025	.00047	.00021	.00007	-.00211	-.00223
#2	-.00135	-.00040	.00087	.00029	.00020	-.00169	.00115
#3	.00379	-.00041	-.00155	.00049	-.00003	-.00089	-.00019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00023**	**.00183**	F **.71368**
Stddev	.00013	.00003	1.0184
%RSD	56.065	1.7030	142.70
#1	-.00025	.00184	1.1557
#2	-.00009	.00184	1.4364
#3	-.00035	.00179	-.45110
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20316.**	**22034.**
Stddev	72.	117.
%RSD	.35568	.53062
#1	20371.	22168.
#2	20341.	21956.
#3	20234.	21977.

Approved: April 04, 2014



Sample Name: L1403003253 Acquired: 4/3/2014 12:51:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20384**	**5.0182**	**.19989**	**1.0190**	**.48669**	**.02541**	**5.0297**
Stddev	.00311	.0117	.00107	.0117	.00178	.00030	.0437
%RSD	1.5248	.23209	.53337	1.1501	.36559	1.1933	.86787
#1	.20263	5.0048	.19867	1.0160	.48522	.02534	5.0042
#2	.20151	5.0249	.20034	1.0090	.48618	.02514	5.0048
#3	.20737	5.0250	.20066	1.0319	.48867	.02574	5.0801
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02522**	**.10327**	**.25220**	**.25781**	**1.9819**	**24.798**	**.49087**
Stddev	.00012	.00024	.00274	.00066	.0180	.118	.00339
%RSD	.46259	.23486	1.0865	.25433	.90973	.47584	.69021
#1	.02535	.10352	.25131	.25853	1.9611	24.702	.48891
#2	.02515	.10324	.25002	.25767	1.9933	24.763	.48891
#3	.02515	.10304	.25528	.25724	1.9912	24.930	.49478
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.9420**	**.25887**	**.50635**	**24.116**	**.25537**	F **-.88907**	**.25498**
Stddev	.0543	.00425	.00131	.113	.00124	.10994	.00116
%RSD	1.0980	1.6432	.25854	.46653	.48446	12.365	.45535
#1	4.9228	.25650	.50774	23.993	.25680	-.82534	.25547
#2	4.8999	.25634	.50618	24.142	.25457	-.82585	.25365
#3	5.0032	.26379	.50514	24.214	.25475	-1.0160	.25581
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

Sample Name: L1403003253 Acquired: 4/3/2014 12:51:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.59883**	**.20535**	**2.5458**	**.51738**	**.50313**	**.48528**	**.25373**
Stddev	.00117	.00075	.0199	.00415	.00280	.00235	.00364
%RSD	.19526	.36532	.78269	.80169	.55660	.48452	1.4342
#1	.59981	.20622	2.5686	.52206	.50182	.48259	.25764
#2	.59915	.20497	2.5370	.51594	.50123	.48630	.25311
#3	.59754	.20487	2.5317	.51415	.50635	.48695	.25044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.50012**	**.51405**	F **3107.1**
Stddev	.00578	.00183	43.8
%RSD	1.1560	.35588	1.4085
#1	.49742	.51616	3088.4
#2	.49618	.51308	3075.9
#3	.50676	.51291	3157.2
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19502.**	**21124.**
Stddev	53.	134.
%RSD	.27061	.63432
#1	19441.	21167.
#2	19536.	21232.
#3	19527.	20974.

Approved: April 04, 2014

Sample Name: L1403003254 Acquired: 4/3/2014 12:54:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20146**	**4.9879**	**.19805**	**1.0081**	**.48742**	**.02516**	**4.9968**
Stddev	.00176	.0270	.00268	.0115	.00082	.00024	.0040
%RSD	.87305	.54166	1.3535	1.1382	.16865	.93866	.07917
#1	.20014	4.9580	.19751	.99980	.48693	.02497	4.9923
#2	.20078	4.9951	.20096	1.0033	.48696	.02509	4.9995
#3	.20346	5.0106	.19568	1.0212	.48837	.02542	4.9986
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02512**	**.10254**	**.25039**	**.25627**	**1.9805**	**24.679**	**.49299**
Stddev	.00022	.00028	.00201	.00100	.0193	.103	.00288
%RSD	.87231	.26938	.80162	.39076	.97695	.41592	.58421
#1	.02488	.10246	.24846	.25511	1.9674	24.611	.49282
#2	.02518	.10231	.25024	.25677	1.9714	24.629	.49020
#3	.02531	.10285	.25247	.25691	2.0027	24.797	.49595
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.9784**	**.25606**	**.50437**	**24.271**	**.25515**	F **-.84695**	**.25443**
Stddev	.0244	.00468	.00193	.034	.00050	.03919	.00326
%RSD	.49007	1.8284	.38258	.13897	.19504	4.6276	1.2824
#1	4.9778	.25138	.50216	24.233	.25545	-.84546	.25102
#2	5.0031	.25604	.50569	24.298	.25458	-.80852	.25474
#3	4.9543	.26075	.50526	24.281	.25543	-.88687	.25752
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

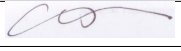
Sample Name: L1403003254 Acquired: 4/3/2014 12:54:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.59696**	**.20049**	**2.5295**	**.50105**	**.49733**	**.48894**	**.25533**
Stddev	.00151	.00152	.0062	.00082	.00253	.00233	.00265
%RSD	.25295	.75761	.24638	.16350	.50949	.47687	1.0396
#1	.59609	.19944	2.5283	.50197	.49651	.48826	.25380
#2	.59608	.19979	2.5363	.50038	.49531	.49153	.25840
#3	.59870	.20223	2.5240	.50082	.50017	.48702	.25380
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.49574**	**.51099**	F **3076.2**
Stddev	.00461	.00311	28.4
%RSD	.92960	.60871	.92425
#1	.49276	.50807	3060.4
#2	.49341	.51064	3059.2
#3	.50105	.51426	3109.0
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19540.**	**21280.**
Stddev	122.	366.
%RSD	.62559	1.7192
#1	19673.	21690.
#2	19515.	21160.
#3	19433.	20989.

Approved: April 04, 2014



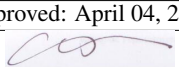
Sample Name: L1403003255 Acquired: 4/3/2014 12:57:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20474**	**4.9308**	**.19471**	**1.0222**	**.48509**	**.02525**	**5.0537**
Stddev	.00071	.0251	.00212	.0014	.00035	.00003	.0070
%RSD	.34916	.50920	1.0893	.14066	.07197	.11954	.13841
#1	.20556	4.9033	.19270	1.0212	.48526	.02528	5.0481
#2	.20437	4.9365	.19693	1.0216	.48468	.02524	5.0615
#3	.20428	4.9525	.19449	1.0239	.48531	.02522	5.0514
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02511**	**.10222**	**.25206**	**.25410**	**1.9785**	**24.428**	**.49087**
Stddev	.00010	.00050	.00076	.00138	.0034	.040	.00141
%RSD	.39407	.48433	.29954	.54386	.17233	.16172	.28821
#1	.02519	.10246	.25275	.25461	1.9768	24.389	.49234
#2	.02514	.10254	.25126	.25515	1.9824	24.429	.49075
#3	.02500	.10165	.25218	.25254	1.9763	24.468	.48952
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.9473**	**.25777**	**.50065**	**24.525**	**.25387**	F **-1.0834**	**.25438**
Stddev	.0373	.00062	.00174	.038	.00052	.0268	.00369
%RSD	.75464	.23884	.34773	.15390	.20509	2.4783	1.4508
#1	4.9535	.25809	.50206	24.568	.25415	-1.0734	.25702
#2	4.9812	.25706	.50119	24.506	.25419	-1.0630	.25016
#3	4.9073	.25816	.49871	24.500	.25327	-1.1138	.25595
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014



Sample Name: L1403003255 Acquired: 4/3/2014 12:57:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.59139**	**.19670**	**2.5156**	**.51265**	**.49310**	**.48542**	**.25485**
Stddev	.00312	.00314	.0212	.00584	.00087	.00330	.00235
%RSD	.52799	1.5968	.84388	1.1388	.17563	.67950	.92060
#1	.58792	.19639	2.5240	.51594	.49286	.48886	.25554
#2	.59399	.19372	2.5314	.51610	.49237	.48514	.25677
#3	.59225	.19998	2.4915	.50591	.49405	.48228	.25224
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.50133**	**.50695**	F **3123.9**
Stddev	.00074	.00073	7.2
%RSD	.14855	.14340	.23068
#1	.50216	.50777	3128.6
#2	.50109	.50639	3115.6
#3	.50074	.50669	3127.5
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19429.**	**21229.**
Stddev	35.	49.
%RSD	.18168	.22946
#1	19395.	21194.
#2	19465.	21285.
#3	19427.	21209.

Approved: April 04, 2014

Sample Name: L1403003256 Acquired: 4/3/2014 13:01:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.19669**	**4.8636**	**.19376**	**.98287**	**.47819**	**.02469**	**4.8948**
Stddev	.00282	.0487	.00096	.01344	.00098	.00029	.0063
%RSD	1.4351	1.0021	.49693	1.3677	.20595	1.1713	.12880
#1	.19616	4.8164	.19272	.97778	.47706	.02455	4.8905
#2	.19416	4.8608	.19463	.97272	.47887	.02450	4.8919
#3	.19973	4.9137	.19394	.99811	.47864	.02502	4.9020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02445**	**.09990**	**.24522**	**.24839**	**1.9546**	**23.958**	**.48582**
Stddev	.00010	.00028	.00223	.00065	.0166	.041	.00103
%RSD	.41295	.27995	.90829	.26120	.85110	.17229	.21155
#1	.02443	.10022	.24432	.24914	1.9356	23.971	.48465
#2	.02437	.09973	.24358	.24807	1.9615	23.912	.48656
#3	.02457	.09975	.24775	.24797	1.9667	23.991	.48626
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.8400**	**.25342**	**.49092**	**24.070**	**.24867**	F **-1.5644**	**.24877**
Stddev	.0537	.00486	.00059	.067	.00097	.1129	.00066
%RSD	1.1084	1.9164	.12047	.27728	.38839	7.2195	.26531
#1	4.8037	.24966	.49102	24.041	.24978	-1.5230	.24829
#2	4.8147	.25170	.49146	24.146	.24816	-1.4780	.24952
#3	4.9016	.25890	.49029	24.022	.24806	-1.6922	.24849
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

Sample Name: L1403003256 Acquired: 4/3/2014 13:01:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.58048**	**.19465**	**2.4678**	**.49264**	**.48065**	**.47950**	**.24963**
Stddev	.00276	.00289	.0196	.00120	.00089	.00038	.00162
%RSD	.47494	1.4867	.79450	.24421	.18534	.07984	.65033
#1	.57824	.19707	2.4453	.49127	.47986	.47912	.24779
#2	.58356	.19543	2.4810	.49351	.48049	.47989	.25085
#3	.57964	.19144	2.4772	.49314	.48162	.47950	.25026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.48463**	**.49542**	F **3356.5**
Stddev	.00607	.00383	50.8
%RSD	1.2519	.77247	1.5127
#1	.48268	.49978	3340.7
#2	.47977	.49385	3315.4
#3	.49143	.49263	3413.3
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19535.**	**21012.**
Stddev	58.	199.
%RSD	.29863	.94827
#1	19478.	21219.
#2	19595.	20995.
#3	19533.	20822.

Approved: April 04, 2014

Sample Name: L1403164901 Acquired: 4/3/2014 13:04:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**.01272**	**-.00014**	**.00925**	**.00036**	**.00001**	**.09402**
Stddev	.00008	.02676	.00140	.00062	.00025	.00003	.00678
%RSD	509.77	210.38	1010.7	6.6885	68.376	190.86	7.2132
#1	.00000	-.00280	-.00172	.00960	.00056	.00003	.08993
#2	.00006	.04362	.00091	.00962	.00043	-.00002	.10185
#3	-.00010	-.00266	.00040	.00854	.00009	.00002	.09029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**-.00037**	**-.00014**	**.00131**	**.00219**	**.01637**	**.00149**
Stddev	.00007	.00005	.00017	.00046	.00264	.02001	.00168
%RSD	88.562	14.323	121.04	34.785	120.40	122.22	112.28
#1	.00012	-.00042	-.00011	.00138	-.00085	.03881	.00267
#2	.00000	-.00039	.00002	.00082	.00383	.00988	.00224
#3	.00010	-.00031	-.00031	.00173	.00359	.00042	-.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00368**	**.00041**	**.00012**	**.14340**	**-.00013**	F **-.03976**	**-.00129**
Stddev	.00651	.00004	.00024	.00887	.00016	.00045	.00066
%RSD	176.81	9.1654	198.57	6.1873	123.31	1.1353	51.409
#1	.00172	.00045	-.00011	.15353	.00001	-.03934	-.00179
#2	-.00186	.00039	.00010	.13966	-.00009	-.04024	-.00054
#3	-.01090	.00038	.00036	.13701	-.00031	-.03968	-.00154
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

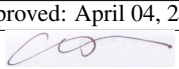
Sample Name: L1403164901 Acquired: 4/3/2014 13:04:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**.00297**	**.00379**	**.00066**	**.00024**	**-.00013**	**-.00301**
Stddev	.00197	.00395	.00144	.00019	.00021	.00096	.00158
%RSD	2763.8	132.67	38.132	28.415	89.303	739.39	52.496
#1	.00225	-.00025	.00232	.00052	.00024	.00098	-.00477
#2	-.00048	.00737	.00521	.00087	.00003	-.00060	-.00258
#3	-.00156	.00179	.00384	.00059	.00045	-.00076	-.00169
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00005**	**.00270**	**17.227**
Stddev	.00024	.00009	.278
%RSD	506.92	3.3830	1.6156
#1	.00030	.00260	17.382
#2	.00002	.00270	17.393
#3	-.00018	.00279	16.906
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19963.**	**21788.**
Stddev	31.	123.
%RSD	.15706	.56599
#1	19982.	21931.
#2	19980.	21725.
#3	19927.	21710.

Approved: April 04, 2014



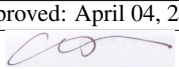
Sample Name: L1403164902 Acquired: 4/3/2014 13:08:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00097**	**.03952**	**.00473**	**.11386**	**3.8836**	**-.00011**	F **2522.4**
Stddev	.00037	.00878	.00224	.00125	.0113	.00003	40.1
%RSD	38.255	22.219	47.392	1.0957	.29111	27.006	1.5909
#1	-.00064	.02957	.00446	.11285	3.8925	-.00010	2505.1
#2	-.00090	.04618	.00709	.11525	3.8709	-.00009	2493.8
#3	-.00137	.04282	.00263	.11348	3.8874	-.00014	2568.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							900.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00081**	**-.00029**	**.00098**	**.00080**	**.34409**	**299.92**	**1.7123**
Stddev	.00005	.00015	.00029	.00063	.00513	.66	.0029
%RSD	6.1886	51.585	29.720	78.260	1.4917	.22011	.16966
#1	.00081	-.00040	.00065	.00137	.34121	300.58	1.7151
#2	.00086	-.00012	.00115	.00091	.34103	299.26	1.7093
#3	.00076	-.00034	.00116	.00013	.35001	299.94	1.7123
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.657**	**2.4356**	**.00482**	**79.629**	**.08258**	**.06052**	**-.00176**
Stddev	.074	.0112	.00018	.171	.00225	.00674	.00217
%RSD	.50569	.45942	3.6621	.21478	2.7212	11.143	123.30
#1	14.662	2.4250	.00483	79.811	.08456	.05604	.00008
#2	14.580	2.4345	.00499	79.471	.08304	.05725	-.00120
#3	14.728	2.4473	.00464	79.604	.08014	.06828	-.00415
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403164902 Acquired: 4/3/2014 13:08:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00048**	**.00671**	**2.5257**	**.00091**	F **7.7198**	**-.01879**	**-.00327**
Stddev	.00205	.00136	.0391	.00079	.0361	.00006	.00140
%RSD	431.36	20.208	1.5483	87.078	.46799	.32168	42.706
#1	-.00142	.00723	2.5361	.00156	7.7604	-.01873	-.00453
#2	.00265	.00517	2.5586	.00115	7.6914	-.01880	-.00177
#3	.00019	.00773	2.4825	.00003	7.7074	-.01885	-.00351
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					4.5000		
Low Limit					-.00800		

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00035**	**.00543**	F **-3.0625**
Stddev	.00015	.00012	.6229
%RSD	42.141	2.2541	20.341
#1	-.00028	.00552	-2.8013
#2	-.00052	.00529	-2.6126
#3	-.00025	.00547	-3.7735
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**16800.**	**20895.**
Stddev	14.	72.
%RSD	.08260	.34300
#1	16793.	20877.
#2	16816.	20974.
#3	16791.	20834.

Approved: April 04, 2014

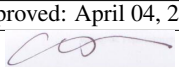
Sample Name: L1403164903 Acquired: 4/3/2014 13:11:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**.04361**	**.02454**	**.10790**	**.04434**	**-.00001**	**1.8409**	**.00052**
Stddev	.00013	.01775	.00205	.00044	.00025	.00003	.0377	.00004
%RSD	581.52	40.706	8.3424	.40738	.57479	284.81	2.0481	6.7496
#1	.00012	.03576	.02626	.10787	.04405	.00000	1.8723	.00048
#2	-.00006	.06394	.02228	.10836	.04453	-.00004	1.8513	.00055
#3	-.00012	.03114	.02509	.10748	.04445	.00001	1.7990	.00054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**.00060**	**.00184**	**.01729**	**2.6869**	**.01469**	**.34004**	**.00099**
Stddev	.00008	.00053	.00011	.00298	.0528	.00039	.00986	.00005
%RSD	366.70	88.310	5.7457	17.241	1.9663	2.6746	2.9010	4.6297
#1	.00006	.00013	.00195	.01446	2.6609	.01453	.35132	.00104
#2	-.00007	.00117	.00184	.02040	2.7477	.01514	.33583	.00095
#3	.00008	.00048	.00174	.01701	2.6521	.01441	.33299	.00097
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00409**	**116.24**	**.00228**	**.03937**	**-.00003**	**-.00110**	**-.00209**	**2.6943**
Stddev	.00010	.35	.00059	.00591	.00295	.00032	.00271	.0220
%RSD	2.3886	.30013	25.832	15.020	8460.9	29.578	129.59	.81542
#1	.00420	115.87	.00293	.03683	.00143	-.00104	-.00465	2.7181
#2	.00406	116.56	.00177	.04613	.00190	-.00081	-.00237	2.6900
#3	.00401	116.28	.00215	.03515	-.00343	-.00145	.00075	2.6748
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403164903 Acquired: 4/3/2014 13:11:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.24078**	**.14163**	**-.00122**	**-.00153**	**.00042**	**.00300**	**2.0042**
Stddev	.00163	.00070	.00066	.00103	.00044	.00010	.5259
%RSD	.67802	.49721	53.844	67.135	104.01	3.4123	26.242
#1	.24101	.14232	-.00051	-.00053	.00029	.00311	1.9157
#2	.24229	.14165	-.00181	-.00259	.00091	.00291	1.5281
#3	.23905	.14091	-.00134	-.00148	.00007	.00300	2.5687
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19406.**	**21477.**
Stddev	183.	272.
%RSD	.94480	1.2659
#1	19298.	21780.
#2	19302.	21396.
#3	19617.	21255.

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 13:15:29 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41018**	**9.8608**	**.40012**	**.52254**	**.98243**	**.05075**	**9.9265**
Stddev	.00158	.0291	.00093	.00161	.00185	.00007	.0960
%RSD	.38549	.29549	.23262	.30857	.18869	.13743	.96706
#1	.40839	9.8304	.40119	.52129	.98135	.05070	9.8565
#2	.41141	9.8635	.39969	.52197	.98136	.05083	10.036
#3	.41073	9.8885	.39948	.52436	.98457	.05072	9.8871
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05072**	**.20296**	**.50445**	**.51122**	**3.9665**	**49.610**	**.98288**
Stddev	.00024	.00058	.00173	.00199	.0193	.135	.00178
%RSD	.48292	.28634	.34199	.38921	.48554	.27306	.18135
#1	.05076	.20328	.50251	.51285	3.9597	49.532	.98147
#2	.05094	.20331	.50581	.51181	3.9516	49.532	.98229
#3	.05046	.20229	.50504	.50900	3.9882	49.766	.98489
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.9646**	**.51597**	**1.0011**	**49.143**	**.50584**	**10.125**	**.50676**
Stddev	.0383	.00481	.0052	.110	.00046	.054	.00201
%RSD	.38443	.93132	.51601	.22359	.09129	.53201	.39630
#1	9.9446	.51197	1.0061	49.083	.50634	10.175	.50531
#2	9.9405	.51465	.99578	49.076	.50574	10.068	.50906
#3	10.009	.52130	1.0014	49.270	.50543	10.133	.50593
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

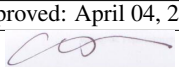
Sample Name: CCV Acquired: 4/3/2014 13:15:29 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2023**	**.40817**	**5.0120**	**1.0146**	**.98937**	**.97570**	**.50760**
Stddev	.0014	.00362	.0044	.0063	.00273	.00143	.00515
%RSD	.11396	.88710	.08779	.61883	.27561	.14705	1.0147
#1	1.2034	.41174	5.0167	1.0150	.98636	.97439	.50479
#2	1.2026	.40450	5.0079	1.0207	.99008	.97549	.51354
#3	1.2008	.40827	5.0115	1.0082	.99168	.97723	.50445
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0126**	**1.0136**	F **2.3962**
Stddev	.0031	.0014	1.3065
%RSD	.30655	.13700	54.523
#1	1.0090	1.0122	2.6659
#2	1.0147	1.0137	3.5467
#3	1.0140	1.0150	.97591
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19683.**	**21570.**
Stddev	64.	223.
%RSD	.32366	1.0358
#1	19747.	21742.
#2	19684.	21652.
#3	19619.	21318.

Approved: April 04, 2014



Sample Name: CCB Acquired: 4/3/2014 13:18:46 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**.02374**	**.00013**	**.00347**	**.00022**	**.00001**	**.01227**
Stddev	.00022	.01495	.00165	.00094	.00036	.00001	.01764
%RSD	437.40	62.973	1242.4	27.144	167.76	124.72	143.79
#1	-.00020	.04015	-.00174	.00241	.00063	.00000	-.00771
#2	.00018	.02020	.00139	.00380	-.00003	.00001	.02568
#3	.00018	.01088	.00075	.00421	.00005	.00002	.01884
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**-.00006**	**.00000**	**.00006**	**.00079**	**.02112**	**.00112**
Stddev	.00010	.00008	.00020	.00047	.00362	.03046	.00077
%RSD	2896.2	140.27	5151.9	741.09	456.30	144.28	68.950
#1	.00004	-.00011	-.00014	-.00027	.00050	.05178	.00148
#2	.00008	-.00010	.00023	.00060	-.00267	.02072	.00165
#3	-.00011	.00004	-.00008	-.00014	.00455	-.00915	.00023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00803**	**.00040**	**.00004**	**.02945**	**-.00069**	**-.00128**	**-.00046**
Stddev	.01554	.00002	.00009	.00471	.00055	.00363	.00130
%RSD	193.58	4.7318	235.41	16.005	79.016	283.53	283.28
#1	-.01089	.00042	-.00004	.03265	-.00023	-.00499	.00100
#2	.00874	.00039	.00003	.03166	-.00055	.00227	-.00091
#3	-.02193	.00038	.00013	.02404	-.00129	-.00112	-.00147
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/3/2014 13:18:46 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00140**	**-.00117**	**-.00120**	**.00097**	**.00014**	**.00008**	**-.00106**
Stddev	.00094	.00219	.00072	.00037	.00015	.00039	.00059
%RSD	67.225	187.62	60.058	38.492	106.00	524.29	55.711
#1	-.00246	.00068	-.00182	.00108	.00021	.00004	-.00065
#2	-.00106	-.00059	-.00137	.00055	.00025	-.00030	-.00079
#3	-.00067	-.00358	-.00041	.00127	-.00003	.00049	-.00173
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00014**	**.00183**	F **-.21714**
Stddev	.00035	.00004	.44918
%RSD	260.83	1.9910	206.86
#1	.00027	.00180	-.34949
#2	-.00037	.00187	-.58526
#3	-.00031	.00181	.28335
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19944.**	**21756.**
Stddev	158.	749.
%RSD	.79297	3.4422
#1	20126.	20901.
#2	19871.	22292.
#3	19836.	22076.

Approved: April 04, 2014

Sample Name: PBW 79 Acquired: 4/3/2014 13:30:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG468982-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**.00070**	**-.00017**	**.00234**	**-.00013**	**.00003**	**.02802**
Stddev	.00019	.03346	.00114	.00046	.00018	.00002	.01055
%RSD	159.70	4795.9	687.92	19.874	135.17	73.385	37.662
#1	.00006	-.03774	.00114	.00180	-.00034	.00005	.03918
#2	.00033	.02331	-.00092	.00263	-.00007	.00001	.01821
#3	-.00004	.01652	-.00071	.00258	.00001	.00002	.02667
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**-.00028**	**.00011**	**.00116**	**.00869**	**.00777**	**.00093**
Stddev	.00013	.00032	.00027	.00047	.00121	.00290	.00115
%RSD	73.751	111.70	251.11	40.090	13.913	37.311	123.53
#1	.00030	-.00017	.00023	.00123	.00937	.00976	.00115
#2	.00004	-.00064	-.00020	.00067	.00729	.00444	.00196
#3	.00020	-.00004	.00030	.00159	.00940	.00909	-.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00435**	**.00057**	**.00011**	**.02634**	**.00189**	F **-.00412**	**-.00272**
Stddev	.01030	.00004	.00005	.01083	.00029	.00192	.00180
%RSD	236.64	7.7179	47.936	41.102	15.453	46.720	66.308
#1	.00652	.00056	.00014	.02543	.00220	-.00253	-.00315
#2	-.00560	.00053	.00005	.03759	.00162	-.00357	-.00427
#3	-.01398	.00061	.00015	.01600	.00184	-.00626	-.00074
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

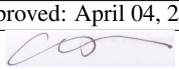
Sample Name: PBW 79 Acquired: 4/3/2014 13:30:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG468982-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00049**	**.00237**	**-.00145**	**.00086**	**.00008**	**.00000**	**-.00223**
Stddev	.00153	.00139	.00130	.00043	.00007	.00104	.00093
%RSD	310.14	58.787	89.246	50.199	79.030	23773.	41.624
#1	.00002	.00076	-.00149	.00058	.00011	.00015	-.00306
#2	.00221	.00309	-.00273	.00135	.00013	.00096	-.00238
#3	-.00074	.00325	-.00014	.00064	.00001	-.00110	-.00123
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00006**	**.00203**	**.60251**
Stddev	.00031	.00012	.73846
%RSD	565.69	5.9231	122.56
#1	-.00037	.00206	.71115
#2	.00025	.00213	-.18426
#3	-.00005	.00189	1.2806
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19780.**	**21866.**
Stddev	81.	561.
%RSD	.40818	2.5638
#1	19866.	22344.
#2	19767.	22004.
#3	19706.	21249.

Approved: April 04, 2014



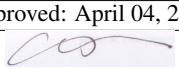
Sample Name: LCSW 79 Acquired: 4/3/2014 13:34:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG468982-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21179**	**5.0965**	**.20165**	**1.0597**	**.49798**	**.02619**	**5.1364**
Stddev	.00156	.0319	.00058	.0086	.00125	.00016	.0201
%RSD	.73779	.62564	.28958	.81259	.25137	.61120	.39110
#1	.21003	5.0770	.20188	1.0499	.49810	.02603	5.1144
#2	.21301	5.0791	.20207	1.0660	.49668	.02635	5.1411
#3	.21233	5.1333	.20098	1.0633	.49917	.02620	5.1537
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02566**	**.10418**	**.25990**	**.25978**	**2.0429**	**25.211**	**.50537**
Stddev	.00007	.00063	.00272	.00173	.0149	.064	.00127
%RSD	.29205	.60465	1.0461	.66406	.72917	.25256	.25108
#1	.02560	.10355	.25749	.25919	2.0297	25.138	.50617
#2	.02574	.10481	.26285	.26172	2.0400	25.255	.50391
#3	.02562	.10418	.25937	.25842	2.0590	25.241	.50603
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.0717**	**.27120**	**.51058**	**24.970**	**.25815**	F **-1.0773**	**.25840**
Stddev	.0435	.00829	.00232	.059	.00102	.0261	.00358
%RSD	.85673	3.0586	.45512	.23504	.39414	2.4266	1.3865
#1	5.0474	.26191	.50821	24.917	.25716	-1.0474	.25470
#2	5.0458	.27386	.51286	24.961	.25920	-1.0887	.26185
#3	5.1218	.27785	.51069	25.033	.25810	-1.0959	.25865
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014



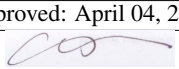
Sample Name: LCSW 79 Acquired: 4/3/2014 13:34:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG468982-03

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.60398**	**.20583**	**2.5618**	**.55497**	**.50721**	**.49826**	**.25902**
Stddev	.00202	.00272	.0117	.00334	.00124	.00303	.00224
%RSD	.33503	1.3223	.45763	.60173	.24487	.60866	.86455
#1	.60368	.20713	2.5507	.55223	.50682	.49517	.25644
#2	.60614	.20271	2.5741	.55869	.50621	.49840	.26037
#3	.60213	.20766	2.5605	.55399	.50860	.50123	.26026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.51844**	**.52367**	F **3201.2**
Stddev	.00432	.00113	28.0
%RSD	.83267	.21641	.87612
#1	.51368	.52352	3171.3
#2	.52210	.52487	3226.9
#3	.51954	.52262	3205.4
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19490.**	**20901.**
Stddev	77.	539.
%RSD	.39702	2.5766
#1	19528.	21504.
#2	19401.	20730.
#3	19541.	20469.

Approved: April 04, 2014



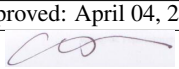
Sample Name: L1403155001 Acquired: 4/3/2014 13:37:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00049**	**.00036**	**.00575**	**.05564**	**.78350**	**-.00004**	**538.67**
Stddev	.00075	.00955	.00056	.00100	.00113	.00002	1.13
%RSD	152.65	2657.5	9.7043	1.7893	.14363	43.921	.20916
#1	.00037	-.00507	.00540	.05678	.78368	-.00005	537.99
#2	.00129	.01139	.00639	.05519	.78230	-.00002	538.04
#3	-.00019	-.00524	.00546	.05494	.78453	-.00005	539.97
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00041**	**.00028**	**.00064**	**.00061**	**4.3452**	**65.688**	**.21069**
Stddev	.00004	.00032	.00010	.00041	.0273	.061	.00072
%RSD	9.6708	111.30	14.948	67.740	.62908	.09307	.34381
#1	.00045	-.00001	.00061	.00031	4.3328	65.759	.21030
#2	.00040	.00024	.00057	.00044	4.3263	65.652	.21024
#3	.00037	.00062	.00075	.00108	4.3766	65.654	.21152
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.3283**	**1.8119**	**.00004**	**28.159**	**.01325**	**.04520**	**.00184**
Stddev	.0135	.0024	.00010	.062	.00041	.00681	.00189
%RSD	.18412	.12950	250.84	.21990	3.0756	15.057	103.24
#1	7.3287	1.8119	.00014	28.116	.01287	.04733	.00056
#2	7.3146	1.8142	-.00005	28.131	.01319	.03758	.00401
#3	7.3416	1.8095	.00002	28.230	.01368	.05068	.00093
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



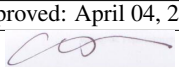
Sample Name: L1403155001 Acquired: 4/3/2014 13:37:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00115**	**.00129**	**3.3715**	**.00055**	**1.4926**	**-.00759**	**.00174**
Stddev	.00073	.00320	.0296	.00068	.0013	.00081	.00153
%RSD	63.722	248.83	.87912	123.44	.08979	10.712	87.982
#1	.00129	.00478	3.4027	.00005	1.4930	-.00666	.00350
#2	.00036	.00058	3.3681	.00027	1.4937	-.00801	.00077
#3	.00180	-.00150	3.3437	.00132	1.4911	-.00811	.00095
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00028**	**.02427**	F **-.81167**
Stddev	.00050	.00042	1.5508
%RSD	181.99	1.7188	191.07
#1	-.00018	.02474	-.13195
#2	.00082	.02415	.28325
#3	.00020	.02394	-2.5863
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18480.**	**22294.**
Stddev	175.	24.
%RSD	.94704	.10757
#1	18279.	22295.
#2	18596.	22269.
#3	18565.	22317.

Approved: April 04, 2014



Sample Name: L1403155002 Acquired: 4/3/2014 13:41:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00080**	**.70136**	**.00110**	**.08483**	**1.0074**	**-.00005**	F **1142.6**
Stddev	.00017	.01417	.00157	.00116	.0024	.00002	9.7
%RSD	21.878	2.0197	142.57	1.3715	.24115	32.818	.85234
#1	-.00099	.70550	.00146	.08566	1.0046	-.00006	1142.7
#2	-.00077	.68559	-.00062	.08533	1.0085	-.00007	1132.8
#3	-.00064	.71300	.00246	.08350	1.0091	-.00003	1152.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							900.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**-.00053**	**.00080**	**.00006**	**.16389**	**177.80**	**.70859**
Stddev	.00002	.00015	.00053	.00046	.00211	.33	.00188
%RSD	11.147	27.791	65.533	721.21	1.2861	.18437	.26543
#1	.00024	-.00070	.00023	.00057	.16539	177.42	.70650
#2	.00022	-.00043	.00091	-.00032	.16148	177.94	.71015
#3	.00019	-.00045	.00127	-.00006	.16480	178.03	.70914
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02042**	**.00028**	**.02614**	**43.914**	**.00401**	**.02899**	**-.00038**
Stddev	.02102	.00003	.00079	.109	.00060	.00652	.00062
%RSD	102.97	9.7817	3.0145	.24913	14.963	22.485	163.44
#1	-.00285	.00025	.02615	43.788	.00446	.03386	.00003
#2	.03806	.00029	.02692	43.972	.00333	.03152	-.00110
#3	.02603	.00031	.02535	43.983	.00424	.02158	-.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014

Sample Name: L1403155002 Acquired: 4/3/2014 13:41:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00258**	**.00268**	**3.6949**	**.00089**	**3.4859**	**-.01176**	**-.00292**
Stddev	.00123	.00393	.0333	.00065	.0052	.00097	.00069
%RSD	47.587	146.52	.90168	72.687	.14875	8.2739	23.653
#1	.00146	.00473	3.6949	.00153	3.4844	-.01161	-.00369
#2	.00389	-.00185	3.7283	.00023	3.4816	-.01087	-.00236
#3	.00238	.00516	3.6617	.00092	3.4916	-.01280	-.00270
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00039**	**.00193**	F **-2.6065**
Stddev	.00052	.00002	.3786
%RSD	135.39	1.1259	14.526
#1	.00087	.00196	-2.3346
#2	.00047	.00192	-3.0389
#3	-.00017	.00193	-2.4460
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**17719.**	**21629.**
Stddev	32.	74.
%RSD	.18206	.34236
#1	17732.	21679.
#2	17682.	21665.
#3	17742.	21544.

Approved: April 04, 2014

Sample Name: L1403155003 Acquired: 4/3/2014 13:45:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**.52364**	**.00373**	**.06432**	**.14263**	**.00006**	**7.7751**	**.00027**
Stddev	.00005	.01673	.00153	.00136	.00034	.00001	.0491	.00003
%RSD	61.904	3.1950	41.125	2.1104	.23848	10.385	.63209	11.190
#1	-.00003	.50462	.00532	.06276	.14276	.00005	7.8253	.00026
#2	-.00013	.53023	.00227	.06526	.14289	.00006	7.7729	.00030
#3	-.00008	.53608	.00358	.06493	.14224	.00006	7.7271	.00024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00055**	**.03367**	**.00290**	**1.1857**	**1.4781**	**.00917**	**1.1352**	**.03869**
Stddev	.00006	.00024	.00029	.0013	.0055	.00172	.0328	.00069
%RSD	10.518	.72132	9.9473	.10746	.37104	18.749	2.8852	1.7732
#1	.00061	.03365	.00308	1.1843	1.4808	.01023	1.1228	.03790
#2	.00053	.03344	.00256	1.1864	1.4818	.01008	1.1104	.03913
#3	.00050	.03392	.00305	1.1865	1.4718	.00718	1.1723	.03904
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00886**	**117.16**	**.02096**	**.07373**	**.00141**	**.00174**	**.00111**	**5.5650**
Stddev	.00016	.28	.00080	.00176	.00063	.00212	.00218	.0287
%RSD	1.7689	.23865	3.8150	2.3935	44.351	121.93	196.48	.51612
#1	.00902	117.46	.02138	.07555	.00104	-.00064	.00278	5.5776
#2	.00886	117.11	.02145	.07202	.00106	.00343	.00192	5.5852
#3	.00871	116.91	.02003	.07363	.00213	.00244	-.00136	5.5321
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403155003 Acquired: 4/3/2014 13:45:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00058**	**.08905**	**.00664**	**-.00142**	**.00170**	**.02133**	**4.5299**
Stddev	.00024	.00032	.00066	.00060	.00009	.00010	.1489
%RSD	41.230	.36064	9.8843	42.435	5.0841	.44881	3.2874
#1	.00081	.08907	.00658	-.00183	.00160	.02123	4.5824
#2	.00034	.08936	.00732	-.00171	.00174	.02135	4.3619
#3	.00059	.08872	.00601	-.00073	.00176	.02142	4.6455
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19404.**	**21814.**
Stddev	220.	294.
%RSD	1.1326	1.3479
#1	19584.	22153.
#2	19470.	21636.
#3	19159.	21652.

Approved: April 04, 2014

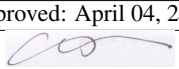
Sample Name: L1403155004 Acquired: 4/3/2014 13:48:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG468982-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**.00467**	**.00192**	**.06620**	**.41301**	**-.00002**	**23.410**	**.00028**
Stddev	.00036	.01438	.00115	.00072	.00077	.00001	.080	.00006
%RSD	216.13	307.85	60.136	1.0892	.18636	58.030	.34025	20.307
#1	.00001	.00555	.00059	.06616	.41289	-.00002	23.331	.00023
#2	.00058	.01860	.00246	.06550	.41383	-.00002	23.490	.00026
#3	-.00009	-.01013	.00270	.06694	.41230	-.00004	23.410	.00034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**.00738**	**.00068**	**1.3806**	**1.8546**	**.01083**	**4.3915**	**.27211**
Stddev	.00025	.00031	.00034	.0094	.0419	.00073	.0400	.00747
%RSD	394.65	4.2684	49.757	.68003	2.2569	6.7720	.91152	2.7434
#1	.00022	.00703	.00037	1.3793	1.8068	.01161	4.3486	.26590
#2	-.00024	.00764	.00104	1.3719	1.8847	.01014	4.4279	.27005
#3	-.00017	.00746	.00063	1.3906	1.8724	.01075	4.3980	.28039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00174**	**106.98**	**.00075**	**-.00121**	**-.00007**	**.00094**	**-.00057**	**4.5937**
Stddev	.00014	.10	.00036	.00243	.00217	.00075	.00067	.0023
%RSD	7.9248	.09285	48.653	200.84	3142.2	79.407	116.58	.04955
#1	.00169	106.87	.00037	-.00127	-.00041	.00093	-.00123	4.5953
#2	.00190	106.98	.00078	.00125	.00225	.00020	.00011	4.5911
#3	.00163	107.07	.00109	-.00360	-.00205	.00169	-.00060	4.5948
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403155004 Acquired: 4/3/2014 13:48:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG468982-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00109**	**.29766**	**-.00110**	**-.00042**	**.00014**	**.00495**	**.33417**
Stddev	.00021	.00084	.00056	.00065	.00019	.00007	.40565
%RSD	19.402	.28220	50.993	155.01	132.96	1.4427	121.39
#1	.00132	.29712	-.00174	-.00006	.00034	.00487	-.01702
#2	.00105	.29863	-.00080	-.00116	.00014	.00499	.24135
#3	.00090	.29723	-.00075	-.00003	-.00004	.00500	.77819
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19686.**	**22041.**
Stddev	89.	372.
%RSD	.44974	1.6894
#1	19758.	22366.
#2	19713.	22121.
#3	19587.	21634.

Approved: April 04, 2014

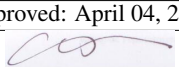
Sample Name: L1403155004MS Acquired: 4/3/2014 13:52:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG468982-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20728**	**5.1162**	**.20565**	**1.1131**	**.89658**	**.02653**	**27.788**
Stddev	.00427	.0300	.00209	.0195	.00260	.00040	.020
%RSD	2.0576	.58577	1.0172	1.7481	.29043	1.5030	.07049
#1	.20610	5.0817	.20781	1.1047	.89723	.02640	27.769
#2	.21202	5.1355	.20364	1.1353	.89880	.02698	27.787
#3	.20373	5.1315	.20549	1.0992	.89372	.02621	27.808
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02563**	**.10295**	**.25866**	**.25606**	**3.3125**	**26.990**	**.51174**
Stddev	.00017	.00044	.00408	.00055	.0037	.035	.00155
%RSD	.64902	.42843	1.5754	.21514	.11266	.12949	.30310
#1	.02578	.10316	.25751	.25610	3.3125	26.956	.51282
#2	.02567	.10325	.26319	.25659	3.3162	26.987	.51243
#3	.02545	.10245	.25528	.25549	3.3087	27.026	.50996
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.1389**	**.50729**	**.51462**	**127.47**	**.25554**	F **-.92145**	**.25548**
Stddev	.0579	.01137	.00039	.42	.00043	.10098	.00271
%RSD	.63334	2.2418	.07580	.33012	.16724	10.959	1.0609
#1	9.0746	.49425	.51478	127.47	.25599	-.85723	.25238
#2	9.1868	.51518	.51490	127.89	.25549	-1.0378	.25739
#3	9.1552	.51244	.51417	127.05	.25514	-.86928	.25667
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014



Sample Name: L1403155004MS Acquired: 4/3/2014 13:52:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG468982-04

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.60755**	**.20491**	**6.9917**	**.54278**	**.79925**	**.49971**	**.25044**
Stddev	.00241	.00144	.0209	.00452	.00118	.00116	.00135
%RSD	.39619	.70384	.29919	.83304	.14810	.23220	.54078
#1	.60974	.20647	6.9830	.54739	.80058	.50051	.25200
#2	.60497	.20362	6.9765	.54260	.79832	.50023	.24960
#3	.60792	.20465	7.0155	.53835	.79883	.49838	.24972
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.51157**	**.51520**	F **3200.5**
Stddev	.00813	.00380	57.2
%RSD	1.5883	.73821	1.7861
#1	.50884	.51639	3174.5
#2	.52071	.51826	3266.1
#3	.50516	.51094	3161.0
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19172.**	**21853.**
Stddev	220.	340.
%RSD	1.1495	1.5549
#1	19112.	22242.
#2	18988.	21706.
#3	19417.	21611.

Approved: April 04, 2014

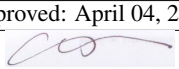
Sample Name: L1403155004MSD Acquired: 4/3/2014 13:55:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG468982-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20381**	**5.0342**	**.20201**	**1.0913**	**.88586**	**.02571**	**27.206**
Stddev	.00204	.0082	.00032	.0154	.00231	.00035	.015
%RSD	.99894	.16350	.15779	1.4139	.26104	1.3491	.05550
#1	.20335	5.0249	.20237	1.0864	.88844	.02568	27.213
#2	.20204	5.0372	.20191	1.0790	.88517	.02538	27.189
#3	.20603	5.0405	.20176	1.1086	.88397	.02607	27.216
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02548**	**.10116**	**.25118**	**.25255**	**3.3160**	**26.500**	**.50606**
Stddev	.00019	.00007	.00416	.00038	.0095	.036	.00090
%RSD	.73259	.06642	1.6575	.15197	.28770	.13737	.17830
#1	.02570	.10123	.25046	.25260	3.3163	26.458	.50511
#2	.02538	.10110	.24741	.25291	3.3063	26.526	.50691
#3	.02536	.10115	.25565	.25215	3.3253	26.515	.50617
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.0263**	**.49826**	**.50518**	**126.70**	**.25197**	F **-.91934**	**.25011**
Stddev	.0382	.00767	.00138	.39	.00113	.09160	.00305
%RSD	.42293	1.5389	.27357	.30772	.44693	9.9632	1.2206
#1	9.0022	.49062	.50551	127.14	.25234	-.89602	.25363
#2	9.0064	.49823	.50636	126.55	.25287	-.84166	.24813
#3	9.0703	.50595	.50366	126.40	.25071	-1.0203	.24858
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014



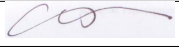
Sample Name: L1403155004MSD Acquired: 4/3/2014 13:55:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG468982-05

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.59957**	**.20380**	**6.9221**	**.56030**	**.77658**	**.49298**	**.24910**
Stddev	.00407	.00509	.0389	.00236	.00037	.00224	.00147
%RSD	.67943	2.4963	.56268	.42116	.04811	.45492	.58872
#1	.60074	.20652	6.9384	.56133	.77625	.49543	.25077
#2	.60292	.20694	6.9502	.56197	.77699	.49102	.24800
#3	.59503	.19793	6.8776	.55760	.77652	.49250	.24854
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.50101**	**.50773**	F **3219.0**
Stddev	.00644	.00388	42.7
%RSD	1.2862	.76486	1.3264
#1	.49852	.50626	3212.2
#2	.49619	.50481	3180.1
#3	.50833	.51214	3264.7
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19089.**	**21784.**
Stddev	241.	339.
%RSD	1.2640	1.5575
#1	19174.	22121.
#2	19277.	21787.
#3	18817.	21443.

Approved: April 04, 2014



Sample Name: L1403155003PS Acquired: 4/3/2014 13:58:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469625-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20094**	**5.4295**	**.20113**	**1.0860**	**.61946**	**.02540**	**12.012**	**.02544**
Stddev	.00078	.0482	.00062	.0087	.00131	.00022	.030	.00011
%RSD	.38802	.88708	.31073	.80156	.21141	.85792	.25282	.43891
#1	.20107	5.4672	.20093	1.0891	.61979	.02544	12.032	.02536
#2	.20165	5.4460	.20183	1.0928	.62058	.02560	12.027	.02556
#3	.20011	5.3752	.20063	1.0762	.61802	.02517	11.977	.02538
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10111**	**.27939**	**.25306**	**3.0741**	**26.234**	**.50449**	**5.9839**	**.28960**
Stddev	.00045	.00298	.00136	.0142	.104	.00150	.0288	.00024
%RSD	.44373	1.0655	.53729	.46066	.39661	.29721	.48072	.08231
#1	.10089	.28024	.25362	3.0882	26.247	.50599	5.9507	.28985
#2	.10162	.28185	.25405	3.0599	26.332	.50450	6.0003	.28938
#3	.10081	.27608	.25151	3.0742	26.125	.50299	6.0008	.28958
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50944**	**130.87**	**.26899**	**.05872**	**.25284**	**.60701**	**.20489**	**7.4635**
Stddev	.00173	.26	.00066	.00255	.00281	.00664	.00381	.0129
%RSD	.33883	.20090	.24678	4.3500	1.1102	1.0932	1.8585	.17301
#1	.50902	130.62	.26916	.06167	.25360	.61393	.20614	7.4532
#2	.51134	131.15	.26956	.05723	.25519	.60640	.20792	7.4593
#3	.50797	130.85	.26826	.05726	.24973	.60070	.20062	7.4780
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403155003PS Acquired: 4/3/2014 13:58:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469625-03

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00106**	**.57256**	**.49880**	**.24835**	**.50003**	**.52449**	**5.7180**
Stddev	.00057	.00234	.00329	.00349	.00336	.00277	.1908
%RSD	53.716	.40800	.65995	1.4065	.67203	.52818	3.3374
#1	.00139	.57485	.49898	.25049	.50149	.52337	5.7950
#2	.00140	.57265	.50200	.25024	.50241	.52765	5.8584
#3	.00040	.57018	.49542	.24432	.49619	.52246	5.5007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19289.**	**21010.**
Stddev	111.	87.
%RSD	.57558	.41532
#1	19308.	21110.
#2	19170.	20969.
#3	19390.	20950.

Approved: April 04, 2014

Sample Name: L1403155003SDL Acquired: 4/3/2014 14:02:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469625-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.11268**	**.00189**	**.01851**	**.02888**	**.00003**	**1.5587**	**-.00004**
Stddev	.00008	.01954	.00172	.00086	.00006	.00001	.0073	.00006
%RSD	31.573	17.338	91.190	4.6351	.19365	48.768	.46952	155.04
#1	.00019	.13264	.00368	.01811	.02890	.00002	1.5526	.00003
#2	.00021	.11181	.00174	.01792	.02882	.00004	1.5567	-.00009
#3	.00034	.09360	.00025	.01949	.02893	.00002	1.5668	-.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**.00678**	**.00050**	**.24711**	**.29048**	**.00112**	**.21656**	**.00819**
Stddev	.00028	.00033	.00024	.00532	.03308	.00036	.02056	.00019
%RSD	737.25	4.8199	47.175	2.1531	11.389	32.620	9.4961	2.2680
#1	-.00018	.00657	.00067	.24555	.32368	.00131	.21704	.00822
#2	-.00006	.00716	.00023	.25304	.25752	.00134	.19576	.00836
#3	.00036	.00662	.00060	.24275	.29023	.00070	.23689	.00799
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00175**	**23.331**	**.00406**	**.01528**	**-.00087**	**.00109**	**-.00031**	**1.1574**
Stddev	.00019	.107	.00016	.00509	.00059	.00162	.00100	.0169
%RSD	10.669	.45964	4.0075	33.315	68.228	148.55	322.82	1.4591
#1	.00194	23.421	.00396	.00955	-.00020	.00001	-.00142	1.1383
#2	.00175	23.359	.00425	.01929	-.00109	.00031	.00053	1.1637
#3	.00156	23.212	.00397	.01700	-.00132	.00296	-.00005	1.1703
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403155003SDL Acquired: 4/3/2014 14:02:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469625-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00038**	**.01784**	**.00048**	**-.00081**	**.00039**	**.00526**	**.66502**
Stddev	.00002	.00028	.00037	.00094	.00009	.00005	.43971
%RSD	4.1772	1.5485	77.967	115.32	23.641	.92353	66.120
#1	.00036	.01767	.00058	.00027	.00033	.00521	1.0542
#2	.00039	.01770	.00007	-.00127	.00034	.00531	.18801
#3	.00039	.01816	.00080	-.00143	.00050	.00526	.75288
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20016.**	**22232.**
Stddev	128.	332.
%RSD	.64184	1.4949
#1	20151.	22123.
#2	20000.	21968.
#3	19896.	22605.

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 14:05:47 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40378**	**9.9302**	**.39563**	**.50948**	**.98540**	**.05019**	**9.8957**
Stddev	.00288	.0162	.00119	.00481	.00176	.00034	.0133
%RSD	.71226	.16293	.29980	.94431	.17833	.67766	.13401
#1	.40392	9.9120	.39567	.51266	.98443	.05047	9.8805
#2	.40658	9.9356	.39679	.51184	.98743	.05029	9.9014
#3	.40083	9.9430	.39442	.50395	.98435	.04981	9.9051
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05042**	**.20084**	**.49974**	**.50523**	**3.9622**	**49.457**	**.99463**
Stddev	.00024	.00019	.00414	.00095	.0220	.098	.00291
%RSD	.47076	.09684	.82776	.18851	.55516	.19787	.29250
#1	.05048	.20104	.50429	.50581	3.9462	49.403	.99137
#2	.05062	.20082	.49871	.50575	3.9873	49.399	.99695
#3	.05016	.20065	.49621	.50413	3.9532	49.570	.99558
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.8370**	**.49207**	**.98936**	**49.369**	**.50317**	**9.9843**	**.50370**
Stddev	.0453	.00159	.00278	.134	.00054	.0839	.00332
%RSD	.46066	.32212	.28129	.27229	.10715	.84084	.65954
#1	9.7858	.49249	.99247	49.286	.50372	10.028	.50732
#2	9.8719	.49031	.98853	49.524	.50313	10.038	.50078
#3	9.8532	.49340	.98709	49.297	.50265	9.8875	.50299
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

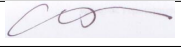
Sample Name: CCV Acquired: 4/3/2014 14:05:47 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.1884**	**.40248**	**4.9590**	**.99579**	**.99331**	**.98896**	**.50474**
Stddev	.0018	.00429	.0084	.00226	.00193	.00188	.00397
%RSD	.15499	1.0665	.16911	.22736	.19458	.19037	.78621
#1	1.1880	.39754	4.9687	.99749	.99492	.98679	.50382
#2	1.1904	.40459	4.9538	.99665	.99117	.98984	.50908
#3	1.1867	.40531	4.9546	.99322	.99386	.99023	.50130
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.99799**	**1.0030**	F **.87166**
Stddev	.00565	.0013	.81341
%RSD	.56603	.13251	93.317
#1	.99970	1.0042	-.04038
#2	1.0026	1.0033	1.5220
#3	.99169	1.0016	1.1333
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19475.**	**21928.**
Stddev	68.	117.
%RSD	.34878	.53160
#1	19410.	21879.
#2	19471.	22061.
#3	19545.	21843.

Approved: April 04, 2014



Sample Name: CCB Acquired: 4/3/2014 14:09:03 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00036**	**-.02233**	**.00206**	**.00384**	**-.00021**	**.00001**	**.01231**	**.00002**
Stddev	.00066	.01100	.00158	.00097	.00008	.00001	.00510	.00026
%RSD	180.46	49.279	76.856	25.334	39.488	66.332	41.453	1188.3
#1	.00034	-.01035	.00023	.00309	-.00019	.00000	.01807	.00030
#2	.00103	-.03198	.00295	.00494	-.00014	.00002	.01050	-.00021
#3	-.00028	-.02466	.00299	.00349	-.00031	.00002	.00836	-.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**-.00003**	**.00008**	**-.00111**	**.02704**	**-.00224**	**-.01445**	**.00035**
Stddev	.00003	.00007	.00009	.00329	.01533	.00115	.00518	.00002
%RSD	43.114	233.35	111.06	296.36	56.707	51.219	35.837	4.5847
#1	-.00003	.00005	.00004	-.00240	.04018	-.00311	-.01924	.00036
#2	-.00009	-.00007	.00018	-.00356	.03075	-.00094	-.00895	.00036
#3	-.00007	-.00006	.00002	.00263	.01019	-.00268	-.01516	.00033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**.01315**	**-.00003**	**-.00281**	**-.00069**	**-.00019**	**-.00218**	**-.00170**
Stddev	.00010	.01217	.00041	.00447	.00103	.00284	.00365	.00073
%RSD	30.656	92.577	1602.4	158.73	150.28	1458.3	167.14	43.033
#1	.00032	.00711	.00020	.00208	-.00092	-.00167	-.00535	-.00198
#2	.00040	.02716	.00022	-.00666	-.00158	.00308	.00181	-.00087
#3	.00021	.00518	-.00050	-.00387	.00044	-.00198	-.00301	-.00225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/3/2014 14:09:03 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**.00015**	**-.00062**	**-.00086**	**.00007**	**.00186**	**-.06974**
Stddev	.00041	.00012	.00065	.00106	.00012	.00007	.12241
%RSD	181.71	79.692	104.86	123.20	184.84	3.8871	175.52
#1	.00000	.00017	-.00049	.00035	.00018	.00194	-.20711
#2	-.00002	.00002	-.00004	-.00132	.00008	.00180	-.02990
#3	.00071	.00026	-.00132	-.00161	-.00006	.00184	.02778
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20302.**	**22397.**
Stddev	34.	20.
%RSD	.16977	.08768
#1	20339.	22412.
#2	20271.	22405.
#3	20297.	22375.

Approved: April 04, 2014

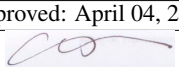
Sample Name: ICSA Acquired: 4/3/2014 14:12:40 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00061**	**245.38**	**-.00059**	**-.01177**	**-.00007**	**.00000**	**244.19**
Stddev	.00061	.62	.00243	.00127	.00032	.0000	.10
%RSD	101.32	.25266	413.51	10.818	482.36	838.70	.04132
#1	-.00075	244.69	.00211	-.01035	-.00010	.00002	244.11
#2	-.00114	245.55	-.00260	-.01280	-.00037	-.00001	244.15
#3	.00007	245.89	-.00127	-.01217	.00027	-.00002	244.30
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**-.00025**	**-.00042**	**.00107**	**93.628**	**.05158**	**.00870**
Stddev	.00011	.00003	.00026	.00044	.165	.02083	.00005
%RSD	59.806	11.716	61.506	41.551	.17644	40.389	.54966
#1	.00018	-.00027	-.00065	.00057	93.486	.02931	.00865
#2	.00028	-.00027	-.00047	.00119	93.588	.07059	.00874
#3	.00007	-.00022	-.00014	.00144	93.809	.05484	.00873
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**240.53**	**.00033**	**-.00093**	**.01987**	**-.00056**	**-.05999**	**-.00060**
Stddev	1.23	.00005	.00019	.00425	.00018	.00367	.00049
%RSD	.51081	15.787	20.185	21.386	31.425	6.1226	81.809
#1	239.16	.00028	-.00072	.02473	-.00072	-.06386	-.00098
#2	240.90	.00034	-.00107	.01682	-.00037	-.05655	-.00005
#3	241.53	.00038	-.00101	.01807	-.00059	-.05955	-.00077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: ICSA Acquired: 4/3/2014 14:12:40 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00225**	**.00056**	**.08505**	**.00118**	**.00016**	**-.00468**	**-.00255**
Stddev	.00390	.00309	.00180	.00033	.00009	.00190	.00198
%RSD	173.55	547.80	2.1199	28.264	53.667	40.676	77.470
#1	-.00542	.00341	.08710	.00082	.00008	-.00466	-.00484
#2	-.00343	-.00273	.08370	.00148	.00025	-.00279	-.00142
#3	.00211	.00101	.08435	.00123	.00015	-.00660	-.00140
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00111**	**.00038**	F **-15.646**
Stddev	.00052	.00015	.020
%RSD	46.613	39.830	.12867
#1	.00080	.00052	-15.659
#2	.00081	.00041	-15.623
#3	.00170	.00022	-15.656
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.08000
Low Limit			-.08000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18587.**	**21191.**
Stddev	232.	390.
%RSD	1.2502	1.8394
#1	18853.	21629.
#2	18426.	21062.
#3	18482.	20883.

Approved: April 04, 2014

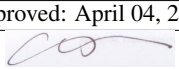
Sample Name: ICSAB Acquired: 4/3/2014 14:16:09 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49427**	**249.24**	**.25440**	**-.02312**	**.24494**	**.25421**	**249.31**
Stddev	.00581	.51	.00232	.00086	.00241	.00284	.66
%RSD	1.1755	.20513	.91379	3.7392	.98329	1.1184	.26334
#1	.49825	249.29	.25175	-.02311	.24271	.25584	248.66
#2	.48760	248.71	.25610	-.02227	.24749	.25093	249.97
#3	.49696	249.73	.25535	-.02400	.24461	.25587	249.31
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.45686**	**.24619**	**.25224**	**.24846**	**95.136**	**5.2342**	**.01083**
Stddev	.00053	.00050	.00267	.00045	.203	.2208	.00167
%RSD	.11556	.20483	1.0596	.18078	.21351	4.2189	15.465
#1	.45633	.24567	.25440	.24889	95.103	5.0716	.01006
#2	.45739	.24667	.24925	.24850	94.951	5.4856	.01275
#3	.45687	.24624	.25308	.24800	95.354	5.1455	.00968
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**245.20**	**.23555**	**-.00057**	**5.2503**	**.48012**	**-.06189**	**.49217**
Stddev	.91	.00237	.00024	.5021	.00125	.00426	.00627
%RSD	.37116	1.0063	42.509	9.5640	.26060	6.8813	1.2745
#1	244.52	.23353	-.00044	4.8337	.47985	-.05963	.49814
#2	244.85	.23497	-.00084	5.8078	.48149	-.06680	.49273
#3	246.24	.23816	-.00042	5.1094	.47904	-.05924	.48563
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: ICSAB Acquired: 4/3/2014 14:16:09 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50926**	**.25724**	**-.00078**	**.00229**	**.00486**	**-.00317**	**.46787**
Stddev	.00668	.00499	.00238	.00063	.00577	.00188	.00531
%RSD	1.3112	1.9390	303.63	27.526	118.65	59.195	1.1350
#1	.51338	.26123	.00132	.00289	.00026	-.00348	.47096
#2	.51284	.25165	-.00337	.00232	.01134	-.00116	.47090
#3	.50155	.25884	-.00030	.00164	.00299	-.00488	.46173
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.24924**	**.48604**	F **-16.741**
Stddev	.00323	.00092	.620
%RSD	1.2957	.18985	3.7065
#1	.25120	.48530	-16.030
#2	.24551	.48575	-17.018
#3	.25101	.48708	-17.174
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18369.**	**21159.**
Stddev	45.	295.
%RSD	.24427	1.3943
#1	18390.	21497.
#2	18399.	21026.
#3	18317.	20954.

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 14:19:34 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40498**	**10.048**	**.40057**	**.51640**	**.98583**	**.05076**	**10.015**
Stddev	.00475	.060	.00430	.00745	.00299	.00084	.032
%RSD	1.1726	.59751	1.0731	1.4424	.30286	1.6487	.31874
#1	.41037	10.108	.40096	.52497	.98873	.05173	10.051
#2	.40314	10.048	.39610	.51144	.98276	.05031	9.9917
#3	.40142	9.9879	.40467	.51280	.98600	.05025	10.001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05059**	**.20400**	**.50482**	**.51162**	**4.0057**	**50.181**	**.98612**
Stddev	.00029	.00072	.00886	.00141	.0421	.327	.00098
%RSD	.57924	.35106	1.7558	.27512	1.0519	.65150	.09970
#1	.05059	.20410	.51497	.51126	4.0523	50.554	.98600
#2	.05029	.20324	.50089	.51043	3.9944	50.039	.98716
#3	.05088	.20466	.49861	.51317	3.9703	49.948	.98521
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.061**	**.51863**	**1.0016**	**49.011**	**.50649**	**10.113**	**.50946**
Stddev	.098	.02190	.0097	.161	.00108	.082	.00265
%RSD	.96974	4.2219	.96826	.32770	.21279	.80653	.52109
#1	10.168	.54204	.99144	49.178	.50691	10.023	.51233
#2	10.039	.51520	1.0026	48.999	.50526	10.133	.50709
#3	9.9763	.49865	1.0108	48.857	.50729	10.182	.50895
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 14:19:34 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.1980**	**.40919**	**4.9835**	**1.0314**	**1.0084**	**.98311**	**.51321**
Stddev	.0030	.00383	.0287	.0035	.0024	.00094	.00262
%RSD	.25368	.93661	.57535	.33796	.24203	.09545	.51105
#1	1.1993	.40523	4.9715	1.0337	1.0102	.98262	.51040
#2	1.1945	.40946	4.9627	1.0274	1.0056	.98420	.51366
#3	1.2002	.41288	5.0162	1.0330	1.0093	.98253	.51558
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.99981**	**1.0234**	F **.77071**
Stddev	.01487	.0025	.28188
%RSD	1.4868	.24594	36.574
#1	1.0170	1.0258	1.0953
#2	.99166	1.0236	.58775
#3	.99081	1.0208	.62905
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19534.**	**21017.**
Stddev	158.	762.
%RSD	.80960	3.6264
#1	19444.	20336.
#2	19441.	20875.
#3	19716.	21841.

Approved: April 04, 2014

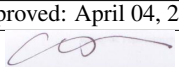
Sample Name: CCB Acquired: 4/3/2014 14:22:50 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**.02700**	**.00126**	**.00336**	**.00018**	**.00001**	**.00382**
Stddev	.00036	.01120	.00146	.00106	.00013	.00001	.00749
%RSD	519.65	41.463	116.35	31.538	72.595	47.815	196.12
#1	-.00012	.01473	.00072	.00397	.00003	.00001	-.00356
#2	.00048	.03665	.00292	.00214	.00024	.00002	.00360
#3	-.00016	.02962	.00014	.00398	.00027	.00001	.01141
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**-.00023**	**.00013**	**-.00001**	**-.00246**	**.03783**	**-.00020**
Stddev	.00005	.00023	.00043	.00018	.00398	.01683	.00122
%RSD	223.69	100.04	323.38	1796.2	161.50	44.484	611.10
#1	.00000	-.00005	-.00023	.00020	-.00225	.01841	.00092
#2	-.00008	-.00048	.00002	-.00008	-.00654	.04821	-.00001
#3	.00001	-.00015	.00061	-.00015	.00141	.04687	-.00150
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00094**	**.00037**	**.00014**	**.00795**	**-.00041**	**-.00060**	**-.00181**
Stddev	.02260	.00003	.00022	.01517	.00083	.00553	.00074
%RSD	2409.1	8.6380	158.68	190.80	203.80	923.15	40.933
#1	.02068	.00035	.00031	.01731	-.00079	.00124	-.00260
#2	.00092	.00040	.00022	-.00955	-.00097	-.00682	-.00113
#3	-.02441	.00035	-.00011	.01609	.00054	.00378	-.00171
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



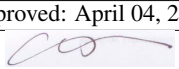
Sample Name: CCB Acquired: 4/3/2014 14:22:50 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**.00241**	**-.00126**	**.00046**	**.00011**	**-.00107**	**-.00040**
Stddev	.00037	.00110	.00141	.00018	.00005	.00137	.00125
%RSD	214.94	45.523	111.56	39.403	44.656	128.63	312.94
#1	.00038	.00332	-.00050	.00053	.00016	-.00086	.00038
#2	-.00025	.00272	-.00288	.00060	.00011	-.00253	.00026
#3	.00039	.00119	-.00040	.00026	.00006	.00019	-.00184
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00008**	**.00192**	F **.69676**
Stddev	.00010	.00011	.45928
%RSD	126.25	5.6916	65.916
#1	.00019	.00195	1.1586
#2	.00007	.00200	.24010
#3	-.00002	.00179	.69159
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19985.**	**21632.**
Stddev	133.	187.
%RSD	.66621	.86544
#1	20057.	21417.
#2	20066.	21759.
#3	19831.	21720.

Approved: April 04, 2014



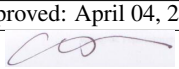
Sample Name: PBW 06 Acquired: 4/3/2014 14:26:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469369-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**.01408**	**.00050**	**.00222**	**.00077**	**.00002**	**.02486**	**.00011**
Stddev	.00019	.00441	.00098	.00172	.00038	.00003	.01089	.00007
%RSD	101.94	31.332	194.80	77.254	50.055	135.86	43.810	61.353
#1	.00001	.01118	.00032	.00392	.00120	.00003	.02008	.00004
#2	-.00020	.01192	-.00037	.00225	.00045	-.00001	.01717	.00017
#3	-.00037	.01916	.00156	.00049	.00065	.00004	.03732	.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00026**	**.00005**	**.00048**	**.00596**	**-.00858**	**-.00026**	**.01131**	**.00037**
Stddev	.00017	.00015	.00073	.00212	.05981	.00071	.01248	.00013
%RSD	66.576	305.26	151.26	35.546	697.44	271.68	110.36	36.282
#1	-.00043	.00021	-.00026	.00545	-.07035	-.00085	.01958	.00038
#2	-.00009	.00001	.00120	.00829	-.00444	.00053	.01739	.00049
#3	-.00025	-.00008	.00051	.00414	.04906	-.00047	-.00305	.00023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**.01490**	**-.00031**	**.00496**	**-.00203**	**.00178**	**.00117**	**-.00145**
Stddev	.00023	.01924	.00052	.00169	.00155	.00227	.00051	.00178
%RSD	256.54	129.12	167.76	34.010	76.284	127.45	43.283	122.78
#1	.00036	-.00108	-.00074	.00641	-.00078	.00323	.00061	-.00240
#2	-.00002	.03626	-.00045	.00536	-.00376	.00295	.00159	.00060
#3	-.00007	.00953	.00027	.00311	-.00155	-.00084	.00133	-.00255
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: PBW 06 Acquired: 4/3/2014 14:26:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469369-03

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00079**	**.00024**	**-.00114**	**-.00127**	**-.00014**	**.00203**	**.26157**
Stddev	.00019	.00011	.00052	.00136	.00043	.00003	.30179
%RSD	24.721	47.598	45.576	107.10	311.53	1.5009	115.37
#1	.00074	.00014	-.00111	-.00129	-.00054	.00205	-.05389
#2	.00100	.00021	-.00063	-.00261	.00031	.00200	.29109
#3	.00062	.00036	-.00167	.00010	-.00019	.00205	.54752
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19437.**	**20649.**
Stddev	281.	779.
%RSD	1.4457	3.7703
#1	19113.	20010.
#2	19607.	20422.
#3	19592.	21516.

Approved: April 04, 2014

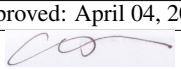
Sample Name: LCSW 06 Acquired: 4/3/2014 14:30:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469369-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00048**	**5.2290**	**-.00057**	**.00159**	**.00058**	**.00001**	**5.2234**
Stddev	.00032	.0259	.00087	.00038	.00055	.00002	.0235
%RSD	68.203	.49549	153.49	24.066	93.887	203.15	.45055
#1	-.00083	5.2095	-.00047	.00188	.00001	.00002	5.2226
#2	-.00019	5.2584	.00025	.00116	.00109	.00002	5.2003
#3	-.00040	5.2191	-.00148	.00173	.00064	-.00001	5.2474
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**-.00026**	**.00020**	**.00109**	**2.0696**	**25.826**	**.00045**
Stddev	.00012	.00031	.00020	.00076	.0078	.061	.00076
%RSD	61.591	118.74	98.458	69.497	.37777	.23688	170.34
#1	.00021	-.00048	.00038	.00073	2.0647	25.757	.00131
#2	.00007	.00009	.00024	.00058	2.0654	25.874	-.00011
#3	.00030	-.00039	-.00001	.00196	2.0786	25.846	.00014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.2201**	**.27044**	**.00015**	**25.287**	**.00135**	**.00014**	**-.00095**
Stddev	.0267	.00421	.00018	.045	.00097	.00340	.00133
%RSD	.51233	1.5564	117.88	.17972	71.924	2383.1	139.88
#1	5.1893	.26566	.00031	25.235	.00084	-.00276	.00057
#2	5.2352	.27210	-.00004	25.307	.00247	.00388	-.00191
#3	5.2360	.27357	.00018	25.319	.00074	-.00069	-.00152
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



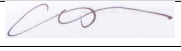
Sample Name: LCSW 06 Acquired: 4/3/2014 14:30:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469369-04

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00177**	**.00192**	**-.00300**	**.00060**	**.00004**	**-.00206**	**-.00019**
Stddev	.00125	.00319	.00146	.00023	.00007	.00089	.00070
%RSD	70.930	166.33	48.436	37.834	168.30	43.023	370.50
#1	.00320	.00361	-.00349	.00039	.00003	-.00106	-.00002
#2	.00124	.00392	-.00415	.00056	-.00002	-.00275	.00041
#3	.00086	-.00176	-.00137	.00084	.00011	-.00236	-.00096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00005**	**.00185**	F **-.04594**
Stddev	.00016	.00009	.43584
%RSD	310.67	4.8465	948.71
#1	-.00016	.00187	.24180
#2	-.00013	.00193	-.54738
#3	.00013	.00176	.16776
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19334.**	**20673.**
Stddev	185.	330.
%RSD	.95823	1.5950
#1	19309.	21053.
#2	19531.	20505.
#3	19163.	20461.

Approved: April 04, 2014



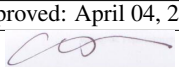
Sample Name: L1403140101 Acquired: 4/3/2014 14:33:37 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00028**	**.05048**	**.00005**	**.00701**	**.01683**	**.00003**	**3.7534**	**.00019**
Stddev	.00065	.00946	.00221	.00080	.00034	.00002	.0353	.00003
%RSD	234.57	18.735	4749.1	11.435	2.0206	65.492	.94006	16.127
#1	-.00006	.05922	.00017	.00724	.01644	.00004	3.7127	.00016
#2	-.00100	.05179	-.00222	.00611	.01701	.00001	3.7761	.00022
#3	.00023	.04044	.00219	.00766	.01704	.00004	3.7712	.00019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**.00028**	**.00121**	**.06865**	**.85365**	**-.00038**	**2.1449**	**.00996**
Stddev	.00019	.00012	.00033	.00218	.00651	.00083	.0299	.00024
%RSD	238.69	43.886	27.277	3.1731	.76255	218.85	1.3917	2.4205
#1	-.00030	.00028	.00087	.06754	.84967	-.00012	2.1130	.00979
#2	-.00003	.00016	.00123	.06725	.85011	.00029	2.1492	.00985
#3	.00008	.00041	.00153	.07116	.86116	-.00130	2.1723	.01024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**1.4356**	**.00011**	**.00040**	**-.00098**	**.00256**	**.00452**	**2.4985**
Stddev	.00015	.0163	.00042	.00163	.00119	.00169	.00050	.0142
%RSD	216.07	1.1328	393.19	406.12	121.11	66.222	11.035	.56911
#1	-.00001	1.4267	.00058	.00158	-.00084	.00389	.00420	2.4822
#2	.00024	1.4544	-.00022	-.00146	-.00223	.00065	.00426	2.5051
#3	-.00002	1.4257	-.00003	.00110	.00013	.00312	.00509	2.5081
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403140101 Acquired: 4/3/2014 14:33:37 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00081**	**.02358**	**.00004**	**-.00129**	**.00019**	**.00257**	**.66688**
Stddev	.00013	.00053	.00044	.00157	.00010	.00018	.43066
%RSD	15.977	2.2551	1242.7	122.13	55.026	7.0422	64.578
#1	.00068	.02312	.00038	-.00151	.00031	.00243	.21838
#2	.00094	.02346	-.00045	-.00273	.00014	.00278	.70510
#3	.00083	.02417	.00018	.00038	.00012	.00251	1.0771
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19821.**	**21406.**
Stddev	156.	331.
%RSD	.78511	1.5475
#1	19645.	21765.
#2	19878.	21341.
#3	19940.	21112.

Approved: April 04, 2014

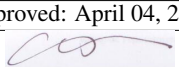
Sample Name: L1403140809 Acquired: 4/3/2014 14:37:09 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469369-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00034**	**.16758**	**.00109**	**.00743**	**.01811**	**.00004**	**9.0798**	**.00024**
Stddev	.00050	.00257	.00074	.00080	.00025	.00002	.0106	.00007
%RSD	147.74	1.5334	68.410	10.811	1.3789	37.352	.11688	27.506
#1	.00091	.16901	.00083	.00728	.01819	.00003	9.0875	.00018
#2	-.00001	.16462	.00051	.00671	.01831	.00006	9.0677	.00023
#3	.00012	.16912	.00193	.00829	.01783	.00003	9.0842	.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00193**	**.00021**	**.00094**	**.12450**	**1.1982**	**.00093**	**3.9595**	**.58259**
Stddev	.00014	.00026	.00017	.00387	.0561	.00061	.0062	.00159
%RSD	7.2022	126.89	18.390	3.1081	4.6866	64.964	.15725	.27311
#1	.00189	.00022	.00075	.12680	1.2578	.00087	3.9532	.58122
#2	.00181	-.00006	.00108	.12003	1.1904	.00157	3.9597	.58434
#3	.00208	.00046	.00100	.12666	1.1463	.00036	3.9656	.58221
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**3.4331**	**.00071**	**.00351**	**-.00112**	**.00092**	**.00041**	**2.4072**
Stddev	.00004	.0085	.00072	.00584	.00270	.00197	.00336	.0173
%RSD	22.209	.24788	101.74	166.41	240.36	214.16	828.06	.72017
#1	.00013	3.4415	.00037	.00680	.00186	-.00121	.00235	2.4139
#2	.00018	3.4245	.00022	.00695	-.00342	.00267	.00235	2.4201
#3	.00020	3.4331	.00153	-.00323	-.00181	.00130	-.00347	2.3875
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403140809 Acquired: 4/3/2014 14:37:09 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469369-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00056**	**.05197**	**.00171**	**-.00115**	**.00011**	**.00403**	**.51854**
Stddev	.00017	.00043	.00054	.00127	.00022	.00017	.77404
%RSD	29.730	.83144	31.818	110.77	209.06	4.3389	149.27
#1	.00070	.05153	.00219	.00032	.00003	.00418	-.33484
#2	.00060	.05199	.00112	-.00191	.00035	.00408	.71512
#3	.00038	.05239	.00181	-.00185	-.00007	.00384	1.1753
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19903.**	**21931.**
Stddev	24.	28.
%RSD	.12282	.12882
#1	19886.	21963.
#2	19891.	21923.
#3	19931.	21908.

Approved: April 04, 2014

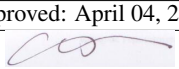
Sample Name: L1403140809DUP Acquired: 4/3/2014 14:40:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469369-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00029**	**.16317**	**-.00110**	**.00750**	**.01810**	**.00006**	**8.8411**	**.00024**
Stddev	.00032	.01519	.00056	.00078	.00029	.00003	.0144	.00004
%RSD	108.75	9.3067	51.041	10.363	1.6160	46.055	.16303	17.571
#1	.00067	.15192	-.00062	.00818	.01808	.00008	8.8556	.00026
#2	.00010	.15715	-.00096	.00665	.01840	.00007	8.8268	.00019
#3	.00012	.18044	-.00172	.00766	.01782	.00003	8.8410	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00201**	**.00023**	**.00079**	**.17343**	**1.1638**	**.00129**	**3.9574**	**.59417**
Stddev	.00006	.00022	.00028	.00473	.0243	.00141	.0114	.00344
%RSD	2.7531	95.914	35.994	2.7275	2.0892	109.31	.28763	.57966
#1	.00204	.00008	.00074	.16874	1.1913	.00257	3.9454	.59761
#2	.00195	.00047	.00109	.17820	1.1550	-.00022	3.9680	.59418
#3	.00204	.00012	.00053	.17333	1.1452	.00152	3.9589	.59072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**3.3757**	**.00051**	**-.00070**	**-.00226**	**.00013**	**.00191**	**2.3857**
Stddev	.00012	.0122	.00034	.00110	.00100	.00152	.00296	.0050
%RSD	81.030	.36222	66.588	157.03	44.313	1184.2	154.56	.20959
#1	.00025	3.3730	.00017	-.00034	-.00246	-.00080	-.00140	2.3813
#2	.00017	3.3891	.00051	.00017	-.00315	-.00069	.00427	2.3846
#3	.00002	3.3651	.00085	-.00193	-.00118	.00188	.00287	2.3912
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403140809DUP Acquired: 4/3/2014 14:40:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469369-05

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00055**	**.05109**	**.00072**	**-.00193**	**.00017**	**.00911**	**.72436**
Stddev	.00020	.00027	.00043	.00062	.00025	.00010	.21301
%RSD	36.935	.53612	59.481	32.323	145.46	1.0579	29.406
#1	.00078	.05083	.00092	-.00128	.00040	.00911	.54162
#2	.00041	.05138	.00023	-.00252	.00021	.00921	.67316
#3	.00045	.05106	.00100	-.00200	-.00010	.00902	.95830
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19761.**	**21314.**
Stddev	163.	29.
%RSD	.82421	.13386
#1	19609.	21282.
#2	19741.	21322.
#3	19933.	21337.

Approved: April 04, 2014

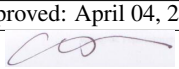
Sample Name: L1403140809MS Acquired: 4/3/2014 14:44:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469369-06

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00034**	**5.3616**	**-.00018**	**.00623**	**.01858**	**.00003**	**14.416**	**.00021**
Stddev	.00042	.0199	.00025	.00051	.00010	.00003	.051	.00005
%RSD	121.44	.37042	135.33	8.2609	.51766	83.519	.35693	22.399
#1	.00080	5.3760	.00009	.00564	.01847	.00006	14.475	.00026
#2	-.00002	5.3699	-.00024	.00656	.01862	.00001	14.391	.00022
#3	.00026	5.3390	-.00039	.00649	.01864	.00003	14.382	.00016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00209**	**.00040**	**.00142**	**2.1868**	**27.310**	**.00158**	**9.2538**	**.87362**
Stddev	.00017	.00015	.00038	.0064	.126	.00010	.0725	.01580
%RSD	8.1668	38.012	26.861	.29096	.46140	6.2098	.78364	1.8089
#1	.00229	.00024	.00178	2.1901	27.456	.00165	9.3375	.87327
#2	.00202	.00054	.00102	2.1909	27.230	.00147	9.2097	.85799
#3	.00197	.00043	.00147	2.1795	27.245	.00163	9.2143	.88959
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**28.871**	**.00031**	**-.00094**	**-.00241**	**.00150**	**.00389**	**2.4573**
Stddev	.00015	.137	.00033	.00217	.00178	.00288	.00160	.0304
%RSD	132.38	.47425	106.14	230.39	73.889	192.09	41.193	1.2362
#1	.00029	29.028	.00007	-.00031	-.00392	-.00138	.00343	2.4904
#2	.00000	28.774	.00069	.00084	-.00287	.00149	.00567	2.4510
#3	.00006	28.811	.00017	-.00336	-.00044	.00439	.00256	2.4306
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403140809MS Acquired: 4/3/2014 14:44:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469369-06

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00052**	**.05170**	**.00070**	**.00008**	**-.00004**	**.00275**	**.37945**
Stddev	.00035	.00030	.00049	.00155	.00004	.00003	.51085
%RSD	67.107	.57709	70.401	1948.0	99.812	.98572	134.63
#1	.00065	.05200	.00069	.00089	-.00005	.00276	.39596
#2	.00013	.05141	.00022	.00106	-.00007	.00272	-.13946
#3	.00080	.05168	.00120	-.00171	.00000	.00278	.88185
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19650.**	**21182.**
Stddev	19.	159.
%RSD	.09784	.74862
#1	19629.	21045.
#2	19668.	21356.
#3	19653.	21147.

Approved: April 04, 2014

Sample Name: L1403140812 Acquired: 4/3/2014 14:47:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**.13544**	**.00043**	**.00497**	**.01184**	**.00005**	**2.3917**	**.00022**
Stddev	.00052	.01689	.00033	.00027	.00031	.00002	.0104	.00010
%RSD	241.30	12.473	76.344	5.3585	2.6401	42.390	.43284	42.403
#1	.00029	.12684	.00044	.00523	.01215	.00004	2.4031	.00022
#2	-.00018	.15490	.00076	.00497	.01152	.00007	2.3828	.00013
#3	-.00075	.12458	.00010	.00470	.01184	.00003	2.3892	.00032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00013**	**.00019**	**.00090**	**.16569**	**.86463**	**.00102**	**1.5842**	**.01212**
Stddev	.00008	.00038	.00005	.00357	.03196	.00166	.0063	.00011
%RSD	63.009	199.17	5.5269	2.1520	3.6961	162.07	.39761	.92623
#1	-.00014	.00062	.00084	.16535	.82822	.00261	1.5790	.01199
#2	-.00005	.00007	.00091	.16230	.88806	.00116	1.5824	.01217
#3	-.00021	-.00012	.00094	.16940	.87759	-.00070	1.5912	.01220
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.89388**	**.00052**	**-.00243**	**-.00063**	**.00085**	**.00167**	**2.6183**
Stddev	.00033	.00506	.00037	.00260	.00164	.00149	.00036	.0149
%RSD	1204.5	.56590	70.753	106.82	260.64	174.83	21.517	.56957
#1	-.00016	.88810	.00092	-.00524	-.00205	.00245	.00174	2.6176
#2	-.00017	.89598	.00020	-.00194	.00116	-.00049	.00128	2.6336
#3	.00041	.89754	.00043	-.00012	-.00099	.00059	.00200	2.6037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403140812 Acquired: 4/3/2014 14:47:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**.01537**	**.00215**	**-.00138**	**.00013**	**.00227**	**1.4141**
Stddev	.00015	.00002	.00078	.00068	.00022	.00010	.3845
%RSD	47.091	.15261	36.243	49.547	163.92	4.3990	27.192
#1	.00048	.01536	.00135	-.00193	-.00009	.00227	1.6763
#2	.00024	.01540	.00291	-.00159	.00035	.00237	.97269
#3	.00021	.01536	.00217	-.00062	.00014	.00217	1.5934
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19861.**	**21601.**
Stddev	56.	100.
%RSD	.28445	.46243
#1	19925.	21646.
#2	19841.	21670.
#3	19818.	21486.

Approved: April 04, 2014

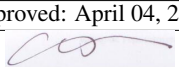
Sample Name: L1403140814 Acquired: 4/3/2014 14:51:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00012**	**.03316**	**-.00010**	**.01217**	**.14077**	**.00005**	**14.112**
Stddev	.00046	.01855	.00084	.00137	.00061	.00001	.022
%RSD	394.28	55.939	858.02	11.243	.43498	27.681	.15450
#1	.00040	.01640	-.00106	.01060	.14007	.00006	14.089
#2	-.00028	.03000	.00040	.01309	.14116	.00003	14.133
#3	-.00047	.05309	.00037	.01281	.14110	.00004	14.115
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**-.00015**	**-.00007**	**.00357**	**8.1649**	**.99110**	**.00343**
Stddev	.00011	.00017	.00047	.00041	.0574	.02343	.00072
%RSD	90.593	108.30	671.86	11.545	.70355	2.3644	21.060
#1	.00002	-.00027	.00002	.00404	8.1241	1.0178	.00415
#2	.00023	-.00023	-.00058	.00327	8.1400	.97393	.00344
#3	.00011	.00004	.00035	.00339	8.2306	.98158	.00270
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.7282**	**.26715**	**.00000**	**6.1061**	**-.00057**	**.19255**	**-.00023**
Stddev	.0512	.00261	.00029	.0257	.00063	.00495	.00166
%RSD	1.3729	.97675	6658.0	.42044	111.88	2.5702	710.15
#1	3.6694	.26526	.00024	6.0800	.00015	.18724	-.00182
#2	3.7628	.27012	-.00032	6.1068	-.00077	.19337	-.00037
#3	3.7523	.26606	.00010	6.1313	-.00107	.19703	.00149
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403140814 Acquired: 4/3/2014 14:51:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00107**	**-.00116**	**5.8043**	**.00061**	**.11978**	**-.00089**	**-.00220**
Stddev	.00180	.00289	.0020	.00013	.00007	.00108	.00210
%RSD	168.31	248.72	.03516	21.060	.05968	121.61	95.208
#1	-.00065	-.00269	5.8034	.00075	.11982	-.00165	-.00378
#2	.00092	.00217	5.8066	.00061	.11969	-.00136	.00018
#3	.00295	-.00297	5.8028	.00049	.11981	.00035	-.00301
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00019**	**.02418**	F **-1.3270**
Stddev	.00037	.00008	.5627
%RSD	197.46	.31610	42.406
#1	.00033	.02419	-.68129
#2	-.00023	.02410	-1.5868
#3	.00047	.02426	-1.7128
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19802.**	**21815.**
Stddev	51.	173.
%RSD	.25647	.79304
#1	19856.	21953.
#2	19756.	21621.
#3	19793.	21870.

Approved: April 04, 2014

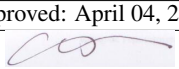
Sample Name: L1403140814PS Acquired: 4/3/2014 14:54:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469831-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20069**	**4.9613**	**.19672**	**1.0274**	**.61031**	**.02526**	**17.699**
Stddev	.00232	.0183	.00104	.0084	.00086	.00022	.043
%RSD	1.1552	.36814	.52846	.81941	.14052	.86166	.24167
#1	.20218	4.9538	.19789	1.0316	.60933	.02532	17.654
#2	.19802	4.9479	.19638	1.0177	.61096	.02502	17.705
#3	.20187	4.9821	.19590	1.0328	.61062	.02544	17.739
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02496**	**.10102**	**.25144**	**.25652**	**9.2435**	**25.403**	**.49501**
Stddev	.00018	.00024	.00102	.00043	.0291	.067	.00162
%RSD	.72734	.23424	.40369	.16604	.31536	.26517	.32766
#1	.02510	.10121	.25199	.25702	9.2143	25.373	.49323
#2	.02475	.10076	.25027	.25629	9.2436	25.355	.49540
#3	.02501	.10109	.25206	.25627	9.2726	25.480	.49640
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.1730**	**.48607**	**.49741**	**29.818**	**.25123**	**.17460**	**.25449**
Stddev	.1152	.00613	.00178	.059	.00036	.00318	.00157
%RSD	1.4098	1.2612	.35795	.19828	.14345	1.8228	.61514
#1	8.0977	.48255	.49884	29.755	.25150	.17122	.25611
#2	8.1156	.48251	.49542	29.825	.25083	.17503	.25298
#3	8.3056	.49315	.49798	29.873	.25137	.17754	.25438
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403140814PS Acquired: 4/3/2014 14:54:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469831-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.60315**	**.20081**	**7.6641**	**.00095**	**.60097**	**.48378**	**.25382**
Stddev	.00489	.00058	.0171	.00041	.00101	.00222	.00350
%RSD	.81092	.28690	.22305	43.134	.16885	.45974	1.3795
#1	.60492	.20147	7.6662	.00143	.60048	.48128	.25579
#2	.59762	.20057	7.6800	.00070	.60028	.48453	.24978
#3	.60691	.20040	7.6460	.00073	.60213	.48553	.25591
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.49709**	**.52562**	F **-.19520**
Stddev	.00471	.00203	.73946
%RSD	.94679	.38651	378.83
#1	.49885	.52511	.65771
#2	.49176	.52390	-.58684
#3	.50066	.52787	-.65646
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19441.**	**21529.**
Stddev	155.	279.
%RSD	.79655	1.2951
#1	19413.	21744.
#2	19608.	21629.
#3	19302.	21214.

Approved: April 04, 2014

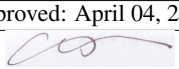
Sample Name: L1403140814SDL Acquired: 4/3/2014 14:58:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469831-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00013**	**.01020**	**.00023**	**.00619**	**.02851**	**.00004**	**2.8809**	**.00010**
Stddev	.00091	.00801	.00032	.00042	.00044	.00002	.0129	.00006
%RSD	718.14	78.553	142.04	6.7559	1.5490	62.074	.44851	65.974
#1	.00027	.01945	.00042	.00667	.02811	.00006	2.8674	.00006
#2	-.00117	.00566	.00040	.00592	.02898	.00001	2.8820	.00017
#3	.00052	.00549	-.00014	.00597	.02844	.00004	2.8932	.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.00015**	**.00122**	**1.6506**	**.19721**	**.00046**	**.76004**	**.05784**
Stddev	.00005	.00021	.00022	.0082	.02397	.00080	.01668	.00279
%RSD	135.36	134.45	18.270	.49866	12.153	172.11	2.1945	4.8302
#1	-.00010	.00032	.00098	1.6413	.18747	-.00040	.75589	.05610
#2	-.00001	-.00008	.00125	1.6540	.17965	.00117	.74584	.06106
#3	-.00001	.00022	.00142	1.6566	.22451	.00062	.77841	.05636
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**1.2187**	**-.00006**	**.03762**	**-.00047**	**.00109**	**-.00126**	**1.2180**
Stddev	.00011	.0141	.00033	.00303	.00085	.00068	.00192	.0031
%RSD	156.93	1.1573	590.96	8.0438	182.77	62.110	152.53	.25485
#1	.00019	1.2340	-.00013	.03827	-.00002	.00085	-.00139	1.2158
#2	-.00002	1.2062	.00031	.04027	-.00145	.00185	.00072	1.2166
#3	.00004	1.2160	-.00035	.03432	.00007	.00057	-.00311	1.2215
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403140814SDL Acquired: 4/3/2014 14:58:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469831-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00042**	**.02469**	**-.00181**	**-.00077**	**-.00023**	**.00633**	**.61947**
Stddev	.00005	.00016	.00051	.00023	.00023	.00010	.25475
%RSD	11.157	.62784	28.360	29.665	98.576	1.5831	41.124
#1	.00040	.02451	-.00151	-.00068	-.00048	.00643	.37641
#2	.00039	.02479	-.00152	-.00103	-.00003	.00623	.59752
#3	.00048	.02477	-.00240	-.00060	-.00018	.00633	.88448
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20215.**	**21770.**
Stddev	73.	721.
%RSD	.36156	3.3117
#1	20294.	22192.
#2	20150.	20938.
#3	20202.	22181.

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 15:01:47 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40874**	**10.112**	**.40462**	**.52392**	**.98172**	**.05191**	**10.046**	**.05077**
Stddev	.00238	.046	.00165	.00108	.00457	.00000	.048	.00004
%RSD	.58292	.45072	.40871	.20569	.46579	.00851	.48120	.08387
#1	.40960	10.081	.40513	.52365	.97886	.05191	9.9962	.05081
#2	.40605	10.164	.40277	.52300	.97930	.05191	10.049	.05073
#3	.41057	10.091	.40595	.52510	.98699	.05192	10.093	.05077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20611**	**.51569**	**.51558**	**3.9556**	**50.428**	**.98357**	**9.9207**	**.51642**
Stddev	.00046	.00091	.00107	.0055	.087	.00555	.0840	.00966
%RSD	.22105	.17648	.20826	.13989	.17182	.56449	.84681	1.8705
#1	.20603	.51537	.51531	3.9528	50.353	.97811	9.9099	.51909
#2	.20570	.51499	.51467	3.9521	50.408	.98338	10.010	.52447
#3	.20660	.51672	.51676	3.9620	50.523	.98921	9.8427	.50571
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0046**	**48.340**	**.50784**	**10.227**	**.51081**	**1.2129**	**.41747**	**5.0504**
Stddev	.0077	.120	.00094	.015	.00101	.0046	.00072	.0102
%RSD	.76985	.24828	.18533	.14842	.19863	.37533	.17157	.20259
#1	1.0005	48.217	.50719	10.225	.51196	1.2125	.41830	5.0505
#2	.99976	48.348	.50742	10.213	.51004	1.2085	.41704	5.0401
#3	1.0135	48.457	.50892	10.243	.51044	1.2176	.41708	5.0606
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 15:01:47 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0402**	**1.0259**	**.98137**	**.50573**	**1.0117**	**1.0249**	**.96434**
Stddev	.0059	.0044	.00370	.00275	.0010	.0024	.54604
%RSD	.56430	.43011	.37653	.54467	.09872	.22883	56.623
#1	1.0341	1.0211	.97813	.50541	1.0120	1.0248	.65583
#2	1.0406	1.0266	.98060	.50315	1.0106	1.0227	.64238
#3	1.0458	1.0298	.98539	.50863	1.0126	1.0273	1.5948
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19595.**	**21406.**
Stddev	35.	423.
%RSD	.18094	1.9774
#1	19607.	21301.
#2	19623.	21045.
#3	19555.	21872.

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/3/2014 15:05:04 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00027**	**.00482**	**.00217**	**.00341**	**.00011**	**.00003**	**.00640**	**.00002**
Stddev	.00036	.02571	.00035	.00034	.00024	.00002	.00852	.00007
%RSD	131.33	533.33	16.172	9.8651	221.72	69.149	133.03	278.38
#1	-.00033	-.00480	.00237	.00302	.00024	.00001	.00970	-.00002
#2	.00011	.03396	.00176	.00362	.00026	.00004	-.00327	-.00001
#3	-.00060	-.01469	.00238	.00358	-.00017	.00004	.01277	.00010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00014**	**.00021**	**.00021**	**.00155**	**-.05086**	**.00130**	**-.00785**	**.00016**
Stddev	.00028	.00017	.00018	.00499	.04324	.00221	.01519	.00008
%RSD	204.32	78.284	85.698	322.72	85.017	170.30	193.37	48.851
#1	-.00014	.00002	.00012	.00730	-.00151	-.00054	-.02536	.00007
#2	-.00042	.00028	.00009	-.00161	-.08207	.00375	.00175	.00018
#3	.00014	.00034	.00042	-.00105	-.06899	.00068	.00005	.00022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**.01897**	**.00028**	**-.00236**	**-.00023**	**.00071**	**-.00114**	**-.00286**
Stddev	.00005	.00170	.00031	.00156	.00080	.00180	.00316	.00090
%RSD	111.06	8.9521	112.35	66.064	342.19	252.69	277.40	31.467
#1	.00000	.01837	.00011	-.00393	.00044	.00021	.00187	-.00184
#2	.00011	.01765	.00009	-.00235	-.00111	.00271	-.00444	-.00355
#3	.00004	.02088	.00063	-.00081	-.00002	-.00078	-.00086	-.00319
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/3/2014 15:05:04 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00047**	**.00016**	**-.00018**	**-.00030**	**.00001**	**.00072**	**.03095**
Stddev	.00016	.00018	.00157	.00174	.00012	.00005	.12687
%RSD	34.895	108.70	871.24	584.47	1253.7	6.4264	409.98
#1	.00028	.00004	-.00186	.00161	-.00009	.00076	-.08013
#2	.00057	.00008	.00006	-.00179	.00013	.00067	.00377
#3	.00055	.00037	.00126	-.00071	-.00001	.00072	.16920
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19910.**	**21985.**
Stddev	51.	107.
%RSD	.25833	.48814
#1	19861.	22008.
#2	19964.	22078.
#3	19905.	21868.

Approved: April 04, 2014

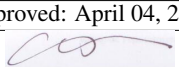
Sample Name: L1403157101 Acquired: 4/3/2014 15:08:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**.05491**	**.00093**	**.08677**	**.03021**	**.00002**	**34.393**	**.00028**
Stddev	.00059	.01197	.00105	.00068	.00020	.00001	.055	.00008
%RSD	340.81	21.806	112.20	.78082	.65003	71.020	.16039	26.994
#1	-.00011	.06366	.00064	.08614	.03025	.00003	34.450	.00019
#2	.00085	.04126	.00209	.08749	.03000	.00001	34.387	.00031
#3	-.00022	.05981	.00006	.08668	.03039	.00002	34.340	.00034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00034**	**.00010**	**.00141**	**.03591**	**4.6780**	**.03131**	**10.789**	**.00273**
Stddev	.00015	.00039	.00025	.00579	.0140	.00018	.066	.00008
%RSD	43.481	379.03	17.591	16.125	.29812	.58910	.61131	2.9493
#1	-.00023	-.00023	.00116	.02987	4.6827	.03110	10.809	.00265
#2	-.00028	.00053	.00165	.03644	4.6890	.03143	10.716	.00281
#3	-.00051	.00000	.00143	.04142	4.6623	.03140	10.843	.00272
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00047**	**73.297**	**.00057**	**.00029**	**-.00095**	**-.00028**	**.00415**	**3.0365**
Stddev	.00020	.180	.00056	.00156	.00066	.00127	.00118	.0136
%RSD	43.031	.24622	98.902	534.27	69.646	455.82	28.517	.44866
#1	.00059	73.499	.00092	.00197	-.00025	.00112	.00303	3.0318
#2	.00059	73.237	-.00008	-.00112	-.00157	-.00058	.00403	3.0258
#3	.00024	73.153	.00086	.00002	-.00103	-.00137	.00539	3.0518
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403157101 Acquired: 4/3/2014 15:08:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00047**	**.80037**	**-.00008**	**-.00158**	**.00002**	**.00482**	**1.1283**
Stddev	.00054	.00261	.00044	.00128	.00040	.00009	.4126
%RSD	115.48	.32625	542.75	80.636	1791.7	1.9651	36.569
#1	.00066	.80278	-.00018	-.00305	.00038	.00493	1.1558
#2	.00087	.80075	.00040	-.00095	-.00041	.00476	1.5265
#3	-.00014	.79760	-.00046	-.00075	.00010	.00477	.70263
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19414.**	**21757.**
Stddev	14.	240.
%RSD	.06974	1.1014
#1	19402.	21921.
#2	19429.	21869.
#3	19412.	21482.

Approved: April 04, 2014

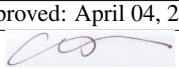
Sample Name: L1403157103 Acquired: 4/3/2014 15:12:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.01871**	**.00132**	**.10006**	**.03252**	**.00009**	**47.379**
Stddev	.00047	.00563	.00094	.00030	.00035	.00001	.083
%RSD	477.17	30.100	71.372	.30096	1.0721	17.125	.17516
#1	-.00033	.01713	.00240	.10034	.03225	.00008	47.443
#2	.00061	.01404	.00079	.09974	.03239	.00008	47.408
#3	.00002	.02497	.00076	.10009	.03291	.00010	47.285
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00041**	**.00009**	**.00030**	**.00075**	**.11167**	**6.5696**	**.03345**
Stddev	.00002	.00015	.00039	.00014	.00962	.0353	.00218
%RSD	4.2171	158.98	131.35	18.443	8.6167	.53684	6.5132
#1	.00041	-.00002	.00025	.00088	.11000	6.5736	.03166
#2	.00042	.00026	.00071	.00078	.10299	6.5325	.03281
#3	.00039	.00004	-.00006	.00060	.12202	6.6027	.03587
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.075**	**.02372**	**.00025**	**53.985**	**.00360**	**.00027**	**-.00066**
Stddev	.088	.00074	.00022	.144	.00050	.00363	.00170
%RSD	.62620	3.1142	90.336	.26700	13.796	1328.0	255.63
#1	13.984	.02287	.00045	54.124	.00418	-.00176	-.00180
#2	14.080	.02420	.00028	53.836	.00334	-.00188	.00129
#3	14.160	.02409	.00001	53.994	.00330	.00447	-.00148
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



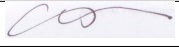
Sample Name: L1403157103 Acquired: 4/3/2014 15:12:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00137**	**.00269**	**3.2119**	**.00067**	**1.2150**	**-.00126**	**-.00141**
Stddev	.00112	.00202	.0252	.00022	.0045	.00082	.00117
%RSD	81.961	75.018	.78321	33.152	.36809	64.669	83.549
#1	.00021	.00313	3.2035	.00079	1.2192	-.00064	-.00205
#2	.00245	.00445	3.1919	.00041	1.2155	-.00095	-.00005
#3	.00145	.00049	3.2401	.00080	1.2103	-.00218	-.00212
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00019**	**.00671**	F **-.42518**
Stddev	.00024	.00005	.45278
%RSD	129.89	.78178	106.49
#1	.00008	.00668	-.07818
#2	.00001	.00667	-.93735
#3	.00046	.00677	-.26001
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19340.**	**20936.**
Stddev	12.	533.
%RSD	.06063	2.5460
#1	19354.	21529.
#2	19333.	20782.
#3	19334.	20496.

Approved: April 04, 2014



Sample Name: L1403157501 Acquired: 4/3/2014 15:15:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00026**	**.07711**	**-.00044**	**.00751**	**.01699**	**.00004**	**3.6974**	**.00015**
Stddev	.00005	.01710	.00012	.00059	.00033	.00001	.0069	.00012
%RSD	20.166	22.175	26.369	7.8016	1.9466	15.681	.18684	81.668
#1	-.00022	.09681	-.00049	.00799	.01666	.00004	3.6911	.00002
#2	-.00032	.06610	-.00031	.00770	.01699	.00005	3.7048	.00016
#3	-.00025	.06843	-.00053	.00686	.01732	.00003	3.6963	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00027**	**.00040**	**.00091**	**.13518**	**.82086**	**.00272**	**1.7823**	**.01402**
Stddev	.00013	.00044	.00053	.00687	.04265	.00101	.0118	.00014
%RSD	48.762	109.47	58.246	5.0855	5.1961	37.202	.66187	1.0342
#1	-.00014	.00057	.00149	.14256	.79366	.00386	1.7744	.01409
#2	-.00027	.00074	.00079	.13401	.87001	.00236	1.7766	.01412
#3	-.00041	-.00010	.00045	.12896	.79889	.00194	1.7958	.01385
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**1.1420**	**.00009**	**.00210**	**-.00247**	**.00088**	**-.00019**	**2.4864**
Stddev	.00014	.0035	.00008	.00208	.00164	.00069	.00212	.0150
%RSD	136.94	.31037	85.978	98.916	66.519	78.173	1131.6	.60533
#1	.00013	1.1453	.00017	.00188	-.00386	.00025	.00188	2.5036
#2	-.00005	1.1426	.00001	.00014	-.00066	.00162	-.00236	2.4797
#3	.00024	1.1382	.00010	.00428	-.00289	.00078	-.00009	2.4758
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403157501 Acquired: 4/3/2014 15:15:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00082**	**.02053**	**.00049**	**-.00205**	**.00039**	**.00493**	**.09559**
Stddev	.00026	.00023	.00015	.00070	.00038	.00017	.78287
%RSD	31.408	1.1281	30.472	34.196	96.935	3.4398	818.97
#1	.00102	.02029	.00041	-.00262	.00023	.00512	.94883
#2	.00053	.02054	.00066	-.00225	.00082	.00482	-.58964
#3	.00091	.02075	.00040	-.00127	.00012	.00484	-.07241
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19631.**	**21313.**
Stddev	43.	183.
%RSD	.21802	.85835
#1	19658.	21107.
#2	19654.	21456.
#3	19582.	21375.

Approved: April 04, 2014

Sample Name: L1403157503 Acquired: 4/3/2014 15:19:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**.07303**	**.00134**	**.00721**	**.02267**	**.00005**	**8.2218**	**.00031**
Stddev	.00017	.01932	.00162	.00127	.00049	.00002	.0244	.00008
%RSD	70.066	26.454	121.59	17.648	2.1631	28.913	.29647	25.289
#1	.00006	.08989	.00299	.00637	.02232	.00004	8.2475	.00033
#2	.00040	.07725	.00127	.00659	.02245	.00006	8.2189	.00022
#3	.00026	.05195	-.00025	.00868	.02323	.00007	8.1990	.00037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**.00019**	**.00104**	**.16616**	**1.2105**	**.00171**	**5.5265**	**.03131**
Stddev	.00018	.00017	.00028	.00896	.0434	.00082	.0205	.00074
%RSD	289.82	90.455	27.218	5.3946	3.5854	48.053	.37094	2.3608
#1	.00016	.00035	.00115	.17050	1.1971	.00266	5.5142	.03048
#2	.00017	.00001	.00124	.15586	1.1753	.00116	5.5502	.03159
#3	-.00014	.00019	.00072	.17213	1.2590	.00132	5.5152	.03188
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**2.9760**	**.00054**	**.00303**	**.00002**	**.00096**	**.00324**	**2.6898**
Stddev	.00002	.0050	.00015	.00279	.00250	.00118	.00156	.0367
%RSD	26.619	.16858	28.655	92.148	11642.	122.30	48.160	1.3653
#1	.00006	2.9813	.00043	.00586	.00261	.00202	.00147	2.7052
#2	.00006	2.9753	.00071	.00297	-.00238	-.00031	.00443	2.7163
#3	.00009	2.9714	.00047	.00027	-.00016	.00117	.00382	2.6479
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403157503 Acquired: 4/3/2014 15:19:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00065**	**.05528**	**.00113**	**-.00084**	**-.00002**	**.00350**	**.74787**
Stddev	.00026	.00061	.00100	.00052	.00002	.00016	.63908
%RSD	40.293	1.1053	88.996	62.429	81.204	4.6150	85.454
#1	.00095	.05459	.00038	-.00076	-.00001	.00369	.08806
#2	.00057	.05576	.00226	-.00036	-.00002	.00339	1.3640
#3	.00044	.05549	.00073	-.00140	-.00004	.00343	.79155
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19810.**	**21386.**
Stddev	59.	212.
%RSD	.29639	.99219
#1	19873.	21607.
#2	19757.	21369.
#3	19799.	21183.

Approved: April 04, 2014

Sample Name: L1403157505 Acquired: 4/3/2014 15:22:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**.05422**	**-.00007**	**.00878**	**.03455**	**.00007**	**17.124**	**.00041**
Stddev	.00021	.02138	.00151	.00074	.00035	.00001	.039	.00005
%RSD	102.29	39.431	2190.2	8.3868	1.0218	18.409	.22887	13.198
#1	-.00006	.05262	.00096	.00952	.03428	.00007	17.159	.00048
#2	-.00011	.03369	.00064	.00878	.03495	.00006	17.132	.00038
#3	-.00045	.07636	-.00180	.00805	.03441	.00008	17.081	.00039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00015**	**.00033**	**.00121**	**.04361**	**1.8720**	**.00276**	**14.839**	**.00916**
Stddev	.00010	.00018	.00057	.00115	.0395	.00126	.015	.00028
%RSD	66.314	55.338	47.084	2.6373	2.1119	45.694	.10421	3.0188
#1	-.00014	.00053	.00070	.04474	1.8559	.00303	14.823	.00895
#2	-.00006	.00020	.00183	.04365	1.8431	.00138	14.854	.00907
#3	-.00026	.00024	.00111	.04244	1.9171	.00386	14.841	.00948
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**1.6509**	**.00246**	**.00281**	**-.00118**	**.00067**	**.00055**	**2.4848**
Stddev	.00009	.0080	.00054	.00442	.00059	.00094	.00313	.0303
%RSD	50.716	.48481	21.755	157.21	49.717	140.06	564.88	1.2204
#1	.00019	1.6427	.00206	.00731	-.00140	-.00041	.00276	2.4504
#2	.00009	1.6587	.00307	-.00153	-.00051	.00125	.00192	2.4966
#3	.00028	1.6514	.00225	.00267	-.00162	.00117	-.00302	2.5075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403157505 Acquired: 4/3/2014 15:22:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00060**	**.11352**	**.00087**	**-.00094**	**.00013**	**.00590**	**.81511**
Stddev	.00024	.00058	.00088	.00136	.00020	.00001	.75960
%RSD	40.736	.51363	101.66	144.24	154.47	.17421	93.191
#1	.00032	.11344	.00141	-.00234	.00032	.00591	-.06167
#2	.00072	.11414	-.00015	.00038	.00016	.00589	1.2746
#3	.00075	.11299	.00134	-.00087	-.00009	.00591	1.2324
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19721.**	**21651.**
Stddev	28.	235.
%RSD	.14046	1.0845
#1	19691.	21917.
#2	19725.	21470.
#3	19746.	21567.

Approved: April 04, 2014

Sample Name: L1403157507 Acquired: 4/3/2014 15:26:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**.03311**	**.00079**	**.00747**	**.03831**	**.00007**	**16.529**	**.00034**
Stddev	.00046	.02877	.00150	.00067	.00004	.00002	.057	.00009
%RSD	192.75	86.874	189.67	8.9932	.10332	22.836	.34279	26.854
#1	.00020	.06608	-.00063	.00816	.03828	.00008	16.498	.00024
#2	-.00020	.01310	.00065	.00742	.03835	.00005	16.494	.00042
#3	.00072	.02016	.00236	.00682	.03831	.00008	16.594	.00037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00016**	**.00033**	**.00101**	**.05391**	**1.9422**	**.00223**	**13.488**	**.00596**
Stddev	.00017	.00013	.00036	.00544	.0441	.00059	.078	.00009
%RSD	104.79	40.494	35.210	10.090	2.2692	26.644	.57519	1.5294
#1	-.00016	.00033	.00129	.04909	1.9910	.00291	13.422	.00586
#2	-.00033	.00045	.00113	.05282	1.9054	.00184	13.468	.00602
#3	.00001	.00019	.00061	.05980	1.9301	.00193	13.573	.00600
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**1.1339**	**.00207**	**.00070**	**-.00035**	**.00098**	**.00042**	**2.3298**
Stddev	.00011	.0120	.00017	.00268	.00080	.00144	.00335	.0101
%RSD	122.71	1.0584	8.2851	384.36	229.19	146.68	804.26	.43166
#1	.00002	1.1238	.00206	.00371	-.00107	.00263	-.00342	2.3413
#2	.00004	1.1306	.00189	-.00020	.00051	-.00005	.00272	2.3253
#3	.00022	1.1471	.00224	-.00142	-.00049	.00036	.00195	2.3227
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403157507 Acquired: 4/3/2014 15:26:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00054**	**.11180**	**-.00003**	**-.00117**	**.00009**	**.00463**	**.23631**
Stddev	.00007	.00045	.00051	.00092	.00021	.00012	.41872
%RSD	13.196	.40535	2030.3	78.638	225.80	2.6190	177.19
#1	.00054	.11204	-.00056	-.00039	.00016	.00452	-.21461
#2	.00047	.11127	.00045	-.00218	.00026	.00462	.61285
#3	.00062	.11207	.00003	-.00093	-.00014	.00476	.31070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19764.**	**21979.**
Stddev	12.	65.
%RSD	.06088	.29431
#1	19752.	22028.
#2	19763.	22002.
#3	19776.	21906.

Approved: April 04, 2014

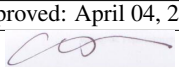
Sample Name: L1403140701 Acquired: 4/3/2014 15:30:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00041**	**.16294**	**-.00083**	**.00632**	**.02380**	**.00007**	**12.213**	**.00023**
Stddev	.00006	.01130	.00286	.00070	.00023	.00002	.033	.00001
%RSD	14.062	6.9347	344.88	11.102	.95090	28.761	.26787	6.1798
#1	.00043	.15920	-.00261	.00551	.02380	.00006	12.248	.00022
#2	.00035	.17564	-.00235	.00672	.02358	.00005	12.207	.00024
#3	.00046	.15399	.00247	.00672	.02403	.00009	12.183	.00025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00051**	**.00109**	**.00222**	**.30056**	**.99014**	**.00418**	**4.2752**	**.04884**
Stddev	.00028	.00036	.00035	.00193	.05533	.00041	.0376	.00071
%RSD	54.685	32.692	15.767	.64334	5.5882	9.8463	.87929	1.4484
#1	.00049	.00137	.00195	.29833	1.0120	.00412	4.2576	.04964
#2	.00024	.00121	.00262	.30154	.92722	.00380	4.2497	.04832
#3	.00079	.00069	.00211	.30181	1.0312	.00461	4.3184	.04856
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**5.1525**	**.00255**	**.01848**	**-.00041**	**-.00033**	**-.00095**	**1.8001**
Stddev	.00020	.0349	.00041	.00210	.00118	.00027	.00032	.0115
%RSD	86.994	.67679	16.096	11.366	291.86	83.396	33.302	.63780
#1	.00025	5.1865	.00219	.01605	.00051	-.00001	-.00120	1.8030
#2	.00002	5.1542	.00300	.01970	.00001	-.00052	-.00105	1.8098
#3	.00042	5.1168	.00247	.01968	-.00174	-.00045	-.00059	1.7874
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403140701 Acquired: 4/3/2014 15:30:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02777**	**.08616**	**.00300**	**-.00245**	**.00026**	**.00803**	**1.0305**
Stddev	.00038	.00103	.00073	.00202	.00013	.00006	.5564
%RSD	1.3850	1.1959	24.416	82.430	48.750	.71724	53.988
#1	.02808	.08514	.00348	-.00471	.00040	.00796	1.6150
#2	.02788	.08614	.00335	-.00080	.00024	.00804	.96930
#3	.02734	.08721	.00216	-.00185	.00015	.00808	.50731
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19652.**	**22034.**
Stddev	58.	149.
%RSD	.29448	.67589
#1	19589.	22010.
#2	19703.	22194.
#3	19665.	21899.

Approved: April 04, 2014

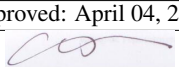
Sample Name: L1403140701PS Acquired: 4/3/2014 15:33:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469676-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21093**	**5.2435**	**.20453**	**1.0754**	**.51874**	**.02604**	**16.095**	**.02572**
Stddev	.00045	.0461	.00138	.0022	.00094	.00003	.058	.00014
%RSD	.21272	.87851	.67457	.20601	.18194	.12969	.36218	.55863
#1	.21054	5.2520	.20297	1.0778	.51939	.02607	16.079	.02587
#2	.21084	5.1938	.20503	1.0735	.51766	.02603	16.047	.02572
#3	.21142	5.2847	.20559	1.0748	.51918	.02601	16.160	.02558
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10525**	**.26054**	**.26277**	**2.2924**	**26.236**	**.50504**	**8.7619**	**.30210**
Stddev	.00033	.00066	.00009	.0052	.049	.00119	.0244	.00025
%RSD	.31659	.25268	.03458	.22725	.18771	.23499	.27850	.08116
#1	.10522	.26122	.26284	2.2939	26.241	.50400	8.7355	.30182
#2	.10493	.25990	.26266	2.2866	26.185	.50479	8.7666	.30224
#3	.10560	.26050	.26280	2.2966	26.283	.50633	8.7836	.30225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.51423**	**29.338**	**.25994**	**2.9997**	**.26005**	**.62017**	**.20685**	**4.2290**
Stddev	.00115	.031	.00176	.0060	.00268	.00201	.00119	.0229
%RSD	.22443	.10585	.67672	.20177	1.0300	.32478	.57675	.54139
#1	.51541	29.336	.25980	2.9987	.25992	.61903	.20799	4.2229
#2	.51418	29.369	.25825	2.9942	.25744	.62250	.20696	4.2544
#3	.51311	29.307	.26176	3.0062	.26279	.61899	.20561	4.2098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403140701PS Acquired: 4/3/2014 15:33:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469676-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02489**	**.58903**	**.49455**	**.25965**	**.51934**	**.52578**	**1.8326**
Stddev	.00043	.00223	.00094	.00022	.00073	.00104	.1280
%RSD	1.7381	.37793	.18982	.08415	.14083	.19828	6.9850
#1	.02471	.58834	.49439	.25940	.52008	.52492	1.9798
#2	.02538	.58722	.49370	.25979	.51932	.52548	1.7478
#3	.02457	.59151	.49556	.25976	.51862	.52694	1.7702
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19452.**	**21872.**
Stddev	16.	52.
%RSD	.08097	.23658
#1	19453.	21929.
#2	19467.	21861.
#3	19435.	21827.

Approved: April 04, 2014

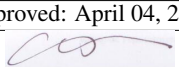
Sample Name: L1403140701SDL Acquired: 4/3/2014 15:36:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469676-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.04560**	**.00064**	**.00519**	**.00494**	**.00006**	**2.4759**	**.00003**
Stddev	.00043	.01443	.00076	.00080	.00032	.00002	.0057	.00004
%RSD	170.98	31.653	119.48	15.394	6.3955	25.701	.23197	118.35
#1	.00072	.03350	-.00022	.00606	.00504	.00008	2.4783	.00008
#2	.00015	.06158	.00088	.00450	.00519	.00006	2.4693	.00001
#3	-.00012	.04173	.00124	.00500	.00458	.00005	2.4800	.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**.00053**	**.00067**	**.05968**	**.18253**	**.00152**	**.88933**	**.01027**
Stddev	.00026	.00010	.00019	.00671	.02479	.00067	.01514	.00006
%RSD	176.17	19.296	28.830	11.237	13.584	44.522	1.7026	.56765
#1	-.00008	.00045	.00045	.06569	.16530	.00207	.87302	.01024
#2	.00009	.00050	.00082	.05245	.17133	.00077	.90294	.01034
#3	.00043	.00065	.00075	.06091	.21094	.00171	.89202	.01023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00037**	**1.0528**	**.00001**	**.00533**	**-.00010**	**.00205**	**.00028**	**.37677**
Stddev	.00052	.0179	.00006	.00436	.00171	.00243	.00234	.00930
%RSD	140.48	1.6953	458.62	81.758	1734.7	118.41	849.51	2.4697
#1	-.00010	1.0418	-.00006	.00237	-.00180	-.00075	.00236	.37311
#2	.00029	1.0431	.00007	.00329	.00162	.00352	-.00225	.36984
#3	.00093	1.0733	.00003	.01034	-.00011	.00339	.00072	.38734
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403140701SDL Acquired: 4/3/2014 15:36:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469676-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00605**	**.01742**	**.00059**	**-.00015**	**.00000**	**.00482**	**.33172**
Stddev	.00025	.00008	.00069	.00145	.0001	.00046	.65249
%RSD	4.1744	.44845	115.96	950.43	1640.6	9.5864	196.70
#1	.00634	.01733	-.00009	.00037	.00005	.00447	.24885
#2	.00586	.01745	.00128	.00097	.00000	.00463	1.0217
#3	.00595	.01748	.00059	-.00179	-.00005	.00534	-.27537
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20064.**	**22096.**
Stddev	81.	152.
%RSD	.40417	.68835
#1	20115.	22271.
#2	20106.	22018.
#3	19970.	21998.

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 15:40:31 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40552**	**10.105**	**.40391**	**.52030**	**.98910**	**.05065**	**10.074**
Stddev	.00235	.021	.00058	.00289	.00245	.00042	.031
%RSD	.58000	.20395	.14279	.55464	.24787	.82409	.30324
#1	.40664	10.118	.40325	.52252	.99165	.05081	10.107
#2	.40710	10.116	.40432	.52134	.98676	.05096	10.067
#3	.40282	10.082	.40416	.51703	.98890	.05018	10.047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05095**	**.20665**	**.50303**	**.51908**	**3.9967**	**50.838**	**.99435**
Stddev	.00023	.00086	.00331	.00224	.0143	.116	.00302
%RSD	.46113	.41670	.65724	.43167	.35859	.22910	.30331
#1	.05070	.20570	.50557	.51676	3.9973	50.969	.99767
#2	.05098	.20685	.50423	.51924	3.9821	50.747	.99362
#3	.05117	.20739	.49929	.52123	4.0107	50.796	.99177
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.036**	**.51159**	**1.0081**	**48.858**	**.50705**	**10.171**	**.51122**
Stddev	.049	.00633	.0109	.096	.00215	.108	.00207
%RSD	.49303	1.2370	1.0801	.19673	.42346	1.0630	.40554
#1	9.9791	.50430	.99563	48.909	.50519	10.046	.50909
#2	10.062	.51568	1.0133	48.747	.50655	10.221	.51136
#3	10.067	.51478	1.0155	48.917	.50940	10.244	.51322
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 15:40:31 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2090**	**.41126**	**5.0035**	**1.0475**	**1.0237**	**.97811**	**.50767**
Stddev	.0054	.00689	.0447	.0043	.0042	.00159	.00267
%RSD	.44719	1.6752	.89230	.40694	.41278	.16212	.52590
#1	1.2028	.40347	4.9552	1.0426	1.0284	.97964	.50460
#2	1.2119	.41376	5.0121	1.0495	1.0227	.97647	.50893
#3	1.2123	.41655	5.0433	1.0504	1.0201	.97823	.50948
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0004**	**1.0360**	F **.32533**
Stddev	.0085	.0020	.32780
%RSD	.84947	.19636	100.76
#1	1.0067	1.0353	.66429
#2	1.0036	1.0383	.30174
#3	.99071	1.0345	.00996
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19363.**	**21158.**
Stddev	153.	301.
%RSD	.78943	1.4217
#1	19246.	21504.
#2	19307.	20955.
#3	19536.	21015.

Approved: April 04, 2014

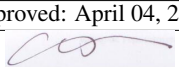
Sample Name: CCB Acquired: 4/3/2014 15:43:47 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**.00548**	**.00162**	**.00307**	**.00058**	**.00005**	**-.00136**
Stddev	.00063	.02412	.00048	.00041	.00049	.00002	.00997
%RSD	547.96	440.02	29.864	13.222	83.108	52.584	730.31
#1	.00067	.03321	.00195	.00306	.00083	.00007	-.01229
#2	-.00056	-.00619	.00183	.00268	.00090	.00003	.00723
#3	.00023	-.01058	.00106	.00349	.00003	.00004	.00097
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**-.00021**	**.00019**	**-.00021**	**-.00114**	**-.00423**	**.00154**
Stddev	.00003	.00022	.00042	.00019	.00801	.05672	.00106
%RSD	202.64	106.60	224.28	91.571	700.38	1341.6	69.094
#1	.00005	.00001	.00045	-.00042	.00091	.05697	.00262
#2	-.00001	-.00021	-.00030	-.00011	-.00998	-.05504	.00151
#3	.00001	-.00043	.00041	-.00008	.00564	-.01461	.00049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01664**	**.00022**	**.00026**	**.00535**	**-.00039**	**-.00174**	**-.00251**
Stddev	.01349	.00003	.00026	.00531	.00063	.00425	.00223
%RSD	81.103	13.812	100.51	99.280	161.29	243.75	88.745
#1	-.02072	.00023	.00035	.00833	-.00111	-.00455	-.00405
#2	-.02762	.00019	.00047	.00850	.00010	-.00381	.00004
#3	-.00158	.00025	-.00003	-.00078	-.00017	.00314	-.00352
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: CCB Acquired: 4/3/2014 15:43:47 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00047**	**.00008**	**-.00324**	**.00026**	**.00016**	**-.00169**	**-.00266**
Stddev	.00120	.00436	.00268	.00012	.00003	.00077	.00038
%RSD	254.38	5739.8	82.790	48.080	22.324	45.726	14.157
#1	.00186	-.00453	-.00273	.00021	.00014	-.00137	-.00270
#2	-.00025	.00415	-.00085	.00017	.00020	-.00258	-.00227
#3	-.00019	.00060	-.00615	.00040	.00014	-.00113	-.00302
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00000**	**.00081**	F **.41188**
Stddev	.0000	.00010	.44682
%RSD	634.57	12.133	108.48
#1	.00001	.00091	.74498
#2	-.00004	.00079	.58653
#3	.00002	.00072	-.09589
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19869.**	**21158.**
Stddev	98.	680.
%RSD	.49431	3.2122
#1	19797.	21179.
#2	19829.	20468.
#3	19981.	21827.

Approved: April 04, 2014

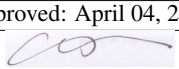
Sample Name: L1403157509 Acquired: 4/3/2014 15:47:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469369-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**.19283**	**.00006**	**.00820**	**.01911**	**.00008**	**4.4422**	**.00025**
Stddev	.00057	.01510	.00116	.00055	.00034	.00001	.0197	.00004
%RSD	396.36	7.8296	2038.4	6.7598	1.7910	17.613	.44265	17.909
#1	-.00003	.18207	-.00051	.00759	.01872	.00006	4.4268	.00024
#2	-.00032	.21009	.00139	.00833	.01925	.00009	4.4644	.00030
#3	.00077	.18634	-.00071	.00867	.01936	.00007	4.4354	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**.00054**	**.00105**	**.25179**	**1.0026**	**.00168**	**2.4924**	**.04060**
Stddev	.00014	.00026	.00008	.00574	.0442	.00073	.0323	.00045
%RSD	359.77	48.439	7.4119	2.2811	4.4128	43.583	1.2942	1.1030
#1	.00001	.00058	.00108	.25034	1.0121	.00100	2.4618	.04023
#2	.00018	.00078	.00111	.24692	1.0413	.00246	2.4894	.04047
#3	-.00008	.00026	.00096	.25812	.95436	.00158	2.5261	.04110
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**3.4025**	**.00052**	**.00582**	**-.00220**	**.00062**	**.00061**	**2.9452**
Stddev	.00007	.0086	.00041	.00248	.00161	.00143	.00062	.0264
%RSD	37.263	.25182	77.711	42.579	73.455	231.11	102.11	.89788
#1	.00019	3.3959	.00087	.00333	-.00362	.00227	.00106	2.9394
#2	.00012	3.3995	.00008	.00585	-.00253	-.00010	.00086	2.9740
#3	.00027	3.4122	.00063	.00828	-.00044	-.00031	-.00010	2.9221
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403157509 Acquired: 4/3/2014 15:47:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469369-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00035**	**.02882**	**.00361**	**-.00226**	**.00020**	**.00580**	**.79519**
Stddev	.00053	.00049	.00087	.00034	.00014	.00008	.85500
%RSD	150.10	1.6915	24.165	15.026	72.884	1.3240	107.52
#1	-.00004	.02838	.00261	-.00265	.00020	.00581	1.7814
#2	.00095	.02873	.00404	-.00209	.00005	.00587	.26299
#3	.00015	.02934	.00419	-.00203	.00034	.00572	.34115
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19654.**	**21355.**
Stddev	18.	284.
%RSD	.09255	1.3307
#1	19642.	21683.
#2	19644.	21208.
#3	19675.	21175.

Approved: April 04, 2014

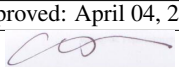
Sample Name: L1403157509MS Acquired: 4/3/2014 15:50:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469369-07

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00052**	**5.3395**	**-.00039**	**.00768**	**.01785**	**.00005**	**9.4915**
Stddev	.00047	.0216	.00105	.00007	.00020	.00003	.0342
%RSD	89.436	.40365	272.03	.87540	1.1227	69.336	.35995
#1	-.00001	5.3459	.00059	.00775	.01796	.00005	9.5173
#2	.00073	5.3154	-.00150	.00762	.01762	.00002	9.5046
#3	.00085	5.3570	-.00025	.00768	.01798	.00008	9.4528
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**-.00018**	**-.00006**	**.00144**	**2.2621**	**26.876**	**.00317**
Stddev	.00006	.00017	.00027	.00056	.0086	.124	.00143
%RSD	27.070	94.270	430.40	39.039	.37822	.46119	44.987
#1	.00020	-.00018	-.00019	.00079	2.2720	26.935	.00478
#2	.00030	-.00001	-.00024	.00169	2.2565	26.960	.00208
#3	.00019	-.00036	.00025	.00182	2.2579	26.734	.00265
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.4918**	**.29805**	**-.00002**	**27.951**	**.00023**	F **-.00546**	**-.00275**
Stddev	.0066	.00081	.00022	.034	.00037	.00308	.00159
%RSD	.08840	.27027	897.16	.12123	161.11	56.393	57.892
#1	7.4870	.29715	.00003	27.937	.00055	-.00881	-.00091
#2	7.4891	.29869	.00017	27.990	.00031	-.00276	-.00362
#3	7.4994	.29831	-.00027	27.926	-.00018	-.00480	-.00371
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014



Sample Name: L1403157509MS Acquired: 4/3/2014 15:50:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469369-07

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00212**	**.00002**	**2.8145**	**.00029**	**.02724**	**.00190**	**-.00103**
Stddev	.00204	.00477	.0174	.00018	.00035	.00023	.00084
%RSD	96.243	30643.	.61819	61.107	1.2865	12.326	82.078
#1	.00059	.00178	2.8285	.00013	.02736	.00215	-.00014
#2	.00134	-.00538	2.8201	.00048	.02751	.00169	-.00111
#3	.00444	.00364	2.7950	.00026	.02684	.00186	-.00182
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00022**	**.00597**	**.65756**
Stddev	.00017	.00017	.12677
%RSD	78.668	2.7663	19.279
#1	.00019	.00592	.79436
#2	.00041	.00583	.63425
#3	.00006	.00615	.54406
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19685.**	**22014.**
Stddev	28.	166.
%RSD	.14144	.75352
#1	19683.	22179.
#2	19657.	22015.
#3	19713.	21847.

Approved: April 04, 2014

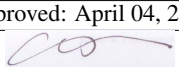
Sample Name: L1403157511 Acquired: 4/3/2014 15:54:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00014**	**.06086**	**.00182**	**.00646**	**.01664**	**.00004**	**3.2995**	**.00014**
Stddev	.00042	.01255	.00089	.00072	.00040	.00001	.0059	.00003
%RSD	309.30	20.630	49.045	11.092	2.4153	17.332	.17843	23.279
#1	-.00030	.04977	.00281	.00597	.01623	.00003	3.2956	.00018
#2	-.00046	.07449	.00155	.00612	.01703	.00005	3.2967	.00012
#3	.00034	.05832	.00109	.00728	.01665	.00005	3.3063	.00013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00011**	**-.00001**	**.00054**	**.15298**	**.83701**	**.00260**	**1.6981**	**.01517**
Stddev	.00002	.00010	.00039	.00646	.01614	.00105	.0143	.00058
%RSD	16.930	1299.0	72.322	4.2196	1.9280	40.369	.84366	3.8400
#1	-.00009	-.00012	.00010	.15661	.85409	.00378	1.6835	.01451
#2	-.00013	.00002	.00070	.14552	.82202	.00226	1.6986	.01538
#3	-.00011	.00008	.00083	.15680	.83491	.00176	1.7121	.01562
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**1.0208**	**-.00035**	**.00589**	**-.00194**	**.00055**	**.00049**	**2.5986**
Stddev	.0001	.0108	.00093	.00088	.00188	.00067	.00267	.0087
%RSD	4036.9	1.0578	269.58	14.993	96.671	121.80	543.70	.33557
#1	-.00007	1.0152	.00030	.00488	-.00011	.00132	-.00256	2.6022
#2	.00009	1.0139	.00007	.00633	-.00185	.00026	.00239	2.5886
#3	-.00002	1.0332	-.00141	.00648	-.00387	.00007	.00164	2.6049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403157511 Acquired: 4/3/2014 15:54:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.01904**	**.00130**	**-.00254**	**.00020**	**.00519**	**.03284**
Stddev	.00056	.00020	.00260	.00039	.00008	.00017	.40624
%RSD	228.06	1.0666	199.94	15.536	38.000	3.2327	1237.0
#1	-.00010	.01896	.00093	-.00230	.00011	.00538	.20152
#2	.00089	.01890	.00406	-.00299	.00023	.00505	.32757
#3	-.00006	.01928	-.00109	-.00231	.00025	.00514	-.43057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19662.**	**21264.**
Stddev	93.	445.
%RSD	.47509	2.0948
#1	19587.	21771.
#2	19631.	21085.
#3	19766.	20936.

Approved: April 04, 2014

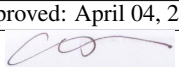
Sample Name: L1403158003 Acquired: 4/3/2014 15:58:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00013**	**.03977**	**.00129**	**.07881**	**.01635**	**.00002**	**166.99**
Stddev	.00028	.01054	.00121	.00103	.00018	.00001	.19
%RSD	215.64	26.506	93.532	1.3117	1.1043	54.970	.11195
#1	-.00040	.04814	.00042	.07964	.01638	.00003	167.00
#2	.00016	.04325	.00079	.07914	.01651	.00001	167.17
#3	-.00015	.02793	.00268	.07765	.01615	.00002	166.79
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00077**	**.00249**	**.00066**	**.00053**	**1.4090**	**5.5315**	**.04346**
Stddev	.00004	.00023	.00018	.00041	.0148	.0595	.00120
%RSD	5.6409	9.4365	26.815	78.557	1.0518	1.0757	2.7616
#1	.00076	.00256	.00074	.00005	1.3946	5.5119	.04304
#2	.00074	.00223	.00078	.00081	1.4082	5.5983	.04253
#3	.00082	.00268	.00046	.00072	1.4242	5.4843	.04481
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**58.512**	**.36442**	**.00004**	**9.5161**	**.00446**	**.00937**	**-.00049**
Stddev	.314	.00600	.00014	.0330	.00029	.00375	.00130
%RSD	.53642	1.6468	332.13	.34720	6.4464	40.069	268.23
#1	58.181	.35808	.00018	9.4955	.00474	.00503	.00087
#2	58.548	.36517	.00005	9.4986	.00417	.01159	-.00059
#3	58.806	.37001	-.00010	9.5542	.00449	.01148	-.00173
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403158003 Acquired: 4/3/2014 15:58:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**.00146**	**3.2055**	**.00083**	**2.6815**	**-.00336**	**-.00341**
Stddev	.00280	.00279	.0294	.00018	.0097	.00052	.00092
%RSD	1857.2	190.60	.91599	22.199	.36317	15.580	27.054
#1	-.00205	-.00145	3.1724	.00063	2.6914	-.00394	-.00284
#2	-.00080	.00410	3.2160	.00099	2.6813	-.00293	-.00447
#3	.00330	.00174	3.2282	.00088	2.6719	-.00320	-.00292
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00005**	**.00428**	F **-.86862**
Stddev	.00016	.00023	.31060
%RSD	344.17	5.3921	35.758
#1	.00009	.00412	-.61030
#2	-.00002	.00416	-.78232
#3	-.00022	.00454	-1.2132
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18809.**	**21337.**
Stddev	191.	363.
%RSD	1.0170	1.7004
#1	18592.	21736.
#2	18954.	21247.
#3	18880.	21027.

Approved: April 04, 2014

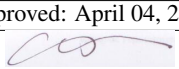
Sample Name: L1403148005 Acquired: 4/3/2014 16:01:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**.00888**	**.00142**	**.08370**	**.02033**	**.00008**	**72.799**
Stddev	.0003	.01175	.00070	.00209	.00022	.00001	.371
%RSD	7235.4	132.40	49.073	2.4931	1.0985	13.701	.50970
#1	-.00035	.02174	.00143	.08392	.02013	.00009	73.092
#2	.00027	-.00131	.00211	.08152	.02029	.00008	72.922
#3	.00007	.00620	.00072	.08568	.02057	.00007	72.382
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00046**	**.00084**	**.00011**	**.00130**	**.05175**	**7.3850**	**.03473**
Stddev	.00007	.00011	.00015	.00045	.00283	.0721	.00069
%RSD	14.878	13.252	134.01	34.868	5.4736	.97648	1.9757
#1	.00047	.00085	.00006	.00182	.04998	7.4382	.03424
#2	.00038	.00073	.00000	.00096	.05502	7.3029	.03552
#3	.00052	.00095	.00029	.00113	.05025	7.4139	.03444
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**21.880**	**.01154**	**.00038**	**49.091**	**.01109**	**.00308**	**-.00213**
Stddev	.083	.00046	.00022	.216	.00086	.00399	.00148
%RSD	.37753	3.9750	57.419	.43923	7.7667	129.44	69.594
#1	21.974	.01161	.00028	49.236	.01124	.00769	-.00111
#2	21.844	.01105	.00023	49.193	.01016	.00082	-.00383
#3	21.820	.01196	.00062	48.843	.01186	.00073	-.00145
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403148005 Acquired: 4/3/2014 16:01:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00144**	**.00366**	**3.6121**	**.00033**	**1.6211**	**-.00162**	**-.00262**
Stddev	.00126	.00211	.0996	.00013	.0093	.00140	.00068
%RSD	86.967	57.805	2.7571	39.715	.57417	85.970	26.003
#1	.00002	.00125	3.5529	.00048	1.6287	-.00130	-.00251
#2	.00191	.00521	3.7271	.00023	1.6239	-.00315	-.00200
#3	.00240	.00451	3.5564	.00029	1.6107	-.00042	-.00335
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00007**	**.01139**	F **-.25421**
Stddev	.00031	.00019	.88109
%RSD	465.74	1.6297	346.60
#1	.00023	.01140	-.80987
#2	-.00038	.01157	.76169
#3	-.00005	.01120	-.71444
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19189.**	**21535.**
Stddev	21.	207.
%RSD	.10900	.96116
#1	19210.	21556.
#2	19189.	21730.
#3	19168.	21318.

Approved: April 04, 2014

Sample Name: L1403148007 Acquired: 4/3/2014 16:05:09 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00032**	**.12393**	**-.00067**	**.06305**	**.02921**	**.00004**	**126.49**	**.00083**
Stddev	.00075	.02389	.00022	.00113	.00026	.00001	.57	.00010
%RSD	231.85	19.278	33.111	1.7964	.90654	27.587	.45278	12.524
#1	-.00118	.12076	-.00046	.06410	.02908	.00005	127.08	.00076
#2	.00014	.10177	-.00065	.06185	.02952	.00003	126.45	.00095
#3	.00007	.14924	-.00090	.06319	.02904	.00004	125.93	.00078
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00138**	**.00083**	**.00077**	**1.1065**	**4.6884**	**.03406**	**51.306**	**.19420**
Stddev	.00030	.00044	.00007	.0047	.0130	.00158	.049	.00100
%RSD	21.605	53.558	9.1628	.42611	.27759	4.6522	.09611	.51678
#1	.00104	.00126	.00069	1.1038	4.6996	.03502	51.316	.19341
#2	.00151	.00085	.00081	1.1038	4.6742	.03223	51.350	.19386
#3	.00159	.00038	.00081	1.1120	4.6915	.03493	51.252	.19533
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**8.8011**	**.00285**	**.00491**	**.00071**	**.00175**	**.00194**	**2.8040**
Stddev	.00019	.0247	.00049	.00540	.00089	.00102	.00116	.0537
%RSD	206.46	.28074	17.048	109.98	125.18	58.668	59.876	1.9168
#1	.00025	8.8291	.00339	.01098	.00004	.00087	.00082	2.8654
#2	-.00012	8.7825	.00246	.00307	.00038	.00287	.00185	2.7810
#3	.00014	8.7916	.00268	.00067	.00171	.00150	.00314	2.7656
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403148007 Acquired: 4/3/2014 16:05:09 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00045**	**1.7823**	**.00060**	**-.00125**	**.00015**	**.00247**	**.24824**
Stddev	.00015	.0097	.00054	.00065	.00033	.00005	.47894
%RSD	32.895	.54358	90.446	52.049	224.52	2.0817	192.93
#1	.00055	1.7920	.00115	-.00050	.00042	.00253	-.12852
#2	.00053	1.7822	.00060	-.00165	.00024	.00245	.08603
#3	.00028	1.7727	.00006	-.00161	-.00022	.00244	.78722
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19083.**	**21600.**
Stddev	106.	107.
%RSD	.55642	.49686
#1	18962.	21680.
#2	19124.	21641.
#3	19162.	21478.

Approved: April 04, 2014

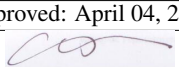
Sample Name: L1403148009 Acquired: 4/3/2014 16:08:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**.02476**	**.00130**	**.02786**	**.01924**	**.00005**	**97.763**	**.00087**
Stddev	.00035	.02776	.00122	.00030	.00024	.00003	.397	.00002
%RSD	3299.0	112.12	94.148	1.0769	1.2330	56.989	.40647	2.3012
#1	.00009	.03056	.00091	.02803	.01943	.00006	97.306	.00087
#2	-.00040	-.00545	.00266	.02804	.01897	.00007	97.955	.00088
#3	.00028	.04915	.00031	.02751	.01932	.00002	98.029	.00084
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00017**	**.00033**	**.00041**	**.05828**	**4.9597**	**.02113**	**73.193**	**.03133**
Stddev	.00005	.00027	.00051	.00180	.0332	.00082	.306	.00022
%RSD	29.689	82.303	123.20	3.0897	.66897	3.8845	.41847	.71315
#1	-.00019	.00005	.00035	.05980	4.9252	.02026	73.545	.03141
#2	-.00020	.00034	-.00006	.05629	4.9625	.02189	72.983	.03108
#3	-.00011	.00060	.00095	.05875	4.9914	.02123	73.052	.03150
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**6.7839**	**.00265**	**.00293**	**-.00140**	**.00113**	**-.00126**	**2.3704**
Stddev	.00011	.0245	.00024	.00804	.00075	.00151	.00402	.0219
%RSD	183.74	.36092	9.1640	274.10	53.631	133.61	319.23	.92437
#1	-.00001	6.7763	.00237	.01222	-.00084	.00079	-.00581	2.3767
#2	-.00019	6.8113	.00283	-.00191	-.00226	.00279	.00027	2.3885
#3	.00002	6.7642	.00273	-.00150	-.00111	-.00018	.00177	2.3460
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403148009 Acquired: 4/3/2014 16:08:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**.97546**	**-.00228**	**-.00201**	**.00021**	**.00345**	**.16920**
Stddev	.00034	.00600	.00029	.00100	.00013	.00006	1.0724
%RSD	149.30	.61460	12.587	50.024	61.632	1.7559	633.80
#1	.00006	.96855	-.00261	-.00127	.00025	.00348	-.89896
#2	.00061	.97862	-.00212	-.00315	.00007	.00338	.16079
#3	.00000	.97921	-.00210	-.00160	.00032	.00349	1.2458
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19061.**	**21182.**
Stddev	80.	318.
%RSD	.41958	1.4991
#1	18973.	20823.
#2	19082.	21429.
#3	19129.	21292.

Approved: April 04, 2014

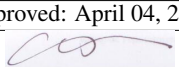
Sample Name: L1403148011 Acquired: 4/3/2014 16:12:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00028**	**.02829**	**-.00092**	**.02892**	**.01971**	**.00006**	**102.42**	**.00104**
Stddev	.00021	.01846	.00077	.00053	.00014	.00003	.15	.00009
%RSD	73.195	65.258	83.814	1.8445	.71070	51.048	.14424	8.8695
#1	.00052	.04813	-.00092	.02941	.01963	.00009	102.36	.00094
#2	.00017	.01162	-.00015	.02835	.01987	.00004	102.59	.00108
#3	.00015	.02511	-.00169	.02900	.01962	.00003	102.31	.00111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**.00055**	**.00056**	**.06310**	**5.1761**	**.02087**	**76.217**	**.04062**
Stddev	.00009	.00013	.00014	.00100	.0278	.00048	.680	.00093
%RSD	245.52	23.767	24.588	1.5831	.53741	2.3101	.89237	2.2874
#1	-.00006	.00054	.00050	.06310	5.2042	.02098	76.019	.04079
#2	.00013	.00068	.00047	.06211	5.1755	.02035	76.974	.04145
#3	.00004	.00042	.00072	.06411	5.1486	.02129	75.658	.03962
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**7.0256**	**.00233**	**-.00065**	**-.00066**	**.00200**	**.00071**	**2.4137**
Stddev	.00019	.0147	.00048	.00333	.00210	.00098	.00334	.0248
%RSD	456.41	.20928	20.672	510.98	316.40	49.168	471.77	1.0261
#1	-.00011	7.0378	.00253	-.00421	-.00301	.00103	-.00309	2.4359
#2	.00017	7.0297	.00178	.00239	.00103	.00299	.00320	2.3870
#3	-.00019	7.0093	.00268	-.00014	-.00001	.00197	.00201	2.4182
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403148011 Acquired: 4/3/2014 16:12:13 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**1.0432**	**-.00185**	**-.00074**	**.00002**	**.00658**	**.61965**
Stddev	.00027	.0024	.00068	.00120	.00014	.00003	.58162
%RSD	122.62	.22866	36.580	161.69	895.22	.48518	93.863
#1	.00039	1.0415	-.00126	-.00182	-.00005	.00662	.06134
#2	.00037	1.0422	-.00259	-.00096	.00018	.00657	.57554
#3	-.00009	1.0459	-.00171	.00055	-.00008	.00655	1.2221
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19218.**	**21315.**
Stddev	22.	575.
%RSD	.11222	2.6967
#1	19197.	21429.
#2	19217.	20691.
#3	19240.	21824.

Approved: April 04, 2014

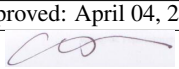
Sample Name: L1403148013 Acquired: 4/3/2014 16:15:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00029**	**.06364**	**.00055**	**.02373**	**.02552**	**.00011**	**58.158**	**.00062**
Stddev	.00017	.02495	.00131	.00046	.00026	.00002	.045	.00009
%RSD	58.755	39.210	237.53	1.9276	1.0023	18.684	.07745	14.855
#1	-.00034	.05472	.00072	.02331	.02524	.00013	58.109	.00058
#2	-.00010	.04438	-.00083	.02367	.02557	.00009	58.197	.00055
#3	-.00044	.09183	.00177	.02422	.02575	.00009	58.167	.00072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00177**	**.00056**	**.00069**	**.08204**	**3.6809**	**.01526**	**41.736**	**.20954**
Stddev	.00017	.00047	.00049	.00193	.0277	.00016	.050	.00094
%RSD	9.6232	82.822	71.703	2.3561	.75311	1.0400	.12006	.44963
#1	.00168	.00056	.00054	.08384	3.7057	.01510	41.739	.20933
#2	.00166	.00010	.00029	.08228	3.6510	.01542	41.685	.20871
#3	.00197	.00103	.00123	.08000	3.6860	.01525	41.785	.21056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**8.5586**	**.00770**	**.00171**	**-.00006**	**.00064**	**.00305**	**2.3408**
Stddev	.00002	.0094	.00026	.00680	.00140	.00249	.00243	.0111
%RSD	16.411	.10938	3.3712	398.69	2224.8	388.68	79.553	.47205
#1	.00014	8.5532	.00766	-.00462	.00049	.00014	.00446	2.3535
#2	.00011	8.5533	.00746	.00890	-.00165	-.00156	.00445	2.3333
#3	.00014	8.5695	.00797	.00084	.00097	.00335	.00025	2.3355
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403148013 Acquired: 4/3/2014 16:15:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00058**	**.52846**	**-.00100**	**-.00206**	**-.00033**	**.00844**	**.53718**
Stddev	.00002	.00112	.00100	.00046	.00012	.00003	.39894
%RSD	3.4119	.21159	99.284	22.597	37.226	.33970	74.266
#1	.00056	.52719	-.00176	-.00167	-.00031	.00843	.72022
#2	.00059	.52892	.00012	-.00193	-.00046	.00848	.07956
#3	.00058	.52928	-.00137	-.00257	-.00022	.00842	.81176
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19399.**	**21781.**
Stddev	19.	53.
%RSD	.10000	.24103
#1	19380.	21793.
#2	19418.	21827.
#3	19401.	21724.

Approved: April 04, 2014

Sample Name: L1403148015 Acquired: 4/3/2014 16:19:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00009**	**.10746**	**.00089**	**.03843**	**.02513**	**.00014**	**49.844**	**.00057**
Stddev	.00044	.01978	.00164	.00037	.00057	.00001	.050	.00007
%RSD	509.08	18.405	183.90	.95982	2.2537	5.0103	.10016	13.099
#1	-.00034	.09383	.00032	.03867	.02488	.00014	49.886	.00065
#2	.00042	.13015	.00274	.03861	.02473	.00013	49.856	.00052
#3	-.00034	.09842	-.00039	.03800	.02578	.00014	49.789	.00053
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00290**	**.00011**	**.00128**	**.11190**	**4.1690**	**.02027**	**27.053**	**.12746**
Stddev	.00019	.00021	.00035	.00275	.0612	.00210	.172	.00164
%RSD	6.6512	195.83	27.389	2.4555	1.4693	10.363	.63478	1.2831
#1	.00293	.00020	.00098	.11503	4.1005	.02166	26.904	.12579
#2	.00308	-.00013	.00166	.10990	4.1877	.01785	27.014	.12755
#3	.00270	.00025	.00121	.11077	4.2187	.02128	27.241	.12905
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**20.349**	**.00920**	**-.00060**	**.00040**	**.00104**	**.00459**	**2.7066**
Stddev	.00023	.012	.00044	.00540	.00057	.00314	.00115	.0296
%RSD	176.64	.05915	4.7663	904.85	142.27	303.37	25.073	1.0916
#1	-.00013	20.349	.00913	-.00450	.00068	.00463	.00438	2.6789
#2	.00027	20.337	.00880	.00557	.00079	-.00122	.00356	2.7033
#3	.00025	20.361	.00967	-.00286	-.00026	-.00030	.00584	2.7377
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403148015 Acquired: 4/3/2014 16:19:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00091**	**.73181**	**.00014**	**-.00156**	**.00024**	**.01310**	**.51632**
Stddev	.00025	.00111	.00041	.00092	.00004	.00016	.37758
%RSD	27.731	.15217	297.91	59.078	15.376	1.2006	73.129
#1	.00067	.73290	.00057	-.00061	.00028	.01296	.52532
#2	.00090	.73184	.00008	-.00163	.00023	.01306	.13432
#3	.00117	.73068	-.00024	-.00245	.00021	.01327	.88931
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19385.**	**21575.**
Stddev	16.	285.
%RSD	.08441	1.3205
#1	19404.	21875.
#2	19374.	21540.
#3	19377.	21309.

Approved: April 04, 2014

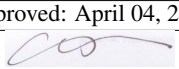
Sample Name: CCV Acquired: 4/3/2014 16:22:54 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41062**	**10.080**	**.40063**	**.52656**	**.98264**	**.05180**	**10.012**	**.05042**
Stddev	.00527	.050	.00438	.01031	.00208	.00087	.031	.00017
%RSD	1.2831	.50000	1.0924	1.9586	.21198	1.6841	.30587	.33751
#1	.40535	10.072	.39794	.51597	.98048	.05090	10.002	.05026
#2	.41062	10.134	.40568	.52713	.98282	.05186	10.047	.05060
#3	.41588	10.034	.39828	.53657	.98463	.05264	9.9882	.05041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20472**	**.51465**	**.51166**	**3.9694**	**50.434**	**.98945**	**9.9717**	**.51198**
Stddev	.00028	.00944	.00104	.0054	.077	.00187	.0410	.00572
%RSD	.13458	1.8334	.20282	.13680	.15330	.18926	.41088	1.1164
#1	.20458	.50600	.51046	3.9730	50.435	.98730	9.9377	.50772
#2	.20504	.51324	.51233	3.9631	50.511	.99072	9.9602	.50975
#3	.20455	.52471	.51218	3.9720	50.357	.99033	10.017	.51848
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.99684**	**48.752**	**.50341**	**10.112**	**.50629**	**1.1910**	**.40984**	**4.9636**
Stddev	.00121	.228	.00194	.027	.00101	.0062	.00496	.0230
%RSD	.12118	.46694	.38634	.26424	.19996	.51682	1.2101	.46368
#1	.99588	48.552	.50292	10.089	.50563	1.1927	.40506	4.9796
#2	.99820	48.704	.50555	10.141	.50579	1.1961	.41496	4.9740
#3	.99645	48.999	.50176	10.107	.50746	1.1841	.40948	4.9372
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Approved: April 04, 2014



Sample Name: CCV Acquired: 4/3/2014 16:22:54 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0204**	**1.0163**	**.97990**	**.50010**	**1.0185**	**1.0334**	**1.0649**
Stddev	.0036	.0045	.00060	.00431	.0149	.0070	.5138
%RSD	.35215	.43876	.06091	.86194	1.4609	.67986	48.249
#1	1.0168	1.0169	.97976	.49756	1.0034	1.0257	1.6424
#2	1.0239	1.0204	.98055	.50508	1.0191	1.0351	.65852
#3	1.0206	1.0115	.97938	.49767	1.0331	1.0395	.89368
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19342.**	**21511.**
Stddev	242.	177.
%RSD	1.2525	.82481
#1	19608.	21666.
#2	19284.	21550.
#3	19134.	21317.

Approved: April 04, 2014

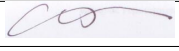
Sample Name: CCB Acquired: 4/3/2014 16:26:09 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**-.00405**	**.00062**	**.00213**	**.00041**	**.00003**	**.01207**
Stddev	.00005	.01456	.00153	.00068	.00033	.00002	.00470
%RSD	25.500	359.49	249.09	31.927	80.997	58.763	38.937
#1	-.00020	-.00286	.00018	.00249	.00003	.00005	.00696
#2	-.00024	.00988	.00232	.00255	.00065	.00001	.01622
#3	-.00014	-.01917	-.00065	.00134	.00054	.00003	.01302
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**-.00014**	**.00001**	**.00010**	**.00336**	**-.01785**	**.00279**
Stddev	.00001	.00007	.00051	.00047	.00814	.03716	.00079
%RSD	44.141	49.115	6566.2	463.59	242.13	208.21	28.481
#1	-.00002	-.00018	.00011	.00064	.01260	.00386	.00218
#2	-.00004	-.00006	.00046	-.00008	-.00274	-.06075	.00250
#3	-.00003	-.00017	-.00055	-.00026	.00022	.00335	.00369
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00789**	**.00016**	**.00014**	**.01185**	**-.00012**	**-.00149**	**-.00148**
Stddev	.01118	.00008	.00008	.00616	.00056	.00340	.00223
%RSD	141.71	47.027	55.338	52.036	479.90	228.18	150.87
#1	-.00152	.00007	.00017	.01554	.00032	-.00445	.00074
#2	-.00135	.00021	.00005	.00473	.00007	-.00223	-.00372
#3	-.02081	.00019	.00021	.01527	-.00074	.00222	-.00145
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



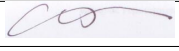
Sample Name: CCB Acquired: 4/3/2014 16:26:09 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00031**	**-.00096**	**-.00471**	**.00029**	**.00013**	**-.00023**	**-.00157**
Stddev	.00130	.00304	.00066	.00022	.00012	.00082	.00056
%RSD	424.63	318.24	13.907	76.409	90.054	359.95	35.926
#1	-.00036	-.00170	-.00499	.00037	.00014	-.00027	-.00169
#2	-.00157	-.00356	-.00518	.00004	.00001	.00061	-.00206
#3	.00102	.00239	-.00396	.00046	.00024	-.00103	-.00095
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00005**	**.00118**	F **.41042**
Stddev	.00025	.00004	1.1394
%RSD	540.21	3.6920	277.61
#1	-.00005	.00121	1.5004
#2	-.00014	.00121	.50351
#3	.00033	.00113	-.77263
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19829.**	**21233.**
Stddev	26.	70.
%RSD	.13076	.33096
#1	19858.	21312.
#2	19821.	21180.
#3	19808.	21206.

Approved: April 04, 2014



Sample Name: L1403139709 Acquired: 4/3/2014 16:29:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**.05236**	**-.00011**	**.02003**	**.03247**	**.00004**	**32.626**
Stddev	.00048	.02358	.00120	.00123	.00033	.00004	.051
%RSD	20624.	45.029	1129.9	6.1180	1.0136	93.013	.15578
#1	.00013	.03319	-.00149	.02076	.03225	.00007	32.642
#2	-.00053	.07869	.00047	.02071	.03230	.00005	32.569
#3	.00040	.04521	.00070	.01861	.03284	.00000	32.667
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00034**	**-.00023**	**.00016**	**.00069**	**.10718**	**3.2492**	**.01606**
Stddev	.00009	.00014	.00021	.00013	.00393	.0429	.00090
%RSD	26.531	59.046	134.22	18.271	3.6654	1.3202	5.6029
#1	.00044	-.00024	-.00009	.00073	.10905	3.2860	.01640
#2	.00031	-.00009	.00027	.00079	.10982	3.2595	.01674
#3	.00027	-.00036	.00030	.00055	.10266	3.2021	.01504
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**15.347**	**.02337**	**.00020**	**3.4789**	**.00120**	**.00256**	**-.00067**
Stddev	.122	.00058	.00008	.0083	.00023	.00382	.00128
%RSD	.79585	2.4879	41.095	.23773	19.165	149.09	189.78
#1	15.238	.02270	.00013	3.4695	.00121	.00417	.00037
#2	15.323	.02375	.00019	3.4849	.00096	.00531	-.00029
#3	15.479	.02366	.00029	3.4824	.00142	-.00180	-.00210
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014

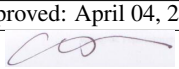
Sample Name: L1403139709 Acquired: 4/3/2014 16:29:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00098**	**.00337**	**2.6494**	**.00075**	**.45998**	**-.00066**	**-.00146**
Stddev	.00077	.00177	.0141	.00025	.00154	.00094	.00098
%RSD	78.678	52.422	.53057	33.612	.33414	141.75	67.317
#1	.00184	.00499	2.6653	.00100	.46164	.00040	-.00033
#2	.00032	.00363	2.6386	.00050	.45861	-.00137	-.00208
#3	.00079	.00149	2.6443	.00075	.45968	-.00102	-.00197
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00012**	**.00386**	F **-.28164**
Stddev	.00027	.00008	.14369
%RSD	231.79	2.1248	51.018
#1	-.00009	.00395	-.44007
#2	-.00040	.00380	-.24512
#3	.00014	.00383	-.15974
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19576.**	**21322.**
Stddev	93.	197.
%RSD	.47267	.92217
#1	19594.	21549.
#2	19658.	21218.
#3	19475.	21199.

Approved: April 04, 2014



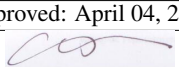
Sample Name: L1403139709SDL Acquired: 4/3/2014 16:33:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469652-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00043**	**.00606**	**.00108**	**.00526**	**.00677**	**.00002**	**6.6486**
Stddev	.00030	.00115	.00052	.00140	.00041	.00002	.0095
%RSD	70.551	18.956	48.253	26.569	6.0001	90.914	.14313
#1	-.00051	.00595	.00054	.00369	.00632	.00001	6.6592
#2	-.00009	.00726	.00158	.00637	.00691	.00005	6.6454
#3	-.00069	.00497	.00111	.00572	.00710	.00001	6.6410
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**-.00021**	**.00013**	**.00030**	**.02106**	**.62008**	**.00300**
Stddev	.00011	.00019	.00011	.00031	.00053	.03209	.00056
%RSD	203.50	88.816	88.850	103.17	2.5277	5.1747	18.552
#1	-.00006	-.00026	.00025	.00042	.02113	.59343	.00354
#2	.00016	-.00038	.00002	.00052	.02049	.61112	.00243
#3	.00007	-.00001	.00011	-.00005	.02155	.65570	.00302
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.1265**	**.00472**	**.00016**	**.68358**	**-.00058**	**.00036**	**-.00009**
Stddev	.0170	.00014	.00004	.00926	.00083	.00512	.00199
%RSD	.54203	2.9492	22.531	1.3552	143.04	1413.2	2281.2
#1	3.1081	.00463	.00020	.69087	.00009	.00242	-.00129
#2	3.1300	.00465	.00014	.68670	-.00152	-.00547	-.00118
#3	3.1415	.00488	.00014	.67315	-.00032	.00413	.00221
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



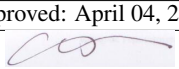
Sample Name: L1403139709SDL Acquired: 4/3/2014 16:33:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469652-04

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**-.00054**	**.52423**	**.00031**	**.09504**	**-.00135**	**-.00110**
Stddev	.00057	.00047	.00346	.00018	.00013	.00127	.00140
%RSD	2137.8	87.345	.65944	56.662	.14013	94.522	127.21
#1	.00034	-.00010	.52077	.00034	.09506	.00002	.00044
#2	.00036	-.00104	.52423	.00013	.09517	-.00156	-.00231
#3	-.00063	-.00049	.52768	.00048	.09490	-.00250	-.00144
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00006**	**.00153**	F **-.18552**
Stddev	.00038	.00004	.77824
%RSD	611.79	2.6216	419.50
#1	.00037	.00148	-1.0566
#2	-.00031	.00155	.05870
#3	-.00025	.00155	.44133
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20133.**	**21527.**
Stddev	59.	335.
%RSD	.29259	1.5571
#1	20065.	21838.
#2	20174.	21570.
#3	20159.	21172.

Approved: April 04, 2014



Sample Name: L1403139709PS Acquired: 4/3/2014 16:36:57 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469652-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20502**	**5.0598**	**.20198**	**1.0622**	**.50951**	**.02600**	**34.580**
Stddev	.00211	.0188	.00346	.0108	.00172	.00022	.043
%RSD	1.0299	.37263	1.7107	1.0143	.33830	.85177	.12352
#1	.20321	5.0427	.20140	1.0551	.50755	.02581	34.603
#2	.20734	5.0569	.19885	1.0746	.51076	.02624	34.531
#3	.20451	5.0800	.20569	1.0570	.51023	.02594	34.606
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02554**	**.10377**	**.25960**	**.25741**	**2.0478**	**27.953**	**.50101**
Stddev	.00026	.00010	.00299	.00082	.0131	.023	.00214
%RSD	1.0286	.09747	1.1499	.31665	.64169	.08165	.42632
#1	.02524	.10373	.25757	.25651	2.0396	27.963	.49857
#2	.02570	.10389	.26303	.25762	2.0408	27.927	.50196
#3	.02569	.10370	.25821	.25810	2.0629	27.969	.50251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**18.224**	**.27180**	**.50944**	**26.730**	**.25430**	F **-.00464**	**.25372**
Stddev	.041	.00169	.00168	.117	.00194	.00699	.00385
%RSD	.22259	.62243	.33025	.43792	.76161	150.59	1.5159
#1	18.188	.27310	.50773	26.598	.25239	-.01251	.24981
#2	18.268	.26989	.50950	26.819	.25425	-.00225	.25386
#3	18.217	.27242	.51109	26.774	.25627	.00084	.25750
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

Sample Name: L1403139709PS Acquired: 4/3/2014 16:36:57 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469652-03

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.61751**	**.20728**	**4.8622**	**.00086**	**.93442**	**.48325**	**.24819**
Stddev	.00426	.00413	.0206	.00064	.00062	.00182	.00186
%RSD	.69053	1.9920	.42385	74.516	.06668	.37694	.75085
#1	.61735	.20531	4.8703	.00126	.93481	.48457	.25034
#2	.61332	.20451	4.8388	.00012	.93370	.48117	.24719
#3	.62185	.21203	4.8776	.00121	.93474	.48402	.24704
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.50709**	**.51793**	**1.6467**
Stddev	.00479	.00285	.9129
%RSD	.94444	.55066	55.437
#1	.50414	.51483	1.1310
#2	.51262	.52045	2.7007
#3	.50453	.51852	1.1084
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19298.**	**21700.**
Stddev	191.	156.
%RSD	.99083	.71954
#1	19388.	21540.
#2	19078.	21852.
#3	19427.	21708.

Approved: April 04, 2014

Sample Name: L1403140703 Acquired: 4/3/2014 16:50:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**.11676**	**-.00015**	**.00543**	**.00440**	**.00009**	**1.4459**	**.00014**
Stddev	.00038	.00300	.00063	.00032	.00063	.00001	.0111	.00003
%RSD	1944.5	2.5733	428.01	5.8667	14.393	8.6989	.76392	20.407
#1	-.00031	.11379	.00002	.00578	.00390	.00010	1.4392	.00011
#2	.00043	.11669	-.00084	.00534	.00419	.00009	1.4397	.00014
#3	-.00006	.11980	.00038	.00516	.00511	.00009	1.4586	.00017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00016**	**.00071**	**.01164**	**.32241**	**.03530**	**.00208**	**.07793**	**.00522**
Stddev	.00013	.00017	.00056	.00677	.01186	.00142	.00699	.00016
%RSD	80.526	23.280	4.8101	2.0983	33.589	68.326	8.9649	3.1536
#1	-.00013	.00085	.01215	.32433	.04898	.00371	.07822	.00510
#2	-.00005	.00053	.01174	.32801	.02851	.00141	.08477	.00516
#3	-.00030	.00076	.01104	.31490	.02839	.00112	.07081	.00541
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**.12853**	**.00079**	**.06938**	**.00104**	**-.00059**	**.00002**	**.20328**
Stddev	.00014	.00301	.00036	.00685	.00129	.00144	.00305	.00188
%RSD	67.056	2.3437	45.504	9.8798	124.09	243.04	17355.	.92630
#1	.00013	.12822	.00094	.06978	-.00030	-.00037	.00307	.20460
#2	.00013	.13169	.00106	.06234	.00227	.00073	-.00303	.20411
#3	.00038	.12569	.00038	.07603	.00114	-.00213	.00001	.20112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403140703 Acquired: 4/3/2014 16:50:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00076**	**.00320**	**.00731**	**-.00290**	**.00084**	**.03963**	**1.4384**
Stddev	.00023	.00009	.00089	.00034	.00039	.00032	.8797
%RSD	30.937	2.8949	12.195	11.603	46.546	.80304	61.158
#1	.00049	.00321	.00777	-.00297	.00128	.03994	2.3210
#2	.00085	.00328	.00788	-.00320	.00068	.03930	1.4327
#3	.00094	.00310	.00629	-.00254	.00055	.03966	.56162
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19587.**	**21127.**
Stddev	183.	466.
%RSD	.93530	2.2039
#1	19558.	21609.
#2	19784.	21091.
#3	19421.	20680.

Approved: April 04, 2014

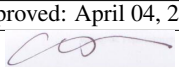
Sample Name: L1403140703PS Acquired: 4/3/2014 16:54:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469676-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20141**	**5.1263**	**.19857**	**1.0233**	**.48572**	**.02558**	**6.3401**	**.02502**
Stddev	.00187	.0086	.00156	.0073	.00240	.00015	.0275	.00007
%RSD	.92762	.16748	.78644	.71348	.49458	.57295	.43385	.26705
#1	.19962	5.1307	.19857	1.0149	.48341	.02541	6.3142	.02495
#2	.20334	5.1164	.20013	1.0284	.48555	.02567	6.3371	.02509
#3	.20127	5.1318	.19701	1.0265	.48821	.02566	6.3690	.02502
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10362**	**.25781**	**.26580**	**2.2803**	**24.938**	**.49083**	**5.0180**	**.26891**
Stddev	.00063	.00172	.00131	.0156	.092	.00164	.0464	.00212
%RSD	.60561	.66842	.49388	.68264	.36982	.33489	.92530	.78854
#1	.10345	.25582	.26569	2.2640	24.831	.48901	4.9852	.26659
#2	.10432	.25890	.26717	2.2819	24.986	.49221	4.9976	.27075
#3	.10310	.25870	.26455	2.2950	24.996	.49126	5.0711	.26937
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50270**	**24.089**	**.25480**	**5.0110**	**.25634**	**.60474**	**.20055**	**2.6859**
Stddev	.00297	.176	.00082	.0223	.00086	.00556	.00427	.0136
%RSD	.59155	.73243	.32223	.44446	.33455	.91949	2.1315	.50544
#1	.50310	23.894	.25570	4.9976	.25724	.60610	.20016	2.6884
#2	.50545	24.134	.25458	5.0368	.25554	.60951	.20501	2.6980
#3	.49955	24.237	.25410	4.9988	.25624	.59863	.19649	2.6712
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403140703PS Acquired: 4/3/2014 16:54:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469676-03

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00124**	**.50695**	**.49228**	**.25016**	**.50010**	**.55309**	**1.9339**
Stddev	.00038	.00077	.00115	.00192	.00291	.00322	.5841
%RSD	30.971	.15147	.23275	.76670	.58129	.58273	30.204
#1	.00140	.50607	.49101	.25058	.49711	.54937	1.9314
#2	.00151	.50734	.49258	.25183	.50292	.55500	1.3511
#3	.00080	.50744	.49325	.24806	.50029	.55491	2.5193
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19374.**	**20627.**
Stddev	57.	110.
%RSD	.29311	.53245
#1	19430.	20747.
#2	19317.	20531.
#3	19374.	20603.

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 16:57:43 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40623**	**10.236**	**.40484**	**.52442**	**.98171**	**.05211**	**10.135**
Stddev	.00865	.033	.00178	.00933	.00274	.00100	.031
%RSD	2.1282	.31854	.44072	1.7782	.27895	1.9161	.30466
#1	.41615	10.271	.40535	.53494	.97904	.05327	10.100
#2	.40216	10.207	.40286	.52115	.98451	.05154	10.159
#3	.40036	10.230	.40632	.51717	.98157	.05154	10.146
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05042**	**.20680**	**.51937**	**.51365**	**3.9755**	**51.005**	**.98583**
Stddev	.00012	.00031	.01070	.00139	.0091	.209	.00316
%RSD	.24533	.14998	2.0609	.26969	.22947	.41021	.32077
#1	.05028	.20654	.53152	.51243	3.9714	50.770	.98548
#2	.05047	.20714	.51528	.51516	3.9860	51.173	.98916
#3	.05052	.20670	.51132	.51338	3.9692	51.070	.98286
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.110**	**.51977**	**.99602**	**48.210**	**.50574**	**10.133**	**.50696**
Stddev	.037	.00561	.00210	.207	.00184	.062	.00108
%RSD	.36666	1.0791	.21120	.42884	.36312	.60874	.21316
#1	10.080	.51344	.99378	48.164	.50423	10.114	.50685
#2	10.099	.52412	.99633	48.436	.50778	10.202	.50595
#3	10.151	.52174	.99796	48.030	.50520	10.082	.50810
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 16:57:43 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2018**	**.41365**	**4.9941**	**1.0424**	**1.0391**	**.98370**	**.49634**
Stddev	.0096	.00331	.0378	.0033	.0052	.00121	.00289
%RSD	.80103	.79971	.75702	.31554	.49677	.12309	.58277
#1	1.1908	.41202	4.9505	1.0400	1.0332	.98480	.49343
#2	1.2088	.41147	5.0146	1.0411	1.0415	.98240	.49639
#3	1.2058	.41746	5.0172	1.0462	1.0427	.98389	.49921
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0059**	**1.0388**	F **.57721**
Stddev	.0200	.0148	.07797
%RSD	1.9854	1.4219	13.508
#1	1.0289	1.0558	.55828
#2	.99583	1.0309	.66290
#3	.99303	1.0296	.51045
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19443.**	**21049.**
Stddev	481.	130.
%RSD	2.4739	.61758
#1	18888.	21197.
#2	19718.	20952.
#3	19724.	21000.

Approved: April 04, 2014

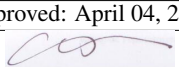
Sample Name: CCB Acquired: 4/3/2014 17:00:59 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**.01381**	**.00047**	**.00396**	**.00023**	**.00005**	**.00348**	**.00003**
Stddev	.00022	.02609	.00142	.00007	.00005	.00003	.00297	.00004
%RSD	97.610	188.86	304.96	1.8859	21.829	64.157	85.456	142.67
#1	.00001	.04341	-.00060	.00387	.00028	.00009	.00684	.00007
#2	.00044	.00385	.00208	.00402	.00018	.00005	.00118	-.00002
#3	.00022	-.00582	-.00008	.00398	.00023	.00002	.00243	.00004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**.00010**	**.00017**	**-.00238**	**-.00751**	**.00093**	**-.02104**	**.00021**
Stddev	.00008	.00043	.00066	.00072	.01428	.00046	.00799	.00002
%RSD	117.97	424.94	383.58	30.221	190.25	49.825	37.997	9.3193
#1	.00006	-.00022	-.00026	-.00252	.00894	.00123	-.02410	.00023
#2	.00016	-.00006	-.00016	-.00160	-.01472	.00040	-.02704	.00021
#3	.00000	.00059	.00094	-.00302	-.01675	.00117	-.01196	.00019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00035**	**.01416**	**-.00034**	**-.00061**	**-.00194**	**.00337**	**.00165**	**-.00365**
Stddev	.00008	.00634	.00052	.00304	.00151	.00164	.00185	.00053
%RSD	24.231	44.809	153.03	500.35	78.234	48.552	112.23	14.607
#1	.00029	.00831	-.00071	.00172	-.00019	.00378	.00001	-.00305
#2	.00045	.02090	.00026	.00050	-.00293	.00157	.00128	-.00406
#3	.00031	.01326	-.00057	-.00405	-.00269	.00478	.00365	-.00385
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: CCB Acquired: 4/3/2014 17:00:59 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**.00018**	**-.00074**	**-.00163**	**-.00006**	**.00127**	**.07254**
Stddev	.00040	.00004	.00065	.00191	.00024	.00011	.22656
%RSD	206.44	23.982	87.042	117.23	369.17	8.4345	312.31
#1	.00066	.00015	-.00123	-.00176	.00021	.00134	.24895
#2	-.00010	.00023	-.00001	-.00348	-.00018	.00131	-.18296
#3	.00003	.00016	-.00099	.00034	-.00022	.00114	.15164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19713.**	**21313.**
Stddev	80.	71.
%RSD	.40686	.33125
#1	19767.	21385.
#2	19752.	21311.
#3	19621.	21243.

Approved: April 04, 2014

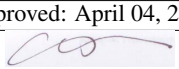
Sample Name: PBW R2 Acquired: 4/3/2014 17:04:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469458-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**-.00670**	**.00075**	**.00228**	**.00005**	**.00004**	**.01617**	**.00013**
Stddev	.00009	.00626	.00211	.00068	.00054	.00002	.00898	.00003
%RSD	27.361	93.343	280.94	29.945	1101.8	48.475	55.492	23.219
#1	.00023	-.00912	-.00026	.00181	-.00027	.00004	.02651	.00010
#2	.00031	.00040	-.00066	.00307	.00067	.00006	.01173	.00016
#3	.00040	-.01139	.00318	.00198	-.00025	.00002	.01029	.00013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**.00056**	**-.00022**	**.00333**	**-.02562**	**.00154**	**.00825**	**.00007**
Stddev	.00018	.00039	.00047	.00218	.04159	.00179	.00226	.00009
%RSD	82.754	69.917	212.75	65.324	162.36	116.15	27.421	122.44
#1	-.00014	.00016	.00031	.00583	-.03961	-.00051	.00786	.00002
#2	-.00010	.00059	-.00055	.00226	.02117	.00236	.01068	.00002
#3	-.00043	.00094	-.00042	.00190	-.05841	.00278	.00621	.00018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00027**	**.01321**	**-.00041**	**-.00236**	**-.00237**	**.00054**	**.00186**	**-.00389**
Stddev	.00012	.01066	.00018	.00313	.00082	.00122	.00167	.00180
%RSD	45.869	80.688	44.624	132.97	34.716	227.68	89.817	46.157
#1	.00021	.02408	-.00021	-.00509	-.00181	.00145	.00359	-.00524
#2	.00041	.01277	-.00046	.00106	-.00331	.00101	.00024	-.00458
#3	.00019	.00278	-.00056	-.00304	-.00197	-.00085	.00177	-.00185
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: PBW R2 Acquired: 4/3/2014 17:04:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469458-03

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00068**	**.00015**	**-.00006**	**-.00166**	**-.00016**	**.00141**	**.09721**
Stddev	.00019	.00003	.00108	.00210	.00011	.00013	.65180
%RSD	28.409	20.434	1696.5	126.48	70.770	8.8776	670.50
#1	.00062	.00012	.00074	.00065	-.00016	.00155	-.23621
#2	.00089	.00015	.00036	-.00217	-.00004	.00131	.84827
#3	.00053	.00019	-.00129	-.00347	-.00027	.00139	-.32043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19607.**	**21648.**
Stddev	65.	31.
%RSD	.32955	.14216
#1	19647.	21680.
#2	19641.	21618.
#3	19532.	21645.

Approved: April 04, 2014

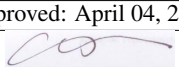
Sample Name: LCSW R2 Acquired: 4/3/2014 17:08:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469458-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**5.1242**	**.00120**	**.00140**	**.00036**	**.00001**	**5.1634**
Stddev	.00028	.0413	.00126	.00042	.00019	.00002	.0014
%RSD	340.84	.80538	105.50	29.883	51.439	185.84	.02768
#1	-.00019	5.1344	.00265	.00128	.00048	-.00001	5.1634
#2	.00006	5.0788	.00049	.00187	.00015	.00003	5.1619
#3	.00037	5.1595	.00044	.00106	.00046	.00002	5.1648
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**-.00020**	**-.00023**	**.00059**	**2.0380**	**25.661**	**.00082**
Stddev	.00007	.00019	.00016	.00053	.0048	.024	.00148
%RSD	61.073	94.577	69.669	90.470	.23603	.09472	179.73
#1	.00017	-.00026	-.00031	.00117	2.0382	25.633	.00053
#2	.00004	-.00034	-.00033	.00047	2.0427	25.673	-.00049
#3	.00016	.00001	-.00005	.00013	2.0331	25.676	.00243
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.1166**	**.26501**	**.00002**	**24.694**	**.00006**	F **-.00485**	**-.00175**
Stddev	.0170	.00125	.00010	.035	.00027	.00441	.00126
%RSD	.33300	.47258	579.44	.14310	436.31	90.870	71.833
#1	5.1241	.26625	.00005	24.696	.00037	-.00332	-.00313
#2	5.1287	.26375	.00011	24.728	-.00008	-.00142	-.00067
#3	5.0971	.26504	-.00010	24.658	-.00011	-.00983	-.00144
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014



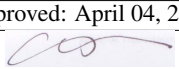
Sample Name: LCSW R2 Acquired: 4/3/2014 17:08:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469458-04

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00162**	**-.00012**	**.00374**	**.00065**	**.00004**	**-.00048**	**-.00019**
Stddev	.00088	.00479	.00094	.00022	.00005	.00072	.00171
%RSD	54.152	3854.1	25.200	33.896	124.36	149.20	883.54
#1	-.00239	.00431	.00437	.00084	.00011	-.00087	-.00217
#2	-.00181	.00052	.00266	.00041	.00002	.00035	.00090
#3	-.00067	-.00520	.00420	.00070	.00001	-.00092	.00069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00045**	**.00222**	**.65423**
Stddev	.00030	.00008	.32996
%RSD	67.224	3.7563	50.435
#1	.00010	.00221	.40362
#2	.00060	.00213	1.0281
#3	.00065	.00230	.53099
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19480.**	**21415.**
Stddev	35.	73.
%RSD	.18168	.33942
#1	19473.	21355.
#2	19448.	21496.
#3	19518.	21394.

Approved: April 04, 2014



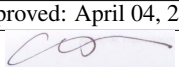
Sample Name: L1403155502 Acquired: 4/3/2014 17:11:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469458-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**.03795**	**-.00160**	**.01610**	**.06865**	**.00004**	**47.027**
Stddev	.00023	.00281	.00063	.00264	.00020	.00000	.062
%RSD	609.52	7.4102	39.191	16.392	.29008	2.1596	.13159
#1	-.00008	.04108	-.00134	.01576	.06844	.00004	47.061
#2	-.00012	.03712	-.00231	.01889	.06884	.00004	46.956
#3	.00031	.03564	-.00114	.01365	.06867	.00004	47.065
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**-.00043**	**.00052**	**.00158**	**.02447**	**1.1881**	**.00316**
Stddev	.00011	.00017	.00026	.00018	.00332	.0316	.00090
%RSD	34.342	39.664	49.745	11.150	13.576	2.6635	28.473
#1	.00042	-.00049	.00081	.00159	.02735	1.1538	.00420
#2	.00020	-.00056	.00032	.00175	.02523	1.2161	.00264
#3	.00038	-.00024	.00043	.00140	.02083	1.1944	.00265
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.320**	**.00228**	**.00045**	**3.5288**	**.00053**	**.01734**	**-.00003**
Stddev	.075	.00002	.00014	.0110	.00068	.00054	.00118
%RSD	.66259	.80627	30.243	.31112	127.58	3.1025	3514.2
#1	11.345	.00227	.00060	3.5344	.00034	.01701	.00131
#2	11.236	.00227	.00032	3.5162	.00129	.01796	-.00089
#3	11.380	.00230	.00044	3.5359	-.00003	.01705	-.00052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403155502 Acquired: 4/3/2014 17:11:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469458-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00091**	**.00186**	**2.9034**	**.00058**	**.13651**	**-.00106**	**-.00158**
Stddev	.00162	.00534	.0235	.00014	.00031	.00062	.00105
%RSD	178.45	287.10	.80868	23.364	.22933	57.965	66.540
#1	.00249	-.00252	2.9082	.00074	.13645	-.00131	-.00265
#2	.00099	.00029	2.8779	.00047	.13624	-.00151	-.00055
#3	-.00075	.00781	2.9241	.00055	.13685	-.00036	-.00155
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00024**	**.00404**	F **-.31715**
Stddev	.00060	.00009	1.1393
%RSD	249.49	2.3258	359.25
#1	-.00024	.00408	-.00064
#2	.00092	.00410	-1.5813
#3	.00005	.00393	.63048
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19215.**	**21440.**
Stddev	144.	221.
%RSD	.75056	1.0328
#1	19071.	21255.
#2	19213.	21685.
#3	19360.	21380.

Approved: April 04, 2014

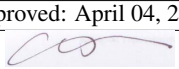
Sample Name: L1403155502 Acquired: 4/3/2014 17:15:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469458-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00009**	**.01351**	**-.00019**	**.01547**	**.06943**	**.00005**	**48.144**	**.00031**
Stddev	.00053	.01268	.00107	.00047	.00020	.00000	.160	.00010
%RSD	586.62	93.847	548.51	3.0072	.28379	4.4213	.33296	31.460
#1	.00027	.02436	.00082	.01556	.06958	.00005	47.963	.00023
#2	-.00071	.01662	-.00131	.01497	.06950	.00005	48.268	.00042
#3	.00016	-.00043	-.00010	.01588	.06921	.00005	48.200	.00029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**.00020**	**.00185**	**.02594**	**1.2496**	**.00254**	**11.501**	**.00216**
Stddev	.00022	.00013	.00039	.00073	.0207	.00052	.118	.00010
%RSD	125.33	67.437	20.799	2.8149	1.6586	20.533	1.0267	4.6598
#1	-.00023	.00017	.00194	.02652	1.2284	.00315	11.454	.00212
#2	-.00037	.00035	.00219	.02618	1.2506	.00224	11.636	.00228
#3	.00006	.00008	.00143	.02512	1.2698	.00225	11.415	.00209
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00042**	**3.4259**	**-.00012**	**.00956**	**.00017**	**-.00031**	**.00144**	**2.9342**
Stddev	.00016	.0191	.00035	.00418	.00084	.00105	.00122	.0146
%RSD	37.619	.55790	299.03	43.679	509.42	334.29	84.944	.49808
#1	.00034	3.4467	-.00049	.00837	-.00080	-.00063	.00106	2.9470
#2	.00031	3.4091	.00020	.00611	.00056	.00086	.00045	2.9183
#3	.00060	3.4220	-.00005	.01420	.00074	-.00117	.00280	2.9373
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403155502 Acquired: 4/3/2014 17:15:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469458-05

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00047**	**.14000**	**-.00042**	**-.00200**	**.00025**	**.00402**	**.86253**
Stddev	.00019	.00076	.00038	.00064	.00011	.00019	.17090
%RSD	39.843	.54264	91.122	32.057	43.528	4.6203	19.814
#1	.00041	.13930	-.00064	-.00231	.00036	.00399	.67519
#2	.00032	.13989	-.00064	-.00126	.00014	.00421	.90250
#3	.00068	.14081	.00002	-.00243	.00026	.00384	1.0099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19472.**	**20936.**
Stddev	132.	875.
%RSD	.67759	4.1783
#1	19320.	21272.
#2	19556.	19944.
#3	19539.	21594.

Approved: April 04, 2014

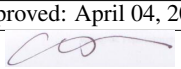
Sample Name: L1403155502 Acquired: 4/3/2014 17:18:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469458-06

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00039**	**5.1823**	**.00012**	**.01481**	**.06936**	**.00006**	**54.087**
Stddev	.00035	.0126	.00054	.00073	.00042	.00002	.196
%RSD	89.601	.24305	458.26	4.8990	.60289	33.750	.36159
#1	.00078	5.1696	-.00034	.01415	.06904	.00004	53.866
#2	.00009	5.1948	-.00002	.01470	.06984	.00005	54.159
#3	.00030	5.1826	.00072	.01559	.06921	.00008	54.237
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00047**	**-.00022**	**.00038**	**.00185**	**2.0181**	**26.991**	**.00356**
Stddev	.00019	.00022	.00035	.00032	.0087	.035	.00075
%RSD	40.799	95.956	91.784	17.268	.43084	.12802	21.222
#1	.00066	-.00035	.00063	.00215	2.0241	26.956	.00411
#2	.00029	.00002	-.00002	.00190	2.0081	26.993	.00386
#3	.00045	-.00035	.00053	.00151	2.0221	27.025	.00270
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**16.563**	**.26261**	**.00049**	**27.534**	**-.00059**	**.01504**	**-.00072**
Stddev	.089	.00387	.00010	.076	.00027	.00533	.00111
%RSD	.53781	1.4737	19.701	.27609	45.288	35.475	154.35
#1	16.465	.25835	.00042	27.544	-.00049	.00907	-.00168
#2	16.585	.26591	.00046	27.454	-.00089	.01935	.00049
#3	16.639	.26356	.00061	27.605	-.00038	.01669	-.00096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403155502 Acquired: 4/3/2014 17:18:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469458-06

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00193**	**.00127**	**2.9653**	**.00015**	**.14315**	**-.00148**	**-.00092**
Stddev	.00241	.00183	.0170	.00031	.00074	.00038	.00157
%RSD	125.08	144.54	.57286	204.88	.51695	25.527	170.31
#1	.00457	.00300	2.9849	-.00013	.14235	-.00189	-.00271
#2	-.00015	.00145	2.9556	.00049	.14330	-.00115	-.00028
#3	.00136	-.00065	2.9553	.00010	.14381	-.00139	.00023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00029**	**.00380**	F **-.15946**
Stddev	.00037	.00009	.81728
%RSD	127.24	2.2544	512.54
#1	-.00009	.00387	.65188
#2	.00030	.00370	-.14769
#3	.00066	.00382	-.98255
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19375.**	**20990.**
Stddev	138.	425.
%RSD	.71136	2.0237
#1	19252.	21466.
#2	19349.	20649.
#3	19524.	20855.

Approved: April 04, 2014

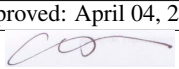
Sample Name: L1403155503 Acquired: 4/3/2014 17:22:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**.08831**	**.00108**	**.02848**	**.23124**	**.00006**	**231.12**
Stddev	.00013	.03229	.00107	.00083	.00037	.00002	.04
%RSD	234.62	36.571	98.705	2.9042	.15999	32.251	.01815
#1	-.00006	.05618	-.00015	.02857	.23152	.00008	231.16
#2	-.00019	.08797	.00171	.02761	.23138	.00005	231.12
#3	.00008	.12077	.00169	.02925	.23082	.00005	231.07
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00067**	**-.00025**	**.00067**	**.00319**	**.12101**	**2.1545**	**.01702**
Stddev	.00010	.00010	.00039	.00054	.00227	.0051	.00070
%RSD	14.528	38.780	57.765	16.815	1.8798	.23839	4.1060
#1	.00078	-.00017	.00081	.00281	.12123	2.1568	.01665
#2	.00059	-.00023	.00096	.00296	.11863	2.1581	.01783
#3	.00063	-.00036	.00023	.00380	.12317	2.1486	.01659
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**34.363**	**.00826**	**.00530**	**82.631**	**.00312**	**.01292**	**.00064**
Stddev	.388	.00032	.00009	.107	.00059	.00083	.00137
%RSD	1.1290	3.8606	1.7346	.12980	18.860	6.4263	213.08
#1	33.917	.00798	.00541	82.754	.00345	.01236	.00145
#2	34.546	.00819	.00523	82.557	.00348	.01388	.00142
#3	34.625	.00861	.00527	82.583	.00244	.01254	-.00094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403155503 Acquired: 4/3/2014 17:22:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00138**	**.00112**	**4.4873**	**.00064**	**1.5068**	**-.00360**	**-.00402**
Stddev	.00267	.00227	.0070	.00043	.0024	.00091	.00142
%RSD	193.64	202.79	.15591	67.261	.15919	25.271	35.422
#1	.00244	.00370	4.4939	.00027	1.5080	-.00261	-.00543
#2	-.00166	-.00061	4.4880	.00053	1.5084	-.00441	-.00404
#3	.00335	.00027	4.4800	.00111	1.5041	-.00377	-.00258
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00009**	**.02328**	F **-.76699**
Stddev	.00013	.00005	.33038
%RSD	145.89	.21220	43.075
#1	.00024	.02324	-1.1445
#2	.00001	.02333	-.62607
#3	.00002	.02326	-.53043
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18729.**	**21395.**
Stddev	18.	357.
%RSD	.09831	1.6695
#1	18749.	21753.
#2	18712.	21394.
#3	18726.	21038.

Approved: April 04, 2014

Sample Name: L1403155701 Acquired: 4/3/2014 17:25:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00047**	**.03452**	**-.00063**	**.04376**	**.03241**	**.00004**	**49.547**
Stddev	.00090	.02328	.00062	.00035	.00037	.00001	.050
%RSD	191.80	67.447	98.795	.80316	1.1271	33.522	.10012
#1	.00115	.01013	-.00130	.04338	.03199	.00006	49.501
#2	.00080	.03692	-.00008	.04408	.03262	.00003	49.600
#3	-.00055	.05651	-.00050	.04383	.03262	.00004	49.540
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00041**	**.00007**	**.00017**	**.00070**	**.26535**	**5.3700**	**.02660**
Stddev	.00001	.00028	.00030	.00019	.00198	.0177	.00101
%RSD	2.9396	377.57	171.73	27.874	.74802	.32939	3.8156
#1	.00041	-.00022	-.00016	.00069	.26307	5.3781	.02675
#2	.00040	.00011	.00026	.00089	.26633	5.3497	.02552
#3	.00042	.00033	.00042	.00051	.26666	5.3822	.02753
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**17.947**	**.10253**	**-.00005**	**20.359**	**.00169**	**.00188**	**-.00099**
Stddev	.108	.00171	.00027	.053	.00026	.00224	.00172
%RSD	.59898	1.6701	576.98	.25930	15.683	119.45	173.49
#1	17.827	.10056	.00025	20.303	.00140	.00328	-.00238
#2	18.036	.10357	-.00028	20.407	.00193	-.00071	.00094
#3	17.977	.10347	-.00012	20.368	.00173	.00306	-.00154
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014

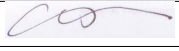
Sample Name: L1403155701 Acquired: 4/3/2014 17:25:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00158**	**.00306**	**2.9214**	**.00037**	**1.0978**	**-.00149**	**-.00266**
Stddev	.00106	.00446	.0104	.00018	.0012	.00069	.00117
%RSD	66.972	145.64	.35558	48.994	.11338	46.545	43.958
#1	.00196	.00392	2.9279	.00045	1.0985	-.00077	-.00370
#2	.00239	.00703	2.9095	.00016	1.0984	-.00154	-.00289
#3	.00038	-.00176	2.9269	.00049	1.0963	-.00215	-.00139
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00007**	**.00347**	F **-.15482**
Stddev	.00029	.00002	.43874
%RSD	434.78	.64453	283.38
#1	-.00013	.00345	.34456
#2	.00040	.00346	-.33068
#3	-.00007	.00349	-.47836
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19396.**	**21180.**
Stddev	17.	216.
%RSD	.08543	1.0196
#1	19414.	21418.
#2	19382.	20996.
#3	19393.	21128.

Approved: April 04, 2014



Sample Name: L1403155703 Acquired: 4/3/2014 17:29:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00027**	**.09007**	**.00020**	**.03962**	**.02541**	**.00013**	**49.307**	**.00054**
Stddev	.00052	.01136	.00131	.00074	.00007	.00002	.165	.00010
%RSD	196.11	12.613	670.67	1.8643	.26409	17.869	.33403	18.677
#1	.00009	.09033	.00171	.03914	.02533	.00014	49.119	.00049
#2	-.00002	.07858	-.00051	.04047	.02545	.00015	49.381	.00066
#3	-.00087	.10130	-.00062	.03924	.02545	.00010	49.422	.00047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00266**	**.00018**	**.00087**	**.11345**	**4.1769**	**.01649**	**26.333**	**.12373**
Stddev	.00022	.00036	.00040	.00229	.0412	.00046	.224	.00030
%RSD	8.0897	199.75	46.305	2.0209	.98733	2.8009	.84936	.24154
#1	.00274	.00046	.00058	.11103	4.1972	.01641	26.075	.12344
#2	.00283	-.00022	.00133	.11558	4.1294	.01607	26.461	.12371
#3	.00242	.00029	.00070	.11373	4.2040	.01698	26.464	.12404
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**20.828**	**.00952**	**.00119**	**-.00127**	**.00116**	**.00045**	**2.6923**
Stddev	.00007	.094	.00072	.00052	.00219	.00043	.00259	.0010
%RSD	39.948	.45228	7.5177	43.748	172.67	37.125	580.49	.03912
#1	.00014	20.777	.00945	.00105	-.00242	.00125	.00131	2.6927
#2	.00013	20.771	.00885	.00177	.00126	.00155	.00250	2.6931
#3	.00026	20.937	.01027	.00075	-.00263	.00070	-.00247	2.6911
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403155703 Acquired: 4/3/2014 17:29:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00066**	**.73455**	**-.00107**	**-.00117**	**.00039**	**.01195**	**.41252**
Stddev	.00034	.00174	.00018	.00230	.00018	.00003	.36947
%RSD	51.269	.23749	16.534	197.42	44.897	.23595	89.566
#1	.00104	.73253	-.00101	-.00357	.00029	.01198	-.01228
#2	.00055	.73545	-.00128	-.00094	.00060	.01192	.65916
#3	.00039	.73565	-.00094	.00101	.00029	.01195	.59066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19300.**	**21732.**
Stddev	22.	79.
%RSD	.11379	.36452
#1	19322.	21820.
#2	19301.	21711.
#3	19278.	21666.

Approved: April 04, 2014

Sample Name: L1403155703PS Acquired: 4/3/2014 17:33:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469835-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20800**	**5.1109**	**.20249**	**1.0972**	**.51094**	**.02558**	**49.995**	**.02578**
Stddev	.00051	.0369	.00223	.0052	.00195	.00002	.055	.00003
%RSD	.24723	.72168	1.0992	.47671	.38105	.06436	.11037	.13332
#1	.20856	5.1509	.20403	1.1030	.50959	.02558	49.972	.02578
#2	.20754	5.1036	.20350	1.0956	.51007	.02557	49.955	.02574
#3	.20790	5.0782	.19993	1.0929	.51317	.02560	50.058	.02581
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10498**	**.25581**	**.25622**	**2.0929**	**29.240**	**.51403**	**28.757**	**.36846**
Stddev	.00015	.00096	.00122	.0074	.058	.00181	.065	.00154
%RSD	.14069	.37439	.47603	.35322	.19698	.35219	.22629	.41806
#1	.10515	.25556	.25692	2.0907	29.174	.51292	28.733	.36958
#2	.10488	.25501	.25693	2.0868	29.263	.51307	28.707	.36671
#3	.10490	.25687	.25481	2.1011	29.282	.51612	28.830	.36911
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50795**	**43.466**	**.25943**	**-.00224**	**.25335**	**.61084**	**.20184**	**4.9221**
Stddev	.00068	.198	.00036	.00620	.00084	.00123	.00223	.0042
%RSD	.13434	.45517	.13745	276.29	.32983	.20196	1.1053	.08445
#1	.50870	43.264	.25914	-.00840	.25358	.61127	.20346	4.9239
#2	.50776	43.473	.25931	-.00234	.25242	.61180	.20275	4.9173
#3	.50738	43.660	.25983	.00400	.25404	.60945	.19929	4.9251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403155703PS Acquired: 4/3/2014 17:33:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469835-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00092**	**1.1780**	**.48364**	**.24367**	**.51166**	**.52447**	**1.1809**
Stddev	.00007	.0010	.00175	.00134	.00178	.00046	.5320
%RSD	7.6358	.08888	.36215	.55184	.34873	.08725	45.050
#1	.00087	1.1788	.48254	.24265	.51372	.52466	1.3863
#2	.00100	1.1768	.48566	.24316	.51068	.52395	1.5796
#3	.00089	1.1785	.48271	.24520	.51059	.52480	.57685
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19059.**	**21132.**
Stddev	28.	79.
%RSD	.14902	.37234
#1	19031.	21109.
#2	19088.	21220.
#3	19060.	21068.

Approved: April 04, 2014

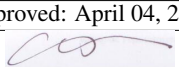
Sample Name: L1403155703SDL Acquired: 4/3/2014 17:36:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469835-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**.01961**	**.00039**	**.01172**	**.00528**	**.00006**	**9.8969**	**.00008**
Stddev	.00011	.02040	.00176	.00102	.00021	.00003	.0258	.00004
%RSD	48.802	104.04	451.28	8.7158	3.9426	46.562	.26042	54.241
#1	.00021	.02568	-.00094	.01132	.00549	.00005	9.9226	.00011
#2	.00014	-.00314	.00238	.01097	.00508	.00009	9.8971	.00010
#3	.00036	.03627	-.00028	.01289	.00525	.00004	9.8711	.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00054**	**-.00003**	**.00028**	**.02421**	**.85321**	**.00312**	**5.3190**	**.02565**
Stddev	.00017	.00043	.00034	.00715	.02830	.00072	.0205	.00038
%RSD	32.319	1547.4	120.46	29.510	3.3169	23.120	.38524	1.4647
#1	.00064	-.00050	.00042	.02311	.82533	.00348	5.3023	.02551
#2	.00064	.00006	-.00010	.01768	.88191	.00229	5.3419	.02537
#3	.00034	.00036	.00054	.03185	.85239	.00358	5.3129	.02608
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**4.0277**	**.00147**	**.00067**	**-.00144**	**.00035**	**-.00045**	**.53498**
Stddev	.00009	.0284	.00042	.00227	.00111	.00129	.00161	.00244
%RSD	2956.7	.70385	28.267	340.60	77.311	369.22	355.14	.45634
#1	.00011	4.0391	.00188	-.00167	-.00015	.00107	.00057	.53666
#2	-.00004	4.0486	.00105	.00081	-.00211	.00113	.00038	.53611
#3	-.00006	3.9955	.00148	.00287	-.00205	-.00114	-.00231	.53218
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403155703SDL Acquired: 4/3/2014 17:36:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469835-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00061**	**.14747**	**-.00059**	**-.00075**	**.00012**	**.00355**	**.46508**
Stddev	.00050	.00034	.00094	.00037	.00031	.00002	.46298
%RSD	81.725	.22728	157.79	50.204	252.05	.63615	99.551
#1	.00025	.14724	-.00072	-.00076	-.00023	.00355	.78063
#2	.00117	.14731	-.00146	-.00111	.00031	.00357	-.06643
#3	.00040	.14785	.00040	-.00037	.00030	.00353	.68103
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19772.**	**21869.**
Stddev	109.	296.
%RSD	.55034	1.3536
#1	19855.	22006.
#2	19811.	22073.
#3	19648.	21530.

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 17:39:59 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40444**	**10.234**	**.40452**	**.51721**	**.98410**	**.05101**	**10.176**
Stddev	.00286	.057	.00269	.00200	.00118	.00011	.017
%RSD	.70693	.55308	.66511	.38573	.12006	.21686	.16913
#1	.40717	10.170	.40144	.51884	.98397	.05112	10.157
#2	.40469	10.277	.40573	.51780	.98300	.05102	10.182
#3	.40146	10.256	.40640	.51498	.98535	.05090	10.190
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05068**	**.20691**	**.51084**	**.51690**	**3.9886**	**51.487**	**.98439**
Stddev	.00022	.00070	.00266	.00220	.0302	.153	.00150
%RSD	.43921	.33694	.52039	.42490	.75793	.29670	.15210
#1	.05043	.20614	.51390	.51438	3.9559	51.311	.98292
#2	.05074	.20710	.50931	.51793	3.9942	51.584	.98432
#3	.05086	.20750	.50929	.51840	4.0156	51.568	.98592
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.086**	**.51982**	**1.0044**	**48.145**	**.50612**	**10.085**	**.50939**
Stddev	.082	.01253	.0085	.091	.00150	.094	.00333
%RSD	.81220	2.4098	.84630	.18868	.29626	.93421	.65453
#1	9.9915	.50539	.99620	48.043	.50479	9.9917	.50617
#2	10.141	.52788	1.0038	48.218	.50774	10.083	.50918
#3	10.125	.52619	1.0132	48.173	.50583	10.180	.51283
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 17:39:59 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2046**	**.40880**	**5.0022**	**1.0498**	**1.0462**	**.97747**	**.49132**
Stddev	.0081	.00094	.0350	.0041	.0029	.00336	.00164
%RSD	.67610	.22893	.69998	.38672	.27424	.34390	.33385
#1	1.1954	.40822	4.9617	1.0462	1.0431	.97383	.49191
#2	1.2073	.40988	5.0214	1.0490	1.0466	.97813	.49258
#3	1.2110	.40830	5.0233	1.0542	1.0488	.98045	.48947
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.99792**	**1.0436**	F **.77350**
Stddev	.00439	.0027	.73645
%RSD	.43981	.25616	95.210
#1	1.0009	1.0406	1.0892
#2	1.0000	1.0442	1.2995
#3	.99288	1.0459	-.06816
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19497.**	**20860.**
Stddev	113.	471.
%RSD	.58175	2.2585
#1	19383.	21404.
#2	19499.	20563.
#3	19610.	20614.

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/3/2014 17:43:15 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.00207**	**.00093**	**.00292**	**-.00001**	**.00006**	**.00252**
Stddev	.00041	.01178	.00142	.00026	.00011	.00002	.00371
%RSD	168.37	568.63	153.60	9.0019	1354.5	26.522	147.49
#1	-.00021	-.01130	-.00041	.00301	.00011	.00005	.00485
#2	.00035	.00662	.00242	.00313	-.00002	.00008	-.00176
#3	.00060	.01090	.00077	.00263	-.00011	.00006	.00447
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.00001**	**.00000**	**.00055**	**.00115**	**.00529**	**-.00039**
Stddev	.00010	.00013	.00042	.00027	.00259	.01785	.00105
%RSD	280.68	1267.7	26702.	49.407	224.58	337.43	271.31
#1	.00004	.00010	-.00015	.00081	.00326	.02577	.00076
#2	-.00006	-.00014	.00048	.00028	.00194	-.00705	-.00063
#3	.00013	.00008	-.00032	.00054	-.00174	-.00284	-.00129
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00758**	**.00016**	**.00007**	**-.00906**	**-.00049**	**-.00281**	**-.00076**
Stddev	.00507	.00009	.00003	.00584	.00047	.00311	.00106
%RSD	66.799	59.887	50.528	64.444	96.567	110.55	138.33
#1	-.00472	.00023	.00007	-.01545	-.00094	-.00580	-.00190
#2	-.01343	.00019	.00003	-.00400	.00000	-.00305	-.00058
#3	-.00460	.00005	.00010	-.00774	-.00052	.00041	.00019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014

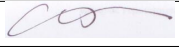
Sample Name: CCB Acquired: 4/3/2014 17:43:15 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00032**	**-.00178**	**-.00454**	**.00074**	**.00013**	**.00050**	**-.00043**
Stddev	.00195	.00412	.00067	.00030	.00012	.00042	.00117
%RSD	608.35	231.83	14.803	40.383	96.221	83.466	271.31
#1	-.00138	.00244	-.00514	.00062	.00018	.00050	-.00178
#2	.00245	-.00580	-.00467	.00109	-.00001	.00008	.00034
#3	-.00011	-.00197	-.00382	.00053	.00022	.00091	.00014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00026**	**.00140**	F **1.0267**
Stddev	.00019	.00007	.5523
%RSD	72.429	4.8724	53.792
#1	-.00042	.00133	.38902
#2	-.00005	.00146	1.3527
#3	-.00032	.00140	1.3383
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19795.**	**21693.**
Stddev	43.	247.
%RSD	.21555	1.1398
#1	19835.	21872.
#2	19800.	21795.
#3	19750.	21411.

Approved: April 04, 2014



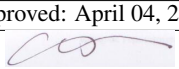
Sample Name: L1403155705 Acquired: 4/3/2014 17:46:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00023**	**.08494**	**.00035**	**.04057**	**.02557**	**.00014**	**48.265**
Stddev	.00024	.00048	.00128	.00146	.00013	.00003	.095
%RSD	102.56	.56182	364.96	3.5987	.50033	21.375	.19722
#1	-.00004	.08518	.00044	.04095	.02557	.00010	48.339
#2	-.00050	.08525	.00158	.03895	.02544	.00016	48.298
#3	-.00016	.08439	-.00097	.04180	.02570	.00014	48.158
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00055**	**.00262**	**.00032**	**.00055**	**.08959**	**4.0747**	**.01732**
Stddev	.00013	.00014	.00071	.00057	.00087	.0431	.00105
%RSD	23.526	5.4272	226.37	103.44	.97106	1.0582	6.0813
#1	.00041	.00251	.00044	.00098	.09008	4.0723	.01646
#2	.00066	.00278	.00096	.00076	.08859	4.0328	.01850
#3	.00058	.00258	-.00045	-.00009	.09011	4.1189	.01700
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.294**	**.11751**	**.00024**	**19.558**	**.00884**	**.00343**	**-.00248**
Stddev	.189	.00243	.00015	.051	.00054	.00468	.00072
%RSD	.74589	2.0706	63.406	.26092	6.0802	136.60	29.152
#1	25.191	.11532	.00008	19.608	.00879	.00869	-.00187
#2	25.179	.11708	.00027	19.506	.00833	-.00029	-.00228
#3	25.512	.12013	.00037	19.559	.00940	.00188	-.00327
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403155705 Acquired: 4/3/2014 17:46:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00093**	**.00233**	**2.7101**	**.00035**	**.73435**	**-.00063**	**-.00271**
Stddev	.00183	.00122	.0050	.00039	.00351	.00074	.00107
%RSD	197.20	52.530	.18589	108.93	.47761	116.47	39.564
#1	.00069	.00189	2.7047	-.00008	.73664	-.00080	-.00365
#2	.00286	.00139	2.7146	.00047	.73610	.00017	-.00154
#3	-.00077	.00371	2.7111	.00067	.73031	-.00127	-.00293
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00016**	**.01432**	F **-.01558**
Stddev	.00027	.00005	.20046
%RSD	165.95	.32912	1286.6
#1	-.00008	.01429	.20581
#2	.00046	.01429	-.18480
#3	.00011	.01437	-.06775
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19285.**	**21482.**
Stddev	17.	362.
%RSD	.08721	1.6870
#1	19284.	21773.
#2	19270.	21596.
#3	19303.	21076.

Approved: April 04, 2014

Sample Name: L1403155707 Acquired: 4/3/2014 17:50:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**.06157**	**-.00063**	**.00888**	**.01549**	**.00009**	**11.982**	**.00035**
Stddev	.00010	.00134	.00108	.00074	.00051	.00003	.021	.00002
%RSD	45.358	2.1729	172.33	8.3123	3.3004	33.779	.17843	6.5748
#1	.00025	.06296	-.00188	.00968	.01500	.00007	12.006	.00038
#2	.00011	.06029	-.00001	.00875	.01545	.00007	11.965	.00033
#3	.00030	.06146	.00000	.00822	.01602	.00012	11.975	.00035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00007**	**.00030**	**.00059**	**.10825**	**1.3945**	**.00248**	**5.8889**	**.01786**
Stddev	.00013	.00015	.00043	.00676	.0188	.00135	.0472	.00051
%RSD	185.73	51.168	73.418	6.2494	1.3465	54.457	.80212	2.8801
#1	-.00021	.00014	.00106	.10988	1.4058	.00386	5.8455	.01745
#2	.00002	.00031	.00051	.11405	1.3729	.00243	5.8819	.01770
#3	-.00001	.00045	.00020	.10082	1.4050	.00116	5.9392	.01844
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**1.8632**	**.00010**	**.00489**	**-.00149**	**.00151**	**.00368**	**2.6029**
Stddev	.00022	.0044	.00029	.00337	.00133	.00152	.00291	.0221
%RSD	117.70	.23523	279.03	68.761	89.049	100.77	79.200	.84697
#1	.00006	1.8672	-.00008	.00675	-.00037	.00238	.00055	2.6204
#2	.00005	1.8640	-.00005	.00693	-.00296	.00240	.00416	2.6102
#3	.00044	1.8585	.00044	.00101	-.00115	-.00025	.00632	2.5782
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403155707 Acquired: 4/3/2014 17:50:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00065**	**.05605**	**.00065**	**-.00253**	**.00011**	**.05001**	**.35367**
Stddev	.00018	.00048	.00058	.00085	.00015	.00037	.63539
%RSD	27.659	.85013	89.745	33.435	134.53	.73630	179.65
#1	.00081	.05657	.00131	-.00303	.00019	.05033	-.13792
#2	.00046	.05565	.00041	-.00301	.00020	.05009	.12780
#3	.00068	.05592	.00022	-.00155	-.00006	.04960	1.0711
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19585.**	**20811.**
Stddev	4.	572.
%RSD	.01992	2.7481
#1	19587.	21413.
#2	19587.	20745.
#3	19580.	20275.

Approved: April 04, 2014

Sample Name: L1403155709 Acquired: 4/3/2014 17:53:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.14647**	**.00031**	**.00666**	**.02211**	**.00008**	**9.0188**	**.00035**
Stddev	.00018	.02942	.00226	.00048	.00028	.00002	.0143	.00013
%RSD	142.36	20.085	717.08	7.1873	1.2758	21.133	.15810	37.512
#1	.00029	.18028	.00175	.00688	.02188	.00009	9.0353	.00046
#2	-.00007	.13244	-.00229	.00611	.02243	.00009	9.0107	.00021
#3	.00016	.12669	.00148	.00699	.02204	.00006	9.0105	.00039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00063**	**.00041**	**.00074**	**.35687**	**1.3072**	**.00033**	**4.1552**	**.35195**
Stddev	.00011	.00038	.00022	.00922	.0369	.00054	.0226	.00141
%RSD	17.810	92.846	29.807	2.5839	2.8229	163.54	.54468	.39997
#1	.00067	.00013	.00049	.34720	1.3420	.00086	4.1294	.35250
#2	.00072	.00085	.00089	.35784	1.2685	.00036	4.1647	.35036
#3	.00051	.00026	.00084	.36557	1.3110	-.00023	4.1716	.35301
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**3.4953**	**.00157**	**.01321**	**-.00026**	**.00029**	**.00341**	**2.1249**
Stddev	.00017	.0047	.00056	.00228	.00086	.00105	.00346	.0119
%RSD	96.687	.13498	35.940	17.276	332.13	365.62	101.67	.55871
#1	.00000	3.4947	.00110	.01217	.00039	.00070	-.00059	2.1329
#2	.00019	3.5002	.00141	.01163	-.00123	-.00091	.00541	2.1112
#3	.00033	3.4908	.00220	.01583	.00006	.00108	.00540	2.1305
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403155709 Acquired: 4/3/2014 17:53:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00060**	**.04291**	**-.00076**	**-.00206**	**.00029**	**.00513**	**.40505**
Stddev	.00030	.00034	.00065	.00104	.00021	.00004	.60569
%RSD	49.812	.80240	85.945	50.203	72.033	.87195	149.53
#1	.00026	.04265	-.00040	-.00211	.00053	.00517	.90899
#2	.00082	.04278	-.00036	-.00100	.00013	.00514	.57308
#3	.00073	.04330	-.00151	-.00307	.00021	.00509	-.26690
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19533.**	**21284.**
Stddev	175.	95.
%RSD	.89584	.44817
#1	19655.	21324.
#2	19333.	21353.
#3	19612.	21175.

Approved: April 04, 2014

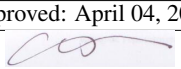
Sample Name: L1403155711 Acquired: 4/3/2014 17:57:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**.06434**	**-.00059**	**.03838**	**.02821**	**.00012**	**48.804**
Stddev	.00010	.01245	.00161	.00118	.00024	.00001	.073
%RSD	161.10	19.353	272.38	3.0657	.85130	5.2536	.15030
#1	.00018	.07824	-.00216	.03775	.02799	.00011	48.734
#2	.00000	.05421	.00105	.03973	.02818	.00012	48.880
#3	.00001	.06056	-.00066	.03764	.02847	.00012	48.799
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00053**	**.00224**	**.00044**	**.00086**	**.09005**	**4.2287**	**.01798**
Stddev	.00011	.00018	.00082	.00047	.00581	.0107	.00177
%RSD	21.121	8.0701	186.96	54.149	6.4473	.25397	9.8161
#1	.00050	.00208	-.00030	.00104	.09673	4.2175	.01647
#2	.00065	.00221	.00029	.00033	.08716	4.2297	.01992
#3	.00043	.00244	.00133	.00121	.08626	4.2389	.01755
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.102**	**.11141**	**.00032**	**19.802**	**.00711**	**.00394**	**-.00179**
Stddev	.007	.00092	.00019	.053	.00103	.00270	.00137
%RSD	.02961	.82303	59.913	.26862	14.489	68.695	76.465
#1	25.097	.11040	.00048	19.848	.00829	.00311	-.00024
#2	25.097	.11162	.00036	19.744	.00666	.00696	-.00281
#3	25.110	.11220	.00011	19.814	.00638	.00175	-.00231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403155711 Acquired: 4/3/2014 17:57:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00066**	**.00249**	**2.7053**	**.00017**	**.76230**	**-.00203**	**-.00116**
Stddev	.00073	.00087	.0103	.00019	.00087	.00052	.00186
%RSD	110.40	34.894	.37971	115.78	.11461	25.597	160.14
#1	.00125	.00266	2.7072	.00038	.76252	-.00251	-.00164
#2	.00087	.00326	2.7145	.00011	.76305	-.00210	-.00273
#3	-.00015	.00155	2.6942	.00001	.76134	-.00148	.00089
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00007**	**.01102**	F **-.24794**
Stddev	.00025	.00010	.63980
%RSD	360.22	.90949	258.05
#1	-.00002	.01105	.39474
#2	-.00034	.01110	-.25374
#3	.00015	.01091	-.88482
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19017.**	**21078.**
Stddev	136.	186.
%RSD	.71464	.88295
#1	19168.	21290.
#2	18977.	21003.
#3	18905.	20941.

Approved: April 04, 2014

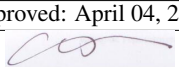
Sample Name: L1403155713 Acquired: 4/3/2014 18:01:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00012**	**.07879**	**.00109**	**.01647**	**.01511**	**.00019**	**131.00**	**.00129**
Stddev	.00019	.01351	.00224	.00120	.00015	.00002	.08	.00001
%RSD	153.46	17.154	205.58	7.2759	1.0053	11.529	.06083	1.0867
#1	-.00029	.08910	.00071	.01684	.01514	.00020	130.99	.00127
#2	.00009	.06349	.00350	.01513	.01495	.00020	131.08	.00129
#3	-.00017	.08377	-.00093	.01744	.01525	.00016	130.92	.00130
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00249**	**.00053**	**-.00020**	**.06525**	**6.6924**	**.02542**	**122.52**	**.62990**
Stddev	.00003	.00018	.00069	.00298	.0230	.00127	.15	.01109
%RSD	1.3171	34.566	339.54	4.5655	.34288	5.0103	.12002	1.7605
#1	.00248	.00074	-.00064	.06264	6.6689	.02561	122.61	.62734
#2	.00252	.00045	-.00057	.06849	6.7148	.02660	122.60	.62031
#3	.00246	.00040	.00059	.06461	6.6934	.02407	122.35	.64204
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00013**	**4.1842**	**.03136**	**.00176**	**.00012**	**.00143**	**.00173**	**2.2536**
Stddev	.00011	.0190	.00048	.00045	.00077	.00232	.00067	.0121
%RSD	84.499	.45417	1.5327	25.712	648.42	162.73	38.818	.53504
#1	-.00007	4.2041	.03088	.00228	-.00076	-.00097	.00099	2.2397
#2	-.00006	4.1662	.03135	.00143	.00047	.00367	.00231	2.2598
#3	-.00026	4.1825	.03184	.00158	.00064	.00157	.00189	2.2613
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403155713 Acquired: 4/3/2014 18:01:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00032**	**.62888**	**-.00257**	**-.00175**	**-.00041**	**.02791**	**.28197**
Stddev	.00019	.00139	.00107	.00076	.00008	.00014	.33097
%RSD	59.975	.22096	41.794	43.182	19.269	.49469	117.38
#1	.00018	.62826	-.00378	-.00136	-.00050	.02781	-.07113
#2	.00055	.63047	-.00223	-.00262	-.00035	.02785	.33188
#3	.00024	.62790	-.00171	-.00126	-.00038	.02807	.58514
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18871.**	**20587.**
Stddev	114.	80.
%RSD	.60330	.38969
#1	18740.	20622.
#2	18942.	20643.
#3	18932.	20495.

Approved: April 04, 2014

Sample Name: L1403155715 Acquired: 4/3/2014 18:04:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469458-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00016**	**.02874**	**-.00030**	**.02089**	**.00883**	**.00027**	**229.47**	**.00133**
Stddev	.00008	.02804	.00087	.00066	.00030	.00001	.11	.00011
%RSD	51.689	97.564	289.76	3.1467	3.4096	3.9855	.04791	8.0667
#1	-.00016	.02385	-.00127	.02159	.00856	.00026	229.50	.00129
#2	-.00024	.00347	-.00005	.02028	.00877	.00026	229.57	.00125
#3	-.00008	.05891	.00042	.02079	.00915	.00028	229.35	.00145
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00005**	**.00051**	**.00066**	**.06996**	**10.267**	**.05351**	**211.71**	**.07489**
Stddev	.00006	.00010	.00041	.00491	.014	.00150	.38	.00184
%RSD	114.80	19.449	62.480	7.0241	.13703	2.7978	.17748	2.4606
#1	.00000	.00061	.00101	.07202	10.255	.05510	211.78	.07417
#2	-.00011	.00042	.00076	.06435	10.283	.05330	211.30	.07351
#3	-.00003	.00049	.00021	.07352	10.263	.05213	212.04	.07698
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**5.3364**	**.01655**	**.01084**	**-.00107**	**.00046**	**.00229**	**3.7333**
Stddev	.00025	.0081	.00035	.00232	.00158	.00147	.00083	.0419
%RSD	255.14	.15235	2.1378	21.380	147.54	319.47	36.277	1.1220
#1	.00031	5.3457	.01643	.01140	-.00260	-.00071	.00216	3.6978
#2	.00016	5.3310	.01627	.00830	.00055	-.00002	.00153	3.7795
#3	-.00018	5.3324	.01695	.01283	-.00116	.00211	.00317	3.7227
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403155715 Acquired: 4/3/2014 18:04:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469458-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00067**	**.77739**	**-.00316**	**-.00132**	**-.00027**	**.01718**	**.07924**
Stddev	.00017	.00131	.00120	.00201	.00010	.00026	.35941
%RSD	24.590	.16875	38.153	152.60	37.949	1.5204	453.58
#1	.00052	.77660	-.00438	-.00270	-.00036	.01732	-.19497
#2	.00085	.77890	-.00197	-.00224	-.00029	.01735	.48612
#3	.00065	.77667	-.00311	.00099	-.00016	.01688	-.05344
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18614.**	**21114.**
Stddev	46.	277.
%RSD	.24547	1.3118
#1	18585.	21262.
#2	18667.	21286.
#3	18590.	20795.

Approved: April 04, 2014

Sample Name: L1403155715MS Acquired: 4/3/2014 18:08:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469458-07

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00057**	**5.3637**	**-.00126**	**.01854**	**.00836**	**.00029**	**222.72**	**.00152**
Stddev	.00053	.0184	.00209	.00052	.00025	.00002	.33	.00009
%RSD	93.011	.34270	165.69	2.7939	3.0374	6.9081	.15038	5.9329
#1	-.00118	5.3548	-.00184	.01799	.00866	.00027	223.02	.00160
#2	-.00036	5.3515	.00106	.01902	.00822	.00028	222.79	.00142
#3	-.00018	5.3849	-.00299	.01862	.00822	.00031	222.36	.00153
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**.00071**	**.00061**	**2.1027**	**37.207**	**.05085**	**204.35**	**.32328**
Stddev	.00026	.00017	.00016	.0072	.049	.00074	.56	.00153
%RSD	5532.9	23.726	26.585	.34327	.13168	1.4492	.27412	.47207
#1	.00017	.00070	.00075	2.1101	37.196	.05060	204.51	.32315
#2	-.00030	.00054	.00065	2.0956	37.165	.05168	203.73	.32183
#3	.00015	.00088	.00043	2.1023	37.261	.05028	204.81	.32487
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**30.487**	**.01470**	**.00103**	**-.00172**	**.00123**	**.00059**	**3.5404**
Stddev	.00013	.018	.00041	.00270	.00181	.00210	.00357	.0196
%RSD	407.19	.05942	2.7715	261.99	105.53	169.79	606.31	.55462
#1	.00010	30.506	.01495	-.00011	-.00163	.00326	.00391	3.5190
#2	-.00012	30.470	.01423	.00412	.00005	-.00093	-.00318	3.5575
#3	.00011	30.484	.01491	-.00091	-.00358	.00137	.00103	3.5448
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403155715MS Acquired: 4/3/2014 18:08:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469458-07

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00056**	**.73668**	**-.00304**	**-.00117**	**-.00028**	**.01705**	**1.3608**
Stddev	.00025	.00178	.00020	.00095	.00037	.00022	.5477
%RSD	44.189	.24203	6.7358	80.628	133.78	1.3124	40.246
#1	.00078	.73842	-.00321	-.00027	-.00056	.01711	1.9478
#2	.00061	.73678	-.00281	-.00110	-.00042	.01724	.86351
#3	.00029	.73485	-.00309	-.00215	.00015	.01681	1.2712
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18462.**	**21478.**
Stddev	90.	92.
%RSD	.48781	.42902
#1	18394.	21492.
#2	18429.	21563.
#3	18564.	21380.

Approved: April 04, 2014

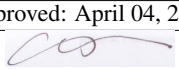
Sample Name: L1403155801 Acquired: 4/3/2014 18:11:37 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00026**	**.04681**	**.00054**	**.00941**	**.01877**	**.00008**	**10.800**	**.00026**
Stddev	.00038	.01875	.00123	.00026	.00050	.00002	.006	.00004
%RSD	142.42	40.052	228.85	2.7850	2.6837	21.827	.05473	14.206
#1	.00011	.05999	-.00083	.00944	.01934	.00008	10.794	.00030
#2	-.00001	.02535	.00157	.00913	.01858	.00007	10.801	.00024
#3	.00069	.05509	.00087	.00965	.01839	.00010	10.806	.00024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00026**	**-.00016**	**.00051**	**.19335**	**1.5910**	**.00146**	**4.9008**	**.05555**
Stddev	.00008	.00031	.00040	.00380	.0217	.00122	.0215	.00014
%RSD	29.642	194.76	79.614	1.9646	1.3626	83.333	.43819	.25957
#1	-.00034	-.00051	.00009	.19327	1.5704	.00286	4.8761	.05571
#2	-.00019	.00001	.00090	.18960	1.6136	.00065	4.9108	.05548
#3	-.00025	.00003	.00053	.19720	1.5889	.00087	4.9154	.05545
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**2.2875**	**-.00005**	**-.00050**	**-.00024**	**.00109**	**-.00024**	**2.1993**
Stddev	.00010	.0105	.00043	.00262	.00185	.00093	.00269	.0149
%RSD	470.26	.45836	854.92	522.54	772.97	85.851	1113.1	.67928
#1	-.00003	2.2934	-.00034	.00148	-.00025	.00217	.00283	2.1821
#2	.00014	2.2754	-.00026	.00049	.00161	.00060	-.00221	2.2081
#3	-.00004	2.2937	.00045	-.00347	-.00209	.00050	-.00134	2.2078
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403155801 Acquired: 4/3/2014 18:11:37 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00029**	**.05441**	**-.00082**	**-.00165**	**.00002**	**.00187**	**.43702**
Stddev	.00008	.00017	.00051	.00052	.00021	.00003	1.0558
%RSD	27.007	.31203	61.793	31.370	1168.4	1.7088	241.60
#1	.00026	.05428	-.00023	-.00121	.00024	.00185	1.3563
#2	.00038	.05434	-.00111	-.00152	-.00018	.00186	.67089
#3	.00024	.05460	-.00112	-.00222	.00000	.00191	-.71612
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19785.**	**22020.**
Stddev	36.	149.
%RSD	.18002	.67509
#1	19758.	21859.
#2	19825.	22049.
#3	19771.	22152.

Approved: April 04, 2014

Sample Name: L1403155803 Acquired: 4/3/2014 18:15:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00013**	**.03608**	**-.00061**	**.00908**	**.02159**	**.00004**	**13.999**
Stddev	.00054	.01970	.00208	.00069	.00011	.00002	.052
%RSD	423.28	54.608	342.38	7.6437	.49569	49.914	.37101
#1	-.00005	.05295	-.00125	.00953	.02154	.00006	13.940
#2	.00037	.01443	.00172	.00942	.02151	.00005	14.019
#3	-.00071	.04087	-.00230	.00828	.02171	.00002	14.038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00028**	**-.00005**	**-.00042**	**.00079**	**.21799**	**1.2847**	**.00077**
Stddev	.00013	.00007	.00023	.00024	.00405	.0320	.00047
%RSD	47.821	151.64	54.011	30.380	1.8566	2.4940	61.105
#1	.00028	-.00002	-.00040	.00088	.21849	1.3111	.00122
#2	.00014	.00000	-.00066	.00098	.21372	1.2940	.00028
#3	.00041	-.00013	-.00021	.00052	.22176	1.2491	.00080
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.0099**	**.18603**	**-.00006**	**1.0282**	**.00071**	F **-.00406**	**-.00139**
Stddev	.0330	.00272	.00020	.0123	.00016	.00143	.00107
%RSD	.54977	1.4621	337.04	1.1999	22.756	35.165	77.140
#1	5.9720	.18916	-.00017	1.0303	.00058	-.00570	-.00016
#2	6.0324	.18466	-.00018	1.0393	.00089	-.00339	-.00211
#3	6.0253	.18426	.00017	1.0149	.00067	-.00309	-.00191
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

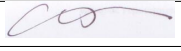
Sample Name: L1403155803 Acquired: 4/3/2014 18:15:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00034**	**.00595**	**1.6009**	**.00051**	**.09827**	**-.00052**	**-.00131**
Stddev	.00207	.00137	.0035	.00040	.00075	.00117	.00082
%RSD	609.76	23.038	.21880	77.579	.76701	224.67	62.655
#1	-.00192	.00711	1.5969	.00009	.09777	-.00116	-.00172
#2	.00080	.00629	1.6029	.00058	.09914	.00083	-.00184
#3	.00215	.00444	1.6030	.00088	.09789	-.00124	-.00036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00022**	**.00275**	**.66324**
Stddev	.00028	.00006	.33972
%RSD	129.78	2.0960	51.222
#1	-.00009	.00277	.60568
#2	.00047	.00280	1.0281
#3	.00027	.00269	.35598
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19592.**	**21469.**
Stddev	43.	234.
%RSD	.21815	1.0900
#1	19561.	21199.
#2	19573.	21592.
#3	19640.	21615.

Approved: April 04, 2014



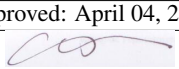
Sample Name: L1403155805 Acquired: 4/3/2014 18:18:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.04410**	**.00065**	**.01031**	**.01715**	**.00007**	**8.0172**	**.00021**
Stddev	.00042	.02001	.00130	.00031	.00042	.00001	.0103	.00001
%RSD	404.26	45.374	200.95	2.9987	2.4413	16.661	.12818	6.3301
#1	.00059	.02102	.00193	.01021	.01683	.00007	8.0200	.00022
#2	-.00018	.05659	-.00067	.01006	.01699	.00009	8.0257	.00020
#3	-.00010	.05469	.00068	.01066	.01762	.00007	8.0058	.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00023**	**.00049**	**.00102**	**.13987**	**1.1072**	**.00028**	**3.5064**	**.03381**
Stddev	.00024	.00021	.00034	.00330	.0330	.00176	.0362	.00043
%RSD	101.30	42.728	33.727	2.3560	2.9805	621.46	1.0322	1.2749
#1	-.00013	.00036	.00139	.14297	1.1064	.00174	3.4907	.03340
#2	-.00050	.00073	.00071	.14022	1.1406	-.00168	3.4806	.03376
#3	-.00006	.00037	.00095	.13641	1.0747	.00079	3.5478	.03426
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**1.4852**	**.00059**	**.00018**	**-.00019**	**.00134**	**.00029**	**2.3264**
Stddev	.00004	.0050	.00070	.00231	.00155	.00143	.00092	.0058
%RSD	19.105	.33495	118.14	1253.4	826.17	106.46	316.73	.25030
#1	.00016	1.4904	-.00004	-.00234	-.00123	.00126	.00108	2.3320
#2	.00022	1.4804	.00047	.00071	-.00093	.00281	-.00072	2.3268
#3	.00023	1.4848	.00135	.00219	.00160	-.00004	.00051	2.3203
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403155805 Acquired: 4/3/2014 18:18:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00067**	**.10334**	**.00025**	**-.00252**	**.00011**	**.00309**	**.40137**
Stddev	.00040	.00011	.00018	.00075	.00022	.00008	.24913
%RSD	60.122	.11112	71.423	29.701	210.17	2.6718	62.070
#1	.00059	.10344	.00006	-.00289	.00035	.00315	.66965
#2	.00031	.10337	.00041	-.00166	.00005	.00300	.17731
#3	.00110	.10322	.00029	-.00302	-.00008	.00311	.35715
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19563.**	**21616.**
Stddev	112.	130.
%RSD	.57114	.60173
#1	19669.	21732.
#2	19447.	21642.
#3	19572.	21475.

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 18:22:18 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40863**	**10.259**	**.40463**	**.51820**	**.98466**	**.05134**	**10.235**
Stddev	.00167	.016	.00043	.00204	.00258	.00012	.025
%RSD	.40856	.15706	.10702	.39307	.26183	.24134	.24537
#1	.40798	10.246	.40468	.51648	.98684	.05120	10.262
#2	.41052	10.277	.40417	.51768	.98533	.05142	10.212
#3	.40738	10.253	.40504	.52045	.98181	.05141	10.231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05072**	**.20696**	**.51530**	**.51651**	**3.9977**	**51.706**	**.98611**
Stddev	.00027	.00058	.00137	.00148	.0165	.106	.00023
%RSD	.53776	.28252	.26526	.28636	.41378	.20563	.02329
#1	.05061	.20658	.51420	.51508	4.0116	51.796	.98614
#2	.05051	.20666	.51486	.51642	4.0021	51.588	.98633
#3	.05103	.20763	.51683	.51803	3.9794	51.734	.98587
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.114**	**.51869**	**1.0023**	**48.022**	**.50649**	**10.148**	**.50947**
Stddev	.028	.00288	.0056	.218	.00133	.026	.00094
%RSD	.27755	.55556	.55616	.45418	.26325	.25794	.18362
#1	10.146	.51685	1.0086	48.228	.50530	10.133	.50961
#2	10.104	.51721	.99787	48.045	.50625	10.133	.50847
#3	10.092	.52201	1.0005	47.793	.50793	10.178	.51032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

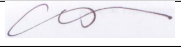
Sample Name: CCV Acquired: 4/3/2014 18:22:18 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.1996**	**.40846**	**4.9773**	**1.0549**	**1.0511**	**.97523**	**.48962**
Stddev	.0038	.00512	.0187	.0032	.0021	.00240	.00216
%RSD	.31744	1.2540	.37493	.30764	.19645	.24621	.44183
#1	1.1968	.40736	4.9607	1.0524	1.0509	.97753	.48783
#2	1.1982	.40397	4.9737	1.0537	1.0492	.97540	.48901
#3	1.2040	.41404	4.9975	1.0585	1.0533	.97274	.49203
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0038**	**1.0515**	F **.88547**
Stddev	.0015	.0013	.23345
%RSD	.15462	.12451	26.365
#1	1.0034	1.0500	1.0231
#2	1.0055	1.0522	1.0174
#3	1.0025	1.0524	.61592
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19447.**	**20965.**
Stddev	24.	115.
%RSD	.12162	.54909
#1	19447.	21024.
#2	19423.	21038.
#3	19470.	20832.

Approved: April 04, 2014



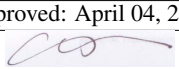
Sample Name: CCB Acquired: 4/3/2014 18:25:34 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**.02136**	**.00178**	**.00196**	**.00059**	**.00003**	**.00856**
Stddev	.00020	.01835	.00005	.00074	.00040	.00001	.00681
%RSD	1201.4	85.905	2.9530	37.950	67.187	32.971	79.546
#1	.00018	.00046	.00184	.00179	.00082	.00002	.00070
#2	.00000	.02880	.00174	.00277	.00083	.00004	.01228
#3	-.00022	.03483	.00176	.00132	.00013	.00002	.01271
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**-.00023**	**-.00016**	**.00038**	**.00176**	**.03920**	**-.00080**
Stddev	.00006	.00003	.00064	.00038	.00457	.01009	.00069
%RSD	97.668	13.542	392.13	100.67	259.89	25.743	87.115
#1	.00008	-.00025	-.00071	.00040	.00205	.05010	-.00001
#2	-.00001	-.00020	-.00033	-.00001	-.00295	.03019	-.00108
#3	.00010	-.00025	.00054	.00076	.00618	.03731	-.00131
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01027**	**.00014**	**.00015**	**-.00542**	**-.00005**	**-.00327**	**-.00147**
Stddev	.01908	.00002	.00004	.01041	.00062	.00214	.00127
%RSD	185.84	18.032	23.164	191.88	1251.9	65.280	86.135
#1	-.03117	.00017	.00014	.00605	.00047	-.00482	-.00001
#2	-.00585	.00013	.00013	-.00806	-.00074	-.00084	-.00223
#3	.00622	.00012	.00019	-.01427	.00013	-.00416	-.00219
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



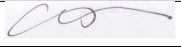
Sample Name: CCB Acquired: 4/3/2014 18:25:34 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00138**	**.00035**	**-.00477**	**.00061**	**.00015**	**-.00010**	**.00025**
Stddev	.00052	.00211	.00107	.00039	.00010	.00063	.00065
%RSD	37.499	598.46	22.488	63.960	65.256	625.05	264.62
#1	-.00168	.00259	-.00439	.00021	.00027	-.00018	.00095
#2	-.00078	-.00160	-.00393	.00099	.00011	.00056	-.00034
#3	-.00168	.00007	-.00597	.00062	.00008	-.00069	.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00008**	**.00150**	F **.11130**
Stddev	.00024	.00015	.84886
%RSD	292.24	9.6635	762.66
#1	-.00009	.00167	-.66689
#2	.00016	.00140	-.01573
#3	-.00032	.00144	1.0165
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19929.**	**21573.**
Stddev	48.	554.
%RSD	.23973	2.5700
#1	19956.	20937.
#2	19957.	21955.
#3	19874.	21828.

Approved: April 04, 2014



Sample Name: L1403155807 Acquired: 4/3/2014 18:29:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**.04431**	**-.00060**	**.00800**	**.01459**	**.00007**	**6.0673**
Stddev	.00035	.03005	.00048	.00062	.00022	.00004	.0420
%RSD	240.87	67.808	79.265	7.7387	1.4858	55.408	.69165
#1	.00023	.04620	-.00115	.00741	.01483	.00003	6.0190
#2	-.00024	.07337	-.00031	.00865	.01453	.00011	6.0878
#3	.00045	.01337	-.00034	.00794	.01441	.00007	6.0950
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**-.00031**	**.00039**	**.00105**	**.09465**	**1.2373**	**.00265**
Stddev	.00007	.00008	.00054	.00042	.00280	.0052	.00066
%RSD	34.637	26.496	139.01	39.752	2.9623	.42079	24.855
#1	.00028	-.00023	.00053	.00130	.09420	1.2422	.00338
#2	.00022	-.00030	.00085	.00128	.09765	1.2319	.00250
#3	.00014	-.00039	-.00021	.00057	.09210	1.2379	.00209
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.2370**	**.00615**	**.00006**	**2.1285**	**.00048**	F **-.00489**	**-.00014**
Stddev	.0289	.00017	.00039	.0187	.00044	.00422	.00091
%RSD	.89172	2.7388	672.79	.87764	91.075	86.331	661.32
#1	3.2575	.00634	-.00033	2.1101	.00000	-.00670	.00009
#2	3.2040	.00608	.00007	2.1474	.00058	-.00007	.00064
#3	3.2496	.00602	.00044	2.1278	.00086	-.00791	-.00114
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

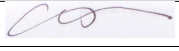
Sample Name: L1403155807 Acquired: 4/3/2014 18:29:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00095**	**.00165**	**2.4580**	**.00085**	**.03369**	**-.00008**	**-.00176**
Stddev	.00252	.00313	.0160	.00068	.00023	.00100	.00110
%RSD	263.61	190.06	.65276	80.260	.68920	1240.0	62.549
#1	-.00159	.00525	2.4710	.00015	.03343	-.00107	-.00302
#2	.00344	.00018	2.4629	.00088	.03379	.00093	-.00123
#3	.00102	-.00048	2.4401	.00151	.03386	-.00011	-.00102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00027**	**.00525**	**.70844**
Stddev	.00012	.00007	.81489
%RSD	44.736	1.3456	115.03
#1	.00014	.00519	1.6456
#2	.00028	.00524	.16644
#3	.00038	.00533	.31331
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19721.**	**22119.**
Stddev	38.	392.
%RSD	.19343	1.7721
#1	19707.	21669.
#2	19692.	22387.
#3	19764.	22301.

Approved: April 04, 2014



Sample Name: L1403155808 Acquired: 4/3/2014 18:32:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00005**	**.04003**	**-.00035**	**.03499**	**.02203**	**.00007**	**50.737**	**.00054**
Stddev	.00020	.02005	.00089	.00025	.00036	.00001	.058	.00006
%RSD	433.16	50.081	258.61	.72051	1.6416	17.830	.11485	11.292
#1	.00018	.01731	-.00134	.03505	.02171	.00008	50.733	.00048
#2	-.00011	.05525	.00040	.03520	.02195	.00007	50.681	.00059
#3	-.00020	.04752	-.00010	.03471	.02242	.00006	50.798	.00056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.00072**	**.00121**	**.09546**	**4.0316**	**.01607**	**27.394**	**.08085**
Stddev	.00029	.00037	.00020	.00306	.0597	.00259	.199	.00150
%RSD	279.15	51.106	16.898	3.2030	1.4798	16.101	.72691	1.8555
#1	.00036	.00095	.00103	.09193	4.1005	.01860	27.223	.07989
#2	.00017	.00092	.00143	.09727	3.9982	.01618	27.347	.08008
#3	-.00021	.00030	.00118	.09718	3.9961	.01343	27.612	.08257
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**4.7365**	**.00307**	**.00035**	**.00070**	**.00215**	**.00373**	**2.3741**
Stddev	.00010	.0278	.00030	.00363	.00320	.00128	.00293	.0075
%RSD	48.371	.58780	9.7126	1040.7	460.18	59.497	78.505	.31614
#1	.00030	4.7664	.00280	.00424	-.00152	.00100	.00110	2.3658
#2	.00010	4.7113	.00303	-.00025	.00436	.00193	.00322	2.3761
#3	.00019	4.7319	.00339	-.00295	-.00075	.00353	.00689	2.3804
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403155808 Acquired: 4/3/2014 18:32:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00092**	**.61724**	**-.00098**	**-.00166**	**-.00002**	**.00727**	**2.2182**
Stddev	.00022	.00032	.00030	.00060	.00024	.00012	1.0266
%RSD	24.355	.05150	31.213	35.999	1520.3	1.6180	46.282
#1	.00110	.61690	-.00132	-.00202	.00012	.00719	1.5627
#2	.00067	.61730	-.00084	-.00198	-.00030	.00721	1.6905
#3	.00099	.61752	-.00076	-.00097	.00013	.00740	3.4013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19279.**	**21287.**
Stddev	97.	473.
%RSD	.50237	2.2218
#1	19201.	21545.
#2	19248.	21575.
#3	19388.	20741.

Approved: April 04, 2014

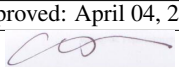
Sample Name: L1403158017 Acquired: 4/3/2014 18:36:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00001**	**.02678**	**.00162**	**.03361**	**.02256**	**.00006**	**107.62**	**.00104**
Stddev	.00057	.01348	.00113	.00058	.00036	.00001	.18	.00024
%RSD	9861.8	50.326	70.020	1.7213	1.5791	10.957	.17062	22.683
#1	.00016	.01133	.00219	.03427	.02247	.00006	107.82	.00077
#2	.00049	.03289	.00031	.03334	.02225	.00005	107.45	.00113
#3	-.00063	.03612	.00236	.03322	.02295	.00006	107.59	.00122
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**.00099**	**.00041**	**.06139**	**5.1370**	**.01836**	**74.595**	**.05397**
Stddev	.00003	.00030	.00022	.00027	.0423	.00187	.306	.00046
%RSD	33.049	30.535	54.439	.43617	.82311	10.187	.41086	.84884
#1	.00005	.00094	.00019	.06166	5.0908	.02032	74.648	.05365
#2	.00010	.00072	.00040	.06139	5.1463	.01817	74.265	.05376
#3	.00009	.00132	.00063	.06112	5.1738	.01660	74.872	.05450
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00012**	**10.155**	**.00184**	**.00405**	**.00063**	**.00014**	**.00089**	**2.2563**
Stddev	.00023	.021	.00040	.00426	.00134	.00066	.00476	.0210
%RSD	190.07	.20671	21.728	105.40	213.83	474.81	537.48	.93183
#1	.00009	10.173	.00143	.00759	.00152	.00088	-.00403	2.2648
#2	-.00009	10.132	.00222	.00524	.00128	-.00006	.00548	2.2718
#3	-.00037	10.161	.00186	-.00069	-.00092	-.00040	.00121	2.2324
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403158017 Acquired: 4/3/2014 18:36:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**1.5752**	**-.00204**	**-.00157**	**.00010**	**.00210**	**.42107**
Stddev	.00001	.0039	.00084	.00136	.00015	.00014	.44920
%RSD	4.8564	.24593	40.891	86.251	154.47	6.5652	106.68
#1	.00031	1.5797	-.00164	-.00293	-.00004	.00204	-.05995
#2	.00031	1.5733	-.00148	-.00022	.00008	.00226	.49350
#3	.00028	1.5726	-.00301	-.00157	.00025	.00200	.82964
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19046.**	**21722.**
Stddev	34.	258.
%RSD	.17720	1.1867
#1	19057.	21891.
#2	19073.	21850.
#3	19008.	21425.

Approved: April 04, 2014

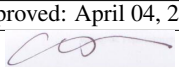
Sample Name: L1403158019 Acquired: 4/3/2014 18:39:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**.09210**	**.00017**	**.03980**	**.02546**	**.00014**	**51.713**	**.00065**
Stddev	.00047	.01056	.00059	.00081	.00042	.00002	.101	.00009
%RSD	247.26	11.469	355.58	2.0242	1.6543	14.877	.19555	14.006
#1	.00029	.08003	.00013	.03898	.02592	.00017	51.805	.00076
#2	-.00064	.09964	-.00041	.04059	.02536	.00013	51.730	.00058
#3	-.00022	.09662	.00078	.03982	.02509	.00013	51.604	.00062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00308**	**.00026**	**.00129**	**.08608**	**4.3339**	**.01677**	**27.716**	**.13200**
Stddev	.00004	.00042	.00029	.00209	.0355	.00097	.141	.00159
%RSD	1.2971	162.63	22.583	2.4244	.81993	5.7874	.50785	1.2029
#1	.00309	.00065	.00151	.08752	4.3111	.01748	27.703	.13169
#2	.00303	-.00019	.00096	.08369	4.3159	.01566	27.582	.13059
#3	.00311	.00032	.00140	.08704	4.3749	.01717	27.863	.13372
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**20.521**	**.00995**	**-.00134**	**.00079**	**.00166**	**.00234**	**2.7936**
Stddev	.00005	.040	.00032	.00316	.00198	.00080	.00046	.0171
%RSD	62.050	.19395	3.2387	236.05	249.15	48.193	19.825	.61340
#1	.00003	20.528	.00966	.00055	.00107	.00254	.00180	2.7772
#2	.00008	20.557	.00990	-.00499	.00262	.00142	.00261	2.8114
#3	.00013	20.479	.01030	.00042	-.00131	.00100	.00261	2.7923
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403158019 Acquired: 4/3/2014 18:39:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00038**	**.76860**	**-.00055**	**-.00069**	**-.00008**	**.01398**	**.13591**
Stddev	.00031	.00330	.00139	.00074	.00024	.00005	.12038
%RSD	80.699	.42883	255.38	106.82	315.29	.33106	88.572
#1	.00020	.77117	-.00212	-.00062	.00007	.01402	.27466
#2	.00074	.76974	-.00003	-.00147	-.00036	.01393	.07371
#3	.00020	.76488	.00052	.00000	.00006	.01399	.05935
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19414.**	**21428.**
Stddev	25.	295.
%RSD	.12892	1.3753
#1	19438.	21405.
#2	19416.	21733.
#3	19388.	21145.

Approved: April 04, 2014

Sample Name: L1403158021 Acquired: 4/3/2014 18:43:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00023**	**.42475**	**.00009**	**.00572**	**.02216**	**.00011**	**2.5794**	**.00016**
Stddev	.00012	.02482	.00159	.00090	.00038	.00002	.0045	.00008
%RSD	51.824	5.8434	1776.7	15.689	1.7307	21.785	.17351	47.903
#1	-.00012	.44705	.00143	.00676	.02258	.00012	2.5742	.00007
#2	-.00021	.42920	-.00167	.00514	.02183	.00008	2.5822	.00021
#3	-.00036	.39801	.00050	.00527	.02207	.00013	2.5818	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.00027**	**.00173**	**.88797**	**1.1108**	**.00157**	**1.7893**	**.01856**
Stddev	.00020	.00033	.00054	.00094	.0440	.00167	.0129	.00026
%RSD	780.73	124.36	30.916	.10590	3.9595	105.79	.72338	1.4178
#1	.00020	-.00011	.00118	.88889	1.1286	.00114	1.7755	.01825
#2	.00006	.00040	.00176	.88701	1.1430	.00017	1.7913	.01871
#3	-.00019	.00052	.00225	.88799	1.0607	.00342	1.8011	.01870
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**.68143**	**.00117**	**.00483**	**-.00068**	**.00093**	**.00274**	**2.8238**
Stddev	.00005	.00469	.00069	.00192	.00101	.00062	.00128	.0151
%RSD	26.226	.68886	58.610	39.691	149.64	66.318	46.877	.53345
#1	.00024	.67738	.00096	.00363	.00008	.00031	.00376	2.8309
#2	.00016	.68658	.00194	.00704	-.00028	.00094	.00316	2.8339
#3	.00015	.68034	.00062	.00382	-.00182	.00154	.00130	2.8065
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403158021 Acquired: 4/3/2014 18:43:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00072**	**.02877**	**.00512**	**-.00228**	**.00086**	**.00561**	**2.1644**
Stddev	.00064	.00007	.00042	.00174	.00031	.00007	.7576
%RSD	88.322	.24745	8.1923	76.164	36.577	1.2706	35.004
#1	.00134	.02871	.00482	-.00421	.00063	.00557	2.8862
#2	.00006	.02876	.00560	-.00180	.00072	.00569	1.3755
#3	.00077	.02885	.00493	-.00084	.00121	.00557	2.2314
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20065.**	**22061.**
Stddev	44.	97.
%RSD	.21692	.43863
#1	20016.	22173.
#2	20079.	22005.
#3	20100.	22005.

Approved: April 04, 2014

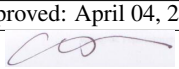
Sample Name: L1403158022 Acquired: 4/3/2014 18:46:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.16196**	**.00087**	**.07127**	**.02937**	**.00032**	**38.123**	**.00034**
Stddev	.00047	.01566	.00042	.00111	.00006	.00001	.038	.00009
%RSD	187.74	9.6714	48.893	1.5523	.19713	4.5743	.09876	25.330
#1	-.00026	.15761	.00114	.07004	.02942	.00032	38.116	.00029
#2	.00068	.17934	.00108	.07158	.02940	.00031	38.090	.00030
#3	.00033	.14894	.00038	.07218	.02931	.00034	38.164	.00044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00813**	**.00049**	**.00132**	**.08853**	**4.7130**	**.02484**	**12.170**	**.11347**
Stddev	.00014	.00008	.00038	.00265	.0249	.00079	.020	.00026
%RSD	1.6984	15.360	28.994	2.9878	.52854	3.1914	.16118	.23042
#1	.00813	.00054	.00097	.08650	4.7082	.02401	12.173	.11363
#2	.00799	.00052	.00173	.08758	4.6908	.02559	12.149	.11317
#3	.00827	.00040	.00125	.09152	4.7399	.02491	12.188	.11361
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**33.679**	**.01634**	**.00017**	**-.00272**	**.00027**	**.00429**	**3.0226**
Stddev	.00022	.191	.00021	.00104	.00132	.00230	.00335	.0079
%RSD	87.462	.56822	1.2887	627.11	48.505	839.95	78.043	.26135
#1	.00021	33.474	.01648	.00089	-.00375	.00164	.00795	3.0189
#2	.00006	33.710	.01644	.00064	-.00318	-.00238	.00354	3.0317
#3	.00049	33.853	.01610	-.00103	-.00123	.00156	.00138	3.0172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403158022 Acquired: 4/3/2014 18:46:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00045**	**.87471**	**-.00040**	**-.00066**	**.00029**	**.02629**	**1.8098**
Stddev	.00017	.00140	.00060	.00086	.00024	.00002	.8185
%RSD	38.164	.16004	148.98	130.08	83.155	.07397	45.222
#1	.00061	.87582	-.00107	-.00164	.00055	.02628	1.5190
#2	.00027	.87518	-.00024	-.00030	.00023	.02628	1.1766
#3	.00047	.87314	.00010	-.00004	.00008	.02632	2.7340
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19571.**	**22332.**
Stddev	32.	19.
%RSD	.16380	.08676
#1	19605.	22324.
#2	19542.	22354.
#3	19567.	22318.

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 18:50:35 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40756**	**10.046**	**.40640**	**.52252**	**.97993**	**.05019**	**10.062**
Stddev	.00422	.029	.00024	.00479	.00239	.00048	.021
%RSD	1.0361	.28690	.05788	.91707	.24423	.95950	.20379
#1	.41048	10.028	.40632	.52554	.98189	.05044	10.084
#2	.40948	10.079	.40666	.52503	.98065	.05050	10.059
#3	.40272	10.031	.40621	.51700	.97726	.04964	10.043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05126**	**.20675**	**.50172**	**.52045**	**3.9808**	**51.217**	**.97382**
Stddev	.00019	.00096	.00507	.00217	.0074	.111	.00164
%RSD	.37896	.46271	1.0104	.41681	.18668	.21670	.16873
#1	.05139	.20734	.50456	.52125	3.9771	51.138	.97570
#2	.05136	.20727	.50474	.52211	3.9759	51.344	.97270
#3	.05104	.20565	.49587	.51800	3.9893	51.170	.97305
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.9835**	**.52365**	**1.0051**	**47.875**	**.50816**	**10.189**	**.51064**
Stddev	.1025	.01280	.0031	.058	.00185	.045	.00226
%RSD	1.0266	2.4453	.30381	.12126	.36327	.43967	.44200
#1	9.8773	.50920	1.0050	47.811	.50764	10.235	.51185
#2	10.082	.53360	1.0082	47.923	.51021	10.145	.51203
#3	9.9912	.52814	1.0021	47.891	.50663	10.187	.50804
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 18:50:35 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2131**	**.41660**	**5.0342**	**1.0507**	**1.0309**	**.95958**	**.49588**
Stddev	.0063	.00142	.0147	.0077	.0042	.00101	.00248
%RSD	.52173	.34132	.29158	.73175	.40247	.10485	.50051
#1	1.2184	.41658	5.0474	1.0516	1.0352	.95924	.49491
#2	1.2148	.41803	5.0369	1.0579	1.0305	.96071	.49869
#3	1.2061	.41519	5.0184	1.0426	1.0269	.95879	.49402
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.99974**	**1.0381**	F **1.3124**
Stddev	.00816	.0041	.4211
%RSD	.81580	.39184	32.085
#1	1.0053	1.0391	1.7826
#2	1.0035	1.0416	1.1847
#3	.99038	1.0336	.96996
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19758.**	**21053.**
Stddev	34.	605.
%RSD	.17266	2.8728
#1	19763.	21752.
#2	19722.	20715.
#3	19790.	20693.

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/3/2014 18:53:51 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00046**	**.00307**	**.00024**	**.00125**	**.00042**	**.00005**	**.01768**
Stddev	.00034	.02140	.00198	.00039	.00032	.00001	.01979
%RSD	72.393	698.12	833.75	31.399	76.596	25.143	111.92
#1	-.00030	.02090	-.00167	.00169	.00021	.00004	.00188
#2	-.00085	-.02067	.00010	.00092	.00079	.00006	.01128
#3	-.00024	.00897	.00228	.00115	.00025	.00006	.03987
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**-.00010**	**.00002**	**.00058**	**-.00145**	**.02605**	**.00059**
Stddev	.00009	.00012	.00013	.00044	.00091	.04043	.00110
%RSD	821.04	120.51	675.68	76.413	62.761	155.20	187.03
#1	-.00008	-.00017	.00001	.00109	-.00040	.06522	.00174
#2	-.00005	-.00017	-.00011	.00038	-.00205	-.01553	.00046
#3	.00009	.00004	.00016	.00027	-.00190	.02846	-.00044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01132**	**.00010**	**.00008**	**.00856**	**-.00030**	**-.00129**	**-.00150**
Stddev	.02730	.00007	.00012	.01296	.00071	.00183	.00174
%RSD	241.12	75.512	145.52	151.45	235.50	142.28	116.44
#1	-.02777	.00002	.00021	.00110	-.00110	.00043	-.00312
#2	-.02638	.00017	-.00001	.00105	-.00004	-.00322	-.00171
#3	.02019	.00010	.00004	.02353	.00024	-.00108	.00034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014

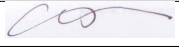
Sample Name: CCB Acquired: 4/3/2014 18:53:51 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**-.00049**	**-.00410**	**.00003**	**.00034**	**.00028**	**.00083**
Stddev	.00081	.00053	.00118	.00003	.00033	.00081	.00123
%RSD	2256.7	109.73	28.826	101.19	96.477	292.47	148.95
#1	-.00037	-.00048	-.00286	.00002	.00011	.00030	.00055
#2	.00088	.00004	-.00425	.00005	.00019	-.00055	-.00025
#3	-.00062	-.00102	-.00521	.00000	.00071	.00108	.00217
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00021**	**.00138**	F **.30606**
Stddev	.00028	.00007	.59441
%RSD	131.93	5.2136	194.21
#1	.00033	.00133	.08198
#2	.00042	.00146	-.14373
#3	-.00011	.00135	.97994
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19883.**	**21858.**
Stddev	25.	386.
%RSD	.12811	1.7664
#1	19869.	21616.
#2	19912.	21655.
#3	19867.	22303.

Approved: April 04, 2014



Sample Name: PBW EP Acquired: 4/3/2014 18:57:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469459-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**-.00669**	**-.00061**	**.00076**	**.00028**	**.00004**	**.02702**
Stddev	.00056	.01180	.00113	.00088	.00024	.00003	.00870
%RSD	295.13	176.32	184.43	116.44	85.718	70.312	32.195
#1	.00013	.00666	.00037	.00135	.00053	.00004	.02282
#2	-.00034	-.01101	-.00185	-.00026	.00005	.00001	.03702
#3	.00077	-.01574	-.00036	.00117	.00026	.00006	.02121
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**-.00021**	**-.00020**	**.00014**	**.00474**	**-.01161**	**-.00035**
Stddev	.00014	.00020	.00010	.00026	.00082	.02889	.00124
%RSD	94.141	93.286	51.218	185.02	17.221	248.78	357.86
#1	.00004	-.00009	-.00031	.00015	.00529	-.04077	.00107
#2	.00011	-.00045	-.00010	.00040	.00513	.01700	-.00124
#3	.00032	-.00011	-.00019	-.00012	.00380	-.01107	-.00087
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00464**	**.00046**	**.00009**	**.00236**	**.00016**	F **-.01292**	**-.00090**
Stddev	.01691	.00001	.00016	.01434	.00043	.00746	.00163
%RSD	364.15	2.9991	167.17	607.29	262.41	57.759	182.37
#1	.01597	.00048	.00026	.01808	.00051	-.00530	-.00198
#2	-.01480	.00045	-.00004	-.01001	-.00032	-.02021	-.00169
#3	.01276	.00046	.00006	-.00099	.00029	-.01324	.00098
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

Sample Name: PBW EP Acquired: 4/3/2014 18:57:30 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469459-03

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00126**	**.00117**	**-.00256**	**.00052**	**.00014**	**.00014**	**-.00194**
Stddev	.00041	.00453	.00035	.00010	.00007	.00027	.00027
%RSD	32.427	387.23	13.617	18.431	45.989	196.28	13.881
#1	.00152	.00469	-.00232	.00058	.00021	.00025	-.00176
#2	.00146	.00275	-.00240	.00057	.00008	-.00017	-.00225
#3	.00079	-.00393	-.00296	.00041	.00014	.00034	-.00182
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00006**	**.00203**	**3.2991**
Stddev	.00019	.00015	.6267
%RSD	315.43	7.2614	18.997
#1	.00026	.00219	2.9137
#2	.00006	.00195	2.9612
#3	-.00013	.00193	4.0222
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19736.**	**21952.**
Stddev	112.	93.
%RSD	.56731	.42256
#1	19712.	21878.
#2	19639.	22056.
#3	19859.	21922.

Approved: April 04, 2014

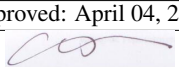
Sample Name: LCSW EP Acquired: 4/3/2014 19:01:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469459-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**5.1770**	**.00217**	**.00016**	**.00017**	**.00003**	**5.2185**	**.00024**
Stddev	.00038	.0162	.00125	.00046	.00026	.00001	.0060	.00013
%RSD	2070.1	.31285	57.656	282.56	153.68	38.411	.11435	53.253
#1	-.00036	5.1684	.00092	.00070	.00009	.00004	5.2178	.00019
#2	.00001	5.1669	.00218	-.00009	-.00004	.00002	5.2248	.00015
#3	.00040	5.1956	.00343	-.00012	.00047	.00002	5.2130	.00039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00014**	**.00033**	**.00055**	**2.0326**	**25.956**	**-.00206**	**5.0727**	**.25740**
Stddev	.00008	.00031	.00064	.0122	.019	.00091	.0065	.00244
%RSD	58.875	92.367	116.65	.59885	.07418	44.303	.12795	.94956
#1	-.00023	.00064	.00127	2.0367	25.959	-.00295	5.0794	.26022
#2	-.00014	.00034	.00034	2.0189	25.935	-.00113	5.0664	.25605
#3	-.00006	.00002	.00004	2.0422	25.973	-.00210	5.0724	.25592
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**24.498**	**-.00034**	**-.00261**	**-.00218**	**.00021**	**-.00183**	**-.00298**
Stddev	.00033	.031	.00064	.00440	.00060	.00065	.00422	.00119
%RSD	2146.6	.12568	185.13	168.55	27.428	314.10	230.87	40.102
#1	.00037	24.515	-.00066	-.00283	-.00256	.00094	-.00293	-.00415
#2	-.00017	24.462	-.00076	.00189	-.00250	-.00027	-.00539	-.00177
#3	-.00024	24.516	.00039	-.00689	-.00149	-.00006	.00283	-.00301
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: LCSW EP Acquired: 4/3/2014 19:01:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469459-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00067**	**-.00004**	**-.00004**	**-.00160**	**.00024**	**.00294**	**.05516**
Stddev	.00031	.00010	.00055	.00218	.00021	.00002	.52113
%RSD	46.152	222.60	1227.8	136.52	88.870	.52276	944.79
#1	.00085	.00001	-.00068	.00037	.00044	.00293	-.13529
#2	.00083	-.00016	.00027	-.00394	.00026	.00296	.64472
#3	.00031	.00002	.00028	-.00121	.00002	.00294	-.34396
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19639.**	**22183.**
Stddev	77.	108.
%RSD	.39122	.48825
#1	19608.	22077.
#2	19582.	22293.
#3	19726.	22180.

Approved: April 04, 2014

Sample Name: L1403156201 Acquired: 4/3/2014 19:04:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469459-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00029**	**.00692**	**.00075**	**.01333**	**.02300**	**.00003**	**48.241**	**.00064**
Stddev	.00033	.02836	.00157	.00049	.00029	.00003	.085	.00008
%RSD	113.90	409.73	208.60	3.6757	1.2454	89.845	.17663	11.760
#1	.00060	-.00737	.00059	.01298	.02292	.00002	48.245	.00063
#2	-.00005	-.01146	-.00073	.01389	.02332	.00006	48.325	.00057
#3	.00031	.03959	.00239	.01311	.02276	.00001	48.154	.00072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.00036**	**.00072**	**.12548**	**3.5089**	**.00571**	**30.212**	**.06254**
Stddev	.00012	.00009	.00045	.00458	.0285	.00088	.193	.00063
%RSD	296.38	24.687	61.950	3.6491	.81207	15.476	.63909	1.0043
#1	-.00005	.00035	.00021	.12491	3.4774	.00474	30.146	.06290
#2	-.00016	.00045	.00097	.12121	3.5163	.00591	30.060	.06291
#3	.00008	.00027	.00099	.13032	3.5329	.00647	30.429	.06181
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00001**	**3.5465**	**.00048**	**-.00218**	**-.00103**	**.00104**	**.00166**	**2.2876**
Stddev	.00018	.0170	.00055	.00181	.00139	.00091	.00050	.0131
%RSD	2463.9	.48067	116.09	82.667	134.94	88.190	29.832	.57029
#1	-.00019	3.5618	.00097	-.00229	-.00095	.00036	.00197	2.2731
#2	.00016	3.5281	-.00012	-.00033	.00032	.00208	.00193	2.2911
#3	.00005	3.5496	.00058	-.00393	-.00246	.00068	.00109	2.2985
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403156201 Acquired: 4/3/2014 19:04:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469459-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**.20895**	**.00001**	**-.00219**	**-.00005**	**.00229**	**1.0536**
Stddev	.00035	.00073	.00106	.00091	.00043	.00007	.6339
%RSD	149.85	.34714	20506.	41.651	848.67	3.2592	60.167
#1	-.00017	.20892	-.00092	-.00165	.00030	.00220	1.5638
#2	.00051	.20969	.00116	-.00168	.00008	.00231	.34392
#3	.00037	.20824	-.00022	-.00325	-.00053	.00235	1.2532
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19672.**	**22016.**
Stddev	67.	67.
%RSD	.33919	.30544
#1	19679.	21940.
#2	19602.	22040.
#3	19735.	22068.

Approved: April 04, 2014

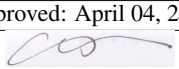
Sample Name: L1403156201DUP Acquired: 4/3/2014 19:08:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469459-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**.03832**	**.00076**	**.01267**	**.02276**	**.00004**	**49.205**
Stddev	.00049	.01796	.00041	.00053	.00030	.00002	.066
%RSD	236.85	46.866	53.163	4.1837	1.3221	42.429	.13410
#1	-.00077	.01890	.00077	.01217	.02255	.00005	49.203
#2	-.00002	.05433	.00036	.01322	.02262	.00002	49.273
#3	.00017	.04173	.00117	.01262	.02310	.00005	49.141
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00058**	**-.00021**	**.00020**	**.00053**	**.12310**	**3.5310**	**.00869**
Stddev	.00009	.00022	.00022	.00023	.00314	.0326	.00034
%RSD	14.850	101.77	112.13	43.851	2.5529	.92354	3.9550
#1	.00053	.00000	.00030	.00077	.11993	3.4935	.00873
#2	.00068	-.00044	-.00006	.00031	.12621	3.5533	.00901
#3	.00052	-.00020	.00035	.00050	.12314	3.5461	.00832
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**30.900**	**.06266**	**.00003**	**3.5995**	**.00088**	F **-.00356**	**-.00077**
Stddev	.105	.00032	.00000	.0052	.00042	.00105	.00251
%RSD	.34121	.50478	14.527	.14514	47.014	29.485	323.50
#1	30.780	.06233	.00003	3.5981	.00059	-.00458	-.00339
#2	30.945	.06268	.00003	3.5951	.00136	-.00248	-.00054
#3	30.976	.06296	.00003	3.6053	.00071	-.00362	.00160
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014



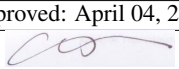
Sample Name: L1403156201DUP Acquired: 4/3/2014 19:08:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469459-05

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00125**	**.00372**	**2.3559**	**.00057**	**.21469**	**.00032**	**-.00207**
Stddev	.00109	.00293	.0165	.00014	.00035	.00077	.00155
%RSD	86.775	78.586	.69970	24.368	.16242	241.39	75.045
#1	.00214	.00067	2.3512	.00049	.21475	-.00051	-.00277
#2	.00004	.00399	2.3742	.00050	.21500	.00101	-.00029
#3	.00158	.00650	2.3423	.00074	.21431	.00046	-.00314
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00002**	**.00308**	**.39607**
Stddev	.00024	.00011	.24202
%RSD	1378.3	3.5492	61.105
#1	.00019	.00319	.35250
#2	.00003	.00308	.17879
#3	-.00027	.00297	.65691
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19453.**	**22362.**
Stddev	84.	131.
%RSD	.43375	.58404
#1	19357.	22465.
#2	19516.	22406.
#3	19486.	22215.

Approved: April 04, 2014



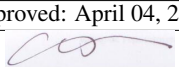
Sample Name: L1403156201MS Acquired: 4/3/2014 19:11:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469459-06

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**5.1765**	**-.00034**	**.01257**	**.02310**	**.00003**	**53.890**
Stddev	.00038	.0215	.00030	.00109	.00025	.00001	.041
%RSD	341.94	.41518	86.166	8.6840	1.0842	40.858	.07652
#1	.00036	5.1638	-.00064	.01134	.02284	.00003	53.938
#2	.00030	5.2013	-.00004	.01294	.02312	.00004	53.864
#3	-.00033	5.1644	-.00035	.01343	.02334	.00002	53.868
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00066**	**-.00004**	**.00024**	**.00049**	**2.1630**	**29.571**	**.00861**
Stddev	.00007	.00008	.00016	.00026	.0121	.028	.00094
%RSD	10.281	226.55	66.833	52.434	.55927	.09460	10.941
#1	.00073	-.00013	.00009	.00063	2.1493	29.544	.00930
#2	.00066	.00000	.00022	.00066	2.1671	29.600	.00899
#3	.00060	.00002	.00041	.00020	2.1724	29.568	.00754
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**35.308**	**.31537**	**.00003**	**28.489**	**.00020**	**-.00202**	**-.00059**
Stddev	.160	.00610	.00019	.051	.00051	.00492	.00168
%RSD	.45329	1.9355	716.03	.17844	249.01	244.35	285.93
#1	35.126	.30835	-.00019	28.527	-.00006	-.00124	-.00214
#2	35.372	.31941	.00013	28.509	.00079	-.00728	-.00083
#3	35.426	.31834	.00014	28.431	-.00012	.00247	.00120
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403156201MS Acquired: 4/3/2014 19:11:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469459-06

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00066**	**.00143**	**2.3610**	**.00038**	**.20895**	**-.00009**	**-.00119**
Stddev	.00156	.00295	.0309	.00012	.00043	.00146	.00095
%RSD	234.95	205.84	1.3077	31.260	.20376	1655.0	79.855
#1	-.00084	.00283	2.3582	.00049	.20944	-.00108	-.00223
#2	.00056	-.00195	2.3316	.00025	.20868	-.00077	-.00036
#3	.00227	.00341	2.3932	.00041	.20873	.00159	-.00099
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00022**	**.00289**	F **-.57898**
Stddev	.00007	.00011	.17409
%RSD	33.510	3.9523	30.067
#1	-.00019	.00285	-.70556
#2	-.00016	.00280	-.65093
#3	-.00030	.00301	-.38045
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19215.**	**21957.**
Stddev	60.	433.
%RSD	.31022	1.9732
#1	19265.	22457.
#2	19232.	21726.
#3	19149.	21689.

Approved: April 04, 2014

Sample Name: L1403156208 Acquired: 4/3/2014 19:15:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00001**	**-.00191**	**.00034**	**.00512**	**.02759**	**.00006**	**4.9634**	**.00021**
Stddev	.00026	.01164	.00163	.00052	.00019	.00002	.0226	.00009
%RSD	5039.5	608.93	480.25	10.219	.70188	30.682	.45480	43.187
#1	-.00029	.00876	.00176	.00525	.02779	.00008	4.9617	.00011
#2	.00012	-.01432	-.00143	.00557	.02759	.00004	4.9868	.00025
#3	.00018	-.00017	.00069	.00455	.02740	.00006	4.9418	.00029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**.00007**	**.00081**	**.03911**	**1.3102**	**.00096**	**4.3626**	**.01053**
Stddev	.00013	.00043	.00051	.00404	.0259	.00181	.0312	.00017
%RSD	447.07	582.03	63.581	10.322	1.9733	187.35	.71517	1.5940
#1	.00012	-.00013	.00023	.03647	1.3249	.00046	4.3355	.01034
#2	-.00007	.00056	.00119	.04376	1.3254	.00297	4.3557	.01065
#3	-.00014	-.00021	.00100	.03710	1.2804	-.00054	4.3967	.01060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**1.5179**	**-.00033**	**-.00034**	**-.00045**	**.00104**	**-.00060**	**3.3594**
Stddev	.00027	.0139	.00075	.00399	.00084	.00202	.00288	.0077
%RSD	373.74	.91619	226.62	1179.1	186.65	194.14	482.55	.22861
#1	.00037	1.5189	-.00118	.00010	-.00122	-.00031	-.00039	3.3555
#2	-.00001	1.5035	-.00003	.00341	-.00059	.00007	.00217	3.3683
#3	-.00015	1.5313	.00022	-.00453	.00045	.00337	-.00358	3.3545
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403156208 Acquired: 4/3/2014 19:15:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00087**	**.03863**	**-.00002**	**-.00225**	**.00008**	**.00280**	**.27497**
Stddev	.00015	.00020	.00158	.00075	.00030	.00009	.72354
%RSD	17.270	.51613	8434.2	33.271	377.34	3.1354	263.14
#1	.00105	.03865	.00181	-.00303	.00008	.00273	-.40296
#2	.00079	.03882	-.00102	-.00220	-.00022	.00289	1.0368
#3	.00078	.03842	-.00084	-.00153	.00038	.00277	.19105
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19566.**	**21797.**
Stddev	64.	280.
%RSD	.32963	1.2857
#1	19640.	22109.
#2	19520.	21716.
#3	19539.	21566.

Approved: April 04, 2014

Sample Name: L1403156210 Acquired: 4/3/2014 19:18:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00043**	**.01692**	**.00082**	**.01581**	**.01848**	**.00003**	**56.380**	**.00059**
Stddev	.00009	.01255	.00241	.00039	.00029	.00001	.052	.00011
%RSD	21.443	74.195	293.64	2.4467	1.5512	36.336	.09238	19.114
#1	.00033	.00390	.00310	.01540	.01825	.00004	56.345	.00047
#2	.00050	.01792	.00106	.01617	.01839	.00004	56.355	.00070
#3	.00045	.02894	-.00170	.01585	.01880	.00002	56.440	.00060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**.00032**	**.00033**	**.06290**	**3.8102**	**.01148**	**30.546**	**.04634**
Stddev	.00007	.00039	.00026	.00131	.0179	.00089	.199	.00139
%RSD	179.32	122.69	79.858	2.0792	.46978	7.7922	.65159	2.9986
#1	.00010	.00059	.00034	.06171	3.8134	.01074	30.317	.04485
#2	-.00003	-.00013	.00006	.06268	3.7909	.01248	30.652	.04655
#3	.00004	.00050	.00058	.06430	3.8263	.01123	30.670	.04761
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**3.7203**	**.00116**	**.00254**	**-.00031**	**.00186**	**-.00104**	**2.8021**
Stddev	.00010	.0155	.00016	.00516	.00096	.00185	.00429	.0294
%RSD	67.783	.41756	13.679	203.27	309.60	99.611	414.67	1.0473
#1	.00020	3.7031	.00113	.00326	-.00015	.00309	.00321	2.8360
#2	.00003	3.7246	.00134	.00730	.00056	-.00027	-.00537	2.7856
#3	.00021	3.7332	.00102	-.00294	-.00134	.00275	-.00095	2.7847
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403156210 Acquired: 4/3/2014 19:18:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**.30281**	**-.00124**	**-.00230**	**.00034**	**.00385**	**.16556**
Stddev	.00012	.00043	.00088	.00079	.00046	.00015	.88943
%RSD	50.818	.14162	71.232	34.409	137.06	3.9384	537.23
#1	.00011	.30313	-.00218	-.00269	.00085	.00370	-.60679
#2	.00035	.30232	-.00109	-.00139	-.00004	.00400	-.03452
#3	.00026	.30298	-.00044	-.00283	.00020	.00387	1.1380
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19503.**	**21593.**
Stddev	77.	350.
%RSD	.39307	1.6207
#1	19518.	21959.
#2	19571.	21560.
#3	19420.	21261.

Approved: April 04, 2014

Sample Name: L1403156212 Acquired: 4/3/2014 19:22:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00037**	**.05829**	**-.00067**	**.01383**	**.02362**	**.00006**	**49.742**	**.00058**
Stddev	.00056	.01645	.00073	.00055	.00008	.00002	.136	.00003
%RSD	150.80	28.213	108.61	4.0120	.35528	30.440	.27399	4.5612
#1	.00016	.07349	.00006	.01443	.02363	.00007	49.885	.00057
#2	-.00005	.04083	-.00066	.01333	.02370	.00007	49.727	.00061
#3	.00100	.06055	-.00140	.01373	.02354	.00004	49.613	.00056
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**.00098**	**.00096**	**.15779**	**3.6019**	**.00610**	**30.991**	**.06264**
Stddev	.00005	.00021	.00032	.00061	.0251	.00119	.194	.00062
%RSD	279.64	21.681	33.329	.38515	.69824	19.498	.62747	.99561
#1	-.00001	.00074	.00091	.15710	3.5970	.00561	30.770	.06196
#2	.00003	.00114	.00067	.15804	3.6291	.00746	31.135	.06318
#3	-.00007	.00107	.00130	.15823	3.5795	.00524	31.070	.06277
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**3.7734**	**.00098**	**.00331**	**-.00037**	**.00118**	**.00124**	**2.4599**
Stddev	.00026	.0229	.00108	.00396	.00138	.00155	.00284	.0143
%RSD	846.34	.60690	110.29	119.59	370.60	131.44	228.27	.58019
#1	.00009	3.7884	-.00023	.00627	.00122	.00175	-.00165	2.4529
#2	-.00025	3.7848	.00183	-.00119	-.00122	-.00057	.00402	2.4764
#3	.00026	3.7471	.00133	.00485	-.00112	.00236	.00135	2.4505
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403156212 Acquired: 4/3/2014 19:22:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00038**	**.21464**	**.00034**	**-.00186**	**.00004**	**.00205**	**.42761**
Stddev	.00052	.00062	.00058	.00118	.00017	.00004	.34850
%RSD	135.16	.28807	171.93	63.400	396.97	1.8306	81.500
#1	.00081	.21523	.00042	-.00316	.00018	.00205	.12491
#2	.00052	.21470	-.00028	-.00085	.00009	.00202	.80860
#3	-.00019	.21400	.00087	-.00157	-.00014	.00209	.34931
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19452.**	**21672.**
Stddev	171.	133.
%RSD	.87859	.61280
#1	19256.	21819.
#2	19526.	21636.
#3	19573.	21560.

Approved: April 04, 2014

Sample Name: L1403156212PS Acquired: 4/3/2014 19:25:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469839-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20757**	**5.1455**	**.20280**	**1.0647**	**.50810**	**.02568**	**50.240**
Stddev	.00219	.0362	.00171	.0114	.00082	.00033	.116
%RSD	1.0549	.70261	.84410	1.0706	.16173	1.2887	.23006
#1	.20925	5.1113	.20083	1.0734	.50794	.02594	50.151
#2	.20836	5.1419	.20385	1.0690	.50898	.02578	50.199
#3	.20509	5.1834	.20374	1.0518	.50736	.02531	50.371
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02584**	**.10308**	**.25910**	**.25858**	**2.1059**	**28.877**	**.50181**
Stddev	.00013	.00009	.00262	.00064	.0118	.071	.00145
%RSD	.48655	.09131	1.0111	.24572	.56161	.24680	.28855
#1	.02598	.10313	.26143	.25925	2.1028	28.803	.50116
#2	.02573	.10313	.25960	.25849	2.0959	28.881	.50347
#3	.02581	.10297	.25626	.25799	2.1189	28.946	.50080
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**32.304**	**.30439**	**.50913**	**27.225**	**.25283**	F **-.00369**	**.25590**
Stddev	.226	.00471	.00161	.079	.00175	.00502	.00251
%RSD	.69961	1.5462	.31531	.29123	.69332	136.02	.97901
#1	32.069	.29940	.51090	27.137	.25424	-.00914	.25839
#2	32.323	.30502	.50873	27.291	.25337	.00075	.25592
#3	32.520	.30875	.50777	27.246	.25086	-.00268	.25338
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

Sample Name: L1403156212PS Acquired: 4/3/2014 19:25:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469839-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.62136**	**.20729**	**4.7068**	**.00083**	**.71823**	**.48443**	**.24679**
Stddev	.00271	.00243	.0166	.00010	.00089	.00175	.00410
%RSD	.43625	1.1735	.35271	11.775	.12361	.36036	1.6619
#1	.62151	.20503	4.7153	.00072	.71822	.48251	.24608
#2	.62399	.20698	4.6877	.00089	.71734	.48487	.25120
#3	.61857	.20987	4.7174	.00089	.71912	.48592	.24309
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.50652**	**.51544**	**.81233**
Stddev	.00468	.00364	.80908
%RSD	.92356	.70657	99.600
#1	.51066	.51949	1.6843
#2	.50746	.51442	.08585
#3	.50145	.51242	.66687
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19329.**	**21722.**
Stddev	180.	375.
%RSD	.93283	1.7253
#1	19182.	22109.
#2	19274.	21697.
#3	19530.	21360.

Approved: April 04, 2014

Sample Name: L1403156212SDL Acquired: 4/3/2014 19:29:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469839-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00020**	**.00417**	**.00172**	**.00581**	**.00437**	**.00006**	**9.6960**	**.00013**
Stddev	.00028	.00689	.00065	.00035	.00026	.00002	.0151	.00007
%RSD	140.70	165.38	37.503	6.0898	5.9294	27.088	.15579	57.674
#1	.00010	.00130	.00216	.00610	.00416	.00008	9.7129	.00007
#2	-.00024	-.00083	.00203	.00542	.00466	.00007	9.6910	.00021
#3	-.00045	.01203	.00098	.00590	.00429	.00004	9.6840	.00010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00009**	**-.00002**	**-.00020**	**.03054**	**.66391**	**.00141**	**6.0399**	**.01231**
Stddev	.00033	.00008	.00026	.00191	.01329	.00041	.0283	.00033
%RSD	383.60	370.10	125.62	6.2668	2.0024	29.344	.46888	2.7054
#1	-.00043	-.00005	-.00040	.03275	.66418	.00165	6.0083	.01196
#2	.00024	-.00009	-.00030	.02938	.65048	.00164	6.0487	.01235
#3	-.00007	.00007	.00009	.02950	.67706	.00093	6.0628	.01262
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00001**	**.71047**	**.00016**	**-.00245**	**.00032**	**.00015**	**.00025**	**.47896**
Stddev	.00014	.02316	.00055	.00163	.00135	.00232	.00125	.00532
%RSD	980.31	3.2595	343.30	66.637	419.44	1587.6	497.12	1.1115
#1	-.00001	.72393	.00040	-.00194	-.00052	.00084	.00167	.48116
#2	.00017	.68373	.00055	-.00113	.00187	.00204	-.00021	.48283
#3	-.00012	.72375	-.00047	-.00428	-.00039	-.00245	-.00070	.47289
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403156212SDL Acquired: 4/3/2014 19:29:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469839-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**.04247**	**-.00087**	**-.00062**	**.00007**	**.00110**	**.42087**
Stddev	.00015	.00020	.00061	.00190	.00015	.00002	.49221
%RSD	82.225	.47163	69.666	304.19	219.18	1.6439	116.95
#1	.00031	.04230	-.00158	-.00282	.00018	.00112	.74371
#2	.00021	.04269	-.00054	.00047	-.00010	.00108	-.14565
#3	.00002	.04242	-.00051	.00048	.00012	.00109	.66455
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20094.**	**22226.**
Stddev	87.	325.
%RSD	.43067	1.4641
#1	20176.	22601.
#2	20101.	22024.
#3	20004.	22052.

Approved: April 04, 2014

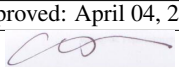
Sample Name: CCV Acquired: 4/3/2014 19:32:52 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.42247**	**10.159**	**.40958**	**.54405**	**.99960**	**.05163**	**10.159**
Stddev	.01364	.025	.00221	.01163	.00539	.00171	.045
%RSD	3.2288	.25049	.54016	2.1369	.53890	3.3085	.44664
#1	.43399	10.163	.40779	.55322	1.0026	.05298	10.174
#2	.42603	10.183	.40889	.54795	.99338	.05221	10.109
#3	.40741	10.132	.41205	.53097	1.0029	.04971	10.196
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05200**	**.20855**	**.51589**	**.52592**	**4.0324**	**51.499**	**.99413**
Stddev	.00007	.00100	.01645	.00218	.0225	.165	.00581
%RSD	.14151	.48190	3.1896	.41438	.55851	.32087	.58428
#1	.05195	.20739	.52854	.52376	4.0501	51.667	.99329
#2	.05197	.20907	.52185	.52812	4.0070	51.337	.98879
#3	.05209	.20919	.49729	.52589	4.0399	51.494	1.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.080**	**.51567**	**1.0226**	**48.919**	**.52237**	**10.236**	**.51591**
Stddev	.069	.01992	.0005	.209	.01093	.024	.00658
%RSD	.68236	3.8625	.05094	.42686	2.0933	.23400	1.2755
#1	10.145	.52517	1.0232	48.961	.53497	10.215	.50843
#2	10.087	.52906	1.0224	48.693	.51682	10.231	.51850
#3	10.008	.49278	1.0222	49.104	.51533	10.262	.52080
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014



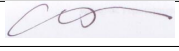
Sample Name: CCV Acquired: 4/3/2014 19:32:52 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2337**	**.41889**	**5.3604**	**1.0503**	**1.0419**	**.98109**	**.50644**
Stddev	.0036	.00274	.3067	.0006	.0039	.00665	.00171
%RSD	.29219	.65400	5.7216	.05350	.37584	.67771	.33804
#1	1.2296	.41992	5.7132	1.0499	1.0447	.98356	.50825
#2	1.2362	.41578	5.2110	1.0509	1.0374	.97356	.50622
#3	1.2354	.42096	5.1570	1.0500	1.0435	.98614	.50485
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0359**	**1.0380**	F **1.3690**
Stddev	.0341	.0040	1.1235
%RSD	3.2901	.38563	82.072
#1	1.0643	1.0336	2.3524
#2	1.0452	1.0390	1.6101
#3	.99809	1.0414	.14447
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19295.**	**21539.**
Stddev	209.	318.
%RSD	1.0846	1.4773
#1	19060.	21464.
#2	19365.	21265.
#3	19460.	21888.

Approved: April 04, 2014



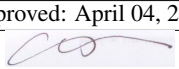
Sample Name: CCB Acquired: 4/3/2014 19:36:08 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**-.00007**	**.00165**	**.00250**	**-.00022**	**.00003**	**.01562**
Stddev	.00041	.01430	.00238	.00014	.00010	.00002	.01080
%RSD	399.32	20057.	144.03	5.4990	45.325	58.145	69.115
#1	.00018	.01370	.00407	.00266	-.00027	.00002	.00442
#2	.00047	.00093	.00156	.00244	-.00028	.00005	.02597
#3	-.00034	-.01485	-.00068	.00241	-.00010	.00002	.01648
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**.00004**	**.00031**	**.00017**	**.00118**	**.01684**	**-.00051**
Stddev	.0001	.00024	.00020	.00024	.00218	.05067	.00101
%RSD	1489.5	641.17	65.373	139.98	185.02	300.97	199.75
#1	.00001	.00019	.00008	.00043	-.00022	.06875	.00066
#2	-.00006	-.00024	.00043	-.00005	.00369	-.03250	-.00111
#3	.00004	.00016	.00041	.00014	.00006	.01427	-.00108
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00789**	**-.00003**	**.00008**	**-.00505**	**-.00045**	**.00431**	**-.00124**
Stddev	.00651	.00008	.00007	.00603	.00024	.00258	.00091
%RSD	82.445	310.68	87.152	119.27	52.509	59.798	73.529
#1	.00071	.00006	.00015	-.00597	-.00068	.00336	-.00070
#2	.01340	-.00003	.00005	-.01057	-.00046	.00235	-.00073
#3	.00957	-.00010	.00002	.00138	-.00021	.00724	-.00230
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: CCB Acquired: 4/3/2014 19:36:08 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00185**	**.00460**	**.00393**	**.00014**	**.00003**	**-.00103**	**-.00065**
Stddev	.00065	.00211	.00326	.00044	.00012	.00022	.00107
%RSD	34.930	45.931	82.911	320.14	430.92	21.043	163.81
#1	-.00232	.00679	.00255	-.00036	.00014	-.00128	-.00092
#2	-.00211	.00446	.00160	.00029	.00003	-.00088	.00052
#3	-.00111	.00257	.00766	.00048	-.00009	-.00093	-.00156
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00006**	**-.00007**	F **-.42475**
Stddev	.00009	.00005	.24765
%RSD	161.10	76.986	58.304
#1	-.00016	-.00013	-.14311
#2	-.00004	-.00002	-.52269
#3	.00002	-.00005	-.60845
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19873.**	**22383.**
Stddev	41.	248.
%RSD	.20478	1.1058
#1	19914.	22485.
#2	19874.	22562.
#3	19833.	22100.

Approved: April 04, 2014

Sample Name: L1403156213 Acquired: 4/3/2014 19:39:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**.06035**	**.00131**	**.01536**	**.01959**	**.00005**	**44.203**	**.00073**
Stddev	.00056	.01515	.00117	.00015	.00025	.00003	.073	.00015
%RSD	725.70	25.109	88.886	.98980	1.2533	55.335	.16543	20.327
#1	.00036	.04285	.00081	.01526	.01931	.00008	44.161	.00061
#2	.00012	.06913	.00048	.01553	.01978	.00003	44.162	.00090
#3	-.00071	.06907	.00264	.01528	.01968	.00003	44.288	.00069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00061**	**-.00008**	**.00025**	**.10461**	**3.8161**	**.01015**	**35.223**	**.19448**
Stddev	.00019	.00008	.00016	.00576	.0247	.00173	.130	.00220
%RSD	30.694	105.79	65.190	5.5012	.64691	17.081	.36896	1.1331
#1	.00082	-.00006	.00039	.10992	3.8212	.00873	35.076	.19195
#2	.00051	-.00016	.00007	.10542	3.7893	.00964	35.272	.19601
#3	.00049	.00000	.00028	.09850	3.8378	.01209	35.321	.19547
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**4.3246**	**.00436**	**.00120**	**-.00046**	**.00045**	**.00434**	**2.4972**
Stddev	.00013	.0195	.00013	.00561	.00183	.00152	.00256	.0084
%RSD	111.68	.45161	2.9880	469.32	400.80	340.62	58.879	.33639
#1	.00001	4.3316	.00446	-.00208	-.00198	.00036	.00282	2.5063
#2	.00008	4.3396	.00442	.00768	-.00096	-.00103	.00291	2.4957
#3	.00026	4.3025	.00421	-.00201	.00157	.00200	.00729	2.4897
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403156213 Acquired: 4/3/2014 19:39:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00069**	**.23164**	**-.00077**	**-.00300**	**-.00003**	**.00605**	**.01266**
Stddev	.00004	.00038	.00040	.00134	.00016	.00004	.63126
%RSD	6.1491	.16461	51.961	44.654	473.91	.63289	4986.6
#1	.00065	.23141	-.00122	-.00153	.00007	.00603	.73653
#2	.00071	.23144	-.00065	-.00330	.00005	.00610	-.42347
#3	.00073	.23208	-.00045	-.00416	-.00022	.00603	-.27508
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19245.**	**21497.**
Stddev	110.	80.
%RSD	.57306	.37346
#1	19356.	21589.
#2	19136.	21462.
#3	19243.	21440.

Approved: April 04, 2014

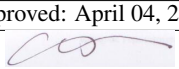
Sample Name: L1403156501 Acquired: 4/3/2014 19:43:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00005**	**.02878**	**-.00075**	**.05095**	**.01940**	**.00005**	**161.98**
Stddev	.00055	.02275	.00134	.00050	.00021	.00001	.28
%RSD	1083.6	79.049	177.97	.97219	1.0830	25.870	.17044
#1	-.00062	.01401	-.00229	.05152	.01937	.00006	162.07
#2	.00048	.01734	-.00001	.05070	.01962	.00004	162.21
#3	-.00001	.05497	.00005	.05064	.01920	.00004	161.68
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00106**	**.00247**	**.00119**	**.00077**	**.21661**	**7.2604**	**.02756**
Stddev	.00004	.00023	.00029	.00030	.00437	.0318	.00107
%RSD	4.2190	9.2497	24.549	38.613	2.0162	.43799	3.8803
#1	.00111	.00274	.00144	.00098	.21226	7.2806	.02780
#2	.00106	.00234	.00126	.00088	.22099	7.2769	.02640
#3	.00102	.00234	.00087	.00043	.21657	7.2238	.02850
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**109.27**	**.42328**	**.00017**	**15.129**	**.00474**	**.00566**	**-.00053**
Stddev	.41	.00069	.00008	.072	.00092	.00252	.00170
%RSD	.37738	.16274	50.716	.47316	19.380	44.543	319.01
#1	109.49	.42407	.00014	15.180	.00395	.00754	.00129
#2	109.54	.42296	.00026	15.161	.00575	.00664	-.00207
#3	108.80	.42282	.00010	15.048	.00452	.00280	-.00081
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



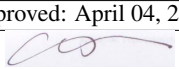
Sample Name: L1403156501 Acquired: 4/3/2014 19:43:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00223**	**.00246**	**2.3195**	**.00016**	**2.5270**	**-.00294**	**-.00164**
Stddev	.00071	.00560	.0134	.00029	.0038	.00079	.00175
%RSD	31.762	227.59	.57781	175.92	.14971	26.952	106.62
#1	.00157	.00581	2.3065	.00050	2.5279	-.00367	-.00200
#2	.00297	.00558	2.3332	.00002	2.5302	-.00306	.00026
#3	.00214	-.00400	2.3188	-.00002	2.5228	-.00210	-.00319
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00033**	**.00279**	F **-.09936**
Stddev	.00007	.00007	.60495
%RSD	20.586	2.5996	608.86
#1	-.00026	.00275	.57951
#2	-.00040	.00287	-.29623
#3	-.00032	.00274	-.58136
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18891.**	**21210.**
Stddev	117.	42.
%RSD	.62043	.20014
#1	18756.	21164.
#2	18947.	21217.
#3	18970.	21248.

Approved: April 04, 2014



Sample Name: L1403156503 Acquired: 4/3/2014 19:46:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00027**	**.05517**	**.00112**	**.02132**	**.02588**	**.00005**	**113.17**	**.00108**
Stddev	.00034	.02069	.00080	.00075	.00037	.00002	.23	.00007
%RSD	127.41	37.495	71.286	3.5276	1.4310	36.311	.20237	6.2646
#1	-.00013	.03394	.00194	.02045	.02609	.00005	113.03	.00114
#2	-.00001	.07527	.00107	.02179	.02610	.00003	113.43	.00109
#3	-.00066	.05630	.00035	.02171	.02546	.00007	113.05	.00101
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**.00059**	**.00054**	**.22846**	**9.0433**	**.00831**	**103.75**	**.26590**
Stddev	.00008	.00016	.00046	.00290	.0623	.00083	.26	.00266
%RSD	36.896	26.659	85.231	1.2683	.68940	9.9885	.25271	1.0001
#1	.00023	.00053	.00101	.23177	8.9790	.00856	103.53	.26286
#2	.00028	.00077	.00055	.22636	9.0475	.00898	104.04	.26779
#3	.00013	.00047	.00008	.22725	9.1035	.00738	103.68	.26706
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**5.2165**	**.00992**	**.00680**	**.00041**	**.00046**	**.00142**	**1.1423**
Stddev	.00007	.0248	.01605	.00592	.00094	.00258	.00362	.0248
%RSD	479.71	.47496	161.69	87.039	229.88	562.09	254.53	2.1712
#1	.00007	5.2109	.00085	.00488	.00098	-.00056	.00090	1.1260
#2	-.00006	5.2436	.00048	.00208	-.00067	-.00145	-.00191	1.1301
#3	-.00005	5.1950	.02845	.01344	.00091	.00340	.00527	1.1709
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403156503 Acquired: 4/3/2014 19:46:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.57314**	**-.00112**	**-.00306**	**-.00001**	**.00317**	**.63565**
Stddev	.00029	.00118	.00066	.00061	.00034	.00088	.49470
%RSD	115.42	.20575	58.998	19.968	4329.8	27.795	77.825
#1	-.00008	.57180	-.00102	-.00376	-.00009	.00253	.42574
#2	.00037	.57357	-.00183	-.00271	.00036	.00281	1.2007
#3	.00047	.57404	-.00051	-.00270	-.00030	.00418	.28053
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19249.**	**21136.**
Stddev	18.	143.
%RSD	.09484	.67716
#1	19233.	21265.
#2	19246.	20982.
#3	19269.	21160.

Approved: April 04, 2014

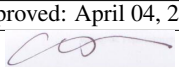
Sample Name: L1403156506 Acquired: 4/3/2014 19:50:24 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**.06739**	**.00010**	**.00697**	**.01762**	**.00006**	**10.730**	**.00027**
Stddev	.00038	.00539	.00066	.00078	.00077	.00002	.022	.00009
%RSD	978.91	8.0060	630.33	11.218	4.3911	32.272	.20959	33.878
#1	-.00024	.07253	.00071	.00720	.01674	.00007	10.704	.00036
#2	.00046	.06177	.00020	.00610	.01792	.00004	10.742	.00018
#3	-.00011	.06786	-.00060	.00761	.01820	.00007	10.744	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00023**	**.00024**	**.00108**	**.12860**	**1.6687**	**.00105**	**8.4181**	**.03137**
Stddev	.00011	.00047	.00091	.00798	.0367	.00110	.1220	.00053
%RSD	48.313	195.96	84.914	6.2062	2.1977	104.10	1.4488	1.7036
#1	-.00024	.00042	.00048	.12171	1.6272	.00223	8.2974	.03084
#2	-.00011	-.00029	.00213	.13734	1.6966	.00086	8.4156	.03135
#3	-.00034	.00059	.00062	.12675	1.6823	.00007	8.5413	.03191
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**2.1097**	**.00029**	**.00021**	**-.00106**	**.00078**	**.00409**	**2.6380**
Stddev	.00019	.0275	.00127	.00296	.00241	.00114	.00319	.0152
%RSD	171.50	1.3019	439.68	1422.6	227.92	146.07	78.044	.57521
#1	.00015	2.0915	.00171	-.00314	.00074	.00180	.00686	2.6474
#2	.00027	2.0964	-.00011	.00126	-.00379	-.00045	.00481	2.6461
#3	-.00009	2.1413	-.00073	.00250	-.00012	.00099	.00060	2.6205
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403156506 Acquired: 4/3/2014 19:50:24 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00133**	**.04965**	**.00083**	**-.00021**	**.00021**	**.05568**	**.26959**
Stddev	.00032	.00051	.00059	.00098	.00003	.00028	1.0218
%RSD	24.050	1.0317	71.411	465.32	13.513	.50364	379.02
#1	.00096	.04907	.00034	.00049	.00018	.05580	1.3858
#2	.00149	.04982	.00149	-.00133	.00023	.05588	.04262
#3	.00153	.05005	.00067	.00021	.00022	.05536	-.61966
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19518.**	**21968.**
Stddev	43.	340.
%RSD	.21954	1.5496
#1	19546.	22357.
#2	19469.	21818.
#3	19540.	21728.

Approved: April 04, 2014

Sample Name: L1403156508 Acquired: 4/3/2014 19:53:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**.01332**	**.00053**	**.00807**	**.03610**	**.00011**	**17.983**
Stddev	.00064	.02410	.00209	.00043	.00040	.00001	.006
%RSD	461.89	180.91	396.08	5.2734	1.1016	9.1257	.03129
#1	-.00047	.03847	.00269	.00847	.03634	.00012	17.987
#2	.00007	.01107	-.00148	.00762	.03632	.00010	17.977
#3	.00081	-.00957	.00037	.00810	.03564	.00010	17.985
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00049**	**-.00025**	**.00076**	**.00098**	**.03725**	**2.0176**	**.00296**
Stddev	.00007	.00016	.00042	.00015	.00507	.0101	.00081
%RSD	14.521	64.552	54.754	15.498	13.617	.50095	27.449
#1	.00041	-.00032	.00111	.00103	.03995	2.0229	.00209
#2	.00053	-.00037	.00030	.00081	.04041	2.0240	.00370
#3	.00053	-.00007	.00089	.00110	.03140	2.0060	.00308
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**15.578**	**.01005**	**.00002**	**1.7191**	**.00282**	F **-.00384**	**.00028**
Stddev	.074	.00016	.00003	.0104	.00054	.00253	.00186
%RSD	.47815	1.5615	137.20	.60634	19.038	65.858	656.49
#1	15.494	.01006	-.00001	1.7137	.00240	-.00652	.00167
#2	15.636	.00989	.00003	1.7125	.00263	-.00149	.00101
#3	15.605	.01020	.00004	1.7311	.00342	-.00351	-.00183
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

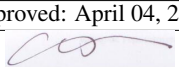
Sample Name: L1403156508 Acquired: 4/3/2014 19:53:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00211**	**.00116**	**2.5774**	**.00085**	**.11937**	**.00061**	**-.00232**
Stddev	.00164	.00130	.0183	.00037	.00020	.00057	.00039
%RSD	77.676	112.38	.71165	43.049	.16784	93.561	16.916
#1	.00338	.00093	2.5983	.00079	.11959	-.00002	-.00227
#2	.00026	.00257	2.5693	.00052	.11933	.00109	-.00273
#3	.00268	-.00001	2.5644	.00125	.11919	.00075	-.00196
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00003**	**.00724**	**.12617**
Stddev	.00022	.00016	.56351
%RSD	846.49	2.2731	446.63
#1	.00005	.00705	.00401
#2	-.00027	.00732	-.36624
#3	.00014	.00734	.74075
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19720.**	**22410.**
Stddev	22.	90.
%RSD	.11275	.40085
#1	19746.	22389.
#2	19704.	22509.
#3	19711.	22333.

Approved: April 04, 2014



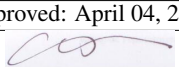
Sample Name: L1403156510 Acquired: 4/3/2014 19:57:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00036**	**.01787**	**.00038**	**.02327**	**.01962**	**.00004**	**149.56**
Stddev	.00020	.01146	.00080	.00051	.00017	.00003	.30
%RSD	54.471	64.151	211.59	2.1926	.85458	67.108	.20210
#1	.00028	.03031	.00079	.02385	.01972	.00002	149.91
#2	.00022	.01555	-.00054	.02289	.01943	.00008	149.43
#3	.00059	.00774	.00089	.02307	.01971	.00004	149.35
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00102**	**-.00021**	**.00028**	**.00040**	**.04186**	**11.579**	**.02468**
Stddev	.00004	.00006	.00032	.00043	.00081	.059	.00255
%RSD	3.7037	26.033	112.99	106.68	1.9410	.51060	10.318
#1	.00100	-.00028	.00024	.00048	.04184	11.616	.02518
#2	.00100	-.00017	.00062	.00079	.04269	11.511	.02192
#3	.00106	-.00019	-.00001	-.00006	.04106	11.610	.02694
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**72.015**	**.00687**	**.00003**	**2.4570**	**.01719**	**.00668**	**-.00154**
Stddev	.219	.00012	.00030	.0155	.00085	.00273	.00099
%RSD	.30411	1.7743	928.83	.63220	4.9393	40.930	64.378
#1	72.240	.00675	.00036	2.4749	.01701	.00982	-.00232
#2	71.803	.00685	-.00003	2.4490	.01644	.00534	-.00043
#3	72.001	.00699	-.00023	2.4471	.01811	.00487	-.00186
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403156510 Acquired: 4/3/2014 19:57:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00086**	**.02479**	**.93312**	**.00015**	**.97348**	**-.00229**	**-.00201**
Stddev	.00118	.00201	.00163	.00016	.00185	.00078	.00020
%RSD	137.60	8.0984	.17479	108.34	.19011	34.166	9.7394
#1	.00049	.02424	.93203	.00033	.97525	-.00225	-.00207
#2	.00217	.02311	.93500	.00009	.97365	-.00310	-.00217
#3	-.00010	.02701	.93235	.00003	.97155	-.00153	-.00179
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00009**	**.01517**	F **-.48704**
Stddev	.00008	.00003	.47600
%RSD	83.039	.22854	97.733
#1	-.00017	.01519	-.65457
#2	-.00003	.01513	-.85662
#3	-.00007	.01519	.05007
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18771.**	**21837.**
Stddev	146.	183.
%RSD	.77931	.83945
#1	18602.	21852.
#2	18860.	22013.
#3	18850.	21647.

Approved: April 04, 2014

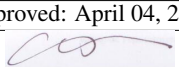
Sample Name: L1403156517 Acquired: 4/3/2014 20:01:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469459-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**.32037**	**.00041**	**.01293**	**.01167**	**.00021**	**71.315**
Stddev	.00014	.01093	.00073	.00044	.00012	.00002	.090
%RSD	43.474	3.4128	179.18	3.3852	1.0276	10.166	.12620
#1	.00043	.31678	.00089	.01305	.01176	.00019	71.221
#2	.00039	.33264	.00077	.01244	.01153	.00023	71.401
#3	.00016	.31167	-.00043	.01329	.01172	.00020	71.323
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00073**	**.00368**	**.00029**	**.00051**	**.06548**	**5.1856**	**.03162**
Stddev	.00011	.00022	.00034	.00018	.00413	.0392	.00105
%RSD	14.898	5.8728	115.65	34.899	6.3090	.75557	3.3239
#1	.00085	.00358	-.00010	.00056	.06129	5.1529	.03269
#2	.00070	.00354	.00051	.00031	.06955	5.1748	.03059
#3	.00064	.00393	.00046	.00066	.06559	5.2290	.03158
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**50.114**	**.99945**	**.00005**	**53.631**	**.00908**	**.00031**	**-.00094**
Stddev	.020	.00715	.00016	.117	.00057	.00323	.00236
%RSD	.03919	.71494	325.25	.21749	6.2869	1047.8	252.37
#1	50.102	1.0077	-.00007	53.747	.00908	.00309	.00178
#2	50.137	.99558	-.00002	53.632	.00851	.00107	-.00250
#3	50.104	.99507	.00023	53.514	.00965	-.00324	-.00209
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403156517 Acquired: 4/3/2014 20:01:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469459-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00270**	**.00359**	**1.7332**	**.00037**	**.28313**	**-.00124**	**-.00082**
Stddev	.00186	.00328	.0003	.00020	.00094	.00080	.00054
%RSD	68.931	91.532	.01608	53.477	.33227	64.548	65.971
#1	.00464	.00036	1.7333	.00044	.28222	-.00068	-.00034
#2	.00093	.00349	1.7334	.00052	.28307	-.00088	-.00140
#3	.00253	.00692	1.7329	.00015	.28409	-.00216	-.00071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00011**	**.00676**	F **-.17718**
Stddev	.00016	.00008	.56474
%RSD	144.02	1.1758	318.75
#1	.00003	.00682	-.54774
#2	-.00028	.00679	-.45659
#3	-.00007	.00667	.47280
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19310.**	**22125.**
Stddev	7.	33.
%RSD	.03519	.14728
#1	19314.	22088.
#2	19314.	22145.
#3	19302.	22143.

Approved: April 04, 2014

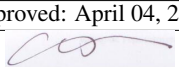
Sample Name: L1403156517MS Acquired: 4/3/2014 20:04:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469459-07

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**5.5561**	**-.00089**	**.01156**	**.01190**	**.00023**	**78.474**
Stddev	.00015	.0347	.00242	.00054	.00011	.00004	.107
%RSD	248.33	.62429	270.48	4.6878	.89836	15.420	.13651
#1	-.00024	5.5745	-.00330	.01164	.01178	.00022	78.574
#2	.00001	5.5161	.00153	.01098	.01194	.00027	78.361
#3	.00005	5.5778	-.00092	.01206	.01199	.00020	78.487
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00086**	**.00388**	**.00043**	**.00061**	**2.0746**	**31.620**	**.03346**
Stddev	.00010	.00016	.00028	.00018	.0031	.061	.00170
%RSD	11.167	4.1266	64.234	29.710	.14875	.19257	5.0901
#1	.00090	.00401	.00069	.00080	2.0781	31.690	.03311
#2	.00094	.00393	.00014	.00043	2.0723	31.579	.03196
#3	.00076	.00370	.00046	.00061	2.0733	31.590	.03531
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**55.880**	**1.2519**	**-.00007**	**79.072**	**.00781**	**-.00236**	**-.00144**
Stddev	.140	.0089	.00009	.248	.00040	.00253	.00237
%RSD	.25070	.71104	115.92	.31393	5.1190	107.13	164.69
#1	55.896	1.2438	-.00017	79.355	.00742	-.00481	.00130
#2	55.733	1.2505	-.00005	78.889	.00822	-.00252	-.00288
#3	56.012	1.2614	.00000	78.973	.00777	.00024	-.00274
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403156517MS Acquired: 4/3/2014 20:04:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469459-07

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00121**	**.00050**	**1.7632**	**.00029**	**.29247**	**-.00197**	**-.00021**
Stddev	.00040	.00249	.0077	.00007	.00065	.00097	.00162
%RSD	33.336	499.38	.43954	25.106	.22325	49.363	769.21
#1	.00155	.00236	1.7549	.00021	.29323	-.00136	.00113
#2	.00131	.00146	1.7702	.00036	.29209	-.00309	-.00201
#3	.00076	-.00232	1.7647	.00029	.29211	-.00146	.00025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00028**	**.00736**	F **-.41327**
Stddev	.00040	.00006	.56751
%RSD	140.20	.80777	137.32
#1	-.00057	.00732	.23716
#2	-.00045	.00733	-.66942
#3	.00017	.00743	-.80754
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19187.**	**22106.**
Stddev	61.	224.
%RSD	.31650	1.0133
#1	19190.	22312.
#2	19125.	22139.
#3	19246.	21868.

Approved: April 04, 2014

Sample Name: L1403165403 Acquired: 4/3/2014 20:08:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**.17586**	**.00190**	**.01776**	**.02407**	**.00006**	**25.734**	**.00026**
Stddev	.00015	.02386	.00195	.00060	.00029	.00001	.075	.00010
%RSD	81.804	13.570	102.59	3.3511	1.1869	20.900	.29190	36.608
#1	.00001	.14979	.00291	.01807	.02375	.00005	25.647	.00023
#2	.00026	.19663	.00315	.01708	.02429	.00006	25.773	.00019
#3	.00026	.18115	-.00035	.01814	.02416	.00007	25.781	.00037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00017**	**.00047**	**.00131**	**.20726**	**1.0732**	**.00235**	**5.7814**	**.00548**
Stddev	.00008	.00011	.00041	.00593	.0777	.00236	.0978	.00025
%RSD	46.133	24.140	31.054	2.8617	7.2387	100.80	1.6924	4.4795
#1	-.00023	.00057	.00135	.20952	1.1629	.00164	5.6705	.00530
#2	-.00020	.00035	.00088	.20053	1.0274	.00498	5.8178	.00537
#3	-.00008	.00050	.00169	.21172	1.0293	.00041	5.8558	.00576
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00396**	**12.303**	**.00040**	**.03538**	**-.00125**	**.00063**	**.00111**	**2.7443**
Stddev	.00018	.032	.00037	.00271	.00194	.00190	.00245	.0211
%RSD	4.5763	.26081	91.315	7.6533	155.18	301.95	220.82	.76809
#1	.00417	12.288	-.00002	.03785	.00094	-.00147	.00011	2.7403
#2	.00386	12.339	.00062	.03249	-.00192	.00223	-.00068	2.7256
#3	.00385	12.281	.00061	.03580	-.00277	.00113	.00390	2.7671
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403165403 Acquired: 4/3/2014 20:08:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00046**	**.25502**	**.00269**	**-.00220**	**.00074**	**.01090**	**1.0191**
Stddev	.00009	.00062	.00128	.00117	.00014	.00014	.7165
%RSD	19.665	.24274	47.389	53.173	19.199	1.2656	70.305
#1	.00041	.25432	.00417	-.00116	.00060	.01081	.79271
#2	.00041	.25528	.00194	-.00197	.00074	.01084	.44312
#3	.00057	.25547	.00197	-.00347	.00089	.01106	1.8213
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19788.**	**21899.**
Stddev	61.	721.
%RSD	.30611	3.2908
#1	19726.	22624.
#2	19847.	21892.
#3	19791.	21182.

Approved: April 04, 2014

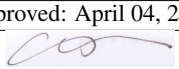
Sample Name: L1403165406 Acquired: 4/3/2014 20:11:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**.11834**	**.00030**	**.02515**	**.04147**	**.00005**	**24.417**	**.00023**
Stddev	.00008	.01903	.00119	.00101	.00030	.00002	.060	.00013
%RSD	42.588	16.084	389.59	4.0107	.73321	33.245	.24714	57.311
#1	.00014	.11972	.00165	.02464	.04118	.00003	24.357	.00009
#2	.00014	.09865	-.00016	.02632	.04145	.00006	24.417	.00035
#3	.00027	.13664	-.00058	.02450	.04179	.00007	24.478	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00007**	**.00027**	**.00112**	**.26967**	**1.8417**	**.00416**	**7.7102**	**.03180**
Stddev	.00009	.00012	.00029	.00561	.0238	.00107	.0589	.00037
%RSD	122.42	44.716	25.998	2.0800	1.2896	25.789	.76395	1.1762
#1	.00001	.00022	.00121	.26723	1.8144	.00412	7.6427	.03137
#2	-.00006	.00018	.00136	.26570	1.8527	.00311	7.7510	.03200
#3	-.00017	.00040	.00080	.27609	1.8580	.00525	7.7369	.03203
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00088**	**41.987**	**.00048**	**.03301**	**.00027**	**.00095**	**.00057**	**.67665**
Stddev	.00021	.222	.00035	.00359	.00021	.00092	.00190	.00504
%RSD	23.473	.52780	72.802	10.882	79.336	96.750	334.28	.74494
#1	.00071	41.754	.00087	.03013	.00042	.00082	.00241	.67966
#2	.00110	42.012	.00036	.03703	.00035	.00193	.00069	.67947
#3	.00081	42.195	.00020	.03186	.00003	.00010	-.00139	.67083
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403165406 Acquired: 4/3/2014 20:11:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**.34334**	**.00103**	**-.00062**	**.00091**	**.01067**	**1.0476**
Stddev	.00006	.00081	.00165	.00082	.00003	.00007	.4176
%RSD	19.883	.23668	161.25	131.76	2.7796	.66788	39.860
#1	.00024	.34302	.00175	.00027	.00088	.01071	.56709
#2	.00036	.34273	-.00087	-.00080	.00092	.01071	1.2535
#3	.00031	.34426	.00219	-.00134	.00093	.01059	1.3223
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19454.**	**22108.**
Stddev	22.	300.
%RSD	.11460	1.3589
#1	19428.	22452.
#2	19465.	21969.
#3	19469.	21901.

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 20:15:18 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.42286**	**10.153**	**.40973**	**.53865**	**1.0092**	**.05204**	**10.223**
Stddev	.00058	.023	.00138	.00318	.0083	.00011	.047
%RSD	.13790	.22961	.33752	.58948	.81915	.21340	.45994
#1	.42352	10.156	.40886	.53540	1.0002	.05208	10.169
#2	.42244	10.174	.40901	.53881	1.0111	.05212	10.243
#3	.42261	10.128	.41133	.54175	1.0164	.05191	10.257
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05213**	**.20887**	**.52001**	**.52558**	**4.0675**	**51.498**	**1.0072**
Stddev	.00012	.00053	.00252	.00085	.0118	.081	.0082
%RSD	.22148	.25309	.48495	.16188	.29058	.15812	.81097
#1	.05224	.20945	.52103	.52655	4.0625	51.564	.99790
#2	.05213	.20842	.52186	.52497	4.0591	51.407	1.0103
#3	.05201	.20874	.51714	.52523	4.0810	51.524	1.0133
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.126**	**.52477**	**1.0260**	**49.797**	**.51757**	**10.339**	**.51976**
Stddev	.093	.02700	.0027	.216	.00162	.062	.00131
%RSD	.91959	5.1452	.25946	.43462	.31291	.60128	.25149
#1	10.230	.55588	1.0244	49.602	.51745	10.409	.52056
#2	10.051	.51104	1.0290	49.760	.51602	10.321	.52048
#3	10.097	.50740	1.0244	50.030	.51925	10.288	.51825
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 20:15:18 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2311**	**.41566**	**5.1297**	**1.0527**	**1.0368**	**.99578**	**.51026**
Stddev	.0069	.00266	.0040	.0044	.0064	.00221	.00368
%RSD	.56412	.64044	.07839	.41480	.61586	.22225	.72062
#1	1.2317	.41638	5.1293	1.0539	1.0294	.99323	.50646
#2	1.2238	.41271	5.1258	1.0478	1.0404	.99702	.51052
#3	1.2377	.41788	5.1338	1.0563	1.0405	.99711	.51380
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0411**	**1.0464**	F **.64547**
Stddev	.0014	.0031	1.3267
%RSD	.13436	.29621	205.54
#1	1.0427	1.0462	.66573
#2	1.0403	1.0497	1.9619
#3	1.0402	1.0435	-.69123
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19659.**	**21729.**
Stddev	16.	1047.
%RSD	.08297	4.8195
#1	19678.	20523.
#2	19653.	22255.
#3	19647.	22410.

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/3/2014 20:18:35 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.01823**	**.00017**	**.00192**	**.00037**	**.00003**	**-.00341**
Stddev	.00054	.00859	.00069	.00035	.00019	.00002	.00306
%RSD	522.52	47.127	402.77	18.063	52.701	63.864	89.663
#1	-.00016	.01340	.00021	.00165	.00053	.00001	-.00607
#2	.00072	.02815	.00084	.00231	.00015	.00004	-.00410
#3	-.00025	.01314	-.00053	.00180	.00042	.00003	-.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**-.00003**	**.00021**	**-.00047**	**.00446**	**.01613**	**-.00061**
Stddev	.00003	.00014	.00016	.00026	.00430	.03505	.00169
%RSD	71.715	445.72	74.844	56.097	96.452	217.33	276.60
#1	.00006	.00010	.00030	-.00021	.00699	.03949	-.00256
#2	.00001	-.00017	.00003	-.00046	-.00051	.03306	.00044
#3	.00003	-.00002	.00032	-.00074	.00688	-.02417	.00028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00343**	**-.00003**	**.00012**	**.00430**	**.00012**	**-.00198**	**-.00165**
Stddev	.02443	.00006	.00013	.00388	.00032	.00325	.00124
%RSD	713.30	221.71	114.99	90.297	263.74	163.88	74.844
#1	.02402	-.00001	.00005	.00874	.00008	-.00284	-.00217
#2	-.01149	-.00009	.00027	.00259	-.00018	-.00472	-.00024
#3	-.02280	.00002	.00003	.00156	.00046	.00161	-.00254
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/3/2014 20:18:35 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00040**	**-.00206**	**-.00259**	**.00009**	**.00012**	**-.00091**	**.00007**
Stddev	.00051	.00277	.00067	.00012	.00006	.00060	.00190
%RSD	128.18	134.66	25.968	128.73	54.073	65.992	2576.6
#1	-.00054	.00099	-.00335	.00008	.00006	-.00051	.00116
#2	-.00083	-.00272	-.00208	-.00002	.00019	-.00062	.00118
#3	.00017	-.00443	-.00233	.00022	.00010	-.00160	-.00212
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00011**	**-.00002**	F **.18478**
Stddev	.00029	.00007	.15374
%RSD	275.92	394.17	83.202
#1	.00030	-.00003	.34354
#2	.00025	-.00008	.17420
#3	-.00023	.00006	.03660
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20012.**	**21411.**
Stddev	18.	210.
%RSD	.09054	.97919
#1	19995.	21616.
#2	20011.	21419.
#3	20031.	21197.

Approved: April 04, 2014

Sample Name: L1403165408 Acquired: 4/3/2014 20:22:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**.07589**	**.00282**	**.09695**	**.01626**	**.00000**	**48.333**	**.00028**
Stddev	.00024	.03947	.00160	.00135	.00006	.0000	.038	.00015
%RSD	663.26	52.007	56.795	1.3954	.35915	499.40	.07938	54.173
#1	-.00008	.08511	.00368	.09541	.01622	.00001	48.377	.00045
#2	.00031	.10994	.00097	.09793	.01632	-.00001	48.311	.00015
#3	-.00012	.03263	.00380	.09751	.01623	-.00001	48.310	.00024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**.00056**	**.00099**	**.08988**	**2.7771**	**.01251**	**8.3583**	**.06708**
Stddev	.00011	.00034	.00043	.00771	.0127	.00194	.0481	.00274
%RSD	77.257	60.307	43.119	8.5786	.45912	15.527	.57503	4.0829
#1	.00021	.00080	.00142	.09878	2.7842	.01378	8.3274	.06392
#2	.00002	.00070	.00057	.08549	2.7623	.01028	8.3338	.06844
#3	.00018	.00017	.00097	.08537	2.7847	.01349	8.4137	.06887
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01304**	**171.25**	**.00573**	**.01083**	**-.00013**	**.00274**	**.00164**	**.75391**
Stddev	.00021	.35	.00036	.00417	.00148	.00072	.00227	.00467
%RSD	1.6289	.20576	6.2571	38.474	1176.0	26.378	137.95	.61983
#1	.01293	171.65	.00543	.00676	-.00024	.00297	-.00097	.75126
#2	.01291	171.10	.00613	.01509	-.00155	.00193	.00284	.75931
#3	.01329	171.00	.00564	.01064	.00141	.00331	.00306	.75117
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403165408 Acquired: 4/3/2014 20:22:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00055**	**.62415**	**-.00019**	**-.00082**	**.00013**	**.00501**	**.28930**
Stddev	.00034	.00114	.00030	.00183	.00018	.00014	.73956
%RSD	62.776	.18233	157.27	224.28	135.36	2.8671	255.63
#1	.00041	.62500	-.00017	.00047	-.00002	.00510	-.40606
#2	.00094	.62458	.00010	-.00001	.00032	.00509	1.0663
#3	.00030	.62285	-.00049	-.00292	.00008	.00485	.20769
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19208.**	**20597.**
Stddev	40.	279.
%RSD	.20924	1.3561
#1	19165.	20911.
#2	19214.	20506.
#3	19245.	20375.

Approved: April 04, 2014

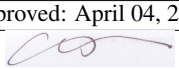
Sample Name: L1403165601 Acquired: 4/3/2014 20:25:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**.54688**	**.00067**	**.00729**	**.01832**	**.00009**	**12.379**	**.00021**
Stddev	.00026	.01432	.00139	.00071	.00021	.00001	.041	.00011
%RSD	249.32	2.6190	207.45	9.7414	1.1671	17.200	.32755	51.674
#1	.00033	.55438	.00186	.00661	.01810	.00007	12.338	.00018
#2	.00017	.53036	-.00086	.00803	.01835	.00010	12.419	.00034
#3	-.00018	.55590	.00101	.00724	.01852	.00009	12.379	.00013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**.00133**	**.00074**	**.49209**	**.70077**	**.00035**	**2.4536**	**.01038**
Stddev	.00021	.00024	.00054	.00167	.01548	.00163	.0244	.00010
%RSD	252.69	17.690	73.403	.33912	2.2096	463.44	.99580	.92689
#1	.00015	.00146	.00069	.49319	.71785	-.00078	2.4444	.01049
#2	-.00026	.00106	.00022	.49017	.69683	-.00039	2.4351	.01034
#3	-.00014	.00147	.00130	.49291	.68764	.00222	2.4813	.01032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**1.8902**	**.00083**	**.01004**	**-.00022**	**.00126**	**-.00153**	**3.3038**
Stddev	.00021	.0106	.00019	.00095	.00181	.00178	.00171	.0128
%RSD	146.15	.56127	23.534	9.4897	807.27	141.89	112.07	.38716
#1	-.00002	1.9012	.00100	.01001	-.00214	-.00065	.00044	3.2890
#2	.00007	1.8800	.00062	.01100	.00145	.00289	-.00270	3.3104
#3	.00039	1.8896	.00087	.00910	.00001	.00152	-.00233	3.3119
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403165601 Acquired: 4/3/2014 20:25:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00058**	**.04973**	**.00951**	**-.00182**	**.00111**	**.00427**	**2.5975**
Stddev	.00024	.00049	.00049	.00167	.00028	.00003	.6927
%RSD	41.594	.99352	5.1070	91.812	25.753	.72781	26.670
#1	.00069	.05006	.00960	.00004	.00083	.00423	1.8427
#2	.00031	.04916	.00898	-.00320	.00110	.00430	2.7455
#3	.00076	.04997	.00994	-.00229	.00140	.00427	3.2043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20066.**	**22414.**
Stddev	74.	110.
%RSD	.36953	.48882
#1	20012.	22312.
#2	20035.	22399.
#3	20150.	22530.

Approved: April 04, 2014

Sample Name: L1403165604 Acquired: 4/3/2014 20:29:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**.24924**	**.00014**	**.03690**	**.01767**	**.00003**	**44.693**	**.00038**
Stddev	.0003	.02883	.00174	.00093	.00012	.00002	.094	.00013
%RSD	186860.	11.567	1255.1	2.5119	.67142	53.407	.20992	35.237
#1	.00034	.22495	-.00186	.03625	.01766	.00003	44.591	.00027
#2	-.00017	.24169	.00094	.03649	.01755	.00002	44.713	.00053
#3	-.00017	.28110	.00133	.03796	.01779	.00005	44.776	.00034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00025**	**.00106**	**.00304**	**.23903**	**.83937**	**.00287**	**5.3893**	**.01541**
Stddev	.00015	.00044	.00039	.00497	.03798	.00046	.0379	.00053
%RSD	61.833	41.280	12.777	2.0774	4.5254	15.969	.70380	3.4222
#1	-.00016	.00061	.00340	.23574	.85366	.00309	5.3461	.01498
#2	-.00042	.00108	.00308	.24475	.79632	.00319	5.4170	.01525
#3	-.00016	.00149	.00263	.23662	.86815	.00235	5.4049	.01600
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00059**	**55.471**	**.00078**	**.24728**	**-.00219**	**.00039**	**.00454**	**2.1496**
Stddev	.00006	.131	.00033	.00210	.00052	.00118	.00129	.0163
%RSD	11.014	.23535	41.806	.85090	23.636	304.66	28.310	.75767
#1	.00066	55.323	.00076	.24742	-.00267	.00174	.00407	2.1308
#2	.00053	55.569	.00112	.24511	-.00164	-.00015	.00600	2.1599
#3	.00059	55.522	.00047	.24931	-.00225	-.00042	.00356	2.1580
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403165604 Acquired: 4/3/2014 20:29:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00065**	**.21969**	**.00263**	**-.00150**	**.00140**	**.05978**	**2.2099**
Stddev	.00032	.00075	.00057	.00085	.00013	.00021	.8729
%RSD	49.976	.34125	21.822	56.235	9.3356	.35692	39.498
#1	.00084	.21959	.00198	-.00095	.00138	.05998	1.7476
#2	.00082	.21900	.00286	-.00108	.00153	.05956	1.6653
#3	.00027	.22049	.00306	-.00248	.00127	.05979	3.2166
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19535.**	**21455.**
Stddev	144.	365.
%RSD	.73831	1.6999
#1	19369.	21864.
#2	19618.	21337.
#3	19618.	21164.

Approved: April 04, 2014

Sample Name: L1403165606 Acquired: 4/3/2014 20:32:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00069**	**.80119**	**.00049**	**.01402**	**.02723**	**.00014**	**31.655**	**.00022**
Stddev	.00038	.01797	.00074	.00070	.00003	.00003	.009	.00002
%RSD	54.795	2.2424	151.51	5.0021	.11663	20.864	.02711	7.5640
#1	.00112	.81207	-.00004	.01378	.02721	.00017	31.658	.00023
#2	.00056	.78046	.00134	.01481	.02727	.00013	31.645	.00020
#3	.00039	.81105	.00017	.01347	.02721	.00011	31.661	.00022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.00168**	**.00240**	**.49227**	**1.6369**	**.00421**	**6.0149**	**.02090**
Stddev	.00008	.00054	.00005	.00581	.0201	.00161	.0180	.00002
%RSD	65.259	31.828	1.9333	1.1799	1.2286	38.383	.29915	.10714
#1	.00020	.00230	.00239	.49140	1.6237	.00396	5.9942	.02091
#2	.00004	.00139	.00236	.49847	1.6601	.00593	6.0262	.02091
#3	.00015	.00135	.00245	.48695	1.6271	.00273	6.0244	.02087
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00139**	**42.589**	**.00139**	**.07119**	**.00110**	**.00083**	**-.00220**	**2.3698**
Stddev	.00021	.023	.00021	.00381	.00132	.00210	.00216	.0186
%RSD	15.142	.05299	15.021	5.3485	120.15	253.47	98.122	.78627
#1	.00164	42.597	.00144	.07383	.00052	-.00154	-.00446	2.3686
#2	.00128	42.608	.00116	.07292	.00016	.00248	-.00199	2.3891
#3	.00126	42.564	.00157	.06682	.00260	.00155	-.00015	2.3519
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403165606 Acquired: 4/3/2014 20:32:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00092**	**.20286**	**.00647**	**-.00177**	**.00198**	**.02273**	**8.9288**
Stddev	.00018	.00023	.00075	.00115	.00007	.00007	.0994
%RSD	19.599	.11282	11.622	65.154	3.5358	.28828	1.1131
#1	.00094	.20304	.00688	-.00086	.00204	.02279	8.9383
#2	.00109	.20295	.00560	-.00307	.00190	.02266	8.8250
#3	.00073	.20260	.00693	-.00138	.00201	.02274	9.0231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19495.**	**22611.**
Stddev	58.	99.
%RSD	.29848	.43929
#1	19434.	22658.
#2	19502.	22679.
#3	19550.	22497.

Approved: April 04, 2014

Sample Name: L1403165608 Acquired: 4/3/2014 20:36:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**.00690**	**.00103**	**.05090**	**.02224**	**.00002**	**47.613**	**.00033**
Stddev	.00040	.01231	.00188	.00090	.00021	.00002	.045	.00012
%RSD	213.06	178.49	181.57	1.7628	.96526	93.420	.09495	35.328
#1	-.00037	.01917	.00293	.05050	.02199	.00003	47.620	.00046
#2	-.00046	.00698	-.00082	.05192	.02233	.00002	47.565	.00023
#3	.00027	-.00546	.00098	.05027	.02239	.00000	47.654	.00030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00007**	**.00028**	**.00153**	**.01941**	**4.1302**	**.04583**	**10.993**	**.07160**
Stddev	.00011	.00022	.00064	.00258	.0181	.00044	.069	.00016
%RSD	166.78	76.708	42.005	13.268	.43793	.95365	.62672	.22948
#1	-.00018	.00045	.00161	.02154	4.1103	.04592	10.915	.07176
#2	.00004	.00037	.00212	.01655	4.1457	.04621	11.048	.07143
#3	-.00007	.00004	.00085	.02014	4.1346	.04535	11.014	.07161
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00076**	**89.986**	**.00106**	**.17910**	**-.00205**	**.00171**	**.00156**	**4.0961**
Stddev	.00014	.275	.00050	.00182	.00139	.00083	.00265	.0040
%RSD	18.251	.30506	47.116	1.0147	67.723	48.751	170.05	.09822
#1	.00060	89.796	.00063	.17923	-.00350	.00220	-.00071	4.0917
#2	.00086	90.301	.00161	.18085	-.00194	.00075	.00091	4.0996
#3	.00083	89.861	.00095	.17722	-.00073	.00219	.00448	4.0969
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403165608 Acquired: 4/3/2014 20:36:23 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00047**	**.34115**	**-.00102**	**-.00167**	**.00053**	**.00464**	**.27219**
Stddev	.00027	.00053	.00008	.00137	.00044	.00005	.52447
%RSD	56.163	.15535	7.9436	81.643	82.506	1.0679	192.69
#1	.00063	.34132	-.00111	-.00149	.00091	.00459	-.23544
#2	.00063	.34055	-.00095	-.00041	.00062	.00469	.23999
#3	.00017	.34157	-.00100	-.00313	.00005	.00465	.81202
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19347.**	**22324.**
Stddev	13.	55.
%RSD	.06930	.24700
#1	19358.	22336.
#2	19350.	22373.
#3	19332.	22265.

Approved: April 04, 2014

Sample Name: L1403165610 Acquired: 4/3/2014 20:39:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**.03717**	**-.00058**	**.00949**	**.02399**	**.00003**	**24.486**	**.00021**
Stddev	.00030	.02544	.00089	.00067	.00023	.00002	.072	.00009
%RSD	164.85	68.439	152.51	7.0874	.94303	57.225	.29538	45.209
#1	-.00013	.00834	-.00046	.01017	.02393	.00005	24.461	.00012
#2	.00021	.04672	.00024	.00883	.02424	.00003	24.430	.00020
#3	.00046	.05644	-.00152	.00947	.02379	.00001	24.568	.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**.00046**	**.00095**	**.12889**	**1.3569**	**.00066**	**3.8844**	**.03748**
Stddev	.00008	.00036	.00020	.00366	.0306	.00068	.0337	.00088
%RSD	46.246	78.162	21.141	2.8432	2.2527	102.70	.86790	2.3513
#1	-.00025	.00081	.00078	.12681	1.3478	.00087	3.8499	.03665
#2	-.00019	.00049	.00117	.12675	1.3909	.00122	3.8861	.03739
#3	-.00009	.00009	.00089	.13312	1.3318	-.00010	3.9173	.03840
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**2.7130**	**.00019**	**.00226**	**-.00010**	**.00117**	**.00052**	**1.5746**
Stddev	.00009	.0094	.00019	.00186	.00059	.00173	.00200	.0026
%RSD	180.84	.34461	98.695	82.371	601.40	147.26	382.47	.16568
#1	.00012	2.7118	-.00001	.00297	-.00049	.00310	.00261	1.5766
#2	.00009	2.7043	.00035	.00015	.00058	-.00024	-.00138	1.5757
#3	-.00006	2.7229	.00023	.00365	-.00038	.00065	.00033	1.5717
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403165610 Acquired: 4/3/2014 20:39:56 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00072**	**.07013**	**.00155**	**-.00151**	**.00033**	**.00208**	**1.1135**
Stddev	.00029	.00010	.00005	.00219	.00035	.00002	.7077
%RSD	40.484	.14527	3.3084	145.07	106.44	1.0486	63.557
#1	.00059	.07023	.00158	.00090	.00008	.00207	1.0954
#2	.00052	.07013	.00149	-.00207	.00073	.00207	1.8300
#3	.00106	.07003	.00157	-.00337	.00017	.00211	.41497
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19821.**	**21474.**
Stddev	59.	610.
%RSD	.29946	2.8387
#1	19839.	22007.
#2	19869.	21605.
#3	19754.	20809.

Approved: April 04, 2014

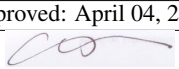
Sample Name: CCV Acquired: 4/3/2014 20:43:32 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.42030**	**10.284**	**.41066**	**.53616**	**1.0063**	**.05261**	**10.326**
Stddev	.00240	.023	.00276	.00370	.0011	.00028	.027
%RSD	.57191	.21914	.67137	.68991	.11087	.53476	.25821
#1	.42230	10.263	.40949	.53810	1.0062	.05284	10.352
#2	.42096	10.282	.40867	.53850	1.0074	.05270	10.299
#3	.41763	10.308	.41381	.53190	1.0052	.05229	10.328
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05176**	**.20963**	**.52695**	**.52435**	**4.0172**	**51.926**	**1.0073**
Stddev	.00007	.00028	.00257	.00201	.0171	.051	.0006
%RSD	.14067	.13556	.48839	.38281	.42535	.09750	.05813
#1	.05178	.20936	.52846	.52267	4.0367	51.876	1.0078
#2	.05169	.20961	.52841	.52381	4.0103	51.977	1.0066
#3	.05183	.20993	.52398	.52657	4.0048	51.926	1.0074
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.074**	**.50814**	**1.0286**	**49.156**	**.51573**	**10.320**	**.51705**
Stddev	.043	.00330	.0089	.114	.00054	.068	.00313
%RSD	.43006	.64947	.86325	.23091	.10492	.65458	.60622
#1	10.123	.51195	1.0185	49.264	.51542	10.245	.51447
#2	10.055	.50632	1.0321	49.165	.51541	10.338	.52054
#3	10.043	.50615	1.0352	49.038	.51635	10.376	.51613
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014



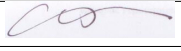
Sample Name: CCV Acquired: 4/3/2014 20:43:32 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2367**	**.42346**	**5.1264**	**1.0674**	**1.0583**	**.99697**	**.51200**
Stddev	.0068	.00306	.0260	.0024	.0012	.00408	.00233
%RSD	.54825	.72200	.50622	.22272	.11752	.40941	.45435
#1	1.2298	.42131	5.0997	1.0684	1.0570	1.0009	.50933
#2	1.2368	.42211	5.1281	1.0648	1.0582	.99723	.51310
#3	1.2434	.42696	5.1515	1.0692	1.0595	.99276	.51358
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0331**	**1.0453**	F **1.2964**
Stddev	.0065	.0033	.0989
%RSD	.63234	.31626	7.6308
#1	1.0381	1.0491	1.2974
#2	1.0355	1.0438	1.1970
#3	1.0257	1.0430	1.3948
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19698.**	**22213.**
Stddev	110.	130.
%RSD	.55827	.58546
#1	19612.	22064.
#2	19661.	22270.
#3	19822.	22305.

Approved: April 04, 2014



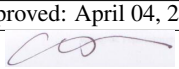
Sample Name: CCB Acquired: 4/3/2014 20:46:48 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**.00304**	**-.00083**	**.00055**	**.00006**	**.00003**	**.01056**	**-.00006**
Stddev	.00032	.00832	.00128	.00057	.00008	.00003	.00314	.00009
%RSD	403.87	273.62	154.16	103.08	145.90	117.64	29.714	132.52
#1	-.00043	-.00656	-.00052	.00037	.00013	.00002	.00799	-.00015
#2	-.00001	.00799	.00026	.00010	.00008	.00000	.01405	.00002
#3	.00020	.00769	-.00224	.00120	-.00003	.00006	.00962	-.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**.00025**	**.00063**	**-.00079**	**-.00449**	**-.00085**	**-.00974**	**-.00003**
Stddev	.00032	.00015	.00041	.00545	.01694	.00056	.02298	.00005
%RSD	1374.8	59.612	64.762	691.23	377.26	65.946	235.99	213.73
#1	.00003	.00014	.00088	-.00377	.01438	-.00144	-.02382	-.00007
#2	.00034	.00019	.00087	-.00410	-.01838	-.00032	-.02218	-.00005
#3	-.00029	.00041	.00016	.00551	-.00947	-.00081	.01678	.00004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**-.00292**	**.00021**	**-.00265**	**-.00117**	**-.00048**	**.00143**	**-.00217**
Stddev	.00012	.00702	.00094	.00395	.00232	.00224	.00437	.00102
%RSD	128.40	240.70	439.17	148.96	198.09	466.01	305.86	47.141
#1	.00008	.00404	.00014	-.00647	-.00323	.00061	-.00319	-.00205
#2	.00023	-.01000	.00119	-.00291	-.00162	.00101	.00198	-.00121
#3	-.00002	-.00280	-.00069	.00142	.00134	-.00306	.00549	-.00324
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: CCB Acquired: 4/3/2014 20:46:48 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00040**	**.00004**	**-.00137**	**-.00062**	**.00006**	**-.00013**	**.02295**
Stddev	.00045	.00003	.00206	.00214	.00040	.00006	.51216
%RSD	112.64	92.334	150.71	347.23	649.95	45.407	2231.7
#1	-.00011	.00002	.00032	-.00117	.00040	-.00006	.52339
#2	.00072	.00008	-.00366	-.00242	-.00039	-.00015	.04565
#3	.00058	.00001	-.00076	.00174	.00018	-.00017	-.50019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20267.**	**22181.**
Stddev	43.	266.
%RSD	.20996	1.1998
#1	20316.	22485.
#2	20250.	21992.
#3	20236.	22065.

Approved: April 04, 2014

Sample Name: PBW 02 Acquired: 4/3/2014 20:50:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469536-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00038**	**.01810**	**.00111**	**.00127**	**-.00007**	**.00003**	**.01502**
Stddev	.00020	.02006	.00047	.00077	.00010	.00003	.00615
%RSD	52.567	110.83	42.883	60.637	128.31	81.186	40.913
#1	.00039	.03048	.00088	.00048	-.00016	.00003	.01885
#2	.00057	.02887	.00078	.00130	-.00008	.00007	.00793
#3	.00017	-.00505	.00165	.00202	.00003	.00001	.01827
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**-.00024**	**.00016**	**.00061**	**.00068**	**.02732**	**.00014**
Stddev	.00014	.00013	.00016	.00021	.00146	.01738	.00043
%RSD	106.32	54.790	100.14	35.281	214.20	63.610	309.53
#1	.00007	-.00014	-.00002	.00036	.00212	.04401	.00061
#2	.00029	-.00019	.00027	.00075	.00071	.00933	.00002
#3	.00004	-.00039	.00022	.00071	-.00079	.02860	-.00022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00293**	**.00012**	**.00020**	**.00145**	**.00009**	F **-.00355**	**-.00103**
Stddev	.00788	.00005	.00024	.01177	.00075	.00236	.00146
%RSD	268.69	41.537	123.89	810.87	809.11	66.299	141.63
#1	.01185	.00017	.00038	-.00466	-.00073	-.00308	-.00262
#2	.00006	.00007	.00029	-.00601	.00028	-.00611	-.00074
#3	-.00311	.00014	-.00008	.01502	.00074	-.00147	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

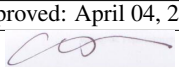
Sample Name: PBW 02 Acquired: 4/3/2014 20:50:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469536-03

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00087**	**.00114**	**-.00342**	**.00054**	**.00007**	**-.00089**	**-.00241**
Stddev	.00062	.00214	.00097	.00048	.00010	.00139	.00059
%RSD	71.095	187.84	28.433	89.020	127.97	155.58	24.344
#1	-.00031	-.00133	-.00245	.00068	-.00003	.00022	-.00196
#2	-.00153	.00233	-.00340	.00000	.00011	-.00045	-.00307
#3	-.00076	.00241	-.00440	.00093	.00015	-.00245	-.00219
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00007**	**.00123**	**.91363**
Stddev	.00010	.00009	.30036
%RSD	155.16	6.9312	32.875
#1	.00015	.00131	1.1396
#2	.00009	.00114	1.0285
#3	-.00005	.00123	.57279
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19629.**	**21916.**
Stddev	97.	283.
%RSD	.49583	1.2909
#1	19638.	22236.
#2	19721.	21811.
#3	19527.	21700.

Approved: April 04, 2014



Sample Name: LCSW 02 Acquired: 4/3/2014 20:54:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469536-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21035**	**5.0890**	**.20284**	**1.1009**	**.49565**	**.02573**	**5.1317**
Stddev	.00123	.0415	.00119	.0068	.00200	.00016	.0331
%RSD	.58690	.81499	.58804	.62010	.40281	.63078	.64440
#1	.20892	5.1369	.20148	1.0941	.49467	.02555	5.1251
#2	.21101	5.0642	.20373	1.1008	.49794	.02584	5.1675
#3	.21111	5.0660	.20330	1.1077	.49432	.02581	5.1024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02582**	**.10486**	**.25947**	**.26273**	**2.0147**	**25.537**	**.49770**
Stddev	.00015	.00010	.00092	.00046	.0070	.090	.00155
%RSD	.57163	.09270	.35276	.17528	.34938	.35056	.31199
#1	.02571	.10481	.25860	.26266	2.0104	25.535	.49740
#2	.02577	.10479	.25938	.26230	2.0228	25.627	.49937
#3	.02599	.10497	.26042	.26322	2.0108	25.448	.49631
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.9700**	**.26195**	**.51593**	**24.302**	**.25933**	F **-.01411**	**.25988**
Stddev	.0101	.00057	.00160	.009	.00144	.00298	.00138
%RSD	.20361	.21879	.31038	.03645	.55425	21.139	.53262
#1	4.9805	.26141	.51543	24.292	.25873	-.01578	.26066
#2	4.9692	.26190	.51465	24.308	.25830	-.01590	.25828
#3	4.9604	.26255	.51773	24.307	.26098	-.01067	.26069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

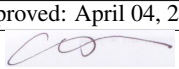
Sample Name: LCSW 02 Acquired: 4/3/2014 20:54:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469536-04

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.62222**	**.20822**	**2.5809**	**.00828**	**.51791**	**.48783**	**.25612**
Stddev	.00541	.00217	.0191	.00038	.00345	.00148	.00324
%RSD	.86885	1.0431	.74031	4.5622	.66570	.30315	1.2644
#1	.61967	.20963	2.5813	.00790	.51938	.48788	.25884
#2	.61856	.20572	2.5616	.00829	.52037	.48928	.25253
#3	.62843	.20932	2.5998	.00866	.51397	.48632	.25698
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.51652**	**.52358**	**12.950**
Stddev	.00311	.00086	.333
%RSD	.60135	.16499	2.5744
#1	.51298	.52335	13.080
#2	.51782	.52286	13.199
#3	.51877	.52454	12.572
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19578.**	**21530.**
Stddev	27.	62.
%RSD	.13980	.28590
#1	19573.	21466.
#2	19608.	21589.
#3	19554.	21536.

Approved: April 04, 2014



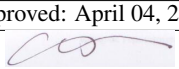
Sample Name: L1403156701 Acquired: 4/3/2014 20:57:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469536-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00042**	**.03576**	**.00023**	**.05278**	**.01960**	**.00006**	**132.71**
Stddev	.00024	.02491	.00076	.00059	.00028	.00001	.12
%RSD	57.077	69.645	333.04	1.1246	1.4537	16.497	.09083
#1	.00057	.05922	.00045	.05216	.01964	.00006	132.82
#2	.00014	.00963	-.00062	.05335	.01930	.00007	132.74
#3	.00054	.03844	.00086	.05281	.01986	.00005	132.58
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00105**	**.00058**	**.00047**	**.00082**	**.19318**	**7.5475**	**.03559**
Stddev	.00006	.00017	.00017	.00051	.00368	.0528	.00120
%RSD	6.0092	30.065	35.757	62.600	1.9057	.69910	3.3663
#1	.00101	.00038	.00028	.00032	.19625	7.5462	.03619
#2	.00112	.00068	.00061	.00134	.18910	7.4954	.03421
#3	.00101	.00068	.00052	.00079	.19419	7.6009	.03637
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**74.905**	**.15318**	**.00019**	**9.4012**	**.01079**	**.00340**	**-.00167**
Stddev	.079	.00120	.00015	.0233	.00041	.00249	.00222
%RSD	.10595	.78616	77.138	.24767	3.7631	73.216	133.28
#1	74.966	.15179	.00035	9.4192	.01122	.00464	-.00024
#2	74.934	.15379	.00007	9.4094	.01073	.00053	-.00054
#3	74.815	.15395	.00014	9.3749	.01041	.00502	-.00422
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403156701 Acquired: 4/3/2014 20:57:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469536-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00269**	**.00634**	**2.2898**	**.00038**	**1.5203**	**-.00315**	**-.00226**
Stddev	.00168	.00280	.0181	.00037	.0024	.00100	.00061
%RSD	62.374	44.202	.79100	95.224	.16141	31.588	27.223
#1	.00461	.00910	2.2937	-.00001	1.5225	-.00201	-.00161
#2	.00145	.00350	2.3057	.00044	1.5207	-.00386	-.00233
#3	.00202	.00642	2.2701	.00072	1.5177	-.00358	-.00283
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00030**	**.01026**	F **-.61907**
Stddev	.00028	.00003	.34257
%RSD	91.452	.27778	55.336
#1	-.00001	.01029	-1.0067
#2	-.00034	.01024	-.35692
#3	-.00056	.01024	-.49361
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18994.**	**21601.**
Stddev	37.	246.
%RSD	.19399	1.1390
#1	19036.	21876.
#2	18968.	21526.
#3	18978.	21402.

Approved: April 04, 2014

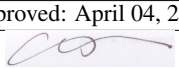
Sample Name: L1403156701DUP Acquired: 4/3/2014 21:00:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469536-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00011**	**.04086**	**-.00066**	**.05122**	**.01971**	**.00007**	**133.42**
Stddev	.00007	.00465	.00101	.00086	.00023	.00002	.28
%RSD	66.847	11.384	152.97	1.6694	1.1772	29.713	.20906
#1	-.00010	.04252	-.00047	.05024	.01960	.00009	133.63
#2	-.00004	.03560	-.00176	.05176	.01997	.00006	133.11
#3	-.00018	.04445	.00024	.05168	.01955	.00006	133.53
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00098**	**.00046**	**.00089**	**.00029**	**.19861**	**7.7506**	**.03595**
Stddev	.00001	.00010	.00043	.00098	.00260	.0317	.00097
%RSD	.89511	21.140	48.993	336.36	1.3103	.40911	2.6884
#1	.00097	.00042	.00083	-.00077	.20149	7.7142	.03677
#2	.00098	.00057	.00135	.00048	.19642	7.7657	.03619
#3	.00098	.00038	.00048	.00116	.19792	7.7720	.03488
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**74.694**	**.15486**	**.00000**	**9.3064**	**.01011**	**.00885**	**-.00097**
Stddev	.298	.00235	.0001	.0389	.00115	.00295	.00190
%RSD	.39855	1.5191	5229.3	.41813	11.367	33.371	195.24
#1	74.612	.15267	.00008	9.3506	.00910	.00548	.00051
#2	74.445	.15457	-.00007	9.2912	.01136	.01098	-.00031
#3	75.023	.15735	-.00001	9.2774	.00988	.01009	-.00311
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403156701DUP Acquired: 4/3/2014 21:00:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469536-05

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00097**	**.00471**	**2.2770**	**.00058**	**1.5356**	**-.00315**	**-.00208**
Stddev	.00246	.00073	.0209	.00033	.0027	.00063	.00126
%RSD	253.51	15.552	.91766	55.757	.17705	20.007	60.646
#1	-.00152	.00464	2.3010	.00080	1.5375	-.00359	-.00215
#2	.00341	.00402	2.2674	.00075	1.5324	-.00243	-.00330
#3	.00103	.00548	2.2627	.00021	1.5368	-.00344	-.00078
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00003**	**.01008**	F **-.26693**
Stddev	.00012	.00020	.36294
%RSD	409.35	2.0296	135.97
#1	-.00012	.01031	.14239
#2	-.00009	.01000	-.39371
#3	.00011	.00992	-.54947
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19019.**	**21792.**
Stddev	20.	231.
%RSD	.10298	1.0621
#1	19036.	21948.
#2	18997.	21903.
#3	19023.	21526.

Approved: April 04, 2014

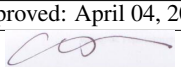
Sample Name: L1403156701MS Acquired: 4/3/2014 21:04:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469536-06

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21111**	**5.1239**	**.20889**	**1.1205**	**.50999**	**.02596**	**135.07**	**.02650**
Stddev	.00115	.0567	.00100	.0025	.00114	.00009	.78	.00016
%RSD	.54617	1.1072	.47760	.22330	.22349	.33462	.57629	.59262
#1	.21015	5.0820	.21001	1.1190	.50869	.02587	134.68	.02648
#2	.21239	5.1012	.20856	1.1234	.51080	.02604	134.57	.02666
#3	.21078	5.1884	.20810	1.1191	.51048	.02596	135.97	.02635
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10349**	**.25969**	**.25745**	**2.1614**	**33.221**	**.53374**	**77.225**	**.40208**
Stddev	.00061	.00191	.00150	.0115	.209	.00196	.783	.01022
%RSD	.58969	.73733	.58254	.53101	.63040	.36728	1.0138	2.5422
#1	.10344	.25785	.25753	2.1504	33.132	.53321	76.553	.39216
#2	.10412	.26167	.25890	2.1605	33.071	.53210	77.037	.40151
#3	.10291	.25956	.25591	2.1733	33.460	.53591	78.084	.41258
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.51494**	**33.452**	**.26074**	**.00547**	**.25381**	**.63649**	**.21658**	**4.7497**
Stddev	.00238	.140	.00168	.00289	.00060	.00222	.00231	.0282
%RSD	.46178	.41883	.64502	52.916	.23673	.34874	1.0643	.59276
#1	.51694	33.296	.25975	.00447	.25373	.63775	.21445	4.7620
#2	.51558	33.495	.26268	.00872	.25445	.63780	.21625	4.7696
#3	.51231	33.566	.25978	.00320	.25326	.63393	.21903	4.7175
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403156701MS Acquired: 4/3/2014 21:04:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469536-06

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00905**	**2.0265**	**.48384**	**.24743**	**.51504**	**.51482**	**10.950**
Stddev	.00038	.0132	.00044	.00172	.00121	.00151	.609
%RSD	4.1964	.65354	.09176	.69359	.23490	.29422	5.5649
#1	.00929	2.0264	.48333	.24927	.51394	.51626	10.749
#2	.00861	2.0132	.48414	.24588	.51633	.51495	11.635
#3	.00926	2.0397	.48406	.24714	.51484	.51324	10.466
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19012.**	**21311.**
Stddev	55.	458.
%RSD	.28980	2.1510
#1	18948.	21716.
#2	19041.	21404.
#3	19046.	20813.

Approved: April 04, 2014

Sample Name: L1403156704 Acquired: 4/3/2014 21:07:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00007**	**.03005**	**-.00009**	**.02956**	**.02131**	**.00009**	**136.61**	**.00115**
Stddev	.00013	.02515	.00098	.00049	.00012	.00001	.21	.00006
%RSD	190.33	83.714	1137.6	1.6438	.57049	7.3936	.15420	4.9937
#1	.00000	.01269	-.00047	.02945	.02125	.00010	136.43	.00108
#2	-.00022	.01855	-.00081	.03010	.02123	.00009	136.56	.00118
#3	.00001	.05889	.00103	.02914	.02145	.00009	136.84	.00118
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00124**	**.00087**	**.00048**	**.09906**	**7.8519**	**.01724**	**99.049**	**.17551**
Stddev	.00006	.00012	.00021	.00277	.0343	.00042	.485	.00239
%RSD	4.8614	14.287	43.988	2.7944	.43646	2.4399	.48927	1.3596
#1	.00129	.00077	.00025	.09923	7.8251	.01773	98.705	.17305
#2	.00117	.00083	.00054	.09621	7.8401	.01700	98.838	.17568
#3	.00125	.00101	.00065	.10174	7.8905	.01699	99.603	.17781
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**4.9433**	**.00892**	**.00256**	**-.00181**	**.00284**	**.00679**	**1.8306**
Stddev	.00005	.0196	.00101	.00607	.00119	.00149	.00154	.0054
%RSD	41.601	.39589	11.324	237.20	65.807	52.567	22.666	.29441
#1	.00012	4.9221	.01007	-.00206	-.00087	.00456	.00853	1.8344
#2	.00018	4.9473	.00850	.00943	-.00315	.00193	.00561	1.8329
#3	.00008	4.9607	.00819	.00030	-.00142	.00202	.00623	1.8244
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403156704 Acquired: 4/3/2014 21:07:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**.97252**	**-.00229**	**-.00175**	**-.00020**	**.00873**	**.06694**
Stddev	.00017	.00099	.00017	.00061	.00008	.00006	.42422
%RSD	79.675	.10130	7.3368	34.742	40.228	.73480	633.76
#1	.00002	.97261	-.00209	-.00146	-.00014	.00880	.37467
#2	.00033	.97149	-.00241	-.00244	-.00030	.00867	-.41699
#3	.00031	.97346	-.00236	-.00134	-.00018	.00871	.24313
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19019.**	**21930.**
Stddev	82.	181.
%RSD	.42926	.82577
#1	19097.	22089.
#2	18934.	21968.
#3	19024.	21733.

Approved: April 04, 2014

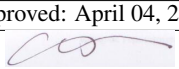
Sample Name: L1403156706 Acquired: 4/3/2014 21:11:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**.13479**	**-.00056**	**.02927**	**.00796**	**.00013**	**97.295**	**.00122**
Stddev	.00021	.00574	.00148	.00112	.00021	.00002	.108	.00009
%RSD	338.84	4.2552	263.98	3.8430	2.6803	15.526	.11084	7.2375
#1	.00018	.13213	-.00226	.03055	.00772	.00010	97.261	.00116
#2	-.00017	.14137	.00016	.02845	.00804	.00013	97.209	.00117
#3	-.00019	.13087	.00042	.02881	.00813	.00014	97.416	.00132
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00304**	**.00024**	**.00049**	**.02649**	**8.9343**	**.03504**	**106.31**	**.48393**
Stddev	.00001	.00034	.00060	.00541	.0328	.00101	.49	.00698
%RSD	.24015	141.31	123.13	20.409	.36652	2.8920	.46421	1.4414
#1	.00304	-.00002	.00082	.02648	8.8972	.03558	105.82	.47590
#2	.00304	.00063	.00085	.03191	8.9463	.03567	106.31	.48740
#3	.00305	.00012	-.00021	.02109	8.9594	.03387	106.81	.48848
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00010**	**67.308**	**.01121**	**.00665**	**-.00073**	**.00195**	**-.00120**	**2.3359**
Stddev	.00008	.215	.00014	.00244	.00104	.00235	.00301	.0269
%RSD	78.820	.31975	1.2552	36.659	141.76	120.45	250.48	1.1511
#1	-.00008	67.213	.01122	.00651	.00033	.00018	-.00035	2.3190
#2	-.00004	67.555	.01106	.00915	-.00175	.00462	.00129	2.3217
#3	-.00019	67.157	.01134	.00428	-.00078	.00106	-.00454	2.3669
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403156706 Acquired: 4/3/2014 21:11:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00034**	**.42067**	**-.00187**	**-.00032**	**-.00036**	**.00984**	**.00351**
Stddev	.00021	.00109	.00052	.00059	.00025	.00024	.53158
%RSD	62.568	.25826	27.636	186.45	69.890	2.4372	15161.
#1	.00023	.42121	-.00205	-.00029	-.00025	.00962	-.10813
#2	.00020	.41942	-.00228	-.00092	-.00064	.00981	-.46339
#3	.00058	.42138	-.00129	.00026	-.00017	.01010	.58204
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18946.**	**21881.**
Stddev	85.	293.
%RSD	.45031	1.3397
#1	19040.	22214.
#2	18925.	21767.
#3	18874.	21661.

Approved: April 04, 2014

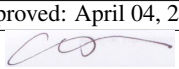
Sample Name: L1403156708 Acquired: 4/3/2014 21:14:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00015**	**.02812**	**.00109**	**.01508**	**.02501**	**.00003**	**52.425**	**.00060**
Stddev	.00022	.01075	.00101	.00028	.00038	.00004	.155	.00004
%RSD	149.99	38.224	92.905	1.8263	1.5274	105.85	.29484	7.2465
#1	.00010	.03921	.00016	.01479	.02457	.00006	52.293	.00064
#2	-.00032	.02741	.00217	.01510	.02524	.00005	52.387	.00055
#3	-.00023	.01774	.00094	.01534	.02522	-.00001	52.595	.00061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00012**	**.00033**	**.00080**	**.16563**	**3.7949**	**.00823**	**32.762**	**.07723**
Stddev	.00015	.00017	.00034	.00479	.0366	.00092	.200	.00139
%RSD	124.97	53.600	42.579	2.8948	.96543	11.204	.60928	1.7939
#1	-.00012	.00052	.00051	.16976	3.7700	.00920	32.854	.07689
#2	-.00028	.00019	.00072	.16037	3.8370	.00811	32.533	.07605
#3	.00003	.00027	.00117	.16675	3.7777	.00737	32.899	.07875
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**4.0581**	**-.00026**	**-.00165**	**-.00030**	**.00069**	**.00121**	**2.5956**
Stddev	.00008	.0111	.00033	.00302	.00118	.00139	.00257	.0101
%RSD	105.61	.27370	126.89	183.44	393.63	200.63	211.98	.39110
#1	.00001	4.0492	-.00023	.00153	.00045	.00167	.00058	2.5840
#2	.00005	4.0706	-.00060	-.00199	.00031	.00131	-.00098	2.6028
#3	.00016	4.0545	.00005	-.00448	-.00166	-.00090	.00404	2.5999
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403156708 Acquired: 4/3/2014 21:14:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00041**	**.22560**	**-.00061**	**-.00272**	**.00005**	**.00275**	**.31499**
Stddev	.00027	.00061	.00125	.00225	.00021	.00009	.41868
%RSD	67.353	.26876	203.68	82.881	409.55	3.1163	132.92
#1	.00043	.22529	-.00089	-.00256	-.00012	.00266	-.16838
#2	.00067	.22522	.00075	-.00504	.00029	.00280	.54883
#3	.00012	.22630	-.00170	-.00055	-.00002	.00281	.56451
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19466.**	**21573.**
Stddev	59.	328.
%RSD	.30445	1.5205
#1	19398.	21564.
#2	19496.	21905.
#3	19505.	21249.

Approved: April 04, 2014

Sample Name: L1403156708PS Acquired: 4/3/2014 21:18:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469837-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21307**	**5.1236**	**.20627**	**1.0916**	**.52271**	**.02589**	**52.226**	**.02652**
Stddev	.00055	.0259	.00020	.0062	.00117	.00014	.248	.00015
%RSD	.26034	.50496	.09498	.56586	.22361	.54038	.47518	.57451
#1	.21359	5.1155	.20606	1.0982	.52339	.02605	52.094	.02649
#2	.21249	5.1026	.20632	1.0859	.52136	.02580	52.072	.02668
#3	.21314	5.1525	.20644	1.0906	.52338	.02582	52.512	.02638
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10444**	**.26071**	**.26104**	**2.1698**	**29.049**	**.51590**	**33.964**	**.32042**
Stddev	.00078	.00169	.00187	.0149	.086	.00304	.375	.00561
%RSD	.74307	.64923	.71464	.68524	.29604	.58900	1.1052	1.7501
#1	.10495	.26265	.26272	2.1579	29.005	.51581	33.739	.31706
#2	.10482	.25959	.26136	2.1651	28.994	.51291	33.755	.31730
#3	.10354	.25988	.25903	2.1865	29.148	.51898	34.398	.32689
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.51857**	**28.659**	**.25780**	**-.00133**	**.26019**	**.62637**	**.20751**	**4.8436**
Stddev	.00330	.122	.00190	.00636	.00206	.00515	.00128	.0096
%RSD	.63633	.42739	.73767	477.45	.79173	.82231	.61494	.19803
#1	.52099	28.633	.25952	-.00097	.26158	.63033	.20716	4.8511
#2	.51990	28.552	.25810	.00484	.26116	.62823	.20644	4.8469
#3	.51481	28.793	.25576	-.00787	.25782	.62054	.20892	4.8328
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403156708PS Acquired: 4/3/2014 21:18:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469837-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00080**	**.71702**	**.49358**	**.25546**	**.52144**	**.52458**	**.44527**
Stddev	.00024	.00279	.00152	.00341	.00354	.00152	.28638
%RSD	30.505	.38956	.30723	1.3347	.67906	.28885	64.317
#1	.00085	.71577	.49306	.25793	.52537	.52630	.60300
#2	.00101	.71507	.49239	.25689	.51849	.52344	.11470
#3	.00053	.72022	.49528	.25157	.52046	.52399	.61810
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18964.**	**21574.**
Stddev	65.	378.
%RSD	.34019	1.7539
#1	18892.	21874.
#2	18983.	21699.
#3	19017.	21149.

Approved: April 04, 2014

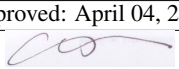
Sample Name: L1403156708SDL Acquired: 4/3/2014 21:21:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469837-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00041**	**-.00816**	**.00128**	**.00666**	**.00507**	**.00005**	**10.468**	**.00013**
Stddev	.00036	.01076	.00189	.00051	.00041	.00001	.038	.00005
%RSD	88.035	131.95	147.77	7.6543	8.0796	21.054	.36238	34.172
#1	.00035	.00416	.00080	.00615	.00552	.00006	10.426	.00014
#2	.00080	-.01575	.00336	.00717	.00497	.00004	10.499	.00009
#3	.00008	-.01289	-.00032	.00667	.00471	.00004	10.480	.00018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**.00034**	**.00037**	**.03405**	**.76638**	**.00203**	**6.6005**	**.01604**
Stddev	.00024	.00037	.00021	.00183	.04864	.00073	.0682	.00080
%RSD	293.50	108.65	56.583	5.3675	6.3471	35.964	1.0328	5.0115
#1	-.00004	.00020	.00053	.03446	.72473	.00132	6.6646	.01697
#2	-.00034	.00006	.00013	.03564	.81984	.00278	6.6080	.01566
#3	.00014	.00076	.00044	.03206	.75457	.00199	6.5289	.01551
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**.80080**	**.00013**	**-.00287**	**-.00025**	**.00040**	**-.00048**	**.51287**
Stddev	.00015	.01161	.00059	.00513	.00063	.00130	.00223	.00496
%RSD	128.25	1.4495	441.53	178.85	251.43	322.18	464.42	.96620
#1	.00019	.79261	.00003	.00145	.00011	-.00023	.00203	.51452
#2	-.00006	.81409	.00077	-.00152	.00011	-.00046	-.00224	.50730
#3	.00022	.79571	-.00040	-.00854	-.00097	.00190	-.00123	.51679
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403156708SDL Acquired: 4/3/2014 21:21:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469837-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00027**	**.04579**	**-.00074**	**-.00042**	**-.00029**	**.00156**	**.18760**
Stddev	.00038	.00047	.00132	.00107	.00032	.00007	.24881
%RSD	142.81	1.0339	178.62	252.86	109.23	4.4559	132.63
#1	-.00006	.04530	-.00220	-.00097	-.00037	.00164	.12813
#2	.00017	.04624	-.00036	-.00110	.00006	.00151	.46076
#3	.00068	.04582	.00035	.00081	-.00056	.00152	-.02609
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20250.**	**22022.**
Stddev	53.	1033.
%RSD	.25966	4.6885
#1	20242.	20830.
#2	20203.	22616.
#3	20307.	22621.

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 21:25:17 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41489**	**10.295**	**.41178**	**.53026**	**1.0005**	**.05225**	**10.303**
Stddev	.00278	.047	.00455	.00387	.0034	.00036	.026
%RSD	.67022	.45319	1.1052	.73040	.33967	.68365	.25673
#1	.41797	10.305	.40653	.53473	1.0026	.05260	10.326
#2	.41256	10.336	.41438	.52783	.99655	.05225	10.308
#3	.41414	10.245	.41443	.52822	1.0023	.05189	10.274
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05152**	**.20935**	**.52201**	**.52206**	**4.0111**	**51.953**	**.99857**
Stddev	.00006	.00035	.00332	.00007	.0102	.124	.00222
%RSD	.11129	.16565	.63637	.01280	.25398	.23956	.22208
#1	.05148	.20898	.52571	.52198	4.0185	52.001	1.0009
#2	.05150	.20940	.52106	.52210	4.0153	52.047	.99652
#3	.05159	.20967	.51927	.52210	3.9995	51.812	.99826
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.087**	**.51709**	**1.0167**	**48.689**	**.51364**	**10.289**	**.51475**
Stddev	.113	.01646	.0022	.023	.00040	.065	.00221
%RSD	1.1200	3.1826	.21421	.04704	.07751	.63429	.42839
#1	10.092	.51546	1.0143	48.688	.51409	10.317	.51544
#2	10.197	.53430	1.0171	48.713	.51351	10.214	.51653
#3	9.9713	.50151	1.0187	48.667	.51333	10.335	.51229
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 21:25:17 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2327**	**.41780**	**5.1212**	**1.0589**	**1.0606**	**.99023**	**.50302**
Stddev	.0025	.00151	.0185	.0007	.0046	.00331	.00175
%RSD	.20570	.36191	.36079	.06455	.43685	.33472	.34730
#1	1.2352	.41762	5.1116	1.0593	1.0656	.99349	.50281
#2	1.2328	.41638	5.1096	1.0593	1.0565	.99035	.50487
#3	1.2301	.41939	5.1425	1.0581	1.0598	.98686	.50139
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0207**	**1.0419**	F **1.2644**
Stddev	.0073	.0011	.8169
%RSD	.71282	.10296	64.605
#1	1.0287	1.0408	.32193
#2	1.0189	1.0419	1.7028
#3	1.0144	1.0429	1.7685
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19760.**	**21678.**
Stddev	64.	685.
%RSD	.32523	3.1599
#1	19688.	21817.
#2	19781.	20934.
#3	19811.	22283.

Approved: April 04, 2014

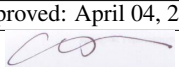
Sample Name: CCB Acquired: 4/3/2014 21:28:33 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**-.00247**	**.00149**	**.00358**	**.00001**	**.00004**	**.00245**
Stddev	.00053	.01052	.00126	.00019	.00031	.00001	.00459
%RSD	469.13	425.84	84.733	5.1999	4007.0	13.134	187.44
#1	-.00033	.00941	.00139	.00364	-.00035	.00004	.00410
#2	.00070	-.00621	.00028	.00373	.00016	.00004	-.00274
#3	-.00003	-.01062	.00279	.00337	.00022	.00005	.00599
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.00009**	**-.00006**	**.00022**	**.00016**	**.03073**	**-.00139**
Stddev	.00002	.00008	.00028	.00035	.00426	.02225	.00081
%RSD	57.999	89.311	444.86	158.18	2619.9	72.418	58.087
#1	-.00006	.00007	-.00038	.00060	-.00303	.00982	-.00224
#2	-.00005	.00018	.00011	-.00007	.00501	.05412	-.00130
#3	-.00001	.00002	.00009	.00012	-.00149	.02824	-.00063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00824**	**-.00006**	**.00005**	**-.00568**	**-.00044**	**-.00157**	**.00002**
Stddev	.01580	.00002	.00004	.00184	.00032	.00142	.00060
%RSD	191.72	27.025	85.338	32.343	71.539	90.515	2967.8
#1	.00999	-.00007	.00000	-.00481	-.00032	-.00287	-.00043
#2	-.01694	-.00007	.00006	-.00779	-.00020	-.00177	.00070
#3	-.01777	-.00004	.00009	-.00444	-.00080	-.00006	-.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: CCB Acquired: 4/3/2014 21:28:33 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**-.00217**	**-.00213**	**.00027**	**-.00002**	**-.00099**	**-.00052**
Stddev	.00096	.00295	.00037	.00013	.00003	.00170	.00177
%RSD	405.63	135.75	17.353	49.428	133.70	172.28	339.24
#1	.00024	-.00558	-.00248	.00041	-.00002	-.00277	-.00219
#2	-.00073	-.00040	-.00175	.00027	.00001	.00061	-.00073
#3	.00120	-.00054	-.00216	.00014	-.00006	-.00080	.00134
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00006**	**.00005**	F **1.0635**
Stddev	.00014	.00006	.2201
%RSD	245.18	127.66	20.694
#1	.00005	.00006	1.3078
#2	-.00001	.00010	1.0021
#3	-.00021	-.00002	.88072
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20346.**	**22137.**
Stddev	115.	431.
%RSD	.56714	1.9477
#1	20479.	22569.
#2	20281.	22135.
#3	20278.	21707.

Approved: April 04, 2014

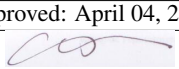
Sample Name: L1403156713 Acquired: 4/3/2014 21:32:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**.02965**	**-.00049**	**.01571**	**.02931**	**.00004**	**40.061**	**.00049**
Stddev	.00043	.02952	.00094	.00028	.00039	.00001	.009	.00004
%RSD	247.14	99.577	193.66	1.8075	1.3381	25.651	.02270	8.1396
#1	.00064	-.00438	-.00034	.01604	.02942	.00005	40.057	.00053
#2	.00007	.04482	-.00149	.01558	.02888	.00003	40.054	.00046
#3	-.00020	.04849	.00038	.01552	.02964	.00004	40.071	.00047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**.00034**	**.00105**	**.09443**	**3.0310**	**.00549**	**24.250**	**.02610**
Stddev	.00020	.00029	.00029	.00254	.0196	.00142	.071	.00013
%RSD	94.372	85.080	27.329	2.6934	.64718	25.863	.29133	.48251
#1	-.00017	.00022	.00088	.09182	3.0503	.00713	24.170	.02605
#2	-.00004	.00013	.00090	.09456	3.0111	.00468	24.302	.02624
#3	-.00043	.00066	.00138	.09691	3.0317	.00466	24.279	.02601
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**3.6234**	**.00050**	**-.00182**	**-.00189**	**.00161**	**-.00160**	**2.2466**
Stddev	.00015	.0096	.00014	.00240	.00188	.00080	.00261	.0034
%RSD	360.34	.26533	27.354	131.46	99.431	49.455	162.80	.15366
#1	-.00007	3.6326	.00065	.00043	-.00019	.00144	-.00345	2.2445
#2	.00021	3.6242	.00047	-.00156	-.00158	.00247	-.00275	2.2506
#3	-.00001	3.6134	.00038	-.00434	-.00391	.00091	.00138	2.2447
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403156713 Acquired: 4/3/2014 21:32:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00063**	**.22139**	**-.00004**	**-.00273**	**.00021**	**.00317**	**.26313**
Stddev	.00027	.00049	.00034	.00146	.00029	.00011	.61514
%RSD	42.321	.22071	833.05	53.594	139.58	3.5068	233.77
#1	.00071	.22190	-.00017	-.00147	.00017	.00311	-.07963
#2	.00084	.22135	-.00029	-.00433	-.00006	.00310	.97330
#3	.00033	.22093	.00034	-.00238	.00051	.00330	-.10426
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19329.**	**22465.**
Stddev	44.	179.
%RSD	.22877	.79750
#1	19306.	22645.
#2	19380.	22462.
#3	19301.	22287.

Approved: April 04, 2014

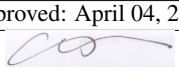
Sample Name: L1403156715 Acquired: 4/3/2014 21:35:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00023**	**.17307**	**-.00043**	**.02448**	**.02620**	**.00016**	**76.987**	**.00085**
Stddev	.00030	.01947	.00122	.00039	.00042	.00003	.132	.00004
%RSD	129.76	11.250	283.81	1.5863	1.5872	18.863	.17204	4.5533
#1	.00011	.16222	.00073	.02418	.02643	.00014	77.066	.00081
#2	-.00042	.16145	-.00032	.02433	.02572	.00015	76.834	.00086
#3	-.00039	.19555	-.00170	.02492	.02645	.00020	77.061	.00089
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00365**	**.00036**	**.00047**	**.08938**	**4.7824**	**.02167**	**55.112**	**.36459**
Stddev	.00018	.00029	.00050	.00743	.0787	.00054	.376	.00980
%RSD	4.8400	79.997	106.70	8.3145	1.6463	2.4908	.68262	2.6886
#1	.00347	.00007	-.00011	.08727	4.7276	.02152	54.784	.35539
#2	.00366	.00065	.00072	.08324	4.8726	.02226	55.028	.36349
#3	.00382	.00037	.00078	.09764	4.7470	.02121	55.523	.37490
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**11.756**	**.01251**	**-.00029**	**-.00276**	**.00205**	**.00306**	**2.5806**
Stddev	.00004	.029	.00126	.00297	.00198	.00120	.00298	.0104
%RSD	30.651	.24604	10.042	1023.5	71.671	58.433	97.256	.40504
#1	.00019	11.736	.01294	.00067	-.00314	.00115	.00574	2.5926
#2	.00010	11.743	.01109	-.00363	-.00453	.00341	.00360	2.5734
#3	.00014	11.789	.01348	.00208	-.00062	.00159	-.00015	2.5758
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403156715 Acquired: 4/3/2014 21:35:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00070**	**.70830**	**-.00134**	**-.00233**	**-.00007**	**.01554**	**.00962**
Stddev	.00009	.00307	.00029	.00123	.00026	.00010	.51914
%RSD	13.566	.43336	22.021	52.778	354.10	.66437	5396.2
#1	.00061	.71167	-.00103	-.00320	-.00037	.01563	-.46212
#2	.00070	.70567	-.00135	-.00286	.00001	.01555	-.07482
#3	.00079	.70757	-.00162	-.00092	.00013	.01543	.56580
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19214.**	**21738.**
Stddev	92.	415.
%RSD	.47764	1.9107
#1	19172.	22181.
#2	19152.	21675.
#3	19320.	21358.

Approved: April 04, 2014

Sample Name: L1403156717 Acquired: 4/3/2014 21:39:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**.01853**	**.00002**	**.03114**	**.02001**	**.00006**	**135.94**
Stddev	.00049	.01218	.00097	.00066	.00011	.00003	.53
%RSD	146.44	65.712	5123.5	2.1214	.55391	45.356	.39114
#1	-.00023	.02292	-.00109	.03050	.02011	.00003	135.40
#2	.00058	.00477	.00073	.03110	.01989	.00008	135.96
#3	.00064	.02790	.00042	.03182	.02004	.00008	136.47
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00110**	**.00019**	**.00016**	**.00056**	**.27479**	**6.3288**	**.02651**
Stddev	.00005	.00026	.00031	.00053	.00713	.0601	.00081
%RSD	4.1058	139.14	190.71	94.775	2.5937	.94902	3.0716
#1	.00115	-.00010	.00027	.00108	.27790	6.3077	.02668
#2	.00110	.00041	-.00018	.00057	.26664	6.2821	.02723
#3	.00106	.00026	.00040	.00002	.27984	6.3965	.02563
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**107.12**	**.04667**	**-.00005**	**9.3915**	**.00447**	**.00493**	**-.00038**
Stddev	.29	.00035	.00006	.0238	.00057	.00620	.00280
%RSD	.26830	.75633	104.70	.25295	12.845	125.74	730.47
#1	106.79	.04650	-.00008	9.3662	.00457	.00877	-.00357
#2	107.33	.04644	.00001	9.3948	.00498	-.00222	.00167
#3	107.24	.04708	-.00009	9.4133	.00385	.00826	.00075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014

Sample Name: L1403156717 Acquired: 4/3/2014 21:39:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00107**	**.00141**	**2.6997**	**.00010**	**1.3994**	**-.00306**	**-.00283**
Stddev	.00103	.00454	.0109	.00024	.0070	.00055	.00075
%RSD	96.581	321.92	.40179	230.16	.49748	18.016	26.627
#1	.00173	.00649	2.6989	-.00017	1.3924	-.00261	-.00200
#2	-.00012	.00000	2.6893	.00027	1.3994	-.00367	-.00302
#3	.00159	-.00226	2.7110	.00021	1.4063	-.00289	-.00347
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00008**	**.00712**	F **-.14638**
Stddev	.00014	.00014	.87314
%RSD	185.03	1.9885	596.48
#1	-.00009	.00715	-1.0486
#2	.00018	.00725	.69441
#3	.00014	.00697	-.08493
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19029.**	**21434.**
Stddev	32.	93.
%RSD	.16882	.43423
#1	18992.	21541.
#2	19052.	21389.
#3	19042.	21372.

Approved: April 04, 2014

Sample Name: L1403156719 Acquired: 4/3/2014 21:42:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00010**	**.61240**	**.00018**	**.00926**	**.02923**	**.00074**	**22.629**
Stddev	.00037	.01390	.00132	.00084	.00011	.00001	.074
%RSD	369.92	2.2701	742.53	9.0477	.38529	.97208	.32821
#1	-.00053	.59667	-.00084	.01012	.02920	.00074	22.617
#2	.00010	.62303	.00167	.00845	.02915	.00075	22.562
#3	.00013	.61750	-.00029	.00920	.02936	.00074	22.709
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00058**	**.00081**	**.00021**	**.00089**	**.04171**	**2.4135**	**.00881**
Stddev	.00010	.00016	.00028	.00020	.00489	.0825	.00100
%RSD	17.079	20.381	132.33	22.619	11.714	3.4165	11.388
#1	.00066	.00089	.00049	.00075	.03628	2.4275	.00992
#2	.00047	.00091	-.00008	.00112	.04574	2.3249	.00798
#3	.00061	.00062	.00024	.00080	.04310	2.4881	.00852
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**22.303**	**.52989**	**-.00007**	**1.5556**	**.03482**	F **-.00471**	**-.00100**
Stddev	.170	.00236	.00012	.0091	.00073	.00117	.00111
%RSD	.76129	.44467	155.54	.58765	2.0972	24.890	110.57
#1	22.184	.53128	-.00021	1.5535	.03512	-.00366	.00019
#2	22.228	.52717	-.00003	1.5656	.03398	-.00597	-.00200
#3	22.497	.53123	.00001	1.5477	.03535	-.00449	-.00119
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

Sample Name: L1403156719 Acquired: 4/3/2014 21:42:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00082**	**.00420**	**3.6485**	**.00060**	**.10012**	**.00047**	**-.00156**
Stddev	.00291	.00130	.0441	.00015	.00022	.00146	.00052
%RSD	353.45	30.959	1.2095	24.736	.21963	308.45	33.076
#1	-.00246	.00554	3.6765	.00077	.09987	-.00095	-.00215
#2	.00185	.00294	3.6714	.00052	.10019	.00040	-.00128
#3	.00308	.00412	3.5977	.00051	.10029	.00196	-.00124
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00007**	**.06034**	**.57039**
Stddev	.00032	.00018	.29744
%RSD	465.06	.29031	52.146
#1	.00043	.06048	.91230
#2	-.00014	.06039	.37126
#3	-.00009	.06014	.42762
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19858.**	**22220.**
Stddev	36.	76.
%RSD	.18255	.34273
#1	19835.	22175.
#2	19900.	22308.
#3	19839.	22177.

Approved: April 04, 2014

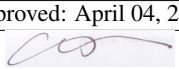
Sample Name: L1403156720 Acquired: 4/3/2014 21:46:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00013**	**.02161**	**-.00032**	**.05005**	**.01912**	**.00005**	**133.13**	**.00090**
Stddev	.00038	.02440	.00098	.00120	.00068	.00001	.63	.00010
%RSD	299.78	112.90	305.95	2.4023	3.5572	28.215	.47046	10.784
#1	.00030	.03952	-.00102	.05143	.01907	.00005	132.58	.00084
#2	-.00027	.03148	-.00075	.04923	.01983	.00004	133.81	.00102
#3	-.00042	-.00618	.00080	.04949	.01847	.00007	133.00	.00086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00029**	**.00045**	**.00077**	**.21284**	**7.8153**	**.03541**	**73.920**	**.15736**
Stddev	.00013	.00023	.00020	.00359	.0679	.00057	.904	.00610
%RSD	44.297	49.733	26.238	1.6887	.86914	1.6023	1.2235	3.8735
#1	.00044	.00071	.00054	.21085	7.7768	.03517	73.589	.15632
#2	.00023	.00027	.00082	.21699	7.8938	.03499	74.943	.16390
#3	.00021	.00038	.00094	.21067	7.7754	.03605	73.228	.15184
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**9.0491**	**.00973**	**.00379**	**-.00005**	**.00008**	**.00303**	**2.2510**
Stddev	.00013	.0077	.00080	.00130	.00139	.00169	.00483	.0135
%RSD	92.521	.08498	8.2632	34.291	2698.6	2053.5	159.28	.60129
#1	.00011	9.0433	.01031	.00395	-.00158	-.00061	.00249	2.2486
#2	.00003	9.0578	.00881	.00242	.00114	.00200	-.00151	2.2389
#3	.00027	9.0461	.01006	.00501	.00029	-.00115	.00811	2.2656
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403156720 Acquired: 4/3/2014 21:46:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00082**	**1.5509**	**-.00314**	**-.00140**	**-.00018**	**.01067**	**.34562**
Stddev	.00021	.0068	.00084	.00118	.00027	.00014	.24964
%RSD	25.517	.43664	26.879	84.581	154.10	1.3329	72.230
#1	.00105	1.5430	-.00390	-.00007	-.00040	.01051	.44050
#2	.00066	1.5546	-.00330	-.00233	.00013	.01071	.53392
#3	.00074	1.5550	-.00223	-.00179	-.00026	.01079	.06245
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19121.**	**21510.**
Stddev	94.	860.
%RSD	.49114	3.9995
#1	19109.	21770.
#2	19034.	20550.
#3	19220.	22210.

Approved: April 04, 2014

Sample Name: L1403157601 Acquired: 4/3/2014 21:49:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469536-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**.00836**	**.00185**	**.06791**	**.12633**	**.00003**	**218.27**	**.00078**
Stddev	.00018	.02774	.00208	.00091	.00047	.00003	.41	.00006
%RSD	489.16	331.86	112.94	1.3360	.37447	97.009	.18880	7.8434
#1	-.00016	.03414	-.00022	.06888	.12581	.00000	218.60	.00071
#2	.00008	-.02099	.00180	.06708	.12674	.00003	217.81	.00083
#3	.00019	.01192	.00395	.06776	.12643	.00006	218.39	.00080
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00326**	**.00783**	**.04671**	**.25803**	**13.619**	**.01722**	**41.647**	**.01401**
Stddev	.00003	.00003	.00010	.00546	.052	.00134	.308	.00025
%RSD	.93751	.36190	.22103	2.1163	.37895	7.8050	.74073	1.8143
#1	-.00324	.00780	.04662	.25182	13.673	.01876	41.745	.01414
#2	-.00329	.00786	.04668	.26021	13.613	.01661	41.895	.01417
#3	-.00324	.00782	.04682	.26207	13.570	.01629	41.301	.01372
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.87622**	**33.894**	**.00178**	**2.6828**	**-.00007**	**.00179**	**.00415**	**15.219**
Stddev	.01111	.146	.00044	.0041	.00025	.00226	.00027	.023
%RSD	1.2674	.42987	24.840	.15151	330.43	126.18	6.4781	.15032
#1	.88266	33.737	.00129	2.6866	-.00022	.00400	.00397	15.193
#2	.88259	34.024	.00214	2.6785	-.00021	.00189	.00402	15.231
#3	.86339	33.921	.00193	2.6832	.00021	-.00052	.00446	15.234
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403157601 Acquired: 4/3/2014 21:49:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469536-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00079**	**.37725**	**-.00215**	**-.00172**	**-.00141**	**.04879**	**1.3743**
Stddev	.00060	.00168	.00043	.00094	.00017	.00005	.2557
%RSD	75.550	.44559	19.890	54.945	12.231	.09792	18.607
#1	.00035	.37837	-.00168	-.00276	-.00142	.04883	1.4150
#2	.00055	.37532	-.00251	-.00092	-.00158	.04881	1.6072
#3	.00147	.37806	-.00227	-.00148	-.00124	.04874	1.1007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19022.**	**21849.**
Stddev	40.	364.
%RSD	.21150	1.6670
#1	19025.	21617.
#2	19061.	21662.
#3	18980.	22269.

Approved: April 04, 2014

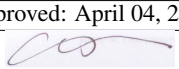
Sample Name: L1403157601MS Acquired: 4/3/2014 21:53:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469536-07

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21397**	**5.0065**	**.20724**	**1.1542**	**.62118**	**.02557**	**218.64**	**.02656**
Stddev	.00020	.0210	.00102	.0014	.00216	.00012	.23	.00016
%RSD	.09275	.41960	.49309	.12207	.34706	.47686	.10308	.59615
#1	.21420	4.9964	.20739	1.1544	.61977	.02570	218.38	.02653
#2	.21389	5.0307	.20819	1.1527	.62011	.02547	218.75	.02674
#3	.21383	4.9925	.20616	1.1555	.62366	.02552	218.78	.02643
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09803**	**.25983**	**.30087**	**2.2165**	**38.682**	**.52207**	**45.586**	**.25026**
Stddev	.00046	.00152	.00195	.0177	.054	.00328	.153	.00085
%RSD	.46989	.58565	.64704	.79665	.14035	.62919	.33515	.33904
#1	.09817	.26158	.30175	2.2201	38.648	.51971	45.546	.25040
#2	.09841	.25902	.30222	2.1974	38.654	.52068	45.456	.24935
#3	.09752	.25888	.29864	2.2322	38.745	.52582	45.754	.25103
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.3546**	**59.041**	**.24918**	**2.6151**	**.24858**	**.62724**	**.21106**	**17.587**
Stddev	.0012	.383	.00050	.0147	.00235	.00538	.00364	.018
%RSD	.08864	.64825	.19902	.56321	.94408	.85766	1.7261	.10456
#1	1.3553	58.824	.24901	2.6274	.24936	.63263	.21515	17.604
#2	1.3553	58.817	.24974	2.6191	.25045	.62723	.20985	17.568
#3	1.3532	59.483	.24879	2.5988	.24595	.62187	.20817	17.589
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403157601MS Acquired: 4/3/2014 21:53:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469536-07

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00901**	**.87344**	**.48110**	**.24037**	**.51480**	**.53933**	**10.672**
Stddev	.00028	.00162	.00304	.00248	.00151	.00132	.551
%RSD	3.1455	.18542	.63089	1.0298	.29285	.24468	5.1602
#1	.00934	.87306	.47794	.24212	.51645	.53815	11.168
#2	.00883	.87521	.48136	.24145	.51350	.54075	10.079
#3	.00887	.87204	.48400	.23754	.51443	.53910	10.767
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18859.**	**22438.**
Stddev	14.	73.
%RSD	.07203	.32659
#1	18844.	22451.
#2	18863.	22504.
#3	18870.	22359.

Approved: April 04, 2014

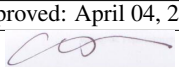
Sample Name: L1403165701 Acquired: 4/3/2014 21:56:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00045**	**.03751**	**-.00001**	**.00703**	**.03424**	**.00004**	**6.7050**
Stddev	.00025	.01756	.00138	.00057	.00010	.00001	.0216
%RSD	56.113	46.802	11437.	8.0348	.28444	16.749	.32211
#1	.00016	.01756	-.00160	.00687	.03435	.00003	6.6971
#2	.00060	.04435	.00075	.00657	.03417	.00004	6.6885
#3	.00060	.05062	.00082	.00766	.03420	.00004	6.7294
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00026**	**-.00004**	**.00036**	**.00072**	**.05710**	**1.0187**	**.00203**
Stddev	.00001	.00002	.00014	.00006	.00441	.0132	.00094
%RSD	3.4305	39.133	37.169	8.6120	7.7160	1.2932	46.162
#1	.00025	-.00006	.00037	.00070	.06208	1.0038	.00312
#2	.00026	-.00005	.00049	.00067	.05370	1.0238	.00144
#3	.00027	-.00002	.00022	.00079	.05552	1.0286	.00154
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.7568**	**.00325**	**.00021**	**2.8232**	**.00003**	F **-.00397**	**-.00170**
Stddev	.0159	.00003	.00005	.0116	.00005	.00220	.00105
%RSD	.57798	.81095	23.414	.41043	168.45	55.527	61.407
#1	2.7608	.00322	.00026	2.8309	.00007	-.00643	-.00291
#2	2.7393	.00326	.00020	2.8099	-.00002	-.00332	-.00103
#3	2.7704	.00327	.00016	2.8288	.00004	-.00217	-.00118
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014



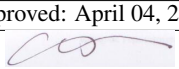
Sample Name: L1403165701 Acquired: 4/3/2014 21:56:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00090**	**.00326**	**3.7022**	**.00073**	**.10618**	**-.00016**	**-.00109**
Stddev	.00230	.00288	.0054	.00021	.00032	.00063	.00201
%RSD	257.46	88.240	.14644	28.463	.29734	382.28	185.26
#1	.00139	.00063	3.7022	.00051	.10594	-.00087	-.00155
#2	.00291	.00634	3.7076	.00075	.10607	.00034	-.00282
#3	-.00162	.00282	3.6968	.00092	.10654	.00004	.00112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00017**	**.00130**	**.70693**
Stddev	.00012	.00002	.52710
%RSD	71.803	1.6438	74.562
#1	.00030	.00131	.63900
#2	.00015	.00131	.21709
#3	.00006	.00128	1.2647
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20047.**	**22512.**
Stddev	19.	71.
%RSD	.09283	.31479
#1	20062.	22457.
#2	20053.	22592.
#3	20026.	22488.

Approved: April 04, 2014



Sample Name: L1403165801 Acquired: 4/3/2014 22:00:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00043**	**.01133**	**.00085**	**.01904**	**.12462**	**.00003**	**42.523**	**.00034**
Stddev	.00039	.01503	.00075	.00048	.00033	.00003	.051	.00001
%RSD	89.228	132.68	88.609	2.5273	.26634	84.387	.11958	2.1161
#1	.00066	.00090	.00080	.01932	.12497	.00006	42.516	.00035
#2	.00065	.02856	.00162	.01848	.12431	.00001	42.477	.00033
#3	-.00001	.00452	.00012	.01932	.12458	.00003	42.578	.00033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00012**	**.00062**	**.00050**	**.15145**	**2.1364**	**.06049**	**15.000**	**.02716**
Stddev	.00001	.00035	.00038	.00298	.0091	.00050	.097	.00018
%RSD	8.8056	55.896	75.504	1.9699	.42707	.82815	.64370	.66777
#1	-.00012	.00087	.00075	.15394	2.1266	.05992	14.890	.02736
#2	-.00013	.00077	.00007	.14814	2.1378	.06069	15.041	.02709
#3	-.00011	.00022	.00069	.15227	2.1447	.06086	15.070	.02702
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**63.766**	**.00098**	**-.00009**	**-.00122**	**-.00108**	**.00061**	**3.0654**
Stddev	.00014	.252	.00049	.00131	.00061	.00114	.00418	.0085
%RSD	58.945	.39488	50.413	1507.7	50.355	105.57	690.05	.27809
#1	.00023	63.826	.00140	-.00122	-.00051	-.00163	.00509	3.0753
#2	.00011	63.982	.00044	.00135	-.00163	.00023	-.00318	3.0601
#3	.00039	63.489	.00110	-.00039	-.00152	-.00183	-.00009	3.0610
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403165801 Acquired: 4/3/2014 22:00:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00049**	**1.0893**	**.00010**	**-.00221**	**.00010**	**.00537**	**.82374**
Stddev	.00033	.0040	.00038	.00054	.00003	.00013	.44869
%RSD	66.704	.36693	373.30	24.429	28.465	2.3305	54.470
#1	.00021	1.0875	.00003	-.00174	.00010	.00550	1.2706
#2	.00086	1.0866	-.00024	-.00280	.00007	.00525	.37328
#3	.00041	1.0939	.00051	-.00208	.00013	.00537	.82728
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19627.**	**22437.**
Stddev	37.	63.
%RSD	.18727	.28301
#1	19589.	22368.
#2	19629.	22448.
#3	19663.	22494.

Approved: April 04, 2014

Sample Name: L1403165803 Acquired: 4/3/2014 22:03:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00020**	**.02134**	**.00102**	**.01888**	**.12395**	**.00004**	**43.385**	**.00038**
Stddev	.00029	.01664	.00021	.00062	.00033	.00002	.033	.00007
%RSD	144.11	77.979	20.882	3.2596	.26248	47.429	.07701	17.530
#1	-.00044	.00323	.00085	.01818	.12426	.00003	43.369	.00034
#2	-.00029	.03595	.00096	.01934	.12361	.00006	43.363	.00046
#3	.00012	.02483	.00126	.01912	.12397	.00002	43.424	.00035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00014**	**.00026**	**.00086**	**.13922**	**2.1814**	**.05859**	**14.933**	**.02582**
Stddev	.00019	.00054	.00032	.00374	.0388	.00061	.113	.00008
%RSD	142.15	204.57	36.813	2.6861	1.7770	1.0381	.75379	.29120
#1	.00005	.00074	.00068	.14264	2.1465	.05877	14.866	.02574
#2	-.00012	-.00032	.00067	.13523	2.1746	.05909	14.871	.02581
#3	-.00034	.00036	.00123	.13979	2.2231	.05791	15.063	.02589
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00034**	**62.837**	**.00138**	**.00120**	**-.00193**	**.00074**	**.00072**	**3.1852**
Stddev	.00002	.354	.00023	.00280	.00097	.00139	.00161	.0134
%RSD	5.9594	.56338	16.542	233.19	50.255	188.03	223.33	.42038
#1	.00032	63.132	.00161	-.00096	-.00224	-.00028	.00240	3.1901
#2	.00036	62.934	.00116	.00020	-.00270	.00018	-.00082	3.1953
#3	.00034	62.444	.00136	.00437	-.00084	.00232	.00058	3.1700
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403165803 Acquired: 4/3/2014 22:03:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00026**	**1.0984**	**-.00013**	**-.00235**	**.00010**	**.01379**	**.65636**
Stddev	.00034	.0032	.00099	.00073	.00015	.00005	.67611
%RSD	128.56	.29104	733.90	31.047	145.04	.35509	103.01
#1	.00055	1.0960	-.00069	-.00182	-.00007	.01375	.03827
#2	.00035	1.0971	-.00072	-.00318	.00017	.01384	.55237
#3	-.00011	1.1020	.00101	-.00205	.00020	.01377	1.3784
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19637.**	**22457.**
Stddev	51.	118.
%RSD	.25835	.52692
#1	19582.	22584.
#2	19683.	22435.
#3	19647.	22350.

Approved: April 04, 2014

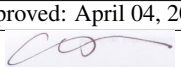
Sample Name: CCV Acquired: 4/3/2014 22:07:24 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41985**	**10.260**	**.40929**	**.53577**	**1.0001**	**.05286**	**10.294**
Stddev	.00278	.016	.00326	.00449	.0025	.00022	.037
%RSD	.66266	.15702	.79565	.83849	.25413	.41723	.36255
#1	.42149	10.255	.41211	.53811	.99841	.05294	10.301
#2	.42142	10.248	.40572	.53860	1.0031	.05303	10.327
#3	.41664	10.279	.41002	.53059	.99894	.05261	10.253
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05136**	**.20897**	**.52736**	**.52105**	**3.9928**	**51.770**	**.99411**
Stddev	.00044	.00155	.00237	.00527	.0247	.133	.00423
%RSD	.84785	.74086	.44853	1.0116	.61784	.25784	.42517
#1	.05146	.20972	.52738	.52285	3.9732	51.900	.99353
#2	.05088	.20719	.52971	.51512	4.0205	51.775	.99860
#3	.05173	.20999	.52498	.52519	3.9847	51.633	.99021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.9855**	**.50272**	**1.0119**	**48.475**	**.51280**	**10.302**	**.51413**
Stddev	.0281	.00192	.0106	.258	.00432	.075	.00602
%RSD	.28175	.38266	1.0466	.53272	.84232	.73101	1.1714
#1	9.9615	.50125	1.0183	48.261	.51512	10.285	.51784
#2	10.016	.50201	.99966	48.762	.50782	10.237	.50718
#3	9.9787	.50489	1.0177	48.401	.51547	10.385	.51737
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014



Sample Name: CCV Acquired: 4/3/2014 22:07:24 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2246**	**.41475**	**5.0787**	**1.0586**	**1.0641**	**.99025**	**.50341**
Stddev	.0152	.00237	.0608	.0051	.0034	.00413	.00430
%RSD	1.2378	.57230	1.1965	.48363	.31730	.41732	.85402
#1	1.2279	.41689	5.1126	1.0596	1.0679	.98780	.50558
#2	1.2080	.41220	5.0085	1.0531	1.0627	.99503	.49846
#3	1.2378	.41516	5.1149	1.0631	1.0616	.98794	.50620
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0314**	**1.0502**	F **1.4128**
Stddev	.0037	.0046	.4099
%RSD	.35495	.43808	29.011
#1	1.0334	1.0542	1.3937
#2	1.0336	1.0452	1.0128
#3	1.0272	1.0513	1.8319
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19569.**	**22378.**
Stddev	102.	155.
%RSD	.52185	.69058
#1	19626.	22543.
#2	19451.	22356.
#3	19629.	22236.

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/3/2014 22:10:40 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**.00465**	**.00180**	**.00235**	**.00040**	**.00003**	**.00464**
Stddev	.00012	.04214	.00206	.00088	.00013	.00003	.00807
%RSD	37.958	906.02	114.47	37.458	33.033	98.188	174.05
#1	.00027	.05130	.00017	.00219	.00025	.00006	.01151
#2	.00025	-.00668	.00412	.00330	.00048	.00004	.00666
#3	.00047	-.03066	.00111	.00156	.00047	.00000	-.00425
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.00004**	**.00010**	**-.00008**	**.00039**	**-.01741**	**.00059**
Stddev	.00006	.00006	.00026	.00016	.00185	.03075	.00037
%RSD	136.62	144.64	245.42	214.22	476.93	176.67	63.595
#1	-.00003	.00002	.00040	.00003	.00119	.00883	.00063
#2	.00001	-.00001	-.00006	.00001	.00170	-.05124	.00020
#3	-.00010	.00011	-.00003	-.00027	-.00172	-.00980	.00094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00819**	**-.00001**	**.00013**	**-.00029**	**-.00051**	**-.00443**	**-.00082**
Stddev	.00162	.00007	.00024	.00755	.00036	.00563	.00116
%RSD	19.827	514.31	186.35	2633.8	70.405	127.05	141.32
#1	-.00989	.00002	-.00007	.00581	-.00045	-.00683	-.00190
#2	-.00803	.00004	.00006	.00206	-.00089	.00200	.00040
#3	-.00665	-.00010	.00040	-.00873	-.00018	-.00847	-.00095
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/3/2014 22:10:40 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**-.00184**	**-.00051**	**.00017**	**.00010**	**-.00097**	**-.00160**
Stddev	.00056	.00215	.00339	.00003	.00008	.00049	.00139
%RSD	361.37	116.37	668.66	15.600	75.845	50.667	86.864
#1	-.00006	-.00424	-.00233	.00020	.00019	-.00074	-.00128
#2	.00078	-.00009	-.00259	.00017	.00009	-.00154	-.00040
#3	-.00026	-.00121	.00341	.00015	.00003	-.00064	-.00313
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00021**	**-.00012**	F **.20333**
Stddev	.00010	.00009	.70378
%RSD	48.660	71.513	346.13
#1	-.00010	-.00006	-.40008
#2	-.00030	-.00023	.97644
#3	-.00022	-.00009	.03363
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19906.**	**22070.**
Stddev	218.	69.
%RSD	1.0927	.31051
#1	20110.	22114.
#2	19677.	22105.
#3	19929.	21991.

Approved: April 04, 2014

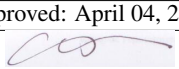
Sample Name: L1403165805 Acquired: 4/3/2014 22:14:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.10622**	**-.00105**	**.00478**	**.02157**	**.00003**	**6.9050**
Stddev	.00039	.01651	.00047	.00057	.00016	.00002	.0215
%RSD	309.97	15.543	44.453	11.913	.74762	45.887	.31120
#1	-.00029	.08779	-.00150	.00508	.02139	.00005	6.8873
#2	.00018	.11965	-.00057	.00514	.02162	.00002	6.8988
#3	.00049	.11122	-.00108	.00413	.02170	.00003	6.9289
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**-.00030**	**.00027**	**.00057**	**.08028**	**1.0153**	**.00261**
Stddev	.00010	.00005	.00037	.00013	.00444	.0594	.00094
%RSD	81.547	16.964	133.66	22.618	5.5364	5.8471	35.952
#1	.00022	-.00025	.00068	.00047	.08303	.94793	.00342
#2	.00013	-.00030	.00018	.00072	.08265	1.0599	.00281
#3	.00002	-.00035	-.00004	.00053	.07515	1.0381	.00158
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.6887**	**.00807**	**.00005**	**2.3747**	**.00103**	**.00316**	**-.00033**
Stddev	.0326	.00008	.00019	.0224	.00031	.00530	.00028
%RSD	1.2116	1.0373	345.44	.94299	30.377	167.97	83.758
#1	2.6529	.00813	.00024	2.3492	.00126	-.00284	-.00059
#2	2.6965	.00811	.00006	2.3911	.00067	.00722	-.00004
#3	2.7167	.00797	-.00014	2.3839	.00115	.00508	-.00036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403165805 Acquired: 4/3/2014 22:14:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00286**	**.00025**	**3.2601**	**.00069**	**.06636**	**.00047**	**-.00191**
Stddev	.00077	.00256	.0176	.00044	.00026	.00064	.00090
%RSD	26.942	1018.5	.53835	63.153	.39583	135.78	47.192
#1	.00269	-.00267	3.2739	.00118	.06612	-.00006	-.00146
#2	.00219	.00133	3.2403	.00055	.06631	.00029	-.00132
#3	.00371	.00209	3.2660	.00034	.06664	.00117	-.00295
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00006**	**.00783**	F **-.04771**
Stddev	.00014	.00003	.32044
%RSD	232.68	.39622	671.62
#1	.00002	.00782	-.07807
#2	.00002	.00786	-.35189
#3	-.00023	.00780	.28683
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19397.**	**20967.**
Stddev	270.	111.
%RSD	1.3923	.53067
#1	19402.	21020.
#2	19124.	21042.
#3	19664.	20839.

Approved: April 04, 2014

Sample Name: L1403166201 Acquired: 4/3/2014 22:17:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.05645**	**.00018**	**.00944**	**.04407**	**.00005**	**35.650**	**.00036**
Stddev	.00021	.02951	.00029	.00017	.00036	.00001	.038	.00013
%RSD	499.47	52.290	157.59	1.8123	.81598	25.230	.10702	35.103
#1	.00020	.07414	.00029	.00924	.04443	.00006	35.608	.00024
#2	-.00019	.02237	.00040	.00954	.04371	.00005	35.682	.00050
#3	-.00014	.07282	-.00014	.00953	.04405	.00004	35.661	.00035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**.00069**	**.00107**	**.13055**	**1.5233**	**.02390**	**14.491**	**.01087**
Stddev	.00019	.00007	.00023	.00631	.0374	.00135	.106	.00030
%RSD	105.76	10.357	21.959	4.8310	2.4567	5.6615	.73112	2.7324
#1	.00001	.00064	.00080	.13781	1.4802	.02242	14.586	.01120
#2	-.00036	.00078	.00117	.12741	1.5471	.02507	14.376	.01077
#3	-.00018	.00066	.00123	.12644	1.5426	.02421	14.510	.01063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**9.0974**	**.00104**	**.00791**	**-.00044**	**.00238**	**.00344**	**3.0562**
Stddev	.00027	.0266	.00022	.00341	.00108	.00106	.00377	.0143
%RSD	177.52	.29255	21.553	43.138	246.08	44.702	109.39	.46838
#1	.00044	9.1032	.00096	.00908	-.00167	.00123	-.00089	3.0403
#2	-.00009	9.1207	.00129	.00407	.00037	.00256	.00530	3.0605
#3	.00010	9.0684	.00086	.01058	-.00002	.00334	.00593	3.0679
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403166201 Acquired: 4/3/2014 22:17:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00066**	**.74779**	**.00014**	**-.00181**	**.00013**	**.00364**	**.63920**
Stddev	.00020	.00261	.00096	.00123	.00015	.00015	.11225
%RSD	31.014	.34943	694.42	67.913	116.83	4.0649	17.561
#1	.00088	.74479	.00048	-.00164	.00008	.00378	.52736
#2	.00059	.74908	-.00095	-.00067	.00001	.00363	.75186
#3	.00049	.74952	.00089	-.00312	.00030	.00349	.63838
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19578.**	**21758.**
Stddev	55.	387.
%RSD	.27858	1.7768
#1	19515.	21314.
#2	19612.	21935.
#3	19607.	22024.

Approved: April 04, 2014

Sample Name: L1403166203 Acquired: 4/3/2014 22:21:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00053**	**.05392**	**.00131**	**.00944**	**.04311**	**.00004**	**32.745**	**.00035**
Stddev	.00031	.00633	.00053	.00029	.00017	.00004	.031	.00003
%RSD	57.402	11.733	40.261	3.0534	.39233	97.631	.09411	8.7381
#1	.00078	.05897	.00154	.00967	.04323	.00003	32.778	.00032
#2	.00063	.05597	.00071	.00912	.04318	.00001	32.742	.00035
#3	.00019	.04682	.00169	.00953	.04292	.00009	32.717	.00038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**.00008**	**.00043**	**.09428**	**1.5182**	**.02641**	**13.094**	**.00730**
Stddev	.00008	.00036	.00021	.00279	.0505	.00091	.043	.00011
%RSD	100.29	468.26	49.145	2.9578	3.3258	3.4263	.33089	1.4974
#1	-.00004	.00010	.00047	.09643	1.5601	.02714	13.133	.00718
#2	-.00016	.00042	.00020	.09113	1.4621	.02671	13.047	.00732
#3	-.00002	-.00029	.00062	.09528	1.5322	.02540	13.103	.00740
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**18.946**	**.00139**	**.00030**	**-.00144**	**.00325**	**.00312**	**3.0084**
Stddev	.00009	.044	.00025	.00384	.00269	.00188	.00319	.0109
%RSD	73.413	.23358	18.305	1278.7	187.33	57.846	102.13	.36133
#1	.00002	18.980	.00118	.00350	-.00282	.00126	-.00049	3.0192
#2	.00016	18.961	.00131	.00136	.00166	.00500	.00432	2.9975
#3	.00020	18.896	.00167	-.00396	-.00315	.00350	.00553	3.0086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403166203 Acquired: 4/3/2014 22:21:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00041**	**.69328**	**-.00138**	**-.00072**	**.00014**	**.00394**	**.13944**
Stddev	.00035	.00081	.00094	.00093	.00026	.00007	.29332
%RSD	84.698	.11696	68.563	129.56	181.99	1.7469	210.36
#1	.00023	.69417	-.00096	.00036	-.00009	.00390	.12833
#2	.00019	.69309	-.00246	-.00123	.00010	.00402	.43816
#3	.00082	.69259	-.00071	-.00130	.00042	.00390	-.14818
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19704.**	**21708.**
Stddev	70.	330.
%RSD	.35635	1.5187
#1	19623.	22081.
#2	19737.	21590.
#3	19752.	21454.

Approved: April 04, 2014

Sample Name: L1403166301 Acquired: 4/3/2014 22:25:00 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**.05154**	**.00130**	**.00439**	**.04611**	**.00004**	**23.112**
Stddev	.00003	.01818	.00111	.00006	.00018	.00001	.023
%RSD	43.603	35.270	85.054	1.3135	.38033	37.220	.10061
#1	.00009	.06985	.00166	.00444	.04611	.00005	23.107
#2	.00003	.05126	.00219	.00433	.04593	.00003	23.091
#3	.00007	.03350	.00006	.00441	.04628	.00003	23.137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00028**	**.00005**	**.00021**	**.00028**	**.20871**	**1.9954**	**.00129**
Stddev	.00009	.00024	.00041	.00034	.00270	.0417	.00286
%RSD	33.096	508.82	191.64	120.79	1.2929	2.0908	221.79
#1	.00032	.00031	-.00024	.00064	.21129	2.0348	.00100
#2	.00034	-.00015	.00032	-.00004	.20894	1.9998	-.00142
#3	.00017	-.00002	.00055	.00025	.20591	1.9517	.00429
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.101**	**.14048**	**.00011**	**3.7387**	**.00100**	**.00308**	**.00017**
Stddev	.031	.00172	.00015	.0012	.00038	.00394	.00079
%RSD	.27792	1.2215	131.97	.03261	37.440	127.99	468.28
#1	11.067	.13852	-.00006	3.7401	.00057	.00477	.00082
#2	11.127	.14169	.00022	3.7381	.00122	-.00143	.00040
#3	11.110	.14123	.00017	3.7378	.00122	.00590	-.00071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014

Sample Name: L1403166301 Acquired: 4/3/2014 22:25:00 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00164**	**.00277**	**3.9336**	**.00043**	**.11865**	**.00007**	**-.00242**
Stddev	.00109	.00172	.0054	.00037	.00027	.00030	.00101
%RSD	66.479	62.039	.13825	86.887	.22961	433.36	41.783
#1	.00044	.00099	3.9319	.00016	.11878	.00036	-.00325
#2	.00189	.00442	3.9292	.00027	.11833	-.00023	-.00271
#3	.00257	.00291	3.9396	.00085	.11883	.00008	-.00129
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00017**	**.01536**	F **-.02375**
Stddev	.00031	.00005	.98085
%RSD	188.66	.29533	4130.0
#1	-.00042	.01532	-.96747
#2	.00018	.01541	-.09420
#3	-.00026	.01536	.99042
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19822.**	**21575.**
Stddev	16.	291.
%RSD	.08271	1.3495
#1	19824.	21907.
#2	19838.	21364.
#3	19805.	21454.

Approved: April 04, 2014

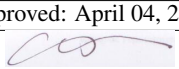
Sample Name: L1403166303 Acquired: 4/3/2014 22:28:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00013**	**.09065**	**-.00166**	**.00403**	**.02973**	**.00004**	**11.899**	**.00025**
Stddev	.00022	.01963	.00059	.00079	.00007	.00002	.015	.00008
%RSD	160.00	21.652	35.660	19.627	.23185	58.493	.12284	34.146
#1	-.00036	.09670	-.00158	.00362	.02981	.00004	11.907	.00020
#2	.00007	.10655	-.00228	.00352	.02970	.00002	11.907	.00034
#3	-.00012	.06871	-.00111	.00494	.02969	.00006	11.882	.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00044**	**.00032**	**.00050**	**.10950**	**1.6450**	**.00085**	**5.7381**	**.00840**
Stddev	.00024	.00016	.00030	.00176	.0184	.00052	.0278	.00008
%RSD	56.065	51.892	59.629	1.6045	1.1203	60.505	.48496	.93119
#1	-.00032	.00027	.00083	.10850	1.6562	.00084	5.7362	.00836
#2	-.00072	.00050	.00043	.10848	1.6552	.00138	5.7112	.00835
#3	-.00027	.00018	.00024	.11153	1.6238	.00034	5.7668	.00849
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**2.5129**	**.01570**	**-.00033**	**-.00020**	**.00266**	**.00006**	**3.1736**
Stddev	.00024	.0261	.02538	.00506	.00200	.00183	.00171	.0459
%RSD	476.10	1.0371	161.67	1553.4	1008.8	69.000	3049.2	1.4450
#1	.00031	2.5429	.00114	.00243	.00087	.00102	.00202	3.1479
#2	.00001	2.5001	.00095	-.00617	.00104	.00232	-.00077	3.1465
#3	-.00017	2.4957	.04500	.00277	-.00250	.00463	-.00109	3.2266
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403166303 Acquired: 4/3/2014 22:28:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00059**	**.05809**	**.00088**	**-.00264**	**-.00002**	**.00325**	**1.1327**
Stddev	.00027	.00019	.00035	.00014	.00020	.00176	.2708
%RSD	46.107	.32489	39.543	5.3552	865.62	54.111	23.911
#1	.00028	.05788	.00048	-.00257	-.00005	.00219	1.0086
#2	.00076	.05824	.00106	-.00281	.00019	.00228	1.4434
#3	.00074	.05815	.00110	-.00256	-.00021	.00528	.94613
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19623.**	**22181.**
Stddev	260.	167.
%RSD	1.3235	.75243
#1	19799.	22033.
#2	19745.	22362.
#3	19324.	22148.

Approved: April 04, 2014

Sample Name: L1404003901 Acquired: 4/3/2014 22:32:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00026**	**.05733**	**.00022**	**.09902**	**.02012**	**-.00005**	**413.25**
Stddev	.00063	.00899	.00147	.00165	.00004	.00001	.02
%RSD	242.29	15.681	655.24	1.6708	.18373	27.130	.00515
#1	-.00027	.04745	-.00068	.09814	.02008	-.00003	413.24
#2	.00037	.05952	.00192	.09800	.02015	-.00006	413.24
#3	-.00088	.06502	-.00056	.10093	.02013	-.00004	413.28
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00026**	**-.00034**	**.00155**	**.00340**	**.07260**	**4.3832**	**.01510**
Stddev	.00003	.00019	.00042	.00030	.00354	.0279	.00079
%RSD	10.106	54.329	26.751	8.9576	4.8693	.63723	5.2506
#1	.00023	-.00024	.00149	.00357	.07047	4.3522	.01418
#2	.00026	-.00056	.00200	.00304	.07668	4.3910	.01552
#3	.00028	-.00023	.00117	.00358	.07066	4.4064	.01558
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.8543**	**.00126**	**.00177**	F **477.87**	**.00159**	**.06798**	**-.00046**
Stddev	.0027	.00006	.00015	5.52	.00029	.00723	.00083
%RSD	.06987	4.7606	8.2362	1.1557	18.293	10.641	179.24
#1	3.8575	.00119	.00175	471.55	.00182	.07563	-.00072
#2	3.8530	.00129	.00163	481.76	.00126	.06708	-.00114
#3	3.8526	.00130	.00192	480.29	.00170	.06124	.00046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 04, 2014

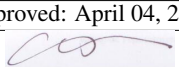
Sample Name: L1404003901 Acquired: 4/3/2014 22:32:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00118**	**-.00048**	**4.7676**	**.00002**	**.39100**	**-.00193**	**-.00186**
Stddev	.00198	.00190	.0181	.00024	.00113	.00075	.00135
%RSD	168.19	396.07	.37932	1239.5	.28828	39.066	72.848
#1	-.00111	-.00008	4.7863	.00002	.39158	-.00108	-.00252
#2	.00222	.00119	4.7663	.00026	.39172	-.00253	-.00030
#3	.00241	-.00254	4.7502	-.00022	.38970	-.00217	-.00276
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00995**	**.00290**	F **-.24464**
Stddev	.00021	.00003	.54280
%RSD	2.0796	.89334	221.88
#1	.01017	.00292	-.06571
#2	.00976	.00287	-.85432
#3	.00994	.00290	.18611
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18254.**	**22066.**
Stddev	14.	336.
%RSD	.07935	1.5212
#1	18242.	22269.
#2	18270.	22249.
#3	18249.	21678.

Approved: April 04, 2014



Sample Name: CCV Acquired: 4/3/2014 22:35:56 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.42068**	**10.255**	**.41481**	**.53599**	**1.0158**	**.05242**	**10.299**
Stddev	.00335	.048	.00210	.00427	.0020	.00026	.025
%RSD	.79654	.47124	.50551	.79581	.20051	.49003	.23948
#1	.41777	10.200	.41422	.53148	1.0148	.05215	10.277
#2	.41992	10.271	.41713	.53652	1.0143	.05246	10.295
#3	.42435	10.292	.41306	.53996	1.0181	.05266	10.326
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05198**	**.20913**	**.52298**	**.52240**	**4.0873**	**51.572**	**1.0187**
Stddev	.00009	.00076	.00251	.00108	.0287	.129	.0022
%RSD	.18228	.36232	.48016	.20712	.70288	.25066	.21774
#1	.05189	.20831	.52010	.52115	4.0714	51.432	1.0165
#2	.05197	.20980	.52470	.52304	4.1205	51.598	1.0185
#3	.05208	.20930	.52415	.52300	4.0700	51.687	1.0209
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.210**	**.52262**	**1.0250**	**50.526**	**.51889**	**10.293**	**.52084**
Stddev	.066	.00228	.0016	.091	.00190	.031	.00340
%RSD	.64837	.43532	.15570	.18087	.36583	.30047	.65280
#1	10.154	.52024	1.0244	50.568	.51748	10.319	.51849
#2	10.283	.52477	1.0268	50.421	.52105	10.302	.52474
#3	10.192	.52286	1.0237	50.588	.51814	10.259	.51930
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/3/2014 22:35:56 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2351**	**.42065**	**5.1460**	**1.0481**	**1.0367**	**1.0058**	**.51547**
Stddev	.0070	.00336	.0098	.0061	.0040	.0036	.00406
%RSD	.56691	.79777	.19026	.57849	.38628	.35635	.78772
#1	1.2271	.41829	5.1441	1.0412	1.0321	1.0018	.51487
#2	1.2386	.41917	5.1372	1.0526	1.0387	1.0067	.51980
#3	1.2398	.42449	5.1565	1.0506	1.0394	1.0088	.51174
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0424**	**1.0414**	F **.80322**
Stddev	.0061	.0043	1.2095
%RSD	.58343	.40788	150.59
#1	1.0358	1.0437	.15857
#2	1.0436	1.0441	.05256
#3	1.0477	1.0365	2.1985
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19736.**	**21922.**
Stddev	115.	136.
%RSD	.58114	.62104
#1	19868.	22040.
#2	19671.	21773.
#3	19668.	21952.

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/3/2014 22:39:12 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**.00160**	**.00134**	**.00188**	**-.00017**	**.00003**	**.00991**
Stddev	.00008	.00940	.00211	.00111	.00022	.00000	.00959
%RSD	166.95	589.14	156.93	59.111	129.84	4.3904	96.798
#1	-.00005	.00858	.00038	.00062	-.00013	.00003	-.00046
#2	.00010	.00530	.00376	.00272	-.00040	.00003	.01846
#3	.00010	-.00909	-.00012	.00230	.00003	.00003	.01172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**-.00009**	**.00038**	**.00041**	**.00061**	**.01652**	**-.00228**
Stddev	.00012	.00017	.00015	.00004	.00496	.01149	.00130
%RSD	228.12	191.62	38.466	10.439	816.53	69.594	56.795
#1	.00016	.00000	.00051	.00044	.00110	.02745	-.00127
#2	.00008	.00002	.00022	.00036	-.00458	.00453	-.00183
#3	-.00008	-.00029	.00041	.00042	.00530	.01757	-.00375
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.02601**	**.00002**	**.00009**	**.00218**	**-.00073**	**.00147**	**-.00219**
Stddev	.02321	.00007	.00030	.01502	.00036	.00340	.00037
%RSD	89.220	461.94	321.12	688.00	49.341	231.71	17.007
#1	-.05265	.00010	-.00022	.01867	-.00040	.00233	-.00262
#2	-.01016	.00000	.00037	-.00140	-.00068	.00435	-.00191
#3	-.01522	-.00005	.00013	-.01072	-.00112	-.00228	-.00205
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/3/2014 22:39:12 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00124**	**-.00078**	**.00241**	**.00017**	**.00017**	**-.00074**	**-.00129**
Stddev	.00174	.00087	.00124	.00011	.00006	.00042	.00088
%RSD	139.93	111.51	51.445	65.938	35.073	56.339	68.158
#1	-.00312	-.00117	.00337	.00026	.00012	-.00028	-.00048
#2	-.00094	.00022	.00101	.00020	.00023	-.00110	-.00223
#3	.00032	-.00138	.00285	.00004	.00015	-.00084	-.00116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00002**	**-.00006**	F **.12092**
Stddev	.00009	.00001	.40997
%RSD	444.03	24.011	339.04
#1	-.00010	-.00005	.26562
#2	.00007	-.00007	-.34178
#3	-.00002	-.00006	.43892
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20214.**	**22255.**
Stddev	240.	161.
%RSD	1.1866	.72483
#1	20412.	22288.
#2	20282.	22398.
#3	19947.	22080.

Approved: April 04, 2014

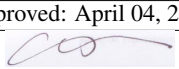
Sample Name: PBW 88 Acquired: 4/3/2014 22:42:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469555-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00037**	**.02297**	**.00048**	**.00087**	**.00136**	**.00004**	**.02708**	**.00013**
Stddev	.00008	.00647	.00091	.00086	.00020	.00002	.00583	.00000
%RSD	21.469	28.174	190.33	99.450	14.997	57.041	21.542	2.9094
#1	-.00039	.02430	.00142	.00149	.00112	.00004	.03378	.00013
#2	-.00028	.01593	-.00039	-.00012	.00147	.00005	.02310	.00012
#3	-.00044	.02867	.00041	.00122	.00148	.00001	.02437	.00013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00011**	**.00000**	**.00070**	**-.00104**	**.03654**	**-.00085**	**-.00395**	**.00050**
Stddev	.00012	.00024	.00037	.00875	.04186	.00026	.01167	.00004
%RSD	106.18	6340.0	52.989	842.55	114.58	30.791	295.77	8.8218
#1	-.00014	-.00024	.00031	.00891	.07858	-.00092	-.00455	.00046
#2	-.00021	.00024	.00105	-.00447	-.00514	-.00107	.00802	.00048
#3	.00002	.00000	.00072	-.00755	.03618	-.00056	-.01530	.00055
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**.01502**	**-.00039**	**-.00127**	**-.00188**	**.00053**	**.00195**	**.00189**
Stddev	.00005	.01224	.00034	.00330	.00279	.00131	.00293	.00076
%RSD	28.270	81.458	88.647	259.60	148.32	244.98	150.64	40.291
#1	.00024	.02640	-.00031	-.00359	.00049	.00200	.00434	.00252
#2	.00013	.01659	-.00009	.00251	-.00495	.00011	-.00132	.00210
#3	.00019	.00208	-.00076	-.00273	-.00117	-.00051	.00282	.00104
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: PBW 88 Acquired: 4/3/2014 22:42:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469555-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00028**	**.00044**	**-.00040**	**-.00269**	**.00015**	**.00317**	**.54267**
Stddev	.00020	.00011	.00086	.00142	.00027	.00003	.37318
%RSD	70.790	25.858	216.57	52.584	178.93	.89943	68.767
#1	.00026	.00056	-.00095	-.00106	.00033	.00315	.48577
#2	.00010	.00033	.00060	-.00347	.00027	.00320	.94103
#3	.00049	.00044	-.00084	-.00355	-.00016	.00316	.20122
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19662.**	**21838.**
Stddev	109.	259.
%RSD	.55394	1.1840
#1	19752.	22081.
#2	19693.	21866.
#3	19541.	21566.

Approved: April 04, 2014

Sample Name: LCSW 88 Acquired: 4/3/2014 22:46:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469555-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20559**	**4.9541**	**.19857**	**1.0400**	**.48268**	**.02544**	**5.0425**
Stddev	.00040	.0176	.00166	.0010	.00042	.00007	.0187
%RSD	.19672	.35595	.83426	.09212	.08767	.29249	.37129
#1	.20535	4.9591	.19964	1.0392	.48253	.02551	5.0423
#2	.20536	4.9345	.19941	1.0398	.48234	.02544	5.0613
#3	.20606	4.9687	.19666	1.0411	.48315	.02537	5.0238
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02512**	**.10311**	**.25630**	**.25584**	**1.9452**	**24.919**	**.48674**
Stddev	.00022	.00001	.00086	.00090	.0076	.073	.00051
%RSD	.89171	.00794	.33624	.35322	.39110	.29147	.10468
#1	.02494	.10310	.25700	.25534	1.9446	24.908	.48712
#2	.02505	.10312	.25655	.25530	1.9532	24.997	.48694
#3	.02537	.10312	.25534	.25688	1.9380	24.853	.48616
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.8033**	**.25208**	**.50318**	**23.560**	**.25259**	F **-.00522**	**.25321**
Stddev	.0283	.00034	.00120	.056	.00010	.00080	.00235
%RSD	.59004	.13668	.23809	.23841	.03982	15.273	.92882
#1	4.7802	.25178	.50229	23.539	.25270	-.00430	.25482
#2	4.8349	.25246	.50272	23.517	.25250	-.00574	.25051
#3	4.7947	.25201	.50454	23.623	.25257	-.00562	.25430
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

Sample Name: LCSW 88 Acquired: 4/3/2014 22:46:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469555-03

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.60252**	**.20119**	**2.5476**	**.55008**	**.51197**	**.47913**	**.25269**
Stddev	.00219	.00394	.0165	.00576	.00209	.00139	.00240
%RSD	.36420	1.9592	.64616	1.0477	.40916	.29009	.94834
#1	.60062	.19882	2.5469	.54972	.51229	.47852	.25176
#2	.60201	.19900	2.5315	.54451	.51389	.48072	.25091
#3	.60492	.20574	2.5644	.55602	.50973	.47815	.25542
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.50404**	**.50876**	**10.892**
Stddev	.00029	.00147	.153
%RSD	.05812	.28874	1.4029
#1	.50437	.50819	11.023
#2	.50397	.50765	10.724
#3	.50379	.51042	10.928
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19684.**	**22000.**
Stddev	10.	39.
%RSD	.05095	.17877
#1	19674.	21963.
#2	19694.	21994.
#3	19683.	22042.

Approved: April 04, 2014

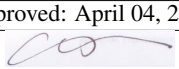
Sample Name: L1403162101 Acquired: 4/3/2014 22:49:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00017**	**.06974**	**-.00077**	**.00790**	**.09927**	**.00005**	**65.223**	**.00058**
Stddev	.00030	.01612	.00186	.00057	.00073	.00001	.237	.00008
%RSD	180.64	23.118	241.81	7.1869	.73558	14.693	.36295	13.754
#1	.00012	.07656	-.00157	.00842	.09855	.00005	64.984	.00067
#2	-.00013	.08133	.00136	.00729	.09924	.00006	65.457	.00055
#3	-.00048	.05133	-.00209	.00799	.10001	.00005	65.226	.00052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00037**	**.00110**	**.00109**	**.17038**	**1.2556**	**.02431**	**27.187**	**.00182**
Stddev	.00003	.00005	.00051	.00535	.0243	.00077	.226	.00006
%RSD	6.9628	4.9192	46.269	3.1379	1.9322	3.1677	.82994	3.4732
#1	-.00037	.00106	.00152	.16433	1.2295	.02342	26.950	.00176
#2	-.00039	.00109	.00122	.17234	1.2775	.02480	27.211	.00189
#3	-.00034	.00116	.00054	.17448	1.2598	.02470	27.399	.00183
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**2.9255**	**.00022**	**.00221**	**-.00035**	**.00094**	**.00033**	**4.4322**
Stddev	.00011	.0147	.00032	.00455	.00031	.00106	.00312	.0017
%RSD	173.03	.50289	144.53	206.04	89.452	112.72	937.28	.03923
#1	.00011	2.9158	-.00010	-.00278	-.00070	.00215	-.00107	4.4329
#2	-.00006	2.9424	.00054	.00329	-.00023	.00014	.00390	4.4302
#3	.00015	2.9182	.00022	.00612	-.00011	.00054	-.00184	4.4335
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403162101 Acquired: 4/3/2014 22:49:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00093**	**.07592**	**.00207**	**-.00221**	**.00051**	**.00242**	**.73651**
Stddev	.00017	.00051	.00011	.00111	.00027	.00005	.34907
%RSD	18.074	.66647	5.1116	50.239	52.492	2.0690	47.395
#1	.00109	.07619	.00219	-.00345	.00065	.00247	.33745
#2	.00075	.07624	.00199	-.00129	.00020	.00240	.88691
#3	.00096	.07534	.00203	-.00190	.00068	.00238	.98516
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19413.**	**21311.**
Stddev	20.	649.
%RSD	.10555	3.0445
#1	19412.	22026.
#2	19434.	21146.
#3	19393.	20760.

Approved: April 04, 2014

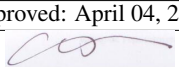
Sample Name: L1403162102 Acquired: 4/3/2014 22:53:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**.00970**	**.00067**	**.00253**	**.00092**	**.00004**	**.12678**	**.00019**
Stddev	.00019	.00675	.00075	.00073	.00002	.00001	.00743	.00002
%RSD	790.64	69.625	111.85	28.840	2.2127	28.421	5.8642	11.342
#1	.00004	.00541	.00152	.00322	.00093	.00004	.13081	.00022
#2	.00012	.00621	.00042	.00262	.00094	.00003	.13133	.00017
#3	-.00024	.01748	.00008	.00176	.00090	.00006	.11820	.00019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00020**	**.00032**	**.00069**	**.00360**	**.01090**	**.00089**	**.02762**	**.00050**
Stddev	.00019	.00024	.00024	.00137	.01504	.00112	.00729	.00008
%RSD	92.761	76.022	34.526	38.187	138.00	125.72	26.387	15.076
#1	.00001	.00055	.00087	.00513	.02282	.00175	.02381	.00043
#2	-.00035	.00033	.00042	.00321	-.00600	-.00037	.03603	.00050
#3	-.00027	.00007	.00077	.00246	.01588	.00129	.02303	.00058
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.64201**	**-.00007**	**-.00097**	**-.00066**	**.00198**	**.00239**	**.00551**
Stddev	.00008	.01226	.00015	.00068	.00227	.00217	.00331	.00164
%RSD	85.963	1.9094	210.54	70.225	343.37	109.55	138.60	29.713
#1	.00018	.64103	-.00015	-.00065	.00112	.00397	.00439	.00439
#2	.00010	.65474	-.00017	-.00175	-.00321	-.00034	.00421	.00739
#3	.00001	.63028	.00010	-.00051	.00011	.00231	-.00143	.00475
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403162102 Acquired: 4/3/2014 22:53:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00113**	**.00302**	**-.00012**	**-.00271**	**-.00013**	**.00153**	**.13809**
Stddev	.00052	.00007	.00091	.00099	.00018	.00010	.26072
%RSD	45.880	2.3880	740.30	36.550	138.94	6.3037	188.80
#1	.00101	.00299	.00091	-.00316	-.00033	.00152	.42884
#2	.00068	.00297	-.00081	-.00339	-.00008	.00144	.06037
#3	.00169	.00310	-.00047	-.00157	.00002	.00164	-.07493
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19764.**	**20881.**
Stddev	10.	285.
%RSD	.05308	1.3660
#1	19758.	21193.
#2	19758.	20818.
#3	19776.	20633.

Approved: April 04, 2014

Sample Name: L1403162103 Acquired: 4/3/2014 22:56:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**.00220**	**.00006**	**.00163**	**.00006**	**.00004**	**.07741**
Stddev	.00041	.00687	.00029	.00137	.00026	.00002	.00155
%RSD	706.25	312.17	519.51	83.646	474.16	56.397	2.0025
#1	.00006	.00074	.00014	.00264	.00020	.00005	.07755
#2	.00046	.00968	-.00027	.00219	.00022	.00005	.07888
#3	-.00035	-.00382	.00030	.00008	-.00025	.00001	.07579
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**-.00032**	**.00030**	**.00035**	**.00716**	**.02638**	**-.00187**
Stddev	.00009	.00006	.00031	.00055	.00332	.01283	.00197
%RSD	68.496	19.524	103.15	158.49	46.297	48.629	105.22
#1	.00004	-.00033	.00064	.00034	.00577	.02224	-.00289
#2	.00014	-.00025	.00024	-.00020	.01095	.01614	-.00312
#3	.00021	-.00038	.00003	.00090	.00477	.04077	.00040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00271**	**.00034**	**.00024**	**.05830**	**.00060**	F **-.00407**	**-.00208**
Stddev	.02833	.00005	.00004	.01176	.00076	.00540	.00020
%RSD	1046.3	13.885	17.132	20.172	125.41	132.67	9.6834
#1	.02455	.00035	.00026	.04586	-.00012	-.01002	-.00228
#2	-.03199	.00038	.00019	.05981	.00139	-.00274	-.00188
#3	-.00068	.00029	.00027	.06924	.00055	.00054	-.00206
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

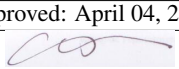
Sample Name: L1403162103 Acquired: 4/3/2014 22:56:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00178**	**.00020**	**.01312**	**.00087**	**.00055**	**-.00088**	**-.00142**
Stddev	.00145	.00119	.00105	.00009	.00008	.00067	.00084
%RSD	81.650	580.02	7.9877	10.560	15.198	75.942	59.456
#1	.00298	-.00112	.01381	.00078	.00045	-.00165	-.00209
#2	.00017	.00116	.01191	.00096	.00059	-.00052	-.00169
#3	.00218	.00057	.01363	.00087	.00060	-.00047	-.00047
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00022**	**.00186**	**.32650**
Stddev	.00016	.00005	.85048
%RSD	73.340	2.7604	260.48
#1	.00005	.00190	1.3080
#2	.00037	.00188	-.19200
#3	.00025	.00180	-.13652
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19812.**	**22044.**
Stddev	56.	25.
%RSD	.28188	.11163
#1	19762.	22023.
#2	19801.	22038.
#3	19872.	22071.

Approved: April 04, 2014



Sample Name: L1403162104 Acquired: 4/3/2014 23:00:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**.13550**	**-.00011**	**.00688**	**.02781**	**.00005**	**47.181**	**.00027**
Stddev	.00106	.01184	.00058	.00019	.00008	.00001	.059	.00008
%RSD	6689.3	8.7386	546.78	2.7613	.28853	27.553	.12500	31.517
#1	-.00059	.14255	.00019	.00708	.02774	.00006	47.120	.00026
#2	-.00066	.12183	-.00078	.00670	.02790	.00005	47.237	.00018
#3	.00120	.14213	.00027	.00686	.02778	.00003	47.187	.00035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00033**	**.00061**	**.00051**	**.10008**	**.75708**	**.01604**	**15.194**	**.00054**
Stddev	.00012	.00048	.00019	.00658	.01868	.00075	.032	.00008
%RSD	34.723	78.749	37.866	6.5794	2.4680	4.6473	.20974	15.180
#1	-.00046	.00076	.00046	.10311	.76828	.01687	15.161	.00062
#2	-.00029	.00007	.00073	.09253	.76744	.01543	15.225	.00056
#3	-.00025	.00100	.00035	.10460	.73551	.01582	15.194	.00046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**4.2990**	**.01160**	**.00163**	**.00079**	**.00272**	**.00092**	**3.0789**
Stddev	.00003	.0068	.02112	.00304	.00210	.00218	.00141	.0883
%RSD	15.297	.15736	182.11	186.72	265.07	80.030	153.14	2.8681
#1	.00016	4.2920	-.00033	.00317	-.00137	.00190	-.00012	3.0499
#2	.00022	4.3055	.03598	-.00187	.00282	.00519	.00253	3.1780
#3	.00018	4.2995	-.00086	.00359	.00092	.00107	.00035	3.0087
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403162104 Acquired: 4/3/2014 23:00:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00069**	**.06031**	**.00262**	**-.00230**	**.00018**	**.00320**	**.52972**
Stddev	.00062	.00018	.00039	.00153	.00019	.00123	.52184
%RSD	89.486	.30537	14.716	66.571	105.34	38.588	98.513
#1	.00091	.06016	.00235	-.00354	.00012	.00243	.52925
#2	.00118	.06052	.00306	-.00059	.00039	.00462	1.0518
#3	-.00001	.06025	.00244	-.00276	.00003	.00254	.00811
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19374.**	**22138.**
Stddev	234.	107.
%RSD	1.2082	.48489
#1	19638.	22247.
#2	19191.	22135.
#3	19292.	22032.

Approved: April 04, 2014

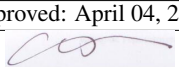
Sample Name: L1403162105 Acquired: 4/3/2014 23:03:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**.29298**	**-.00161**	**.00676**	**.02901**	**.00007**	**48.337**	**.00047**
Stddev	.00028	.01758	.00125	.00076	.00014	.00001	.186	.00008
%RSD	137.21	5.9993	77.490	11.285	.48271	16.801	.38578	15.970
#1	-.00012	.27526	-.00018	.00663	.02902	.00008	48.122	.00048
#2	.00032	.29327	-.00216	.00759	.02915	.00007	48.454	.00039
#3	.00040	.31041	-.00250	.00608	.02887	.00006	48.435	.00054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00014**	**.00094**	**.00077**	**.27150**	**.81388**	**.01806**	**15.599**	**.00333**
Stddev	.00010	.00012	.00006	.00714	.01378	.00071	.035	.00007
%RSD	73.336	13.239	7.3808	2.6290	1.6932	3.9462	.22476	2.0152
#1	-.00014	.00091	.00072	.26334	.80333	.01758	15.577	.00337
#2	-.00003	.00083	.00076	.27452	.82947	.01888	15.580	.00326
#3	-.00024	.00107	.00084	.27662	.80883	.01772	15.639	.00337
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00027**	**4.5157**	**.00041**	**.00619**	**.00097**	**-.00050**	**-.00058**	**3.4015**
Stddev	.00028	.0348	.00071	.00259	.00122	.00212	.00324	.0330
%RSD	103.73	.77078	172.13	41.769	125.69	420.28	560.94	.96944
#1	.00006	4.4756	-.00008	.00888	-.00028	-.00254	-.00427	3.4179
#2	.00059	4.5380	.00009	.00599	.00104	.00169	.00075	3.4232
#3	.00016	4.5335	.00122	.00372	.00216	-.00066	.00179	3.3636
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403162105 Acquired: 4/3/2014 23:03:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00078**	**.06220**	**.00403**	**-.00153**	**.00066**	**.00227**	**1.3533**
Stddev	.00040	.00062	.00109	.00104	.00021	.00001	.4859
%RSD	51.673	.99383	27.001	67.656	31.581	.60082	35.902
#1	.00123	.06148	.00298	-.00156	.00042	.00226	1.6805
#2	.00046	.06257	.00515	-.00048	.00075	.00228	.79501
#3	.00065	.06253	.00397	-.00256	.00080	.00226	1.5842
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19580.**	**21924.**
Stddev	10.	498.
%RSD	.05249	2.2700
#1	19569.	21349.
#2	19590.	22223.
#3	19582.	22200.

Approved: April 04, 2014

Sample Name: L1403162106 Acquired: 4/3/2014 23:07:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**.23069**	**.00033**	**.00374**	**.01059**	**.00006**	**18.761**	**.00018**
Stddev	.00061	.02157	.00149	.00070	.00040	.00002	.049	.00004
%RSD	1779.7	9.3508	453.03	18.652	3.7688	30.436	.26108	24.193
#1	.00024	.20599	.00082	.00453	.01064	.00006	18.807	.00016
#2	.00040	.24582	-.00134	.00349	.01016	.00007	18.710	.00022
#3	-.00074	.24025	.00151	.00320	.01095	.00004	18.767	.00015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00027**	**.00101**	**.00080**	**.23373**	**.59049**	**.01026**	**6.0486**	**.00155**
Stddev	.00022	.00047	.00026	.00104	.04728	.00228	.0482	.00003
%RSD	81.580	46.120	32.774	.44620	8.0061	22.243	.79664	2.2195
#1	-.00050	.00154	.00099	.23471	.63860	.01267	5.9940	.00152
#2	-.00025	.00084	.00092	.23263	.58878	.00997	6.0663	.00158
#3	-.00006	.00066	.00050	.23385	.54409	.00813	6.0854	.00154
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**6.1926**	**.00001**	**.00293**	**-.00018**	**.00063**	**.00314**	**2.5871**
Stddev	.00030	.0289	.00020	.00500	.00066	.00030	.00269	.0220
%RSD	175.53	.46726	1382.3	170.60	368.53	47.336	85.558	.84874
#1	.00017	6.1728	.00005	.00863	.00023	.00057	.00108	2.5753
#2	-.00013	6.1793	.00019	.00083	-.00094	.00036	.00216	2.6125
#3	.00047	6.2259	-.00020	-.00067	.00017	.00094	.00618	2.5737
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403162106 Acquired: 4/3/2014 23:07:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00087**	**.02671**	**.00430**	**-.00220**	**.00063**	**.00240**	**.74426**
Stddev	.00055	.00014	.00043	.00133	.00012	.00010	.79662
%RSD	63.178	.51484	9.9233	60.329	18.304	4.2239	107.03
#1	.00101	.02659	.00463	-.00346	.00064	.00242	1.4363
#2	.00027	.02668	.00445	-.00082	.00051	.00249	-.12655
#3	.00134	.02686	.00382	-.00232	.00074	.00229	.92303
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19527.**	**21761.**
Stddev	209.	432.
%RSD	1.0728	1.9830
#1	19286.	22235.
#2	19626.	21658.
#3	19669.	21391.

Approved: April 04, 2014

Sample Name: L1403162106PS Acquired: 4/3/2014 23:11:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469838-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20756**	**5.2780**	**.20028**	**1.0559**	**.50172**	**.02563**	**22.087**
Stddev	.00083	.0120	.00174	.0071	.00101	.00009	.035
%RSD	.39937	.22741	.86964	.67214	.20088	.34503	.15948
#1	.20781	5.2812	.19886	1.0620	.50277	.02573	22.065
#2	.20664	5.2647	.20222	1.0481	.50076	.02556	22.070
#3	.20824	5.2880	.19976	1.0575	.50164	.02559	22.128
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02577**	**.10346**	**.25988**	**.25949**	**2.2252**	**25.775**	**.51013**
Stddev	.00008	.00001	.00086	.00077	.0101	.088	.00169
%RSD	.29946	.00746	.33160	.29589	.45357	.34116	.33059
#1	.02571	.10347	.25993	.25982	2.2271	25.875	.51054
#2	.02575	.10345	.25900	.26003	2.2143	25.711	.50828
#3	.02586	.10347	.26072	.25861	2.2342	25.738	.51158
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.249**	**.25868**	**.50941**	**30.267**	**.25700**	F **-.00357**	**.25688**
Stddev	.065	.00304	.00016	.073	.00036	.00164	.00291
%RSD	.63675	1.1752	.03230	.24090	.13965	45.786	1.1320
#1	10.186	.25564	.50934	30.256	.25742	-.00174	.25775
#2	10.244	.25869	.50929	30.200	.25680	-.00489	.25363
#3	10.316	.26172	.50960	30.344	.25679	-.00409	.25925
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

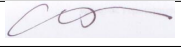
Sample Name: L1403162106PS Acquired: 4/3/2014 23:11:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469838-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.61632**	**.20378**	**4.8150**	**.00247**	**.53281**	**.49420**	**.25404**
Stddev	.00192	.00177	.0145	.00020	.00149	.00062	.00094
%RSD	.31172	.86850	.30034	7.9946	.28024	.12561	.36948
#1	.61635	.20179	4.8244	.00225	.53400	.49430	.25407
#2	.61823	.20518	4.8224	.00263	.53330	.49354	.25497
#3	.61439	.20436	4.7984	.00253	.53114	.49477	.25309
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.51048**	**.51718**	**1.8184**
Stddev	.00273	.00129	.3027
%RSD	.53511	.24931	16.649
#1	.51267	.51738	1.4703
#2	.50742	.51581	1.9646
#3	.51136	.51836	2.0202
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19230.**	**21363.**
Stddev	47.	310.
%RSD	.24548	1.4488
#1	19215.	21682.
#2	19282.	21343.
#3	19192.	21064.

Approved: April 04, 2014



Sample Name: L1403162106SDL Acquired: 4/3/2014 23:14:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469838-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00017**	**.05014**	**.00078**	**.00384**	**.00189**	**.00004**	**3.8459**	**.00005**
Stddev	.00058	.01299	.00149	.00029	.00023	.00002	.0120	.00020
%RSD	347.77	25.911	190.46	7.4318	12.210	48.926	.31084	407.84
#1	-.00047	.04658	.00157	.00405	.00162	.00002	3.8594	-.00018
#2	.00051	.03930	.00172	.00397	.00201	.00003	3.8418	.00012
#3	-.00054	.06454	-.00094	.00352	.00203	.00005	3.8366	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00011**	**.00005**	**.00045**	**.05127**	**.10430**	**.00236**	**1.2270**	**.00087**
Stddev	.00011	.00023	.00066	.00541	.01636	.00052	.0375	.00002
%RSD	100.19	449.52	147.70	10.548	15.690	22.204	3.0526	2.4771
#1	-.00023	.00031	.00079	.05025	.08724	.00281	1.2646	.00089
#2	-.00007	-.00005	.00086	.05711	.10580	.00248	1.1897	.00085
#3	-.00002	-.00011	-.00031	.04644	.11986	.00179	1.2268	.00088
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**1.2476**	**-.00005**	**-.00126**	**.00081**	**.00110**	**.00132**	**.52876**
Stddev	.00017	.0067	.00087	.00302	.00146	.00091	.00110	.00564
%RSD	66.396	.53920	1676.9	240.02	180.28	82.664	83.071	1.0669
#1	.00023	1.2548	.00093	-.00284	.00000	.00215	.00182	.53313
#2	.00043	1.2465	-.00037	-.00316	.00249	.00046	.00006	.53075
#3	.00009	1.2414	-.00071	.00222	-.00006	.00071	.00209	.52239
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403162106SDL Acquired: 4/3/2014 23:14:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469838-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00061**	**.00539**	**.00053**	**.00001**	**-.00006**	**.00202**	**.45249**
Stddev	.00006	.00014	.00155	.00084	.00014	.00012	.33800
%RSD	10.050	2.6869	290.72	9846.9	240.10	6.0413	74.698
#1	.00055	.00553	.00228	.00015	.00006	.00208	.45594
#2	.00060	.00524	-.00001	-.00089	-.00003	.00188	.78875
#3	.00067	.00541	-.00067	.00077	-.00021	.00211	.11278
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19930.**	**22281.**
Stddev	163.	112.
%RSD	.81585	.50056
#1	20009.	22340.
#2	20038.	22351.
#3	19743.	22152.

Approved: April 04, 2014

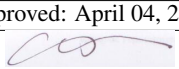
Sample Name: CCV Acquired: 4/3/2014 23:17:58 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40816**	**10.408**	**.41654**	**.52557**	**1.0065**	**.05191**	**10.372**	**.05209**
Stddev	.01007	.007	.00041	.01250	.0022	.00096	.028	.00031
%RSD	2.4664	.06518	.09847	2.3777	.21909	1.8404	.27114	.60338
#1	.40689	10.401	.41693	.52460	1.0082	.05172	10.401	.05223
#2	.39880	10.413	.41658	.51358	1.0073	.05107	10.371	.05231
#3	.41881	10.412	.41611	.53852	1.0040	.05295	10.345	.05173
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21069**	**.51716**	**.52483**	**4.0369**	**52.119**	**1.0072**	**10.182**	**.51982**
Stddev	.00064	.00776	.00223	.0099	.132	.0002	.091	.01108
%RSD	.30250	1.5004	.42459	.24433	.25271	.01978	.88981	2.1314
#1	.21142	.51616	.52739	4.0405	52.235	1.0070	10.272	.52204
#2	.21037	.50995	.52337	4.0445	52.147	1.0073	10.182	.50780
#3	.21027	.52537	.52373	4.0258	51.976	1.0073	10.091	.52962
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0232**	**49.374**	**.51829**	**10.333**	**.51858**	**1.2381**	**.42552**	**5.1423**
Stddev	.0035	.123	.00126	.035	.00353	.0088	.00280	.0230
%RSD	.34326	.24900	.24257	.33528	.68111	.70954	.65709	.44808
#1	1.0267	49.477	.51926	10.352	.52257	1.2482	.42813	5.1650
#2	1.0231	49.407	.51874	10.354	.51736	1.2345	.42585	5.1429
#3	1.0197	49.238	.51687	10.293	.51582	1.2318	.42257	5.1189
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Approved: April 04, 2014



Sample Name: CCV Acquired: 4/3/2014 23:17:58 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0644**	**1.0627**	**1.0014**	**.51177**	**1.0107**	**1.0469**	**1.0854**
Stddev	.0043	.0018	.0021	.00519	.0237	.0013	.6810
%RSD	.40697	.16453	.21399	1.0136	2.3397	.12385	62.745
#1	1.0660	1.0647	1.0011	.51392	1.0057	1.0464	1.8224
#2	1.0676	1.0619	1.0036	.51553	.99001	1.0460	.47936
#3	1.0595	1.0615	.99939	.50585	1.0365	1.0484	.95441
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19631.**	**21243.**
Stddev	64.	144.
%RSD	.32834	.67776
#1	19676.	21097.
#2	19660.	21384.
#3	19557.	21247.

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/3/2014 23:21:14 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**-.00059**	**.00252**	**.00261**	**.00004**	**.00002**	**.00920**
Stddev	.00034	.02655	.00064	.00082	.00034	.00001	.01285
%RSD	171.67	4516.3	25.369	31.584	786.73	53.432	139.65
#1	.00058	-.00661	.00313	.00277	.00027	.00003	-.00494
#2	-.00005	-.02360	.00185	.00172	.00022	.00001	.01237
#3	.00006	.02845	.00257	.00334	-.00035	.00003	.02016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**-.00007**	**.00033**	**.00033**	**.00448**	**.03161**	**.00021**
Stddev	.00007	.00024	.00017	.00053	.00268	.03125	.00033
%RSD	165.90	361.52	49.737	161.48	59.937	98.859	156.10
#1	.00000	-.00026	.00023	.00045	.00680	.05746	.00040
#2	.00001	-.00015	.00052	.00078	.00154	.04047	.00041
#3	.00011	.00021	.00024	-.00025	.00509	-.00311	-.00017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00105**	**.00002**	**.00015**	**.00838**	**-.00044**	**-.00125**	**-.00117**
Stddev	.01365	.00006	.00027	.00680	.00038	.00294	.00077
%RSD	1305.0	289.04	184.46	81.133	85.122	234.91	65.235
#1	-.01562	.00000	.00036	.00288	-.00045	.00076	-.00097
#2	.00105	-.00002	-.00016	.00627	-.00006	-.00462	-.00202
#3	.01143	.00010	.00025	.01598	-.00082	.00011	-.00053
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014

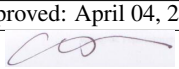
Sample Name: CCB Acquired: 4/3/2014 23:21:14 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00124**	**.00075**	**-.00213**	**.00000**	**.00010**	**-.00176**	**-.00100**
Stddev	.00056	.00340	.00034	.0003	.00004	.00144	.00099
%RSD	45.311	451.82	16.000	74285.	39.031	81.623	99.034
#1	-.00189	-.00315	-.00198	.00030	.00011	-.00338	-.00202
#2	-.00084	.00307	-.00188	.00003	.00014	-.00127	-.00097
#3	-.00100	.00233	-.00252	-.00033	.00006	-.00064	-.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00011**	**.00010**	F **.49309**
Stddev	.00038	.00006	.30667
%RSD	328.91	54.964	62.194
#1	-.00050	.00004	.79444
#2	-.00010	.00015	.50349
#3	.00025	.00011	.18136
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20104.**	**22389.**
Stddev	63.	29.
%RSD	.31222	.13028
#1	20169.	22358.
#2	20100.	22392.
#3	20044.	22416.

Approved: April 04, 2014



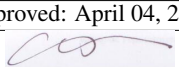
Sample Name: L1404003601 Acquired: 4/3/2014 23:24:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00154**	**.03504**	**-.00056**	**.89253**	F **94.960**	**-.00003**	F **1328.5**
Stddev	.00023	.00956	.00285	.00371	1.375	.00001	3.5
%RSD	14.752	27.271	509.16	.41524	1.4476	23.066	.26212
#1	-.00128	.02454	.00268	.89008	93.618	-.00002	1332.2
#2	-.00172	.04322	-.00268	.89679	94.897	-.00003	1328.1
#3	-.00161	.03736	-.00168	.89072	96.365	-.00004	1325.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Fail
High Limit					81.000		900.00
Low Limit					-.00500		-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00216**	**-.00074**	**.00257**	**.00395**	**8.5150**	**60.754**	**4.8702**
Stddev	.00010	.00035	.00067	.00024	.0895	.159	.0107
%RSD	4.6394	46.956	26.029	5.9541	1.0515	.26247	.22052
#1	.00206	-.00114	.00196	.00372	8.4117	60.616	4.8586
#2	.00226	-.00059	.00246	.00395	8.5691	60.716	4.8722
#3	.00214	-.00050	.00328	.00419	8.5643	60.928	4.8798
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**153.72**	**.50138**	**.00085**	F **3630.5**	**-.00162**	**.06878**	**-.00201**
Stddev	.10	.00307	.00020	3.1	.00073	.00223	.00169
%RSD	.06280	.61167	23.144	.08422	45.281	3.2361	84.125
#1	153.61	.49786	.00108	3633.3	-.00214	.07132	-.00016
#2	153.78	.50284	.00075	3627.2	-.00078	.06786	-.00347
#3	153.77	.50345	.00073	3630.9	-.00193	.06716	-.00240
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 04, 2014



Sample Name: L1404003601 Acquired: 4/3/2014 23:24:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00280**	**-.00290**	**1.5805**	**.00025**	^ *****	**-.01914**	**-.00068**
Stddev	.00091	.00339	.0713	.00030	-----	.00036	.00167
%RSD	32.622	116.96	4.5121	124.01	-----	1.8817	243.51
#1	.00223	-.00195	1.6167	.00004	^ -----	-.01878	.00088
#2	.00233	-.00009	1.6265	.00011	^ -----	-.01950	-.00049
#3	.00386	-.00666	1.4984	.00060	^ -----	-.01913	-.00244
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00007**	**.01183**	F **-11.338**
Stddev	.00015	.00036	.948
%RSD	205.78	3.0148	8.3597
#1	.00019	.01208	-11.492
#2	.00014	.01198	-10.322
#3	-.00010	.01142	-12.198
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**15453.**	**20415.**
Stddev	26.	58.
%RSD	.16919	.28628
#1	15466.	20482.
#2	15423.	20375.
#3	15470.	20388.

Approved: April 04, 2014

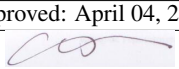
Sample Name: L1404003602 Acquired: 4/3/2014 23:28:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00153**	**.03493**	**.00114**	**.97985**	**79.103**	**-.00002**	F **1104.0**
Stddev	.00078	.02035	.00130	.00403	1.130	.00001	7.9
%RSD	51.092	58.257	114.59	.41152	1.4287	60.092	.71137
#1	-.00107	.01198	.00154	.98109	78.419	-.00003	1095.9
#2	-.00109	.05076	.00219	.98311	78.483	-.00001	1104.6
#3	-.00243	.04206	-.00032	.97534	80.408	-.00003	1111.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							900.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00178**	**-.00089**	**.00160**	**.00116**	**6.3507**	**50.966**	**4.1610**
Stddev	.00009	.00014	.00038	.00010	.0087	.146	.0115
%RSD	5.1498	15.778	23.952	8.2192	.13735	.28619	.27629
#1	.00171	-.00105	.00171	.00126	6.3520	50.947	4.1631
#2	.00188	-.00083	.00191	.00107	6.3414	50.831	4.1486
#3	.00174	-.00079	.00117	.00116	6.3587	51.120	4.1713
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**127.79**	**.41930**	**.00060**	F **3186.7**	**-.00302**	**.06286**	F **-.00462**
Stddev	.60	.00202	.00027	62.0	.00113	.00405	.00210
%RSD	.46971	.48132	44.745	1.9452	37.327	6.4451	45.499
#1	127.62	.41759	.00081	3120.5	-.00172	.06256	-.00324
#2	127.30	.41878	.00030	3196.3	-.00370	.06705	-.00359
#3	128.46	.42152	.00070	3243.4	-.00364	.05896	-.00705
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Fail
High Limit				360.00			225.00
Low Limit				-.40000			-.00400

Approved: April 04, 2014



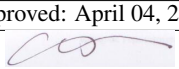
Sample Name: L1404003602 Acquired: 4/3/2014 23:28:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00153**	**-.00280**	**1.5742**	**-.00011**	^ *****	**-.01765**	**-.00200**
Stddev	.00237	.00561	.0421	.00016	-----	.00050	.00112
%RSD	154.38	200.30	2.6734	149.44	-----	2.8221	56.234
#1	-.00072	.00180	1.6092	-.00014	^ -----	-.01721	-.00080
#2	.00132	-.00116	1.5859	-.00025	^ -----	-.01754	-.00302
#3	.00400	-.00904	1.5275	.00007	^ -----	-.01819	-.00218
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00008**	**.00448**	F **-9.0841**
Stddev	.00015	.00003	.3004
%RSD	184.51	.73660	3.3072
#1	-.00024	.00444	-8.8580
#2	.00005	.00451	-8.9694
#3	-.00005	.00449	-9.4250
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**15570.**	**19920.**
Stddev	47.	115.
%RSD	.29911	.57719
#1	15589.	20013.
#2	15517.	19955.
#3	15605.	19791.

Approved: April 04, 2014



Sample Name: L1404003603 Acquired: 4/3/2014 23:32:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00117**	**.29727**	**.00280**	**9.0358**	**19.493**	**-.00004**	F **1505.9**
Stddev	.00036	.02148	.00234	.0537	1.358	.00001	28.7
%RSD	30.911	7.2260	83.550	.59447	6.9645	16.628	1.9082
#1	-.00128	.28166	.00026	9.0832	20.078	-.00004	1533.1
#2	-.00077	.32177	.00485	9.0466	17.941	-.00003	1475.8
#3	-.00146	.28838	.00328	8.9774	20.460	-.00004	1508.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
High Limit							900.00
Low Limit							-.10000

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00126**	**-.00062**	**.00154**	**.00411**	**7.4283**	**131.35**	**5.5480**
Stddev	.00008	.00036	.00046	.00050	.0477	1.49	.0924
%RSD	6.3829	59.045	29.856	12.151	.64222	1.1377	1.6662
#1	.00134	-.00050	.00105	.00425	7.3780	129.65	5.4449
#2	.00125	-.00033	.00196	.00355	7.4341	131.95	5.5756
#3	.00118	-.00103	.00161	.00452	7.4728	132.46	5.6235
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**146.04**	**.64241**	**.00020**	F **3552.2**	**-.00229**	**.07420**	**.00072**
Stddev	.42	.02208	.00010	47.4	.00064	.00673	.00191
%RSD	.28464	3.4364	47.833	1.3353	27.914	9.0704	264.19
#1	146.20	.66767	.00023	3606.6	-.00301	.08135	.00256
#2	145.56	.62680	.00029	3519.4	-.00209	.07326	-.00125
#3	146.34	.63276	.00010	3530.6	-.00178	.06799	.00086
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 04, 2014

Sample Name: L1404003603 Acquired: 4/3/2014 23:32:46 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00166**	**-.00531**	**1.1937**	**.00066**	^ *****	**-.02068**	**.00172**
Stddev	.00248	.00356	.0107	.00050	-----	.00087	.00033
%RSD	149.78	66.950	.90010	76.670	-----	4.2051	18.901
#1	-.00036	-.00820	1.1863	.00025	^ -----	-.02088	.00192
#2	.00091	-.00134	1.2060	.00122	^ -----	-.01973	.00135
#3	.00443	-.00641	1.1889	.00051	^ -----	-.02144	.00190
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00014**	**.01183**	F **-11.084**
Stddev	.00054	.00028	.543
%RSD	399.17	2.3579	4.9005
#1	.00074	.01162	-11.349
#2	-.00004	.01215	-10.459
#3	-.00030	.01172	-11.444
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**15422.**	**19770.**
Stddev	47.	623.
%RSD	.30507	3.1496
#1	15375.	19063.
#2	15421.	20238.
#3	15469.	20010.

Approved: April 04, 2014

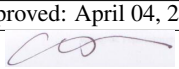
Sample Name: L1403162107 Acquired: 4/3/2014 23:36:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469555-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**.09954**	**.00123**	**.04540**	**.05485**	**.00006**	**70.579**	**.00054**
Stddev	.00023	.01709	.00139	.00207	.00059	.00001	.126	.00002
%RSD	200.23	17.173	113.25	4.5697	1.0845	9.3163	.17791	4.2055
#1	.00037	.08011	.00210	.04770	.05536	.00007	70.437	.00052
#2	-.00005	.11228	.00195	.04366	.05501	.00006	70.676	.00056
#3	.00002	.10623	-.00037	.04485	.05420	.00006	70.624	.00054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**.00108**	**.00053**	**.13776**	**1.3876**	**.02786**	**26.764**	**.00097**
Stddev	.00004	.00043	.00032	.00113	.0238	.00098	.124	.00005
%RSD	24.177	39.355	60.825	.81941	1.7160	3.5307	.46468	5.0041
#1	-.00016	.00084	.00082	.13717	1.4142	.02757	26.760	.00103
#2	-.00014	.00158	.00018	.13907	1.3804	.02705	26.890	.00093
#3	-.00022	.00083	.00058	.13706	1.3682	.02895	26.641	.00095
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**4.2082**	**.00001**	**.01112**	**-.00047**	**.00403**	**.00137**	**4.2133**
Stddev	.00016	.0861	.00011	.00510	.00066	.00102	.00264	.0611
%RSD	328.99	2.0462	1421.2	45.866	139.56	25.334	191.95	1.4489
#1	.00002	4.2957	.00003	.00627	-.00107	.00519	-.00150	4.1523
#2	.00023	4.2053	-.00012	.01644	.00023	.00362	.00193	4.2744
#3	-.00010	4.1236	.00011	.01064	-.00058	.00327	.00369	4.2132
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403162107 Acquired: 4/3/2014 23:36:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469555-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00047**	**.09567**	**.00020**	**-.00216**	**.00064**	**.00232**	**.40330**
Stddev	.00049	.00364	.00012	.00036	.00028	.00007	.41629
%RSD	103.42	3.8026	58.085	16.587	43.161	2.8928	103.22
#1	-.00009	.09983	.00008	-.00258	.00032	.00239	.81441
#2	.00082	.09411	.00021	-.00199	.00082	.00228	.41348
#3	.00068	.09308	.00031	-.00193	.00078	.00227	-.01799
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19329.**	**20970.**
Stddev	16.	550.
%RSD	.08022	2.6251
#1	19329.	21008.
#2	19314.	20401.
#3	19345.	21500.

Approved: April 04, 2014

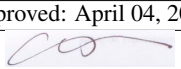
Sample Name: L1403162108MS Acquired: 4/3/2014 23:40:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469555-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20121**	**5.8118**	**.19925**	**1.0526**	**.53114**	**.02551**	**74.480**	**.02533**
Stddev	.00471	.0479	.00097	.0265	.00080	.00047	.168	.00014
%RSD	2.3387	.82346	.48748	2.5134	.15032	1.8255	.22569	.56387
#1	.19579	5.7720	.19987	1.0221	.53164	.02497	74.350	.02528
#2	.20357	5.8649	.19813	1.0692	.53022	.02579	74.422	.02549
#3	.20426	5.7986	.19976	1.0665	.53156	.02577	74.670	.02522
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10134**	**.25279**	**.25612**	**2.6937**	**26.638**	**.51420**	**31.368**	**.26431**
Stddev	.00027	.00510	.00091	.0149	.098	.00316	.200	.00785
%RSD	.26330	2.0158	.35624	.55150	.36668	.61376	.63648	2.9684
#1	.10157	.24700	.25710	2.6766	26.526	.51064	31.140	.25527
#2	.10105	.25480	.25596	2.7019	26.688	.51530	31.511	.26933
#3	.10140	.25658	.25530	2.7026	26.701	.51666	31.453	.26834
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49954**	**27.907**	**.24703**	**.01555**	**.25288**	**.60140**	**.20501**	**7.6383**
Stddev	.00116	.060	.00084	.00302	.00175	.00138	.00352	.0084
%RSD	.23225	.21679	.33905	19.452	.69196	.23015	1.7184	.10958
#1	.50087	27.914	.24790	.01241	.25482	.60279	.20905	7.6464
#2	.49876	27.963	.24696	.01580	.25243	.60139	.20253	7.6389
#3	.49898	27.843	.24623	.01844	.25141	.60002	.20346	7.6297
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403162108MS Acquired: 4/3/2014 23:40:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469555-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.55022**	**.60130**	**.49318**	**.24249**	**.49469**	**.50555**	**14.408**
Stddev	.00382	.01043	.00189	.00121	.01033	.00093	.553
%RSD	.69438	1.7342	.38251	.49971	2.0884	.18471	3.8396
#1	.55442	.61318	.49117	.24270	.48276	.50612	13.818
#2	.54929	.59365	.49491	.24359	.50072	.50607	14.916
#3	.54695	.59707	.49347	.24119	.50059	.50448	14.490
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19433.**	**20504.**
Stddev	11.	225.
%RSD	.05432	1.0993
#1	19430.	20752.
#2	19424.	20310.
#3	19445.	20452.

Approved: April 04, 2014

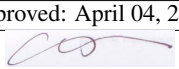
Sample Name: L1403162109MSD Acquired: 4/3/2014 23:43:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469555-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20671**	**5.5117**	**.20087**	**1.0839**	**.53577**	**.02581**	**73.181**	**.02572**
Stddev	.00171	.0227	.00104	.0077	.00057	.00005	.213	.00006
%RSD	.82749	.41143	.51549	.71262	.10691	.20798	.29126	.24049
#1	.20513	5.4912	.19968	1.0779	.53560	.02575	73.070	.02571
#2	.20646	5.5361	.20159	1.0813	.53641	.02582	73.427	.02579
#3	.20853	5.5078	.20134	1.0926	.53531	.02586	73.046	.02566
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10179**	**.25527**	**.25452**	**2.4830**	**26.558**	**.51708**	**30.210**	**.25056**
Stddev	.00032	.00039	.00038	.0089	.045	.00179	.043	.00165
%RSD	.31283	.15415	.14782	.35969	.16834	.34697	.14369	.65828
#1	.10178	.25482	.25409	2.4779	26.528	.51686	30.188	.24962
#2	.10148	.25553	.25470	2.4778	26.610	.51897	30.260	.24961
#3	.10212	.25546	.25478	2.4933	26.537	.51540	30.182	.25247
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50409**	**27.678**	**.24917**	**.00939**	**.25268**	**.60168**	**.20687**	**7.1314**
Stddev	.00031	.033	.00136	.00587	.00256	.00144	.00240	.0094
%RSD	.06104	.11919	.54521	62.469	1.0140	.23970	1.1621	.13120
#1	.50390	27.710	.24763	.00318	.25511	.60084	.20843	7.1422
#2	.50444	27.680	.25019	.01485	.25001	.60086	.20807	7.1255
#3	.50392	27.645	.24970	.01015	.25292	.60334	.20410	7.1265
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403162109MSD Acquired: 4/3/2014 23:43:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469555-05

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.55588**	**.59776**	**.48838**	**.24476**	**.50645**	**.50815**	**13.746**
Stddev	.00414	.00256	.00158	.00379	.00192	.00169	.319
%RSD	.74453	.42892	.32334	1.5484	.37993	.33223	2.3190
#1	.55373	.59625	.48828	.24219	.50480	.50622	13.901
#2	.55326	.60072	.49000	.24299	.50599	.50933	13.379
#3	.56065	.59631	.48685	.24911	.50856	.50891	13.957
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19381.**	**21988.**
Stddev	34.	13.
%RSD	.17364	.05881
#1	19403.	21989.
#2	19342.	22001.
#3	19397.	21975.

Approved: April 04, 2014

Sample Name: L1403162201 Acquired: 4/3/2014 23:46:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**-.00712**	**.00219**	**.85678**	**.02000**	**-.00004**	**122.90**
Stddev	.00014	.03373	.00191	.00254	.00027	.00003	.07
%RSD	79.000	473.51	87.191	.29588	1.3524	96.212	.05859
#1	-.00015	-.04571	.00331	.85587	.01977	-.00003	122.83
#2	-.00005	.01677	-.00001	.85483	.02030	.00000	122.90
#3	-.00033	.00757	.00327	.85965	.01993	-.00007	122.98
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00117**	**-.00050**	**.00067**	**.00100**	**.02937**	**23.233**	**.01559**
Stddev	.00013	.00016	.00008	.00038	.00509	.025	.00150
%RSD	11.151	31.414	11.645	37.717	17.326	.10562	9.6492
#1	.00114	-.00057	.00062	.00140	.03228	23.205	.01472
#2	.00131	-.00060	.00076	.00093	.03233	23.251	.01472
#3	.00105	-.00032	.00062	.00066	.02349	23.243	.01732
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**102.94**	**.07913**	**.00008**	F **582.40**	**.00421**	**.08724**	**-.00120**
Stddev	.53	.00121	.00005	7.57	.00082	.00873	.00134
%RSD	.51744	1.5234	57.618	1.2995	19.513	10.012	111.87
#1	102.35	.07775	.00004	585.33	.00478	.09730	-.00018
#2	103.38	.07997	.00008	588.07	.00457	.08285	-.00070
#3	103.08	.07967	.00013	573.80	.00327	.08157	-.00272
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 04, 2014

Sample Name: L1403162201 Acquired: 4/3/2014 23:46:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00184**	**-.00068**	**5.2659**	**.00103**	**1.8548**	**-.00300**	**-.00341**
Stddev	.00155	.00323	.0479	.00024	.0028	.00112	.00219
%RSD	84.123	473.02	.90972	22.890	.14951	37.188	64.184
#1	.00322	.00297	5.3075	.00114	1.8576	-.00334	-.00490
#2	.00016	-.00316	5.2768	.00119	1.8549	-.00175	-.00090
#3	.00214	-.00187	5.2135	.00076	1.8520	-.00391	-.00444
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00383**	**.00259**	F **-.60000**
Stddev	.00020	.00002	.23213
%RSD	5.1268	.83123	38.688
#1	.00363	.00257	-.71698
#2	.00402	.00259	-.33265
#3	.00383	.00262	-.75036
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**17887.**	**21314.**
Stddev	64.	368.
%RSD	.35733	1.7277
#1	17955.	21738.
#2	17877.	21081.
#3	17829.	21122.

Approved: April 04, 2014

Sample Name: L1403162202 Acquired: 4/3/2014 23:50:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00036**	**.76550**	**.00168**	**.62612**	**.05773**	**.00000**	**122.90**
Stddev	.00053	.01054	.00077	.00696	.00015	.0000	.23
%RSD	148.59	1.3765	45.792	1.1120	.26500	463.41	.18529
#1	-.00007	.76590	.00194	.61821	.05769	.00001	122.88
#2	.00020	.77584	.00229	.62884	.05761	-.00001	122.68
#3	.00096	.75477	.00082	.63132	.05790	.00000	123.14
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00095**	**.00037**	**.00210**	**.00445**	**1.3723**	**16.852**	**.01294**
Stddev	.00008	.00007	.00037	.00062	.0134	.056	.00298
%RSD	8.7446	19.364	17.445	13.922	.97753	.33493	23.004
#1	.00102	.00034	.00223	.00514	1.3800	16.881	.01557
#2	.00086	.00045	.00239	.00395	1.3568	16.787	.00971
#3	.00096	.00032	.00169	.00427	1.3801	16.888	.01354
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**73.139**	**.05496**	**.00432**	F **375.90**	**.00300**	**.05995**	**.00274**
Stddev	.276	.00203	.00011	5.72	.00050	.00369	.00047
%RSD	.37736	3.6850	2.6283	1.5212	16.502	6.1521	17.163
#1	73.312	.05617	.00436	381.80	.00249	.06417	.00327
#2	73.286	.05610	.00419	370.38	.00347	.05733	.00237
#3	72.821	.05262	.00440	375.51	.00305	.05836	.00259
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 04, 2014

Sample Name: L1403162202 Acquired: 4/3/2014 23:50:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00331**	**.00332**	**7.5207**	**.00122**	**2.2154**	**.01876**	**-.00121**
Stddev	.00216	.00282	.0348	.00014	.0065	.00049	.00187
%RSD	65.335	85.031	.46284	11.136	.29093	2.6324	155.05
#1	.00111	.00150	7.5341	.00108	2.2125	.01848	.00013
#2	.00338	.00657	7.5469	.00124	2.2109	.01847	-.00334
#3	.00544	.00188	7.4812	.00134	2.2228	.01933	-.00041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.03104**	**.00755**	**.30679**
Stddev	.00049	.00018	.44239
%RSD	1.5804	2.3220	144.20
#1	.03081	.00774	.45737
#2	.03071	.00750	-.19123
#3	.03160	.00740	.65423
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18226.**	**20734.**
Stddev	74.	642.
%RSD	.40638	3.0982
#1	18305.	20323.
#2	18214.	20405.
#3	18159.	21475.

Approved: April 04, 2014

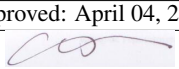
Sample Name: L1403165101 Acquired: 4/3/2014 23:54:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00055**	**.01463**	**-.00132**	**.03411**	**.12171**	**.00002**	**52.269**
Stddev	.00012	.01293	.00088	.00162	.00032	.00002	.109
%RSD	21.254	88.337	66.699	4.7551	.26572	78.995	.20936
#1	.00068	.00087	-.00179	.03419	.12202	.00004	52.164
#2	.00045	.01652	-.00186	.03568	.12174	.00000	52.382
#3	.00053	.02651	-.00030	.03244	.12137	.00002	52.262
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**-.00049**	**.00061**	**.00583**	**.06692**	**.98613**	**.00552**
Stddev	.00014	.00016	.00024	.00073	.00234	.02062	.00121
%RSD	42.738	33.625	39.467	12.439	3.5031	2.0913	21.869
#1	.00049	-.00039	.00052	.00628	.06647	.99676	.00453
#2	.00021	-.00039	.00043	.00622	.06483	.96236	.00517
#3	.00030	-.00067	.00089	.00499	.06945	.99926	.00686
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.4649**	**.05613**	**.00164**	**5.6870**	**-.00013**	**.01784**	**-.00095**
Stddev	.0238	.00057	.00019	.0029	.00014	.00053	.00090
%RSD	.31874	1.0111	11.314	.05033	111.54	2.9557	94.602
#1	7.4591	.05571	.00184	5.6901	-.00002	.01741	-.00007
#2	7.4910	.05592	.00148	5.6863	-.00028	.01842	-.00187
#3	7.4445	.05678	.00161	5.6845	-.00008	.01768	-.00092
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403165101 Acquired: 4/3/2014 23:54:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**-.00105**	**4.3267**	**.00055**	**.36418**	**-.00112**	**-.00197**
Stddev	.00109	.00257	.0200	.00031	.00106	.00057	.00098
%RSD	625.31	245.08	.46177	55.774	.29198	51.029	49.872
#1	.00139	-.00030	4.3480	.00046	.36310	-.00133	-.00084
#2	-.00016	-.00391	4.3239	.00030	.36523	-.00047	-.00258
#3	-.00070	.00107	4.3083	.00089	.36421	-.00155	-.00251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00021**	**.00771**	F **-.31805**
Stddev	.00047	.00008	.96845
%RSD	226.48	.97793	304.50
#1	.00040	.00769	-1.0775
#2	.00054	.00780	-.64917
#3	-.00033	.00766	.77253
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19290.**	**21595.**
Stddev	71.	102.
%RSD	.36596	.47311
#1	19327.	21650.
#2	19335.	21657.
#3	19209.	21477.

Approved: April 04, 2014

Sample Name: L1403165102 Acquired: 4/3/2014 23:57:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**.05207**	**-.00162**	**.04667**	**.05475**	**.00004**	**63.468**	**.00036**
Stddev	.00022	.02650	.00058	.00066	.00011	.00003	.113	.00012
%RSD	70.511	50.887	35.540	1.4091	.20533	68.761	.17832	33.715
#1	.00006	.02333	-.00152	.04738	.05462	.00005	63.498	.00022
#2	.00041	.05736	-.00110	.04654	.05482	.00007	63.343	.00042
#3	.00046	.07553	-.00224	.04608	.05481	.00001	63.564	.00044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00037**	**.00004**	**.00337**	**.07666**	**1.5323**	**.00573**	**9.5808**	**.00321**
Stddev	.00010	.00010	.00039	.00038	.0185	.00095	.0438	.00011
%RSD	25.779	255.32	11.687	.50105	1.2098	16.617	.45749	3.4417
#1	-.00026	.00013	.00351	.07663	1.5113	.00633	9.5328	.00328
#2	-.00043	.00006	.00293	.07630	1.5461	.00623	9.5908	.00308
#3	-.00042	-.00007	.00368	.07706	1.5396	.00463	9.6187	.00327
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**12.782**	**.00010**	**.04302**	**.00102**	**.00002**	**.00179**	**4.0383**
Stddev	.00014	.051	.00051	.00499	.00103	.00217	.00097	.0073
%RSD	41.500	.40131	501.36	11.604	101.55	10737.	53.951	.18018
#1	.00025	12.829	.00021	.04093	.00020	.00142	.00197	4.0307
#2	.00048	12.792	.00055	.03941	.00068	.00112	.00265	4.0451
#3	.00025	12.727	-.00046	.04871	.00218	-.00248	.00075	4.0391
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403165102 Acquired: 4/3/2014 23:57:51 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00057**	**.39229**	**-.00046**	**-.00112**	**.00044**	**.00585**	**.31426**
Stddev	.00033	.00120	.00034	.00068	.00024	.00002	.84513
%RSD	57.121	.30614	73.789	60.537	55.500	.40706	268.93
#1	.00020	.39244	-.00058	-.00099	.00072	.00583	1.2839
#2	.00080	.39102	-.00008	-.00052	.00031	.00587	-.07496
#3	.00072	.39341	-.00072	-.00185	.00028	.00584	-.26614
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19412.**	**22002.**
Stddev	40.	86.
%RSD	.20660	.39035
#1	19458.	22014.
#2	19397.	22081.
#3	19382.	21911.

Approved: April 04, 2014

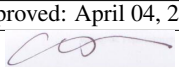
Sample Name: CCV Acquired: 4/4/2014 0:01:26 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41910**	**10.398**	**.41587**	**.54676**	**1.0100**	**.05302**	**10.399**	**.05234**
Stddev	.00198	.031	.00063	.00344	.0008	.00018	.017	.00041
%RSD	.47190	.29669	.15205	.62951	.07692	.34557	.15900	.77656
#1	.42048	10.363	.41523	.54934	1.0104	.05317	10.407	.05190
#2	.41999	10.412	.41587	.54809	1.0091	.05308	10.380	.05242
#3	.41684	10.419	.41650	.54285	1.0105	.05281	10.410	.05271
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21225**	**.52865**	**.52769**	**4.0499**	**52.582**	**1.0085**	**10.195**	**.52006**
Stddev	.00103	.00198	.00223	.0100	.058	.0019	.061	.00652
%RSD	.48589	.37522	.42166	.24798	.11076	.18799	.59818	1.2539
#1	.21164	.53010	.52610	4.0428	52.579	1.0069	10.147	.51254
#2	.21168	.52945	.52674	4.0455	52.525	1.0080	10.174	.52338
#3	.21344	.52639	.53023	4.0614	52.641	1.0106	10.264	.52424
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0322**	**49.226**	**.51920**	**10.464**	**.52314**	**1.2398**	**.42632**	**5.1321**
Stddev	.0017	.089	.00326	.026	.00381	.0114	.00411	.0382
%RSD	.16200	.17994	.62752	.25149	.72785	.92280	.96514	.74399
#1	1.0325	49.153	.51754	10.464	.51917	1.2334	.42618	5.1093
#2	1.0337	49.200	.51711	10.490	.52347	1.2330	.42228	5.1108
#3	1.0304	49.325	.52295	10.437	.52677	1.2530	.43051	5.1762
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Approved: April 04, 2014



Sample Name: CCV Acquired: 4/4/2014 0:01:26 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0825**	**1.0729**	**.99856**	**.51177**	**1.0371**	**1.0630**	**.94414**
Stddev	.0080	.0008	.00077	.00449	.0049	.0005	1.2298
%RSD	.73986	.07808	.07706	.87645	.47089	.04939	130.25
#1	1.0839	1.0736	.99799	.51111	1.0401	1.0630	1.8576
#2	1.0738	1.0719	.99943	.50764	1.0397	1.0636	-.45413
#3	1.0896	1.0731	.99825	.51654	1.0315	1.0626	1.4289
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19496.**	**21687.**
Stddev	58.	280.
%RSD	.29861	1.2928
#1	19486.	22010.
#2	19444.	21537.
#3	19559.	21514.

Approved: April 04, 2014

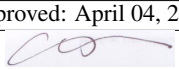
Sample Name: CCB Acquired: 4/4/2014 0:04:41 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**.02316**	**.00226**	**.00631**	**.00001**	**.00003**	**.00617**
Stddev	.00048	.03133	.00164	.00046	.00011	.00002	.00582
%RSD	591.80	135.30	72.367	7.3399	1618.6	73.675	94.371
#1	-.00061	-.01287	.00415	.00675	.00003	.00006	.01262
#2	.00030	.04401	.00121	.00634	-.00012	.00002	.00456
#3	.00007	.03833	.00143	.00583	.00011	.00002	.00132
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**.00006**	**.00017**	**-.00022**	**.00254**	**.02733**	**.00035**
Stddev	.00011	.00007	.00020	.00052	.00307	.01374	.00136
%RSD	505.72	121.03	120.89	239.69	120.96	50.291	383.25
#1	-.00010	.00002	-.00001	.00023	-.00046	.01671	.00007
#2	.00011	.00002	.00039	-.00009	.00568	.04285	.00183
#3	.00005	.00015	.00013	-.00079	.00240	.02242	-.00084
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00378**	**-.00001**	**.00016**	**.05456**	**-.00094**	**-.00472**	**-.00196**
Stddev	.01096	.00012	.00015	.00805	.00067	.00426	.00082
%RSD	290.20	962.53	92.576	14.749	70.567	90.249	42.011
#1	-.00887	-.00007	.00023	.04597	-.00096	-.00002	-.00103
#2	.01063	-.00009	.00026	.05578	-.00160	-.00832	-.00259
#3	.00957	.00012	-.00001	.06193	-.00027	-.00580	-.00227
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



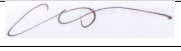
Sample Name: CCB Acquired: 4/4/2014 0:04:41 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00084**	**-.00097**	**-.00245**	**-.00023**	**.00023**	**-.00137**	**-.00165**
Stddev	.00057	.00255	.00073	.00012	.00009	.00038	.00201
%RSD	67.854	263.37	29.679	54.404	39.665	27.813	122.32
#1	.00128	-.00388	-.00322	-.00015	.00017	-.00103	-.00383
#2	.00105	.00007	-.00236	-.00016	.00034	-.00179	.00015
#3	.00020	.00090	-.00177	-.00037	.00019	-.00130	-.00126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00002**	**.00011**	F **.79728**
Stddev	.00008	.00012	.49042
%RSD	529.34	113.00	61.512
#1	.00010	-.00003	.34635
#2	-.00006	.00018	.72608
#3	.00001	.00017	1.3194
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19914.**	**22286.**
Stddev	46.	147.
%RSD	.23015	.65990
#1	19963.	22451.
#2	19907.	22169.
#3	19873.	22237.

Approved: April 04, 2014



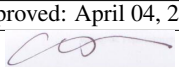
Sample Name: L1403165103 Acquired: 4/4/2014 0:08:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**2.1747**	**.00130**	**.03508**	**.06658**	**.00017**	**48.102**	**.00036**
Stddev	.00061	.0116	.00122	.00034	.00012	.00001	.022	.00007
%RSD	269.07	.53094	93.404	.96179	.17587	6.1045	.04493	18.936
#1	-.00048	2.1817	.00001	.03531	.06644	.00017	48.112	.00028
#2	.00063	2.1614	.00243	.03523	.06665	.00018	48.078	.00041
#3	.00052	2.1811	.00146	.03469	.06665	.00016	48.118	.00037
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00128**	**.00272**	**.00437**	**3.0451**	**2.1669**	**.00690**	**8.0584**	**.24114**
Stddev	.00013	.00029	.00034	.0098	.0248	.00077	.0547	.00369
%RSD	10.171	10.604	7.7970	.32246	1.1444	11.169	.67901	1.5295
#1	.00123	.00294	.00460	3.0393	2.1557	.00731	7.9952	.23700
#2	.00118	.00239	.00454	3.0396	2.1497	.00601	8.0899	.24231
#3	.00143	.00283	.00398	3.0564	2.1953	.00738	8.0901	.24409
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00138**	**16.009**	**.00356**	**.17046**	**.00213**	**.00080**	**.00212**	**4.9451**
Stddev	.00013	.064	.00062	.00212	.00077	.00283	.00157	.0290
%RSD	9.1241	.39770	17.315	1.2466	35.940	354.89	74.235	.58534
#1	.00133	15.940	.00355	.16849	.00133	-.00182	.00137	4.9117
#2	.00128	16.065	.00295	.17018	.00285	.00042	.00393	4.9626
#3	.00152	16.023	.00418	.17271	.00221	.00380	.00106	4.9610
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403165103 Acquired: 4/4/2014 0:08:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00069**	**.39118**	**.02722**	**-.00116**	**.00372**	**.02879**	**1.6749**
Stddev	.00048	.00163	.00069	.00063	.00017	.00021	.4172
%RSD	69.456	.41610	2.5250	54.257	4.6821	.71498	24.906
#1	.00035	.39306	.02676	-.00114	.00391	.02892	1.2392
#2	.00049	.39023	.02689	-.00179	.00358	.02855	2.0706
#3	.00125	.39025	.02801	-.00054	.00367	.02889	1.7149
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19049.**	**21149.**
Stddev	206.	285.
%RSD	1.0789	1.3480
#1	18817.	21474.
#2	19119.	21036.
#3	19209.	20939.

Approved: April 04, 2014

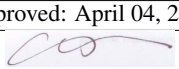
Sample Name: L1403165104 Acquired: 4/4/2014 0:11:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00038**	**.54151**	**.00005**	**.03923**	**.06821**	**.00012**	**74.832**	**.00051**
Stddev	.00018	.01552	.00098	.00111	.00021	.00002	.110	.00007
%RSD	45.747	2.8654	2016.4	2.8384	.30247	14.826	.14669	13.778
#1	.00027	.55920	-.00073	.04049	.06838	.00011	74.707	.00054
#2	.00030	.53022	-.00027	.03840	.06798	.00014	74.880	.00056
#3	.00059	.53510	.00114	.03878	.06826	.00011	74.910	.00043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00048**	**.00123**	**.00158**	**1.2807**	**1.4813**	**.01059**	**20.747**	**.06255**
Stddev	.00013	.00021	.00016	.0121	.0157	.00130	.069	.00077
%RSD	27.795	17.432	10.082	.94754	1.0628	12.317	.33490	1.2251
#1	.00052	.00110	.00146	1.2669	1.4837	.01203	20.696	.06245
#2	.00058	.00148	.00176	1.2857	1.4956	.00949	20.719	.06184
#3	.00033	.00111	.00153	1.2896	1.4644	.01025	20.826	.06337
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00067**	**7.0898**	**.00112**	**.06863**	**.00109**	**.00111**	**.00225**	**4.1875**
Stddev	.00012	.0102	.00080	.00060	.00075	.00051	.00244	.0580
%RSD	17.262	.14369	71.707	.87997	68.750	46.051	108.47	1.3847
#1	.00075	7.1015	.00118	.06837	.00179	.00099	.00441	4.1510
#2	.00073	7.0848	.00029	.06820	.00030	.00168	-.00039	4.1572
#3	.00054	7.0831	.00189	.06932	.00119	.00067	.00272	4.2544
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403165104 Acquired: 4/4/2014 0:11:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00103**	**1.5712**	**.00622**	**-.00253**	**.00125**	**.01706**	**.62944**
Stddev	.00028	.0043	.00129	.00270	.00009	.00010	.10985
%RSD	27.296	.27234	20.770	106.74	6.8116	.59268	17.452
#1	.00074	1.5664	.00771	.00059	.00127	.01712	.50273
#2	.00107	1.5726	.00552	-.00420	.00115	.01712	.69767
#3	.00130	1.5747	.00543	-.00398	.00132	.01694	.68793
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19193.**	**21779.**
Stddev	31.	144.
%RSD	.15934	.66160
#1	19166.	21846.
#2	19188.	21878.
#3	19226.	21614.

Approved: April 04, 2014

Sample Name: L1403165105 Acquired: 4/4/2014 0:15:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**.19364**	**.00050**	**.03333**	**.02677**	**.00004**	**42.498**	**.00025**
Stddev	.00030	.02814	.00093	.00085	.00039	.00002	.030	.00006
%RSD	92.002	14.530	187.86	2.5421	1.4632	62.839	.07111	24.451
#1	-.00002	.17025	-.00018	.03430	.02704	.00003	42.468	.00020
#2	.00055	.22487	.00011	.03288	.02696	.00001	42.528	.00024
#3	.00045	.18581	.00156	.03280	.02632	.00006	42.497	.00032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00016**	**.00041**	**.00054**	**.28669**	**1.4838**	**.00268**	**7.9132**	**.07628**
Stddev	.00007	.00052	.00023	.00160	.0290	.00111	.0416	.00059
%RSD	42.577	126.63	41.455	.55894	1.9551	41.219	.52532	.77940
#1	-.00022	-.00007	.00036	.28711	1.4663	.00396	7.8762	.07687
#2	-.00008	.00034	.00048	.28804	1.4679	.00212	7.9053	.07628
#3	-.00018	.00096	.00079	.28492	1.5173	.00198	7.9582	.07568
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00064**	**9.2500**	**-.00014**	**.02744**	**-.00162**	**.00056**	**.00239**	**1.5780**
Stddev	.00005	.0217	.00064	.00179	.00112	.00101	.00214	.0208
%RSD	7.0983	.23515	456.19	6.5142	69.317	179.64	89.483	1.3186
#1	.00059	9.2407	-.00085	.02554	-.00185	-.00056	.00484	1.6017
#2	.00067	9.2749	.00005	.02771	-.00260	.00085	.00092	1.5691
#3	.00066	9.2345	.00038	.02908	-.00040	.00139	.00141	1.5630
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403165105 Acquired: 4/4/2014 0:15:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00093**	**.53046**	**.00427**	**-.00280**	**.00064**	**.00237**	**2.7299**
Stddev	.00041	.00035	.00068	.00051	.00032	.00005	.8201
%RSD	44.403	.06568	15.858	18.203	50.446	2.2052	30.041
#1	.00083	.53025	.00376	-.00223	.00035	.00240	3.6732
#2	.00058	.53086	.00401	-.00321	.00058	.00240	2.1869
#3	.00139	.53027	.00504	-.00297	.00099	.00231	2.3295
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19593.**	**22197.**
Stddev	19.	15.
%RSD	.09738	.06828
#1	19590.	22186.
#2	19575.	22191.
#3	19613.	22214.

Approved: April 04, 2014

Sample Name: L1403165106 Acquired: 4/4/2014 0:18:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.57956**	**-.00002**	**.01811**	**.02801**	**.00009**	**23.688**	**.00022**
Stddev	.00036	.00854	.00101	.00065	.00019	.00002	.072	.00006
%RSD	282.74	1.4732	4791.5	3.5988	.66062	21.594	.30236	26.331
#1	-.00026	.58925	.00100	.01770	.02781	.00010	23.762	.00018
#2	.00019	.57630	-.00006	.01777	.02817	.00011	23.682	.00019
#3	.00046	.57314	-.00101	.01886	.02806	.00007	23.619	.00028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.00102**	**.00308**	**.53374**	**1.3420**	**.00107**	**3.5712**	**.15257**
Stddev	.00002	.00009	.00033	.00327	.0293	.00108	.0290	.00441
%RSD	23.314	9.1459	10.834	.61220	2.1832	100.83	.81076	2.8909
#1	.00011	.00113	.00347	.53514	1.3148	.00033	3.5681	.14749
#2	.00011	.00099	.00285	.53608	1.3380	.00231	3.6016	.15535
#3	.00007	.00094	.00294	.53001	1.3730	.00057	3.5439	.15488
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00040**	**4.8230**	**.00148**	**.02357**	**.00001**	**.00198**	**-.00019**	**1.9719**
Stddev	.00015	.0152	.00039	.00411	.00119	.00194	.00320	.0298
%RSD	37.586	.31561	26.035	17.428	13732.	97.816	1655.2	1.5105
#1	.00031	4.8390	.00192	.02699	-.00057	.00222	-.00004	1.9879
#2	.00058	4.8213	.00126	.02469	-.00078	.00380	-.00347	1.9901
#3	.00031	4.8087	.00126	.01901	.00138	-.00006	.00293	1.9375
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403165106 Acquired: 4/4/2014 0:18:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00059**	**.11987**	**.01001**	**-.00289**	**.00101**	**.00254**	**3.1039**
Stddev	.00038	.00028	.00077	.00262	.00017	.00009	.2374
%RSD	63.831	.23576	7.7184	90.488	16.929	3.3558	7.6472
#1	.00019	.12014	.00994	-.00574	.00090	.00261	2.8312
#2	.00064	.11989	.01082	-.00233	.00121	.00256	3.2642
#3	.00094	.11958	.00928	-.00060	.00092	.00244	3.2164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19716.**	**21808.**
Stddev	21.	274.
%RSD	.10572	1.2586
#1	19740.	22124.
#2	19704.	21626.
#3	19703.	21675.

Approved: April 04, 2014

Sample Name: L1403165107 Acquired: 4/4/2014 0:22:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.18823**	**.00056**	**.02028**	**.03603**	**.00006**	**32.522**	**.00024**
Stddev	.00032	.01695	.00154	.00041	.00028	.00002	.035	.00009
%RSD	125.89	9.0060	275.26	1.9992	.78712	36.436	.10722	37.550
#1	.00027	.19261	-.00108	.02074	.03571	.00004	32.498	.00029
#2	.00056	.16952	.00198	.02013	.03612	.00009	32.562	.00029
#3	-.00007	.20257	.00078	.01996	.03626	.00007	32.506	.00013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**.00035**	**.00085**	**.31355**	**1.0690**	**.00302**	**5.0753**	**.21508**
Stddev	.00005	.00039	.00040	.00980	.0249	.00220	.0171	.00109
%RSD	1203.8	110.45	47.199	3.1248	2.3335	72.963	.33785	.50748
#1	.00005	.00079	.00129	.31292	1.0582	.00299	5.0668	.21382
#2	-.00005	.00022	.00052	.32365	1.0975	.00083	5.0950	.21569
#3	.00001	.00004	.00072	.30409	1.0512	.00523	5.0640	.21574
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00043**	**8.1298**	**.00005**	**.01916**	**-.00236**	**.00215**	**.00198**	**1.6213**
Stddev	.00017	.0141	.00032	.00206	.00064	.00088	.00438	.0072
%RSD	38.858	.17383	607.71	10.739	26.916	40.919	221.18	.44383
#1	.00033	8.1265	.00010	.01723	-.00269	.00316	-.00061	1.6193
#2	.00062	8.1176	-.00029	.01892	-.00163	.00155	-.00048	1.6293
#3	.00034	8.1452	.00035	.02133	-.00277	.00174	.00703	1.6153
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403165107 Acquired: 4/4/2014 0:22:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00106**	**.18309**	**.00335**	**-.00224**	**.00069**	**.00195**	**1.0332**
Stddev	.00027	.00018	.00048	.00102	.00031	.00003	.3786
%RSD	25.239	.09834	14.398	45.786	45.308	1.4874	36.644
#1	.00136	.18326	.00279	-.00155	.00069	.00195	.60376
#2	.00093	.18310	.00365	-.00342	.00101	.00198	1.3188
#3	.00088	.18290	.00360	-.00174	.00038	.00193	1.1771
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19542.**	**22236.**
Stddev	7.	134.
%RSD	.03779	.60253
#1	19546.	22389.
#2	19547.	22144.
#3	19534.	22173.

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/4/2014 0:26:01 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.42425**	**10.298**	**.41363**	**.54801**	**1.0262**	**.05275**	**10.353**
Stddev	.00100	.035	.00189	.00166	.0042	.00019	.033
%RSD	.23612	.34060	.45701	.30226	.41172	.36638	.31815
#1	.42405	10.273	.41472	.54853	1.0215	.05298	10.315
#2	.42337	10.338	.41471	.54615	1.0297	.05264	10.375
#3	.42534	10.283	.41144	.54934	1.0273	.05265	10.370
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05275**	**.21131**	**.52616**	**.53035**	**4.1222**	**52.332**	**1.0241**
Stddev	.00024	.00047	.00097	.00141	.0313	.231	.0036
%RSD	.45057	.22279	.18347	.26576	.76027	.44107	.35069
#1	.05303	.21184	.52719	.53163	4.0861	52.078	1.0202
#2	.05259	.21095	.52603	.53057	4.1420	52.389	1.0273
#3	.05264	.21113	.52527	.52884	4.1386	52.530	1.0247
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.270**	**.52091**	**1.0351**	**50.761**	**.52285**	**10.423**	**.52508**
Stddev	.052	.00934	.0074	.241	.00193	.093	.00163
%RSD	.50621	1.7932	.71816	.47524	.36821	.89151	.30978
#1	10.211	.51043	1.0349	50.496	.52490	10.393	.52526
#2	10.291	.52395	1.0426	50.969	.52255	10.528	.52661
#3	10.308	.52835	1.0277	50.818	.52109	10.349	.52337
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/4/2014 0:26:01 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2339**	**.42257**	**5.1171**	**1.0748**	**1.0531**	**1.0071**	**.52211**
Stddev	.0028	.00278	.0155	.0030	.0035	.0042	.00457
%RSD	.22500	.65757	.30288	.28098	.32912	.41553	.87577
#1	1.2371	.42457	5.1277	1.0761	1.0493	1.0025	.52567
#2	1.2329	.41939	5.1243	1.0769	1.0539	1.0107	.51695
#3	1.2318	.42373	5.0993	1.0713	1.0561	1.0080	.52371
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0498**	**1.0618**	F **.52258**
Stddev	.0030	.0040	.33702
%RSD	.28750	.37185	64.491
#1	1.0495	1.0650	.71899
#2	1.0469	1.0629	.13343
#3	1.0530	1.0574	.71532
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19273.**	**21633.**
Stddev	29.	356.
%RSD	.14916	1.6435
#1	19242.	22040.
#2	19298.	21471.
#3	19281.	21387.

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/4/2014 0:29:17 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.00754**	**.00134**	**.00294**	**.00061**	**.00002**	**.01172**	**.00007**
Stddev	.00041	.01820	.00132	.00112	.00004	.00002	.00544	.00011
%RSD	1453.2	241.26	98.556	38.051	5.9039	83.432	46.391	165.92
#1	-.00007	.00432	.00051	.00353	.00065	.00002	.01785	-.00006
#2	.00047	.02714	.00287	.00365	.00061	.00000	.00749	.00014
#3	-.00032	-.00883	.00065	.00165	.00058	.00004	.00982	.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**.00006**	**.00001**	**.00019**	**-.00350**	**.00066**	**.00747**	**-.00006**
Stddev	.00018	.00004	.00029	.00180	.02673	.00125	.00729	.00006
%RSD	219.43	56.050	1974.6	939.77	764.42	189.68	97.695	94.290
#1	.00003	.00004	-.00008	-.00188	.02552	.00154	.00230	-.00012
#2	-.00029	.00004	.00034	.00135	-.02712	-.00077	.01581	-.00001
#3	.00001	.00010	-.00021	.00110	-.00889	.00121	.00429	-.00004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**.04661**	**-.00032**	**-.00300**	**-.00054**	**-.00055**	**-.00066**	**-.00314**
Stddev	.00004	.00225	.00038	.00258	.00104	.00069	.00657	.00030
%RSD	31.873	4.8250	119.50	85.861	194.35	126.27	994.12	9.6649
#1	.00015	.04401	-.00042	-.00288	-.00013	-.00132	.00444	-.00348
#2	.00017	.04805	.00010	-.00049	-.00172	.00002	-.00808	-.00289
#3	.00009	.04775	-.00065	-.00564	.00025	-.00034	.00165	-.00306
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/4/2014 0:29:17 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**.00123**	**-.00103**	**-.00083**	**.00000**	**.00015**	**.06139**
Stddev	.00037	.00013	.00045	.00115	.0003	.00006	.70529
%RSD	209.72	10.138	43.165	138.91	79123.	38.580	1148.9
#1	.00054	.00110	-.00152	-.00018	.00017	.00014	-.69901
#2	-.00019	.00134	-.00066	-.00014	-.00032	.00022	.18903
#3	.00016	.00127	-.00092	-.00215	.00014	.00010	.69414
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19915.**	**21566.**
Stddev	92.	275.
%RSD	.46131	1.2770
#1	20020.	21883.
#2	19873.	21428.
#3	19851.	21387.

Approved: April 04, 2014

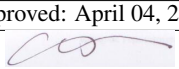
Sample Name: PBW 4A Acquired: 4/4/2014 0:32:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469565-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**-.00246**	**.00027**	**.00305**	**.00038**	**.00002**	**.03643**	**.00012**
Stddev	.00043	.02358	.00158	.00088	.00041	.00003	.01105	.00010
%RSD	667.85	957.34	592.50	28.706	108.13	124.17	30.338	81.389
#1	.00026	-.02953	.00056	.00229	-.00009	.00002	.02561	.00012
#2	.00036	.00852	.00168	.00285	.00058	.00005	.04770	.00002
#3	-.00043	.01362	-.00144	.00400	.00065	.00000	.03598	.00022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00031**	**.00027**	**.00013**	**.00534**	**.01541**	**-.00040**	**-.01357**	**.00007**
Stddev	.00027	.00048	.00052	.00422	.01351	.00036	.01904	.00006
%RSD	85.574	181.36	408.20	79.020	87.634	88.653	140.31	86.807
#1	-.00001	-.00007	-.00032	.00771	.02748	-.00050	-.01713	.00000
#2	-.00050	.00005	.00001	.00783	.00082	-.00070	-.03058	.00012
#3	-.00043	.00082	.00069	.00047	.01793	-.00001	.00700	.00009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00016**	**.05112**	**-.00058**	**-.00128**	**-.00167**	**.00241**	**-.00037**	**-.00050**
Stddev	.00012	.00441	.00023	.00056	.00181	.00089	.00161	.00046
%RSD	76.540	8.6203	40.791	43.629	108.32	36.919	438.89	91.425
#1	.00026	.05471	-.00040	-.00189	-.00035	.00302	-.00057	-.00030
#2	.00020	.04620	-.00049	-.00116	-.00093	.00281	.00133	-.00102
#3	.00002	.05246	-.00084	-.00079	-.00373	.00139	-.00186	-.00018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: PBW 4A Acquired: 4/4/2014 0:32:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469565-03

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00040**	**.00114**	**-.00102**	**-.00157**	**.00009**	**.00172**	**.01283**
Stddev	.00031	.00028	.00053	.00133	.00010	.00010	.19455
%RSD	76.632	24.961	51.907	84.717	113.92	5.5530	1516.8
#1	.00005	.00085	-.00072	-.00254	.00010	.00174	.14734
#2	.00062	.00115	-.00163	-.00213	-.00002	.00179	.10138
#3	.00053	.00142	-.00071	-.00005	.00019	.00161	-.21024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19360.**	**21518.**
Stddev	201.	303.
%RSD	1.0393	1.4075
#1	19404.	21849.
#2	19535.	21449.
#3	19140.	21255.

Approved: April 04, 2014

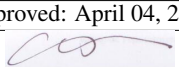
Sample Name: LCSW 4A Acquired: 4/4/2014 0:36:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469565-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21628**	**5.2831**	**.20749**	**1.0991**	**.50339**	**.02698**	**5.3140**	**.02626**
Stddev	.00473	.0384	.00129	.0225	.00119	.00063	.0096	.00014
%RSD	2.1872	.72674	.62116	2.0477	.23626	2.3285	.18016	.54543
#1	.22070	5.3124	.20786	1.1214	.50434	.02760	5.3102	.02640
#2	.21685	5.2972	.20605	1.0996	.50376	.02698	5.3068	.02628
#3	.21129	5.2396	.20855	1.0763	.50206	.02635	5.3248	.02611
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10800**	**.27243**	**.26797**	**2.0410**	**26.383**	**.50745**	**5.1040**	**.27092**
Stddev	.00022	.00565	.00058	.0022	.072	.00282	.0357	.00330
%RSD	.20456	2.0734	.21636	.10800	.27359	.55587	.69968	1.2177
#1	.10817	.27828	.26833	2.0433	26.450	.50592	5.1166	.27356
#2	.10775	.27198	.26829	2.0407	26.306	.51070	5.1316	.27196
#3	.10808	.26701	.26731	2.0390	26.393	.50572	5.0637	.26722
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.52512**	**24.514**	**.26420**	**-.00147**	**.26813**	**.62783**	**.21422**	**2.6614**
Stddev	.00088	.034	.00048	.00135	.00284	.00263	.00332	.0065
%RSD	.16801	.13950	.18001	91.456	1.0588	.41917	1.5487	.24455
#1	.52551	24.491	.26474	-.00246	.26891	.63063	.21805	2.6684
#2	.52411	24.553	.26384	.00006	.27049	.62540	.21226	2.6555
#3	.52574	24.498	.26402	-.00203	.26498	.62745	.21234	2.6605
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: LCSW 4A Acquired: 4/4/2014 0:36:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469565-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.59173**	**.54106**	**.50140**	**.25997**	**.52972**	**.53980**	**11.410**
Stddev	.00377	.00111	.00182	.00347	.01173	.00375	.399
%RSD	.63762	.20588	.36370	1.3355	2.2135	.69429	3.4966
#1	.59522	.54173	.50330	.26166	.54103	.54303	11.223
#2	.59225	.53978	.49966	.26227	.53053	.54067	11.140
#3	.58773	.54168	.50125	.25597	.51762	.53569	11.868
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19252.**	**21029.**
Stddev	175.	64.
%RSD	.90783	.30467
#1	19099.	21041.
#2	19215.	20960.
#3	19442.	21087.

Approved: April 04, 2014

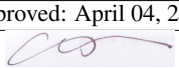
Sample Name: L1403158024 Acquired: 4/4/2014 0:39:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469565-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**.05102**	**-.00020**	**.01706**	**.02422**	**.00005**	**11.060**
Stddev	.00026	.01522	.00101	.00130	.00031	.00002	.082
%RSD	213.03	29.830	517.57	7.6311	1.2973	28.876	.74265
#1	.00028	.06756	.00096	.01568	.02452	.00004	11.155
#2	.00025	.04790	-.00094	.01826	.02426	.00007	11.009
#3	-.00018	.03760	-.00061	.01726	.02389	.00005	11.016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**-.00025**	**.00016**	**.00071**	**.09311**	**1.2904**	**.00423**
Stddev	.00010	.00006	.00008	.00015	.00277	.0055	.00059
%RSD	42.131	25.269	52.147	20.579	2.9794	.42744	13.880
#1	.00020	-.00031	.00025	.00056	.09311	1.2968	.00361
#2	.00017	-.00026	.00014	.00072	.09588	1.2871	.00477
#3	.00036	-.00018	.00009	.00086	.09034	1.2873	.00431
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.8453**	**.01337**	**.00018**	**4.5019**	**.00041**	**-.00135**	**-.00138**
Stddev	.0586	.00023	.00014	.0323	.00011	.00398	.00134
%RSD	1.5239	1.7349	73.846	.71810	25.885	294.74	97.189
#1	3.9001	.01310	.00015	4.5372	.00030	-.00122	-.00284
#2	3.8521	.01349	.00007	4.4737	.00051	-.00540	-.00019
#3	3.7835	.01351	.00034	4.4949	.00041	.00256	-.00111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



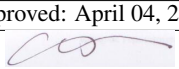
Sample Name: L1403158024 Acquired: 4/4/2014 0:39:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469565-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**.00177**	**2.0198**	**.00051**	**.12178**	**.00110**	**-.00204**
Stddev	.00103	.00087	.0259	.00024	.00100	.00121	.00125
%RSD	3677.9	49.135	1.2798	47.145	.81920	109.25	61.296
#1	-.00080	.00099	2.0467	.00027	.12293	.00013	-.00344
#2	-.00043	.00162	2.0176	.00074	.12109	.00245	-.00159
#3	.00114	.00271	1.9951	.00051	.12133	.00073	-.00107
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00023**	**.00289**	F **-.13041**
Stddev	.00043	.00008	.81912
%RSD	190.79	2.6160	628.09
#1	.00072	.00298	-.63722
#2	.00002	.00287	.81459
#3	-.00007	.00283	-.56861
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19399.**	**21769.**
Stddev	126.	439.
%RSD	.65046	2.0176
#1	19469.	22265.
#2	19474.	21610.
#3	19253.	21431.

Approved: April 04, 2014



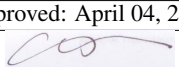
Sample Name: L1403158024 Acquired: 4/4/2014 0:43:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469565-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**.08103**	**.00122**	**.01484**	**.02613**	**.00005**	**11.615**	**.00025**
Stddev	.00022	.02254	.00095	.00060	.00017	.00003	.010	.00008
%RSD	452.08	27.811	78.217	4.0494	.64931	62.692	.08225	32.677
#1	-.00017	.05502	.00025	.01452	.02593	.00008	11.621	.00020
#2	.00004	.09447	.00216	.01554	.02619	.00005	11.604	.00035
#3	.00028	.09362	.00124	.01448	.02625	.00002	11.619	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00026**	**.00040**	**.00087**	**.12515**	**1.3872**	**.00379**	**4.0726**	**.01488**
Stddev	.00012	.00010	.00033	.00549	.0287	.00045	.0378	.00016
%RSD	46.966	25.653	37.675	4.3897	2.0705	11.793	.92741	1.0423
#1	-.00029	.00035	.00099	.12935	1.4200	.00383	4.0516	.01483
#2	-.00035	.00052	.00112	.11894	1.3749	.00422	4.0500	.01476
#3	-.00012	.00033	.00050	.12718	1.3667	.00332	4.1162	.01505
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**4.8008**	**.00060**	**.00930**	**-.00085**	**.00194**	**.00199**	**2.1621**
Stddev	.00031	.0237	.00023	.00113	.00024	.00203	.00075	.0152
%RSD	564.05	.49402	38.874	12.104	28.719	104.35	37.498	.70117
#1	.00023	4.8196	.00065	.00967	-.00073	-.00034	.00270	2.1796
#2	.00024	4.7741	.00034	.00803	-.00069	.00353	.00121	2.1528
#3	-.00030	4.8087	.00080	.01019	-.00113	.00264	.00205	2.1538
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403158024 Acquired: 4/4/2014 0:43:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469565-05

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**.12531**	**.00116**	**-.00182**	**.00044**	**.00481**	**.79646**
Stddev	.00019	.00050	.00036	.00163	.00021	.00003	.61214
%RSD	79.996	.39863	30.853	90.007	47.966	.54053	76.858
#1	.00020	.12587	.00140	-.00089	.00042	.00479	.27639
#2	.00044	.12490	.00075	-.00086	.00024	.00480	.64194
#3	.00007	.12516	.00132	-.00370	.00067	.00484	1.4711
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19559.**	**21780.**
Stddev	37.	330.
%RSD	.18690	1.5134
#1	19520.	22066.
#2	19592.	21853.
#3	19565.	21419.

Approved: April 04, 2014

Sample Name: L1403158024 Acquired: 4/4/2014 0:46:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469565-06

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21500**	**5.3303**	**.20981**	**1.0985**	**.54015**	**.02644**	**16.168**	**.02657**
Stddev	.00202	.0261	.00161	.0114	.00038	.00026	.025	.00017
%RSD	.93993	.48902	.76745	1.0351	.06995	.98642	.15613	.65554
#1	.21728	5.3012	.20889	1.1113	.53985	.02674	16.148	.02677
#2	.21431	5.3514	.20887	1.0945	.54058	.02631	16.197	.02645
#3	.21342	5.3382	.21167	1.0896	.54004	.02628	16.160	.02648
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10816**	**.26554**	**.26999**	**2.1791**	**27.630**	**.52655**	**8.8856**	**.27722**
Stddev	.00047	.00400	.00182	.0127	.083	.00130	.0422	.00320
%RSD	.43357	1.5048	.67252	.58434	.30165	.24649	.47515	1.1530
#1	.10867	.27006	.27204	2.1761	27.546	.52542	8.8390	.27375
#2	.10806	.26404	.26933	2.1681	27.712	.52628	8.9213	.27786
#3	.10775	.26251	.26859	2.1931	27.632	.52797	8.8965	.28005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.53343**	**30.327**	**.26704**	**-.00127**	**.26836**	**.62974**	**.21521**	**4.6510**
Stddev	.00229	.052	.00212	.00296	.00161	.00755	.00112	.0102
%RSD	.42912	.17242	.79246	233.41	.60154	1.1995	.52089	.21850
#1	.53602	30.268	.26918	.00172	.27023	.63800	.21402	4.6393
#2	.53168	30.342	.26700	-.00419	.26750	.62318	.21538	4.6569
#3	.53259	30.370	.26495	-.00133	.26736	.62803	.21624	4.6569
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403158024 Acquired: 4/4/2014 0:46:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469565-06

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.58633**	**.65028**	**.51100**	**.26641**	**.52930**	**.54075**	**11.002**
Stddev	.01303	.00171	.00225	.00413	.00682	.00516	.632
%RSD	2.2231	.26321	.43971	1.5490	1.2892	.95331	5.7431
#1	.60138	.64906	.50914	.27115	.53706	.54655	10.871
#2	.57872	.65224	.51037	.26445	.52662	.53901	11.689
#3	.57888	.64955	.51350	.26362	.52423	.53669	10.446
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19475.**	**21723.**
Stddev	268.	220.
%RSD	1.3741	1.0147
#1	19177.	21962.
#2	19554.	21678.
#3	19695.	21528.

Approved: April 04, 2014

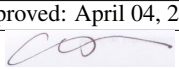
Sample Name: L1403158026 Acquired: 4/4/2014 0:50:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**.03576**	**.00515**	**.00666**	**.20188**	**.00015**	**11.173**
Stddev	.00014	.00184	.00009	.00104	.00073	.00002	.027
%RSD	72.768	5.1356	1.8113	15.652	.36371	13.753	.23809
#1	.00034	.03773	.00513	.00681	.20243	.00017	11.171
#2	.00007	.03411	.00507	.00555	.20104	.00015	11.147
#3	.00016	.03543	.00525	.00762	.20216	.00013	11.200
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00025**	**-.00027**	**.00222**	**.00363**	**37.775**	**1.3565**	**.00403**
Stddev	.00009	.00008	.00058	.00044	.048	.0195	.00154
%RSD	34.650	31.184	26.269	12.025	.12825	1.4407	38.298
#1	-.00021	-.00018	.00173	.00327	37.720	1.3579	.00574
#2	-.00019	-.00034	.00206	.00412	37.791	1.3753	.00360
#3	-.00036	-.00029	.00286	.00351	37.812	1.3362	.00275
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.3568**	**.25897**	**.00017**	**3.1872**	**.00010**	**.29557**	**.02315**
Stddev	.0162	.00104	.00021	.0043	.00041	.00833	.00108
%RSD	.48162	.40293	122.84	.13388	412.39	2.8180	4.6506
#1	3.3418	.25841	.00011	3.1842	.00024	.30188	.02225
#2	3.3739	.25833	.00000	3.1921	.00043	.29869	.02285
#3	3.3546	.26017	.00040	3.1853	-.00037	.28613	.02434
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1403158026 Acquired: 4/4/2014 0:50:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00081**	**.00431**	**5.5538**	**.00082**	**.16682**	**.00030**	**-.00077**
Stddev	.00041	.00290	.0057	.00018	.00040	.00007	.00061
%RSD	50.153	67.327	.10191	21.302	.23874	22.326	78.402
#1	-.00114	.00108	5.5571	.00102	.16723	.00024	-.00139
#2	-.00036	.00668	5.5570	.00069	.16644	.00029	-.00075
#3	-.00094	.00516	5.5473	.00076	.16679	.00037	-.00018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00061**	**3.1906**	F **-6.3046**
Stddev	.00005	.0128	.4429
%RSD	7.3797	.40101	7.0246
#1	.00060	3.1962	-6.7620
#2	.00066	3.1996	-6.2739
#3	.00057	3.1759	-5.8778
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19808.**	**21903.**
Stddev	29.	67.
%RSD	.14865	.30702
#1	19774.	21962.
#2	19825.	21918.
#3	19824.	21830.

Approved: April 04, 2014

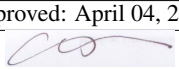
Sample Name: L1403158027 Acquired: 4/4/2014 0:53:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**.06758**	**.00017**	**.01898**	**.01395**	**.00022**	**126.51**	**.00126**
Stddev	.0003	.01447	.00105	.00102	.00057	.00000	.58	.00003
%RSD	15187.	21.410	608.15	5.3492	4.0891	.47661	.46100	2.5731
#1	.00025	.07081	.00093	.01952	.01341	.00022	125.84	.00130
#2	-.00038	.05177	-.00103	.01781	.01454	.00022	126.90	.00124
#3	.00012	.08016	.00062	.01961	.01390	.00022	126.79	.00124
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00268**	**.00057**	**.00042**	**.06589**	**6.4117**	**.02357**	**116.84**	**.60543**
Stddev	.00014	.00013	.00005	.00428	.0267	.00132	.83	.02135
%RSD	5.1619	22.453	12.426	6.4952	.41561	5.5829	.70702	3.5264
#1	.00263	.00059	.00036	.06617	6.3967	.02300	116.27	.60951
#2	.00258	.00043	.00045	.07003	6.3960	.02508	117.79	.62445
#3	.00284	.00068	.00045	.06148	6.4425	.02264	116.47	.58234
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**4.0993**	**.03198**	**.00154**	**-.00123**	**.00265**	**.00029**	**2.2382**
Stddev	.00018	.0127	.00027	.00463	.00104	.00070	.00156	.0208
%RSD	557.14	.30941	.84808	301.55	84.285	26.610	533.28	.93119
#1	-.00023	4.0930	.03225	-.00310	-.00110	.00253	-.00047	2.2567
#2	.00011	4.0909	.03171	.00154	-.00233	.00340	-.00074	2.2156
#3	.00003	4.1139	.03197	.00617	-.00027	.00201	.00209	2.2422
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403158027 Acquired: 4/4/2014 0:53:44 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00041**	**.60890**	**-.00233**	**-.00171**	**.00001**	**.02633**	**.06416**
Stddev	.00044	.00321	.00091	.00048	.00003	.00045	.54416
%RSD	106.61	.52661	39.127	28.080	186.44	1.7193	848.14
#1	.00091	.60524	-.00170	-.00208	.00004	.02672	.68383
#2	.00011	.61024	-.00338	-.00189	-.00002	.02584	-.33579
#3	.00021	.61122	-.00193	-.00117	.00002	.02643	-.15556
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19029.**	**21312.**
Stddev	16.	748.
%RSD	.08367	3.5080
#1	19014.	21191.
#2	19046.	20631.
#3	19026.	22112.

Approved: April 04, 2014

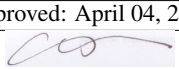
Sample Name: L1403162401 Acquired: 4/4/2014 0:57:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20830**	**5.3108**	**.19898**	**1.0673**	**.50833**	**.02544**	**13.759**	**.02524**
Stddev	.00112	.0213	.00118	.0033	.00018	.00008	.021	.00005
%RSD	.53749	.40046	.59348	.30807	.03487	.30668	.15297	.18805
#1	.20942	5.3299	.20027	1.0647	.50846	.02553	13.776	.02527
#2	.20718	5.2879	.19794	1.0662	.50841	.02537	13.766	.02528
#3	.20831	5.3146	.19874	1.0710	.50813	.02543	13.736	.02519
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10228**	**.25689**	**.30781**	**2.0007**	**28.935**	**.49154**	**8.7178**	**.24602**
Stddev	.00036	.00093	.00195	.0051	.036	.00017	.0220	.00370
%RSD	.35341	.36335	.63229	.25585	.12271	.03464	.25208	1.5029
#1	.10264	.25705	.30974	1.9952	28.894	.49173	8.6944	.24180
#2	.10228	.25589	.30785	2.0052	28.954	.49149	8.7379	.24758
#3	.10192	.25774	.30584	2.0018	28.957	.49140	8.7211	.24868
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50009**	**28.819**	**.25107**	**.17303**	**.25205**	**.61327**	**.20599**	**3.8846**
Stddev	.00258	.036	.00159	.00462	.00122	.00700	.00219	.0295
%RSD	.51576	.12533	.63177	2.6725	.48596	1.1414	1.0625	.76044
#1	.50299	28.796	.25265	.17794	.25345	.62130	.20809	3.8585
#2	.49922	28.800	.25107	.17240	.25147	.61007	.20616	3.9167
#3	.49806	28.860	.24948	.16875	.25122	.60845	.20372	3.8786
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403162401 Acquired: 4/4/2014 0:57:16 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00138**	**.57577**	**.48126**	**.24861**	**.50381**	**.64949**	**1.6956**
Stddev	.00020	.00119	.00299	.00412	.00104	.00127	.5619
%RSD	14.311	.20599	.62150	1.6562	.20731	.19479	33.137
#1	.00115	.57593	.47806	.25271	.50421	.64960	2.2990
#2	.00147	.57687	.48172	.24448	.50263	.64817	1.1874
#3	.00150	.57452	.48399	.24865	.50460	.65070	1.6004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19601.**	**22503.**
Stddev	28.	300.
%RSD	.14131	1.3347
#1	19574.	22848.
#2	19629.	22358.
#3	19599.	22302.

Approved: April 04, 2014

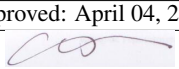
Sample Name: L1403162401PS Acquired: 4/4/2014 1:00:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469868-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00043**	**.07398**	**-.00056**	**.00620**	**.00531**	**-.00002**	**1.9535**	**.00007**
Stddev	.00017	.01978	.00085	.00038	.00039	.00002	.0102	.00008
%RSD	39.264	26.743	150.67	6.1719	7.2637	150.02	.52185	122.64
#1	.00049	.09682	-.00128	.00613	.00566	.00001	1.9444	-.00002
#2	.00024	.06262	.00037	.00662	.00490	-.00003	1.9645	.00007
#3	.00055	.06249	-.00078	.00586	.00536	-.00003	1.9517	.00015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00011**	**.00031**	**.01256**	**.01324**	**.84958**	**.00018**	**.93433**	**.00032**
Stddev	.00018	.00013	.00028	.00330	.03623	.00173	.00685	.00000
%RSD	172.03	43.075	2.2059	24.964	4.2647	964.84	.73343	1.4305
#1	-.00032	.00045	.01282	.00946	.83238	-.00150	.94116	.00032
#2	.00002	.00028	.01227	.01560	.89121	.00009	.93438	.00032
#3	-.00002	.00019	.01261	.01465	.82516	.00195	.92745	.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**1.1785**	**-.00004**	**.03302**	**-.00022**	**-.00041**	**-.00111**	**.31706**
Stddev	.00012	.0033	.00060	.00171	.00218	.00195	.00128	.00209
%RSD	1576.3	.28077	1410.9	5.1644	992.79	478.79	115.04	.66055
#1	.00005	1.1757	.00027	.03466	-.00265	-.00096	-.00142	.31894
#2	-.00014	1.1821	.00034	.03315	.00154	.00176	.00029	.31743
#3	.00007	1.1776	-.00074	.03126	.00046	-.00202	-.00221	.31480
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403162401PS Acquired: 4/4/2014 1:00:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469868-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00026**	**.01281**	**-.00130**	**-.00121**	**.00022**	**.03520**	**1.4010**
Stddev	.00024	.00011	.00062	.00119	.00007	.00013	.6286
%RSD	91.851	.85289	48.012	98.120	34.016	.36522	44.864
#1	.00002	.01288	-.00202	-.00229	.00021	.03519	.90654
#2	.00050	.01268	-.00096	-.00139	.00015	.03533	1.1881
#3	.00027	.01286	-.00092	.00006	.00029	.03508	2.1083
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20390.**	**22896.**
Stddev	92.	740.
%RSD	.45199	3.2337
#1	20480.	22043.
#2	20395.	23372.
#3	20296.	23273.

Approved: April 04, 2014

Sample Name: L1403162401SDL Acquired: 4/4/2014 1:04:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469868-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**.01500**	**.00058**	**.02907**	**.04553**	**.00003**	**17.163**	**.00032**
Stddev	.00062	.01804	.00095	.00124	.00036	.00002	.033	.00016
%RSD	1434.3	120.30	164.79	4.2755	.79493	68.513	.19445	49.698
#1	-.00067	-.00568	-.00024	.03046	.04511	.00003	17.131	.00049
#2	.00039	.02315	.00162	.02806	.04573	.00005	17.198	.00018
#3	.00041	.02753	.00035	.02870	.04574	.00001	17.161	.00028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**-.00005**	**.00129**	**.16279**	**2.1738**	**.06954**	**5.5231**	**.02325**
Stddev	.00019	.00028	.00109	.01009	.0131	.00028	.0377	.00017
%RSD	105.76	609.60	84.451	6.1961	.60152	.39714	.68237	.73987
#1	-.00037	-.00020	.00252	.15854	2.1588	.06960	5.5245	.02317
#2	.00000	.00028	.00049	.15552	2.1798	.06978	5.4847	.02313
#3	-.00016	-.00021	.00085	.17430	2.1829	.06924	5.5601	.02345
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**119.08**	**.07895**	**.00150**	**-.00154**	**.00173**	**-.00023**	**4.2119**
Stddev	.00025	.63	.13221	.00436	.00306	.00099	.00621	.8206
%RSD	204.86	.53272	167.46	289.98	198.24	57.048	2688.0	19.483
#1	.00040	118.35	.23161	.00640	-.00222	.00185	.00286	5.1592
#2	.00006	119.49	.00332	-.00198	-.00420	.00069	-.00738	3.7562
#3	-.00009	119.40	.00192	.00010	.00180	.00265	.00383	3.7202
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403162401SDL Acquired: 4/4/2014 1:04:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469868-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00067**	**.42479**	**-.00145**	**-.00173**	**.00008**	**.01643**	**.44206**
Stddev	.00011	.00076	.00096	.00147	.00028	.01317	.30241
%RSD	16.112	.18008	66.050	85.287	360.12	80.113	68.408
#1	.00064	.42496	-.00062	-.00046	-.00001	.03164	.23366
#2	.00079	.42395	-.00123	-.00138	-.00015	.00890	.78891
#3	.00058	.42545	-.00250	-.00334	.00039	.00877	.30361
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18714.**	**21888.**
Stddev	417.	83.
%RSD	2.2296	.38134
#1	18237.	21892.
#2	18888.	21969.
#3	19015.	21802.

Approved: April 04, 2014

Sample Name: CCV Acquired: 4/4/2014 1:07:43 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.42772**	**10.351**	**.41569**	**.54813**	**1.0287**	**.05353**	**10.400**
Stddev	.00135	.043	.00358	.00351	.0043	.00038	.058
%RSD	.31546	.41455	.86128	.63975	.41462	.71694	.55514
#1	.42631	10.398	.41942	.54487	1.0310	.05311	10.423
#2	.42785	10.342	.41228	.54768	1.0314	.05359	10.442
#3	.42900	10.313	.41538	.55184	1.0238	.05387	10.334
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05258**	**.21209**	**.53265**	**.53055**	**4.1266**	**52.333**	**1.0305**
Stddev	.00018	.00132	.00396	.00211	.0209	.120	.0032
%RSD	.33618	.62037	.74350	.39720	.50553	.22941	.31112
#1	.05278	.21325	.52837	.53286	4.1382	52.355	1.0315
#2	.05248	.21066	.53341	.52872	4.1391	52.441	1.0330
#3	.05247	.21237	.53618	.53009	4.1025	52.204	1.0269
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.237**	**.51703**	**1.0355**	**50.998**	**.52219**	**10.448**	**.52508**
Stddev	.055	.00348	.0041	.142	.00132	.071	.00191
%RSD	.54167	.67310	.39956	.27914	.25241	.68293	.36297
#1	10.271	.52089	1.0403	51.014	.52287	10.530	.52599
#2	10.267	.51413	1.0330	51.133	.52067	10.403	.52289
#3	10.173	.51607	1.0333	50.849	.52303	10.412	.52637
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014

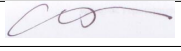
Sample Name: CCV Acquired: 4/4/2014 1:07:43 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2453**	**.42552**	**5.1702**	**1.0739**	**1.0550**	**1.0180**	**.51879**
Stddev	.0069	.00675	.0239	.0121	.0051	.0044	.00865
%RSD	.55242	1.5854	.46304	1.1297	.48002	.43065	1.6668
#1	1.2516	.43080	5.1978	1.0810	1.0583	1.0163	.52440
#2	1.2380	.41792	5.1566	1.0599	1.0575	1.0230	.50883
#3	1.2465	.42784	5.1562	1.0807	1.0492	1.0148	.52313
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0601**	**1.0644**	F **.46571**
Stddev	.0055	.0031	.68292
%RSD	.51386	.29513	146.64
#1	1.0545	1.0610	.69226
#2	1.0604	1.0651	-.30170
#3	1.0654	1.0671	1.0066
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19331.**	**22039.**
Stddev	109.	105.
%RSD	.56438	.47425
#1	19457.	21919.
#2	19266.	22104.
#3	19270.	22095.

Approved: April 04, 2014



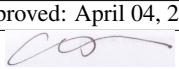
Sample Name: CCB Acquired: 4/4/2014 1:10:59 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00016**	**.00456**	**.00217**	**.00368**	**.00034**	**.00004**	**.00001**	**-.00001**
Stddev	.00070	.01090	.00136	.00078	.00021	.00002	.00456	.00007
%RSD	437.12	239.22	62.510	21.201	61.433	36.344	36420.	704.03
#1	-.00057	.00574	.00171	.00379	.00017	.00003	.00463	-.00008
#2	.00082	.01481	.00370	.00440	.00028	.00004	-.00010	-.00001
#3	.00023	-.00688	.00111	.00285	.00057	.00006	-.00448	.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**.00010**	**-.00022**	**.00336**	**.01584**	**-.00044**	**.00501**	**-.00006**
Stddev	.00013	.00010	.00018	.00227	.03022	.00020	.00560	.00002
%RSD	61.634	96.055	80.336	67.503	190.82	45.497	111.75	24.843
#1	-.00019	.00012	-.00005	.00360	.02363	-.00062	.00516	-.00008
#2	-.00009	.00018	-.00040	.00549	-.01752	-.00048	-.00066	-.00005
#3	-.00034	-.00001	-.00021	.00098	.04140	-.00023	.01053	-.00005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00016**	**.00545**	**-.00099**	**.00187**	**-.00180**	**.00109**	**.00057**	**.00185**
Stddev	.00014	.00805	.00103	.00275	.00146	.00070	.00175	.00095
%RSD	89.989	147.70	104.12	147.37	80.809	63.950	304.72	51.143
#1	.00029	.01224	-.00002	.00236	-.00076	.00059	-.00083	.00096
#2	.00017	-.00344	-.00089	.00435	-.00118	.00189	.00002	.00284
#3	.00001	.00754	-.00207	-.00110	-.00347	.00080	.00253	.00175
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: CCB Acquired: 4/4/2014 1:10:59 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00024**	**.00010**	**-.00077**	**-.00126**	**.00004**	**.00004**	**.04869**
Stddev	.00063	.00007	.00106	.00154	.00014	.00016	.11106
%RSD	263.28	67.536	137.70	122.27	350.55	405.11	228.10
#1	.00096	.00016	.00042	.00031	.00014	.00017	.14408
#2	-.00006	.00012	-.00111	-.00132	-.00012	.00008	-.07323
#3	-.00018	.00003	-.00162	-.00277	.00011	-.00014	.07522
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19824.**	**21794.**
Stddev	367.	245.
%RSD	1.8516	1.1226
#1	20059.	22076.
#2	20012.	21652.
#3	19401.	21653.

Approved: April 04, 2014

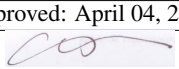
Sample Name: L1403166101 Acquired: 4/4/2014 1:14:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**.00653**	**.00088**	**.01097**	**.02162**	**.00007**	**24.890**
Stddev	.00040	.01278	.00024	.00126	.00006	.00004	.098
%RSD	204.38	195.72	27.064	11.487	.27316	50.182	.39456
#1	-.00007	.00777	.00091	.01209	.02169	.00003	24.844
#2	-.00064	.01864	.00063	.01122	.02160	.00011	25.003
#3	.00012	-.00683	.00111	.00961	.02158	.00007	24.823
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00036**	**-.00030**	**.00028**	**.00065**	**.02596**	**2.0843**	**.02036**
Stddev	.00007	.00023	.00063	.00026	.00365	.0200	.00070
%RSD	19.504	75.400	229.47	39.833	14.064	.95792	3.4568
#1	.00039	-.00011	.00035	.00039	.02840	2.0624	.02075
#2	.00041	-.00055	-.00039	.00091	.02772	2.0892	.02079
#3	.00028	-.00024	.00087	.00065	.02176	2.1014	.01955
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.4348**	**.00514**	**.00036**	**4.6318**	**.00137**	**.00210**	**-.00054**
Stddev	.0486	.00023	.00007	.0108	.00038	.00679	.00210
%RSD	.51534	4.4532	19.336	.23391	27.935	323.23	389.32
#1	9.4574	.00509	.00043	4.6334	.00141	.00070	-.00180
#2	9.3790	.00495	.00029	4.6417	.00097	.00948	-.00171
#3	9.4680	.00540	.00035	4.6203	.00173	-.00388	.00188
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



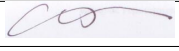
Sample Name: L1403166101 Acquired: 4/4/2014 1:14:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00123**	**.00429**	**4.1096**	**.00021**	**.32305**	**-.00094**	**-.00154**
Stddev	.00204	.00148	.0046	.00015	.00204	.00040	.00070
%RSD	166.35	34.428	.11166	70.704	.63118	42.380	45.328
#1	.00277	.00355	4.1052	.00004	.32280	-.00063	-.00172
#2	-.00109	.00599	4.1092	.00031	.32520	-.00079	-.00078
#3	.00200	.00333	4.1144	.00029	.32115	-.00138	-.00214
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00013**	**.00491**	F **-.09148**
Stddev	.00027	.00013	.67324
%RSD	206.17	2.5660	735.98
#1	.00044	.00503	.27725
#2	-.00003	.00492	-.86853
#3	-.00002	.00478	.31686
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19688.**	**21328.**
Stddev	17.	641.
%RSD	.08415	3.0038
#1	19675.	21370.
#2	19707.	21946.
#3	19684.	20667.

Approved: April 04, 2014



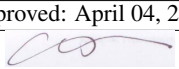
Sample Name: L1403166103 Acquired: 4/4/2014 1:18:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**.02634**	**.00192**	**.03635**	**.21868**	**.00004**	**8.3361**	**.00018**
Stddev	.00024	.02250	.00199	.00122	.00036	.00001	.0274	.00008
%RSD	3132.5	85.408	103.83	3.3435	.16550	23.078	.32875	45.450
#1	-.00010	.02286	.00219	.03644	.21829	.00004	8.3637	.00012
#2	-.00018	.05037	-.00020	.03751	.21875	.00004	8.3359	.00015
#3	.00026	.00579	.00376	.03508	.21900	.00006	8.3089	.00027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00041**	**-.00007**	**.00088**	**.40673**	**1.3302**	**.05990**	**2.4585**	**.08923**
Stddev	.00033	.00030	.00047	.00315	.0657	.00152	.0052	.00100
%RSD	79.557	458.53	52.965	.77526	4.9406	2.5407	.21125	1.1257
#1	-.00010	-.00039	.00037	.40324	1.2757	.06109	2.4529	.08815
#2	-.00075	.00022	.00129	.40757	1.4032	.06041	2.4631	.08940
#3	-.00038	-.00003	.00099	.40937	1.3117	.05818	2.4595	.09014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00068**	**144.19**	**.00003**	**.01025**	**-.00222**	**.00001**	**.00103**	**3.9411**
Stddev	.00014	.49	.00060	.00177	.00026	.00051	.00112	.0429
%RSD	20.597	.33665	1934.2	17.244	11.646	3996.2	108.05	1.0884
#1	.00064	143.67	.00049	.01069	-.00229	.00060	.00174	3.8975
#2	.00057	144.27	-.00065	.01177	-.00194	-.00030	-.00025	3.9426
#3	.00084	144.63	.00025	.00831	-.00244	-.00026	.00162	3.9833
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403166103 Acquired: 4/4/2014 1:18:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00043**	**.22389**	**-.00039**	**-.00164**	**.00039**	**.00237**	**1.1858**
Stddev	.00007	.00131	.00048	.00052	.00029	.00009	.4126
%RSD	15.570	.58374	122.84	31.767	74.879	3.9496	34.793
#1	.00044	.22531	-.00035	-.00128	.00016	.00244	.70999
#2	.00049	.22362	.00007	-.00223	.00072	.00227	1.4439
#3	.00036	.22274	-.00089	-.00140	.00030	.00241	1.4035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19041.**	**21761.**
Stddev	181.	223.
%RSD	.95029	1.0251
#1	19090.	22018.
#2	18841.	21636.
#3	19192.	21628.

Approved: April 04, 2014

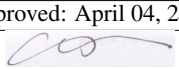
Sample Name: L1403166105 Acquired: 4/4/2014 1:21:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00044**	**.05638**	**-.00033**	**.01228**	**.06829**	**.00003**	**14.488**	**.00027**
Stddev	.00012	.00742	.00171	.00077	.00037	.00004	.056	.00003
%RSD	27.369	13.153	514.42	6.3031	.54047	102.12	.38514	11.140
#1	.00052	.06490	-.00228	.01314	.06834	.00002	14.552	.00030
#2	.00050	.05141	.00089	.01166	.06863	.00001	14.465	.00024
#3	.00030	.05283	.00039	.01203	.06790	.00007	14.447	.00028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00024**	**-.00013**	**.00094**	**.13040**	**1.3572**	**.02200**	**5.1701**	**.02891**
Stddev	.00019	.00040	.00081	.00205	.0048	.00115	.0322	.00007
%RSD	79.931	313.45	86.985	1.5708	.35559	5.2112	.62314	.24008
#1	-.00006	-.00050	.00153	.12841	1.3550	.02332	5.1876	.02892
#2	-.00044	.00029	.00127	.13029	1.3627	.02132	5.1329	.02883
#3	-.00021	-.00017	.00001	.13250	1.3538	.02135	5.1897	.02897
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**36.463**	**.00066**	**.00266**	**-.00075**	**.00040**	**.00316**	**2.9356**
Stddev	.00010	.065	.00027	.00258	.00113	.00184	.00261	.0087
%RSD	65.760	.17827	40.553	96.910	151.10	457.09	82.712	.29694
#1	.00025	36.533	.00066	.00422	-.00204	-.00145	.00456	2.9443
#2	.00015	36.405	.00039	.00409	.00006	.00042	.00014	2.9357
#3	.00005	36.451	.00092	-.00032	-.00026	.00224	.00477	2.9268
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1403166105 Acquired: 4/4/2014 1:21:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00038**	**.26329**	**-.00078**	**-.00211**	**-.00002**	**.00307**	**.42708**
Stddev	.00030	.00169	.00052	.00101	.00008	.00013	.31312
%RSD	78.777	.64004	67.416	48.203	372.60	4.2687	73.318
#1	.00072	.26490	-.00036	-.00201	.00000	.00296	.73475
#2	.00029	.26344	-.00061	-.00114	-.00012	.00303	.43771
#3	.00014	.26154	-.00137	-.00316	.00005	.00321	.10877
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19251.**	**22084.**
Stddev	205.	69.
%RSD	1.0628	.31314
#1	19219.	22037.
#2	19063.	22164.
#3	19469.	22052.

Approved: April 04, 2014

Sample Name: L1403166107 Acquired: 4/4/2014 1:25:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00016**	**.05464**	**-.00030**	**.00874**	**.04575**	**.00006**	**15.077**	**.00019**
Stddev	.00071	.02924	.00119	.00027	.00027	.00003	.006	.00011
%RSD	438.33	53.509	400.56	3.1015	.58308	40.340	.04240	56.636
#1	.00075	.05215	.00081	.00896	.04594	.00004	15.083	.00032
#2	.00036	.08505	-.00156	.00844	.04586	.00007	15.070	.00010
#3	-.00063	.02673	-.00014	.00882	.04544	.00009	15.079	.00016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00007**	**.00013**	**.00078**	**.09330**	**1.3033**	**.01625**	**5.4966**	**.02102**
Stddev	.00018	.00024	.00035	.00075	.0400	.00072	.0120	.00025
%RSD	269.70	189.91	44.888	.80260	3.0683	4.4252	.21791	1.2051
#1	-.00027	.00040	.00087	.09335	1.3475	.01568	5.4949	.02100
#2	.00004	-.00001	.00107	.09402	1.2927	.01600	5.4856	.02077
#3	.00003	-.00001	.00039	.09252	1.2697	.01706	5.5093	.02128
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00006**	**19.500**	**.00062**	**.00259**	**-.00051**	**.00077**	**.00129**	**2.7722**
Stddev	.00014	.072	.00047	.00426	.00193	.00072	.00214	.0116
%RSD	231.07	.36685	75.632	164.22	380.83	92.675	166.16	.41905
#1	.00006	19.562	.00071	.00186	.00160	.00160	-.00082	2.7820
#2	.00019	19.516	.00104	.00717	-.00094	.00037	.00123	2.7593
#3	-.00008	19.422	.00011	-.00125	-.00219	.00035	.00346	2.7752
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403166107 Acquired: 4/4/2014 1:25:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00059**	**.26604**	**-.00042**	**-.00185**	**.00016**	**.00277**	**.57212**
Stddev	.00042	.00064	.00051	.00185	.00053	.00011	.73235
%RSD	70.944	.24016	122.04	99.790	328.91	4.0929	128.01
#1	.00011	.26668	-.00101	-.00355	-.00020	.00272	.36959
#2	.00089	.26540	-.00012	-.00211	.00077	.00269	-.03765
#3	.00076	.26603	-.00013	.00011	-.00008	.00290	1.3844
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19574.**	**22274.**
Stddev	38.	136.
%RSD	.19523	.61032
#1	19607.	22248.
#2	19532.	22421.
#3	19584.	22152.

Approved: April 04, 2014

Sample Name: L1403166109 Acquired: 4/4/2014 1:28:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00044**	**.11975**	**.00049**	**.00817**	**.01886**	**.00007**	**5.7658**	**.00016**
Stddev	.00024	.01655	.00126	.00095	.00037	.00001	.0127	.00006
%RSD	54.470	13.819	259.66	11.609	1.9566	18.187	.22050	38.381
#1	.00053	.10376	.00190	.00906	.01846	.00009	5.7518	.00019
#2	.00062	.11867	-.00052	.00828	.01894	.00006	5.7689	.00009
#3	.00017	.13681	.00008	.00717	.01919	.00007	5.7767	.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00015**	**.00055**	**.00081**	**.23512**	**1.1272**	**-.00038**	**3.0100**	**.01664**
Stddev	.00004	.00019	.00061	.00198	.0455	.00135	.0214	.00046
%RSD	26.343	35.199	75.152	.84389	4.0371	358.73	.71228	2.7932
#1	-.00011	.00077	.00019	.23659	1.1280	-.00144	2.9857	.01616
#2	-.00018	.00043	.00140	.23286	1.0813	.00114	3.0177	.01666
#3	-.00015	.00044	.00084	.23590	1.1723	-.00082	3.0265	.01709
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**5.5355**	**.00038**	**.00107**	**-.00037**	**.00071**	**.00168**	**2.9520**
Stddev	.00003	.0138	.00042	.00397	.00102	.00245	.00304	.0140
%RSD	416.21	.25004	111.55	371.35	275.83	346.20	180.88	.47401
#1	-.00003	5.5495	.00012	.00564	-.00130	.00265	.00199	2.9681
#2	.00003	5.5352	.00015	-.00156	.00072	.00151	-.00150	2.9424
#3	-.00002	5.5218	.00087	-.00087	-.00053	-.00204	.00456	2.9456
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1403166109 Acquired: 4/4/2014 1:28:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00036**	**.03569**	**.00233**	**-.00241**	**.00051**	**.00331**	**1.0664**
Stddev	.00027	.00021	.00091	.00183	.00009	.00004	.3541
%RSD	75.490	.58221	38.869	75.896	17.639	1.0924	33.203
#1	.00040	.03546	.00330	-.00038	.00045	.00335	.66513
#2	.00007	.03575	.00218	-.00393	.00061	.00327	1.3349
#3	.00060	.03586	.00151	-.00290	.00047	.00331	1.1993
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19902.**	**21602.**
Stddev	16.	372.
%RSD	.08022	1.7233
#1	19908.	22021.
#2	19914.	21476.
#3	19884.	21310.

Approved: April 04, 2014

Sample Name: L1404003001 Acquired: 4/4/2014 1:32:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469565-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21205**	**5.4391**	**.21155**	**1.0862**	**.52768**	**.02672**	**11.150**	**.02652**
Stddev	.00224	.0335	.00171	.0117	.00121	.00028	.030	.00010
%RSD	1.0552	.61498	.80701	1.0777	.22985	1.0510	.27316	.37524
#1	.21386	5.4030	.21291	1.0892	.52866	.02686	11.115	.02662
#2	.21275	5.4453	.20963	1.0961	.52633	.02691	11.164	.02654
#3	.20955	5.4691	.21210	1.0733	.52807	.02640	11.171	.02642
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10898**	**.26990**	**.26990**	**2.2871**	**27.817**	**.51250**	**8.1404**	**.28024**
Stddev	.00028	.00286	.00075	.0125	.117	.00192	.0541	.00504
%RSD	.25720	1.0614	.27778	.54684	.41945	.37385	.66432	1.7997
#1	.10914	.27155	.27043	2.2727	27.693	.51326	8.0788	.27470
#2	.10913	.27155	.27023	2.2956	27.832	.51032	8.1621	.28145
#3	.10865	.26659	.26904	2.2928	27.925	.51392	8.1802	.28457
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.53082**	**30.442**	**.26628**	**-.00023**	**.26712**	**.63373**	**.21558**	**5.6127**
Stddev	.00085	.075	.00001	.00094	.00098	.00277	.00612	.0054
%RSD	.15940	.24543	.00220	407.35	.36709	.43694	2.8386	.09677
#1	.53103	30.514	.26628	-.00114	.26616	.63063	.20858	5.6188
#2	.53153	30.365	.26628	-.00029	.26812	.63598	.21830	5.6086
#3	.52988	30.448	.26627	.00074	.26708	.63456	.21987	5.6107
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1404003001 Acquired: 4/4/2014 1:32:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469565-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.58855**	**.58360**	**.50904**	**.26060**	**.52300**	**.54336**	**11.643**
Stddev	.00613	.00228	.00247	.00253	.00547	.00409	.568
%RSD	1.0423	.39019	.48452	.96967	1.0456	.75322	4.8769
#1	.58239	.58102	.51036	.25787	.52562	.54462	12.187
#2	.59466	.58442	.51057	.26286	.52666	.54668	11.687
#3	.58860	.58535	.50620	.26107	.51671	.53879	11.054
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19549.**	**21562.**
Stddev	176.	450.
%RSD	.90101	2.0889
#1	19517.	22066.
#2	19392.	21422.
#3	19740.	21199.

Approved: April 04, 2014

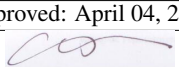
Sample Name: L1404003001MS Acquired: 4/4/2014 1:35:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469565-07

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00040**	**.12417**	**-.00004**	**.01115**	**.02353**	**.00004**	**5.1743**	**.00023**
Stddev	.00030	.01338	.00057	.00066	.00010	.00002	.0177	.00007
%RSD	75.383	10.774	1461.1	5.9482	.40644	37.089	.34276	28.572
#1	-.00025	.12658	.00060	.01042	.02342	.00004	5.1944	.00020
#2	-.00075	.13619	-.00050	.01172	.02359	.00003	5.1611	.00019
#3	-.00021	.10976	-.00022	.01129	.02358	.00006	5.1673	.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00013**	**.00029**	**.00158**	**.13634**	**1.0720**	**.00099**	**4.3012**	**.00792**
Stddev	.00024	.00011	.00025	.00063	.0549	.00037	.0191	.00007
%RSD	185.30	37.985	16.168	.46276	5.1191	37.378	.44354	.83709
#1	-.00040	.00020	.00157	.13707	1.1239	.00141	4.2799	.00785
#2	.00004	.00042	.00132	.13607	1.0146	.00075	4.3068	.00798
#3	-.00003	.00026	.00183	.13590	1.0775	.00080	4.3168	.00792
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**1.0706**	**.00083**	**.00311**	**.00029**	**-.00159**	**.00491**	**3.0416**
Stddev	.00013	.0162	.00042	.00308	.00096	.00171	.00394	.0358
%RSD	74.730	1.5098	50.817	99.072	335.34	107.47	80.093	1.1772
#1	.00002	1.0683	.00063	.00487	.00002	.00012	.00039	3.0753
#2	.00024	1.0557	.00132	-.00045	-.00051	-.00159	.00755	3.0454
#3	.00024	1.0878	.00055	.00490	.00135	-.00329	.00681	3.0040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1404003001MS Acquired: 4/4/2014 1:35:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment: WG469565-07

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00074**	**.03586**	**.00209**	**-.00233**	**.00038**	**.00449**	**.70323**
Stddev	.00031	.00016	.00066	.00095	.00029	.00012	.75281
%RSD	41.653	.45129	31.443	40.710	75.010	2.7407	107.05
#1	.00101	.03567	.00285	-.00310	.00032	.00451	-.14308
#2	.00082	.03593	.00174	-.00127	.00013	.00460	1.2983
#3	.00040	.03597	.00169	-.00262	.00069	.00436	.95447
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19515.**	**21694.**
Stddev	76.	290.
%RSD	.38931	1.3383
#1	19558.	22029.
#2	19561.	21515.
#3	19428.	21538.

Approved: April 04, 2014

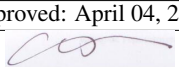
Sample Name: L1404003003 Acquired: 4/4/2014 1:39:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00041**	**.11204**	**-.00131**	**.00996**	**.01395**	**.00006**	**7.6585**	**.00030**
Stddev	.00006	.01644	.00322	.00054	.00012	.00002	.0126	.00005
%RSD	14.361	14.672	245.22	5.4492	.85066	25.974	.16413	17.913
#1	.00034	.10050	.00200	.00948	.01403	.00006	7.6609	.00025
#2	.00044	.13086	-.00151	.00986	.01400	.00007	7.6449	.00035
#3	.00045	.10476	-.00442	.01055	.01381	.00004	7.6697	.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00010**	**.00058**	**.00070**	**.10848**	**1.0201**	**.00331**	**4.2899**	**.00770**
Stddev	.00029	.00037	.00024	.00413	.0175	.00067	.0160	.00011
%RSD	273.55	62.501	33.645	3.8110	1.7156	20.370	.37253	1.4102
#1	-.00033	.00101	.00098	.11056	1.0009	.00376	4.2871	.00758
#2	-.00020	.00039	.00059	.11117	1.0351	.00363	4.2755	.00779
#3	.00022	.00036	.00055	.10372	1.0242	.00253	4.3071	.00774
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**1.1208**	**.00018**	**.00378**	**-.00105**	**.00100**	**.00306**	**2.2122**
Stddev	.00003	.0083	.00021	.00358	.00158	.00090	.00289	.0101
%RSD	23.502	.74326	121.33	94.590	150.38	90.075	94.504	.45538
#1	.00012	1.1304	.00034	.00522	-.00162	.00068	.00448	2.2237
#2	.00014	1.1167	.00026	.00641	.00073	.00202	.00496	2.2047
#3	.00018	1.1154	-.00007	-.00029	-.00228	.00031	-.00027	2.2083
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1404003003 Acquired: 4/4/2014 1:39:12 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00062**	**.05160**	**.00177**	**-.00268**	**.00012**	**.00307**	**.90238**
Stddev	.00046	.00011	.00064	.00020	.00023	.00013	.59190
%RSD	74.940	.20827	35.939	7.6428	195.80	4.3938	65.593
#1	.00052	.05163	.00247	-.00248	.00010	.00322	1.1007
#2	.00021	.05148	.00162	-.00267	.00036	.00304	1.3696
#3	.00113	.05168	.00123	-.00289	-.00010	.00296	.23678
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19618.**	**21808.**
Stddev	36.	53.
%RSD	.18130	.24139
#1	19653.	21759.
#2	19582.	21864.
#3	19617.	21800.

Approved: April 04, 2014

Sample Name: L1404003005 Acquired: 4/4/2014 1:42:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.15664**	**-.00165**	**.01005**	**.01961**	**.00003**	**6.4209**	**.00022**
Stddev	.00011	.01891	.00129	.00052	.00013	.00002	.0192	.00015
%RSD	315.75	12.072	78.406	5.1289	.63953	82.392	.29902	70.167
#1	.00011	.17804	-.00205	.00985	.01955	.00004	6.4076	.00005
#2	.00008	.14969	-.00269	.00967	.01976	.00004	6.4121	.00027
#3	-.00009	.14219	-.00020	.01064	.01953	.00000	6.4429	.00034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**.00019**	**.00082**	**.22162**	**1.0652**	**.00000**	**2.8034**	**.02187**
Stddev	.00011	.00022	.00015	.00606	.0387	.0015	.0185	.00008
%RSD	330.72	115.05	18.079	2.7353	3.6345	48899.	.66140	.38813
#1	.00007	-.00001	.00071	.22773	1.0560	.00051	2.7947	.02181
#2	-.00015	.00043	.00099	.21561	1.1077	.00123	2.8247	.02183
#3	-.00002	.00017	.00077	.22152	1.0319	-.00174	2.7908	.02197
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**4.1758**	**.00064**	**.00370**	**-.00169**	**.00108**	**.00048**	**2.3938**
Stddev	.00003	.0130	.00022	.00477	.00053	.00076	.00279	.0168
%RSD	31.324	.31197	33.780	129.04	31.547	70.104	578.39	.70313
#1	.00009	4.1836	.00051	.00294	-.00205	.00187	.00360	2.4131
#2	.00015	4.1608	.00052	-.00065	-.00108	.00101	-.00037	2.3863
#3	.00009	4.1831	.00089	.00881	-.00196	.00036	-.00178	2.3821
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1404003005 Acquired: 4/4/2014 1:42:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00068**	**.03724**	**.00317**	**-.00173**	**.00035**	**.00438**	**.63678**
Stddev	.00032	.00025	.00155	.00138	.00020	.00007	.14233
%RSD	47.529	.67148	48.858	80.006	56.946	1.6795	22.352
#1	.00082	.03696	.00235	-.00289	.00047	.00440	.47244
#2	.00090	.03732	.00495	-.00210	.00046	.00444	.71741
#3	.00031	.03745	.00220	-.00020	.00012	.00430	.72049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19547.**	**21923.**
Stddev	110.	25.
%RSD	.56472	.11497
#1	19478.	21894.
#2	19489.	21939.
#3	19674.	21935.

Approved: April 04, 2014

Sample Name: L1404003007 Acquired: 4/4/2014 1:46:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00024**	**.20048**	**.00111**	**.22669**	**.29017**	**.00008**	**10.034**	**.00013**
Stddev	.00043	.03110	.00125	.00345	.00139	.00001	.050	.00008
%RSD	177.32	15.510	112.76	1.5236	.47864	8.6945	.50136	61.777
#1	-.00064	.23139	-.00033	.22316	.29056	.00007	10.087	.00019
#2	.00022	.20086	.00180	.23006	.29132	.00009	10.029	.00004
#3	-.00030	.16920	.00185	.22685	.28863	.00008	9.9866	.00017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**.00058**	**.00165**	**1.7043**	**2.9018**	**.02041**	**2.0211**	**.03831**
Stddev	.00013	.00034	.00046	.0076	.0049	.00231	.0109	.00052
%RSD	59.109	58.630	27.912	.44586	.16932	11.316	.53681	1.3610
#1	.00008	.00056	.00169	1.7022	2.9051	.01861	2.0252	.03891
#2	.00034	.00025	.00117	1.7127	2.8962	.02302	2.0088	.03808
#3	.00024	.00094	.00208	1.6979	2.9043	.01961	2.0293	.03795
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**99.891**	**.00079**	**.08717**	**.00038**	**.00080**	**.00277**	**3.9370**
Stddev	.00013	.511	.00026	.00328	.00213	.00119	.00264	.0171
%RSD	283.32	.51199	32.868	3.7630	564.86	147.64	95.199	.43512
#1	.00000	100.30	.00051	.08865	.00074	.00185	.00289	3.9513
#2	-.00019	100.06	.00082	.08341	.00230	-.00049	.00535	3.9415
#3	.00005	99.317	.00103	.08944	-.00191	.00105	.00008	3.9180
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014

Sample Name: L1404003007 Acquired: 4/4/2014 1:46:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00071**	**.35508**	**.00315**	**-.00071**	**.00043**	**.05975**	**.54571**
Stddev	.00024	.00068	.00138	.00098	.00016	.00020	.80872
%RSD	34.199	.19149	43.693	137.23	36.166	.34175	148.20
#1	.00099	.35505	.00474	-.00105	.00025	.05967	1.3020
#2	.00062	.35578	.00242	.00039	.00052	.05998	-.30680
#3	.00053	.35442	.00230	-.00148	.00053	.05960	.64189
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19218.**	**21389.**
Stddev	97.	544.
%RSD	.50367	2.5426
#1	19319.	20761.
#2	19126.	21682.
#3	19209.	21723.

Approved: April 04, 2014

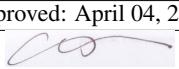
Sample Name: CCV Acquired: 4/4/2014 1:49:50 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41527**	**10.460**	**.41571**	**.53378**	**1.0133**	**.05287**	**10.438**	**.05213**
Stddev	.00178	.029	.00234	.00204	.0010	.00033	.010	.00036
%RSD	.42950	.27830	.56232	.38253	.09740	.61584	.09387	.68462
#1	.41466	10.453	.41513	.53379	1.0122	.05307	10.427	.05253
#2	.41727	10.435	.41828	.53582	1.0141	.05306	10.441	.05200
#3	.41386	10.492	.41371	.53173	1.0137	.05250	10.446	.05185
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21163**	**.52811**	**.52719**	**4.0604**	**52.725**	**1.0104**	**10.230**	**.51703**
Stddev	.00090	.00360	.00284	.0124	.106	.0004	.037	.00777
%RSD	.42504	.68149	.53884	.30521	.20122	.04347	.36244	1.5024
#1	.21264	.53103	.53030	4.0558	52.614	1.0106	10.189	.50807
#2	.21134	.52921	.52653	4.0744	52.825	1.0108	10.240	.52102
#3	.21092	.52409	.52474	4.0508	52.736	1.0099	10.261	.52199
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0274**	**49.430**	**.51877**	**10.368**	**.52207**	**1.2309**	**.42413**	**5.1372**
Stddev	.0017	.099	.00350	.010	.00381	.0040	.00086	.0054
%RSD	.16659	.20012	.67431	.09454	.72976	.32546	.20276	.10445
#1	1.0288	49.317	.52245	10.366	.52601	1.2354	.42355	5.1361
#2	1.0255	49.504	.51835	10.379	.52179	1.2292	.42371	5.1325
#3	1.0278	49.467	.51550	10.360	.51841	1.2279	.42512	5.1430
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Approved: April 04, 2014



Sample Name: CCV Acquired: 4/4/2014 1:49:50 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0734**	**1.0758**	**1.0046**	**.50566**	**1.0262**	**1.0679**	**1.0479**
Stddev	.0142	.0008	.0027	.00814	.0040	.0032	.8771
%RSD	1.3242	.07661	.26815	1.6089	.39456	.29794	83.709
#1	1.0893	1.0752	1.0015	.51458	1.0288	1.0704	2.0129
#2	1.0690	1.0755	1.0064	.50376	1.0283	1.0690	.29897
#3	1.0619	1.0768	1.0059	.49864	1.0215	1.0643	.83172
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19560.**	**21626.**
Stddev	55.	280.
%RSD	.28118	1.2928
#1	19526.	21947.
#2	19531.	21502.
#3	19624.	21431.

Approved: April 04, 2014

Sample Name: CCB Acquired: 4/4/2014 1:53:05 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**-.01435**	**.00143**	**.00287**	**.00014**	**.00004**	**.00516**
Stddev	.00011	.03342	.00150	.00044	.00021	.00004	.00625
%RSD	78.238	232.81	105.32	15.457	157.32	91.772	121.10
#1	.00023	-.04856	-.00025	.00291	.00017	.00005	.00282
#2	.00016	.01822	.00267	.00329	-.00009	.00000	.00042
#3	.00002	-.01272	.00186	.00241	.00033	.00007	.01225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**-.00013**	**.00014**	**.00036**	**.00410**	**-.00886**	**.00069**
Stddev	.00010	.00017	.00003	.00014	.00205	.00846	.00161
%RSD	117.85	133.83	18.614	38.260	49.877	95.392	232.64
#1	.00009	.00007	.00014	.00039	.00244	-.01838	-.00115
#2	-.00002	-.00025	.00016	.00048	.00639	-.00220	.00140
#3	.00019	-.00020	.00011	.00021	.00348	-.00601	.00183
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00628**	**.00003**	**.00034**	**.01428**	**-.00073**	**-.00234**	**-.00122**
Stddev	.01236	.00003	.00012	.01103	.00067	.00262	.00046
%RSD	196.74	87.276	36.128	77.221	91.335	111.85	37.500
#1	-.00704	.00005	.00029	.01016	-.00083	.00038	-.00174
#2	.00852	.00000	.00025	.00591	-.00135	-.00256	-.00100
#3	.01736	.00004	.00048	.02678	-.00002	-.00485	-.00091
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014

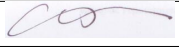
Sample Name: CCB Acquired: 4/4/2014 1:53:05 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00001**	**.00122**	**-.00044**	**-.00008**	**.00010**	**-.00023**	**-.00099**
Stddev	.00131	.00056	.00137	.00007	.00014	.00122	.00162
%RSD	10358.	45.516	312.23	92.822	145.63	521.48	163.89
#1	.00148	.00066	.00095	-.00003	-.00004	-.00076	-.00254
#2	-.00104	.00123	-.00180	-.00004	.00008	.00116	.00069
#3	-.00040	.00177	-.00048	-.00016	.00025	-.00110	-.00112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00009**	**.00021**	F **.75818**
Stddev	.00012	.00009	.57037
%RSD	127.62	42.129	75.229
#1	-.00019	.00013	.10131
#2	.00003	.00031	1.1280
#3	-.00011	.00019	1.0453
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**20012.**	**22034.**
Stddev	120.	191.
%RSD	.60023	.86500
#1	19875.	22249.
#2	20059.	21884.
#3	20101.	21970.

Approved: April 04, 2014



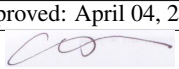
Sample Name: L1404003009 Acquired: 4/4/2014 1:56:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00037**	**.11659**	**-.00066**	**.01783**	**.01856**	**.00011**	**56.132**
Stddev	.00049	.01294	.00088	.00045	.00017	.00002	.059
%RSD	130.77	11.102	132.69	2.5122	.91160	13.379	.10495
#1	.00006	.10453	.00035	.01827	.01856	.00013	56.113
#2	.00012	.11498	-.00109	.01784	.01873	.00010	56.198
#3	.00093	.13026	-.00125	.01737	.01839	.00012	56.084
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00083**	**.01032**	**.00038**	**.00049**	**.08756**	**4.8201**	**.02113**
Stddev	.00005	.00014	.00040	.00050	.00628	.0254	.00064
%RSD	6.3028	1.3787	102.88	101.27	7.1735	.52677	3.0255
#1	.00087	.01024	.00011	.00076	.09474	4.8456	.02048
#2	.00077	.01025	.00021	.00080	.08306	4.8200	.02116
#3	.00086	.01049	.00084	-.00008	.08489	4.7948	.02176
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**44.881**	**1.2033**	**.00003**	**5.9854**	**.02394**	**.00043**	**-.00062**
Stddev	.161	.0044	.00002	.0020	.00093	.00162	.00191
%RSD	.35905	.36587	94.405	.03364	3.8845	378.90	306.25
#1	44.705	1.2026	.00004	5.9839	.02483	-.00101	-.00227
#2	45.021	1.1993	.00004	5.9846	.02298	.00218	-.00107
#3	44.917	1.2080	.00000	5.9877	.02402	.00012	.00147
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1404003009 Acquired: 4/4/2014 1:56:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00128**	**.00363**	**2.6357**	**.00039**	**.34037**	**.00037**	**-.00001**
Stddev	.00268	.00147	.0249	.00043	.00021	.00103	.00123
%RSD	209.11	40.541	.94445	109.41	.06193	278.90	16218.
#1	.00357	.00495	2.6577	.00037	.34030	.00156	.00129
#2	.00195	.00388	2.6087	.00084	.34061	-.00027	-.00116
#3	-.00167	.00204	2.6407	-.00002	.34021	-.00018	-.00015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00005**	**.01437**	F **-.24966**
Stddev	.00005	.00014	.57452
%RSD	96.962	.95372	230.12
#1	.00011	.01443	.36023
#2	.00001	.01421	-.32854
#3	.00005	.01446	-.78066
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19199.**	**21869.**
Stddev	20.	20.
%RSD	.10483	.09077
#1	19187.	21852.
#2	19188.	21865.
#3	19222.	21891.

Approved: April 04, 2014

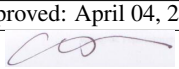
Sample Name: L1404003010 Acquired: 4/4/2014 2:00:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**1.1336**	**.00275**	**.14388**	**.05902**	**.00016**	**6.2511**	**.00020**
Stddev	.00019	.0186	.00154	.00226	.00038	.00004	.0306	.00005
%RSD	141.71	1.6428	55.903	1.5702	.63619	27.346	.48996	24.350
#1	.00023	1.1334	.00350	.14543	.05887	.00019	6.2624	.00017
#2	.00026	1.1523	.00098	.14493	.05944	.00011	6.2745	.00017
#3	-.00008	1.1150	.00377	.14129	.05874	.00017	6.2164	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00109**	**.00148**	**.00239**	**1.4867**	**2.6941**	**.02374**	**2.9285**	**.08365**
Stddev	.00006	.00030	.00047	.0127	.0090	.00161	.0348	.00043
%RSD	5.1079	20.472	19.530	.85202	.33245	6.7679	1.1885	.51669
#1	.00109	.00171	.00290	1.4951	2.6879	.02524	2.9611	.08415
#2	.00115	.00159	.00199	1.4929	2.7044	.02205	2.9327	.08336
#3	.00103	.00114	.00228	1.4721	2.6901	.02394	2.8918	.08343
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00261**	**158.35**	**.00239**	**.00683**	**-.00024**	**.00100**	**.00228**	**3.1217**
Stddev	.00008	.47	.00040	.00500	.00061	.00194	.00118	.0553
%RSD	3.0151	.29416	16.912	73.222	254.15	194.48	51.773	1.7729
#1	.00254	158.87	.00249	.00222	.00018	.00183	.00313	3.1656
#2	.00259	158.19	.00195	.00613	-.00094	.00238	.00093	3.1400
#3	.00269	157.98	.00274	.01215	.00004	-.00122	.00279	3.0595
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1404003010 Acquired: 4/4/2014 2:00:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00050**	**.11617**	**.01701**	**-.00040**	**.00191**	**.01154**	**10.267**
Stddev	.00036	.00057	.00033	.00050	.00007	.00014	.274
%RSD	71.249	.49457	1.9669	124.83	3.5548	1.2074	2.6659
#1	.00009	.11682	.01662	-.00092	.00193	.01157	10.264
#2	.00064	.11573	.01714	-.00035	.00184	.01139	10.542
#3	.00076	.11596	.01725	.00007	.00197	.01166	9.9946
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19192.**	**21231.**
Stddev	23.	152.
%RSD	.12058	.71718
#1	19201.	21370.
#2	19209.	21254.
#3	19165.	21068.

Approved: April 04, 2014

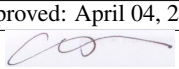
Sample Name: L1404004501 Acquired: 4/4/2014 2:03:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00038**	**.16598**	**.00163**	**.01074**	**.00849**	**.00017**	**51.375**	**.00053**
Stddev	.00024	.01623	.00138	.00039	.00024	.00002	.075	.00012
%RSD	62.821	9.7771	84.437	3.6041	2.8525	13.821	.14598	22.226
#1	.00048	.14813	.00322	.01115	.00821	.00016	51.449	.00066
#2	.00056	.17985	.00094	.01069	.00866	.00016	51.376	.00043
#3	.00011	.16996	.00074	.01039	.00860	.00020	51.299	.00051
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01253**	**.00055**	**.00060**	**.12814**	**3.1031**	**.01424**	**30.290**	**1.1127**
Stddev	.00018	.00021	.00077	.00141	.0177	.00073	.214	.0148
%RSD	1.4129	37.448	128.48	1.1008	.56943	5.1469	.70749	1.3282
#1	.01251	.00077	.00039	.12653	3.0903	.01382	30.043	1.0987
#2	.01271	.00053	-.00005	.12870	3.0957	.01508	30.434	1.1111
#3	.01236	.00036	.00144	.12918	3.1232	.01381	30.391	1.1282
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00015**	**3.0974**	**.02493**	**.00139**	**-.00140**	**.00204**	**.00676**	**1.5691**
Stddev	.00012	.0153	.00045	.00334	.00156	.00180	.00133	.0113
%RSD	75.482	.49240	1.7998	240.74	112.03	88.100	19.633	.71723
#1	-.00016	3.1150	.02521	.00452	-.00320	.00255	.00821	1.5817
#2	-.00027	3.0884	.02517	-.00213	-.00039	.00352	.00645	1.5654
#3	-.00003	3.0888	.02442	.00177	-.00060	.00004	.00561	1.5601
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1404004501 Acquired: 4/4/2014 2:03:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00077**	**.27853**	**.00012**	**-.00028**	**.00002**	**.03071**	**.22384**
Stddev	.00024	.00073	.00042	.00097	.00018	.00047	.18828
%RSD	30.920	.26039	349.17	340.32	760.78	1.5416	84.116
#1	.00081	.27937	.00047	-.00115	-.00015	.03125	.39389
#2	.00052	.27817	.00024	.00076	.00022	.03055	.25613
#3	.00099	.27807	-.00035	-.00046	.00000	.03034	.02150
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19240.**	**21270.**
Stddev	80.	293.
%RSD	.41597	1.3761
#1	19154.	21563.
#2	19253.	21269.
#3	19312.	20978.

Approved: April 04, 2014

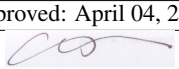
Sample Name: L1404004701 Acquired: 4/4/2014 2:07:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00036**	**.43765**	**.00129**	**.05068**	**.69201**	**.00008**	**32.131**	**.00027**
Stddev	.00047	.02507	.00030	.00122	.00187	.00003	.041	.00005
%RSD	129.94	5.7277	23.415	2.3997	.27017	38.467	.12802	17.700
#1	.00012	.41826	.00162	.04942	.69155	.00005	32.092	.00028
#2	-.00082	.42874	.00120	.05079	.69407	.00010	32.174	.00031
#3	-.00037	.46596	.00104	.05184	.69041	.00010	32.125	.00022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**.00093**	**.00140**	**.57541**	**3.5776**	**.02069**	**9.2045**	**.03093**
Stddev	.00021	.00026	.00039	.00383	.0344	.00092	.1968	.00118
%RSD	172.98	28.319	28.124	.66483	.96222	4.4552	2.1377	3.8274
#1	-.00004	.00064	.00103	.57268	3.5735	.01998	8.9855	.03013
#2	.00036	.00116	.00181	.57376	3.6139	.02036	9.2618	.03037
#3	.00005	.00098	.00134	.57978	3.5454	.02173	9.3663	.03229
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00158**	**157.95**	**.00077**	**.00537**	**-.00272**	**.00046**	**-.00214**	**4.4622**
Stddev	.00023	.55	.00022	.00566	.00136	.00207	.00357	.0326
%RSD	14.678	.34745	28.520	105.38	49.808	446.23	166.32	.73065
#1	.00138	157.51	.00097	.00463	-.00135	-.00193	-.00318	4.4769
#2	.00183	158.56	.00080	.01136	-.00406	.00168	-.00508	4.4849
#3	.00153	157.77	.00053	.00012	-.00276	.00165	.00182	4.4249
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 04, 2014



Sample Name: L1404004701 Acquired: 4/4/2014 2:07:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00026**	**1.1825**	**.00665**	**-.00116**	**.00076**	**.01180**	**1.6804**
Stddev	.00040	.0029	.00079	.00131	.00039	.00005	1.3634
%RSD	152.47	.24956	11.884	113.04	50.404	.39665	81.135
#1	-.00016	1.1857	.00598	-.00058	.00037	.01181	1.0051
#2	.00030	1.1820	.00752	-.00024	.00114	.01184	.78649
#3	.00064	1.1799	.00646	-.00267	.00078	.01175	3.2496
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19129.**	**20717.**
Stddev	25.	344.
%RSD	.12886	1.6615
#1	19125.	21033.
#2	19107.	20767.
#3	19156.	20350.

Approved: April 04, 2014

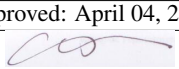
Sample Name: L1404004801 Acquired: 4/4/2014 2:10:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**.03545**	**.00125**	**.02053**	**.02131**	**.00008**	**79.490**
Stddev	.00033	.00734	.00109	.00080	.00038	.00003	.365
%RSD	98.264	20.696	87.278	3.8753	1.7634	31.068	.45925
#1	.00056	.03722	.00084	.02054	.02088	.00006	79.171
#2	-.00004	.02738	.00043	.02133	.02151	.00011	79.410
#3	.00049	.04173	.00249	.01974	.02155	.00008	79.888
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00081**	**.00464**	**.00059**	**.00077**	**.35032**	**5.7608**	**.01081**
Stddev	.00004	.00007	.00005	.00038	.00338	.0327	.00159
%RSD	4.4501	1.5774	7.7357	48.753	.96466	.56685	14.689
#1	.00078	.00463	.00063	.00063	.34653	5.7238	.01001
#2	.00085	.00472	.00061	.00120	.35301	5.7733	.01264
#3	.00080	.00457	.00054	.00048	.35143	5.7854	.00978
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**57.890**	**1.2657**	**-.00021**	**13.131**	**.00738**	**.00772**	**-.00211**
Stddev	.558	.0245	.00003	.081	.00062	.00301	.00157
%RSD	.96409	1.9371	14.054	.61416	8.4422	38.981	74.741
#1	57.348	1.2442	-.00024	13.049	.00673	.00425	-.00039
#2	57.859	1.2606	-.00018	13.135	.00742	.00935	-.00349
#3	58.463	1.2924	-.00020	13.210	.00798	.00957	-.00244
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: L1404004801 Acquired: 4/4/2014 2:10:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00137**	**.00478**	**2.3374**	**.00079**	**.28778**	**-.00016**	**-.00294**
Stddev	.00034	.00190	.0248	.00013	.00085	.00049	.00009
%RSD	24.649	39.707	1.0604	16.905	.29441	309.30	3.0452
#1	.00113	.00375	2.3524	.00089	.28692	.00021	-.00294
#2	.00176	.00697	2.3088	.00084	.28781	.00004	-.00303
#3	.00123	.00362	2.3510	.00064	.28862	-.00072	-.00285
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00012**	**.00459**	F **-.90227**
Stddev	.00043	.00010	.57088
%RSD	363.24	2.0841	63.272
#1	.00005	.00468	-.69521
#2	.00020	.00449	-1.5478
#3	-.00061	.00461	-.46381
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19118.**	**21337.**
Stddev	75.	418.
%RSD	.39173	1.9592
#1	19164.	21758.
#2	19031.	21331.
#3	19157.	20922.

Approved: April 04, 2014

Sample Name: L1404004901 Acquired: 4/4/2014 2:14:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00107**	**-.03099**	**.00177**	**-.00118**	**-.00225**	**.00035**	**.08078**
Stddev	.00028	.00718	.00058	.00030	.00031	.00001	.03471
%RSD	26.242	23.169	32.659	25.173	13.585	2.7657	42.968
#1	.00118	-.03536	.00120	-.00139	-.00254	.00036	.09549
#2	.00128	-.02271	.00235	-.00132	-.00230	.00035	.10572
#3	.00075	-.03491	.00175	-.00084	-.00193	.00034	.04114
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**-.00002**	**.00014**	**-.00017**	**.00201**	**.01231**	**.00151**
Stddev	.00008	.00007	.00012	.00035	.00465	.01010	.00117
%RSD	499.38	380.36	85.847	209.23	231.69	81.999	77.355
#1	.00008	-.00010	.00029	-.00048	.00345	.02382	.00059
#2	-.00007	.00001	.00007	-.00025	.00576	.00495	.00283
#3	-.00006	.00004	.00008	.00022	-.00319	.00816	.00111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02548**	**-.00009**	**.00011**	**.03262**	**.00211**	F **-.01735**	**.00403**
Stddev	.02499	.00004	.00005	.00635	.00034	.00166	.00059
%RSD	98.069	47.862	44.816	19.473	16.228	9.5579	14.639
#1	.04596	-.00007	.00014	.03252	.00212	-.01913	.00459
#2	.03285	-.00007	.00013	.03902	.00177	-.01710	.00342
#3	-.00236	-.00014	.00005	.02632	.00245	-.01584	.00407
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass
High Limit						450.00	
Low Limit						-.00320	

Approved: April 04, 2014

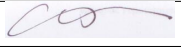
Sample Name: L1404004901 Acquired: 4/4/2014 2:14:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00016**	**.00097**	**-.01469**	**-.00002**	**.00007**	**.00142**	**.00225**
Stddev	.00051	.00138	.00065	.00006	.00009	.00047	.00022
%RSD	323.17	141.54	4.4145	408.64	129.75	32.859	9.6943
#1	-.00029	.00164	-.01396	-.00004	.00004	.00162	.00203
#2	.00072	-.00061	-.01519	.00006	.00017	.00176	.00246
#3	.00004	.00189	-.01492	-.00006	-.00001	.00089	.00226
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00011**	**.00029**	**3.0817**
Stddev	.00006	.00003	.3150
%RSD	49.771	11.751	10.223
#1	-.00012	.00032	3.4110
#2	-.00017	.00025	2.7831
#3	-.00005	.00031	3.0510
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**47214.**	**40630.**
Stddev	184.	1572.
%RSD	.39064	3.8683
#1	47409.	42361.
#2	47190.	40235.
#3	47042.	39293.

Approved: April 04, 2014



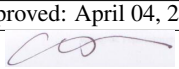
Sample Name: CCV Acquired: 4/4/2014 2:17:56 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41583**	**10.285**	**.41030**	**.53275**	**1.0216**	**.05175**	**10.327**
Stddev	.00205	.042	.00135	.00262	.0016	.00006	.016
%RSD	.49376	.40428	.32923	.49260	.15405	.11604	.15163
#1	.41799	10.253	.41066	.53547	1.0228	.05181	10.331
#2	.41558	10.270	.40880	.53023	1.0198	.05169	10.309
#3	.41391	10.332	.41143	.53256	1.0221	.05174	10.340
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05204**	**.20914**	**.51592**	**.52442**	**4.1310**	**52.544**	**1.0184**
Stddev	.00020	.00024	.00135	.00046	.0093	.021	.0023
%RSD	.38667	.11539	.26075	.08837	.22446	.03967	.22553
#1	.05181	.20920	.51717	.52494	4.1210	52.564	1.0164
#2	.05216	.20935	.51450	.52405	4.1393	52.523	1.0178
#3	.05214	.20888	.51608	.52427	4.1326	52.545	1.0209
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.369**	**.52848**	**1.0201**	**50.528**	**.51694**	**10.280**	**.51957**
Stddev	.065	.00248	.0057	.141	.00067	.056	.00213
%RSD	.62562	.46852	.56072	.27943	.12882	.54599	.41077
#1	10.327	.52800	1.0173	50.535	.51763	10.251	.51912
#2	10.336	.52628	1.0266	50.384	.51631	10.345	.52189
#3	10.444	.53117	1.0163	50.666	.51688	10.245	.51769
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 04, 2014



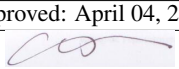
Sample Name: CCV Acquired: 4/4/2014 2:17:56 Type: QC
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2170**	**.41733**	**5.0318**	**1.0675**	**1.0489**	**1.0026**	**.51091**
Stddev	.0017	.00189	.0036	.0007	.0004	.0024	.00164
%RSD	.13879	.45317	.07084	.06485	.04015	.23802	.32063
#1	1.2188	.41920	5.0338	1.0681	1.0487	1.0011	.51238
#2	1.2167	.41738	5.0338	1.0676	1.0493	1.0015	.51119
#3	1.2155	.41542	5.0276	1.0668	1.0485	1.0054	.50914
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0298**	**1.0584**	F **1.1058**
Stddev	.0031	.0023	.8707
%RSD	.30287	.21990	78.734
#1	1.0332	1.0604	.13057
#2	1.0271	1.0558	1.8049
#3	1.0290	1.0589	1.3820
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19508.**	**21232.**
Stddev	39.	169.
%RSD	.20149	.79605
#1	19518.	21359.
#2	19542.	21296.
#3	19465.	21040.

Approved: April 04, 2014



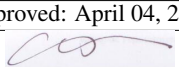
Sample Name: CCB Acquired: 4/4/2014 2:21:12 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**.00604**	**.00219**	**.00219**	**.00060**	**.00003**	**-.00848**
Stddev	.00081	.02250	.00159	.00078	.00022	.00002	.01436
%RSD	442.66	372.27	72.534	35.514	36.529	64.982	169.24
#1	.00033	.01154	.00314	.00129	.00046	.00003	-.00008
#2	.00023	.02529	.00308	.00262	.00085	.00001	-.02506
#3	-.00111	-.01869	.00036	.00265	.00049	.00005	-.00031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**-.00009**	**-.00002**	**.00027**	**.00344**	**.00555**	**-.00028**
Stddev	.00008	.00014	.00047	.00043	.00471	.02117	.00236
%RSD	503.42	169.14	2124.2	161.60	136.93	381.54	837.07
#1	-.00005	.00001	.00046	-.00019	.00881	.01048	-.00167
#2	.00011	-.00025	-.00048	.00067	.00141	.02382	-.00162
#3	-.00001	-.00001	-.00004	.00032	.00008	-.01765	.00244
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01171**	**.00006**	**.00014**	**.00415**	**-.00070**	**.00114**	**-.00194**
Stddev	.01571	.00002	.00017	.00210	.00099	.00415	.00141
%RSD	134.09	32.334	116.61	50.645	141.17	364.19	72.834
#1	-.01365	.00008	.00020	.00198	-.00183	.00590	-.00207
#2	.00487	.00004	-.00004	.00430	.00002	-.00173	-.00047
#3	-.02636	.00006	.00027	.00617	-.00030	-.00075	-.00329
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 04, 2014



Sample Name: CCB Acquired: 4/4/2014 2:21:12 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2979) Mode: CONC Corr. Factor: 1.000000
User: QX Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00063**	**.00317**	**-.00282**	**.00023**	**.00021**	**-.00097**	**-.00017**
Stddev	.00219	.00107	.00111	.00032	.00011	.00037	.00068
%RSD	345.75	33.636	39.187	140.33	52.351	38.049	402.79
#1	.00176	.00439	-.00255	.00031	.00029	-.00140	-.00013
#2	-.00253	.00238	-.00188	-.00013	.00009	-.00074	-.00087
#3	-.00112	.00276	-.00403	.00051	.00027	-.00079	.00050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00025**	**.00016**	F **-.29928**
Stddev	.00009	.00010	.19279
%RSD	37.690	64.677	64.419
#1	-.00025	.00017	-.49897
#2	-.00015	.00025	-.28464
#3	-.00034	.00005	-.11422
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19823.**	**21095.**
Stddev	51.	541.
%RSD	.25656	2.5666
#1	19766.	21369.
#2	19840.	20471.
#3	19863.	21444.

Approved: April 04, 2014

Sample Name: S0 Acquired: 4/7/2014 9:54:18 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2981) Mode: IR Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

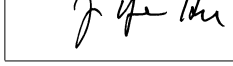
Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00125**	**.00087**	**-.00007**	**.00064**	**.00597**	**-.00290**	**-.00289**
Stddev	.00020	.00015	.00002	.00019	.00012	.00019	.00002
%RSD	15.865	17.215	26.232	29.727	1.9275	6.5264	.72387
#1	-.00142	.00086	-.00005	.00058	.00600	-.00282	-.00288
#2	-.00103	.00103	-.00008	.00086	.00584	-.00312	-.00292
#3	-.00131	.00073	-.00008	.00049	.00607	-.00277	-.00288

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00005**	**-.00015**	**-.00001**	**.00004**	**.00001**	**-.00015**	**-.00091**
Stddev	.00002	.00004	.00005	.00004	.00007	.00049	.00038
%RSD	42.857	24.224	492.14	95.246	829.06	326.36	41.654
#1	.00007	-.00011	-.00004	.00009	.00008	.00040	-.00088
#2	.00003	-.00015	.00005	.00004	-.00006	-.00034	-.00054
#3	.00004	-.00018	-.00004	.00001	.00000	-.00051	-.00130

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00010**	**.00053**	**.00001**	**-.00279**	**-.00038**	**.00014**	**-.00044**
Stddev	.00004	.00028	.00002	.00055	.00002	.00003	.00002
%RSD	44.626	51.880	204.82	19.564	6.5055	19.812	4.4561
#1	.00005	.00028	.00000	-.00319	-.00035	.00017	-.00043
#2	.00014	.00083	.00003	-.00217	-.00039	.00011	-.00046
#3	.00010	.00049	.00000	-.00302	-.00039	.00013	-.00042

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00004**	**.00000**	**.00062**	**.00006**	**.00105**	**-.00075**	**-.00011**
Stddev	.00004	.00003	.00002	.00001	.00018	.00005	.00002
%RSD	103.29	642.57	2.7013	10.754	16.718	6.6977	15.017
#1	.00001	.00003	.00060	.00006	.00088	-.00081	-.00012
#2	.00002	-.00003	.00063	.00006	.00103	-.00071	-.00012
#3	.00009	.00001	.00062	.00005	.00123	-.00073	-.00009

Approved: April 08, 2014

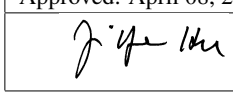


Sample Name: S0 Acquired: 4/7/2014 9:54:18 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2981) Mode: IR Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**.00001**	**-.00025**	**-.00268**
Stddev	.00016	.00003	.00053
%RSD	2054.8	10.160	19.889
#1	-.00003	-.00025	-.00284
#2	.00018	-.00022	-.00311
#3	-.00013	-.00027	-.00208

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19238.**	**20742.**
Stddev	242.	82.
%RSD	1.2572	.39724
#1	19442.	20817.
#2	18971.	20654.
#3	19301.	20755.

Approved: April 08, 2014



Sample Name: S1 Acquired: 4/7/2014 9:57:54 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2981) Mode: IR Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

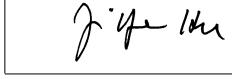
Elem	Ag3280	Al3082	Ba4554	Be3131	Ca4226	Cd2288	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00073**	**.00153**	**.01270**	**-.00005**	**-.00066**	**.00026**	**.00037**
Stddev	.00022	.00016	.00027	.00015	.00020	.00001	.00002
%RSD	29.799	10.398	2.1155	280.41	30.522	2.7007	5.0135
#1	.00085	.00164	.01245	.00005	-.00069	.00026	.00035
#2	.00086	.00135	.01298	-.00023	-.00085	.00025	.00038
#3	.00048	.00160	.01267	.00002	-.00045	.00026	.00037

Elem	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00207**	**.00049**	**.00049**	**.00463**	**.00266**	**.00040**	**.01029**
Stddev	.00007	.00003	.00003	.00030	.00076	.00004	.00013
%RSD	3.4828	6.4693	5.6247	6.5260	28.508	11.152	1.2820
#1	.00208	.00046	.00051	.00498	.00341	.00044	.01041
#2	.00199	.00049	.00046	.00446	.00267	.00035	.01032
#3	.00213	.00052	.00051	.00446	.00190	.00042	.01015

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Si2124
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00122**	**.01344**	**-.00009**	**.00086**	**-.00029**	**.00030**	**.00158**
Stddev	.00002	.00038	.00002	.00003	.00008	.00002	.00001
%RSD	1.5449	2.7974	17.910	3.0256	27.667	5.4157	.35867
#1	.00123	.01304	-.00010	.00083	-.00029	.00029	.00159
#2	.00120	.01349	-.00008	.00088	-.00038	.00032	.00157
#3	.00124	.01379	-.00011	.00086	-.00021	.00029	.00158

Elem	Sn1899	Sr4077	Ti3372	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00069**	**.01547**	**.00045**	**.00636**	**.00284**	**-.00261**
Stddev	.00001	.00019	.00007	.00017	.00004	.00029
%RSD	2.1457	1.2319	15.292	2.6765	1.3527	11.080
#1	.00069	.01541	.00049	.00617	.00281	-.00239
#2	.00067	.01531	.00037	.00650	.00288	-.00252
#3	.00070	.01568	.00049	.00640	.00284	-.00294

Approved: April 08, 2014



Sample Name: S1 Acquired: 4/7/2014 9:57:54 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2981) Mode: IR Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19291.**	**20527.**
Stddev	97.	70.
%RSD	.50228	.34246
#1	19385.	20551.
#2	19191.	20448.
#3	19297.	20583.

Approved: April 08, 2014

Sample Name: S2 Acquired: 4/7/2014 10:01:29 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2981) Mode: IR Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

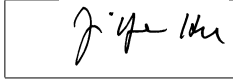
Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00325**	**.00223**	**.00008**	**.00241**	**.01945**	**.00264**	**.00142**
Stddev	.00021	.00019	.00001	.00004	.00007	.00010	.00006
%RSD	6.4721	8.5517	17.182	1.8465	.37014	3.9498	4.3959
#1	.00301	.00211	.00009	.00243	.01952	.00259	.00148
#2	.00342	.00245	.00007	.00244	.01946	.00276	.00135
#3	.00331	.00213	.00009	.00236	.01937	.00257	.00143

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00049**	**.00087**	**.00444**	**.00087**	**.00106**	**.01037**	**.00550**
Stddev	.00002	.00008	.00011	.00003	.00004	.00038	.00062
%RSD	3.8822	8.6854	2.5215	3.0360	3.8861	3.7117	11.196
#1	.00047	.00088	.00444	.00084	.00102	.01080	.00523
#2	.00050	.00079	.00433	.00087	.00110	.01005	.00506
#3	.00049	.00094	.00455	.00089	.00107	.01027	.00620

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00072**	**.02107**	**.00242**	**.02929**	**.00016**	**.00153**	**-.00014**
Stddev	.00002	.00005	.00004	.00113	.00002	.00006	.00007
%RSD	3.0189	.23750	1.5133	3.8580	13.973	3.7296	53.435
#1	.00070	.02111	.00241	.02873	.00014	.00146	-.00019
#2	.00071	.02109	.00246	.03059	.00018	.00155	-.00005
#3	.00074	.02101	.00239	.02854	.00015	.00157	-.00016

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.00050**	**.00007**	**.00250**	**.00137**	**.03030**	**.00169**	**.00003**
Stddev	.00003	.00004	.00001	.00002	.00039	.00003	.00002
%RSD	5.8065	59.565	.30187	1.8192	1.2855	1.7571	65.682
#1	.00047	.00003	.00249	.00134	.03033	.00167	.00005
#2	.00049	.00012	.00251	.00136	.03067	.00172	.00001
#3	.00053	.00008	.00250	.00139	.02989	.00169	.00003

Approved: April 08, 2014

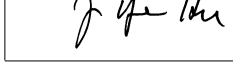


Sample Name: S2 Acquired: 4/7/2014 10:01:29 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2981) Mode: IR Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**.01245**	**.00629**	**-.00245**
Stddev	.00022	.00005	.00017
%RSD	1.7713	.86118	7.1011
#1	.01257	.00624	-.00229
#2	.01220	.00635	-.00264
#3	.01259	.00628	-.00243

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19375.**	**20794.**
Stddev	53.	107.
%RSD	.27425	.51561
#1	19406.	20698.
#2	19405.	20773.
#3	19314.	20910.

Approved: April 08, 2014



Sample Name: S3 Acquired: 4/7/2014 10:05:03 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2981) Mode: IR Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.27048**	**.07346**	**.00869**	**.10603**	**.84841**	**.31697**	**.25389**
Stddev	.00207	.00052	.00004	.00069	.00322	.00194	.00095
%RSD	.76539	.70764	.45780	.64775	.37960	.61071	.37598
#1	.27093	.07298	.00872	.10643	.84583	.31843	.25279
#2	.26822	.07340	.00869	.10523	.85202	.31478	.25444
#3	.27228	.07401	.00864	.10642	.84738	.31771	.25445

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02621**	**.06026**	**.26604**	**.05158**	**.06531**	**.68814**	**.36246**
Stddev	.00004	.00002	.00194	.00012	.00036	.00237	.00163
%RSD	.15771	.03849	.72760	.23783	.54888	.34499	.44897
#1	.02620	.06024	.26811	.05159	.06493	.68560	.36072
#2	.02625	.06025	.26427	.05169	.06535	.68851	.36394
#3	.02618	.06028	.26575	.05145	.06565	.69030	.36271

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.04371**	**1.0795**	**.15057**	**2.0805**	**.03427**	**.08719**	**.02099**
Stddev	.00059	.0354	.00064	.0085	.00016	.00072	.00007
%RSD	1.3533	3.2759	.42206	.40993	.45265	.82326	.34685
#1	.04330	1.0549	.15124	2.0707	.03438	.08801	.02102
#2	.04343	1.0636	.15052	2.0856	.03434	.08688	.02091
#3	.04439	1.1201	.14997	2.0852	.03410	.08668	.02104

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.02799**	**.00475**	**.12027**	**.07517**	**1.8123**	**.15054**	**.00836**
Stddev	.00009	.00006	.00039	.00028	.0043	.00037	.00002
%RSD	.32830	1.3369	.32715	.37156	.23787	.24293	.22900
#1	.02801	.00468	.12050	.07485	1.8101	.15011	.00834
#2	.02807	.00478	.12049	.07532	1.8172	.15076	.00838
#3	.02789	.00480	.11982	.07533	1.8095	.15073	.00836

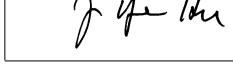
Approved: April 08, 2014

Sample Name: S3 Acquired: 4/7/2014 10:05:03 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2981) Mode: IR Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**.75491**	**.35372**	**-.00204**
Stddev	.00650	.00241	.00023
%RSD	.86142	.68237	11.217
#1	.75906	.35644	-.00179
#2	.74742	.35183	-.00223
#3	.75826	.35289	-.00209

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18937.**	**20301.**
Stddev	183.	558.
%RSD	.96864	2.7496
#1	18743.	20666.
#2	19107.	20579.
#3	18962.	19658.

Approved: April 08, 2014



Sample Name: S4 Acquired: 4/7/2014 10:08:19 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2981) Mode: IR Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.54137**	**.14536**	**.01694**	**.20848**	**1.7054**	**.62068**	**.50842**
Stddev	.00253	.00059	.00007	.00131	.0024	.00005	.00105
%RSD	.46656	.40448	.43462	.63008	.14339	.00815	.20648
#1	.53928	.14561	.01701	.20712	1.7078	.62070	.50935
#2	.54418	.14578	.01694	.20975	1.7056	.62072	.50861
#3	.54065	.14469	.01686	.20858	1.7029	.62062	.50728

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.05068**	**.11575**	**.52279**	**.09915**	**.12977**	**1.3754**	**.73090**
Stddev	.00009	.00023	.00040	.00021	.00026	.0033	.00202
%RSD	.17067	.20201	.07664	.21530	.20131	.23995	.27694
#1	.05077	.11601	.52288	.09940	.12993	1.3786	.73162
#2	.05060	.11568	.52314	.09905	.12992	1.3755	.73246
#3	.05066	.11556	.52236	.09901	.12947	1.3720	.72861

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.08660**	**2.1139**	**.29764**	**4.1721**	**.06649**	**.16865**	**.04061**
Stddev	.00033	.0202	.00040	.0099	.00018	.00013	.00013
%RSD	.37815	.95547	.13325	.23704	.27414	.07566	.31642
#1	.08685	2.1353	.29797	4.1831	.06663	.16875	.04074
#2	.08672	2.1112	.29775	4.1693	.06655	.16870	.04062
#3	.08623	2.0951	.29720	4.1639	.06628	.16851	.04048

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.05450**	**.00896**	**.23546**	**.14423**	**3.6263**	**.30221**	**.01579**
Stddev	.00004	.00001	.00067	.00023	.0100	.00037	.00008
%RSD	.08037	.07193	.28533	.16253	.27609	.12364	.49998
#1	.05455	.00896	.23615	.14449	3.6337	.30233	.01581
#2	.05449	.00896	.23544	.14418	3.6302	.30251	.01570
#3	.05446	.00895	.23481	.14403	3.6149	.30179	.01586

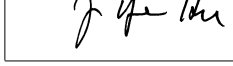
Approved: April 08, 2014

Sample Name: S4 Acquired: 4/7/2014 10:08:19 Type: Cal
Method: ICP-THERMO2_6010_200.7(v2981) Mode: IR Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	V_2924	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S
Avg	**1.5194**	**.68149**	**-.00170**
Stddev	.0032	.00083	.00007
%RSD	.20874	.12145	3.9283
#1	1.5165	.68243	-.00175
#2	1.5228	.68115	-.00173
#3	1.5189	.68088	-.00162

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18904.**	**20667.**
Stddev	5.	228.
%RSD	.02614	1.1036
#1	18909.	20413.
#2	18899.	20735.
#3	18903.	20854.

Approved: April 08, 2014



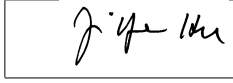
Sample Name: ICV Acquired: 4/7/2014 10:11:34 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40936**	**9.9357**	**.41013**	**.52058**	**.99998**	**.05154**	**9.9817**
Stddev	.00337	.0450	.00067	.00331	.00470	.00037	.0428
%RSD	.82250	.45306	.16219	.63532	.47047	.71504	.42900
#1	.41299	9.9870	.41089	.52372	1.0010	.05192	10.010
#2	.40875	9.9032	.40983	.52089	.99485	.05152	9.9325
#3	.40634	9.9168	.40967	.51713	1.0041	.05118	10.002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05169**	**.20686**	**.51426**	**.51588**	**4.0436**	**49.898**	**1.0021**
Stddev	.00012	.00073	.00511	.00007	.0051	.131	.0050
%RSD	.22665	.35336	.99406	.01266	.12714	.26234	.49631
#1	.05155	.20640	.51919	.51581	4.0481	50.047	1.0017
#2	.05177	.20647	.51461	.51593	4.0380	49.802	.99726
#3	.05174	.20770	.50898	.51590	4.0446	49.846	1.0072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.118**	**.51989**	**1.0179**	**50.248**	**.51646**	**10.303**	**.51881**
Stddev	.124	.01962	.0033	.220	.00037	.089	.00198
%RSD	1.2225	3.7742	.32189	.43735	.07210	.86690	.38207
#1	10.202	.53037	1.0158	50.502	.51627	10.242	.51658
#2	10.176	.53205	1.0161	50.127	.51689	10.260	.51950
#3	9.9759	.49726	1.0216	50.115	.51623	10.405	.52036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 08, 2014



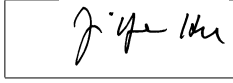
Sample Name: ICV Acquired: 4/7/2014 10:11:34 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2299**	F **.42219**	**5.1035**	**1.0338**	**.98579**	**1.0037**	**.52186**
Stddev	.0040	.00016	.0235	.0042	.00560	.0026	.00277
%RSD	.32227	.03737	.46086	.40836	.56858	.26036	.53064
#1	1.2272	.42209	5.0849	1.0290	.98672	1.0066	.51869
#2	1.2280	.42210	5.0956	1.0367	.97977	1.0016	.52305
#3	1.2344	.42237	5.1299	1.0358	.99086	1.0029	.52383
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value		.40000					
Range		5.0000%					

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0186**	**1.0255**	F **.37805**
Stddev	.0069	.0021	.35825
%RSD	.67460	.20493	94.763
#1	1.0260	1.0251	.10167
#2	1.0174	1.0278	.24968
#3	1.0125	1.0237	.78280
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-5.0000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18768.**	**20020.**
Stddev	83.	759.
%RSD	.44469	3.7916
#1	18718.	19695.
#2	18722.	19478.
#3	18865.	20888.

Approved: April 08, 2014



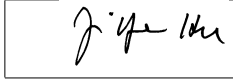
Sample Name: ICB Acquired: 4/7/2014 10:14:50 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00054**	**.01611**	**-.00067**	**.00294**	**.00043**	**.00005**	**-.00811**	**-.00002**
Stddev	.00038	.00961	.00034	.00069	.00024	.00000	.00651	.00004
%RSD	69.864	59.668	50.565	23.592	55.814	10.376	80.281	160.23
#1	-.00037	.02105	-.00075	.00333	.00071	.00004	-.00109	.00002
#2	-.00097	.00503	-.00030	.00336	.00029	.00005	-.01394	-.00003
#3	-.00028	.02225	-.00096	.00214	.00029	.00005	-.00929	-.00005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**-.00022**	**-.00005**	**-.00032**	**-.05321**	**.00220**	**-.03346**	**.00007**
Stddev	.00013	.00012	.00045	.00222	.02171	.00060	.01697	.00007
%RSD	717.35	52.403	865.66	685.60	40.798	27.417	50.724	96.147
#1	-.00013	-.00009	.00019	.00056	-.04628	.00233	-.03329	.00014
#2	.00012	-.00028	.00023	.00132	-.07754	.00274	-.05052	.00001
#3	-.00005	-.00030	-.00058	-.00285	-.03581	.00155	-.01657	.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**.03408**	**-.00026**	**.00292**	**-.00007**	**.00088**	**-.00272**	**-.00398**
Stddev	.00011	.00554	.00068	.00317	.00045	.00168	.00113	.00131
%RSD	58.903	16.257	267.18	108.55	626.15	189.98	41.403	32.823
#1	.00007	.03821	-.00099	.00642	-.00049	.00281	-.00259	-.00396
#2	.00030	.03624	.00036	.00023	.00041	.00010	-.00167	-.00269
#3	.00020	.02779	-.00014	.00211	-.00013	-.00026	-.00391	-.00530
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: ICB Acquired: 4/7/2014 10:14:50 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00035**	**.00002**	**-.00013**	**.00018**	**.00007**	**.00074**	**.07656**
Stddev	.00019	.00009	.00124	.00178	.00028	.00005	.23983
%RSD	53.223	455.02	949.68	1005.5	398.50	6.5573	313.25
#1	-.00056	.00000	.00016	.00161	.00039	.00068	.16067
#2	-.00018	.00012	-.00148	.00074	-.00005	.00078	-.19399
#3	-.00032	-.00006	.00094	-.00181	-.00013	.00076	.26300
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18703.**	**20343.**
Stddev	129.	246.
%RSD	.69220	1.2081
#1	18562.	20093.
#2	18730.	20584.
#3	18816.	20353.

Approved: April 08, 2014

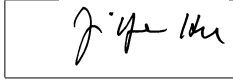
Sample Name: ICSA Acquired: 4/7/2014 10:18:25 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00081**	**252.61**	**-.00255**	**-.01889**	**.00025**	**.00000**	**252.03**
Stddev	.00037	.66	.00242	.00100	.00015	.0000	.83
%RSD	46.308	.26315	95.072	5.2942	60.777	1769.9	.32773
#1	-.00117	252.07	-.00317	-.01959	.00037	-.00001	251.59
#2	-.00043	253.35	-.00460	-.01774	.00030	-.00003	252.98
#3	-.00082	252.41	.00012	-.01933	.00008	.00003	251.51
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**-.00007**	**-.00063**	**-.00307**	**98.165**	**-.06129**	**.01121**
Stddev	.00002	.00017	.00034	.00067	.498	.01807	.00061
%RSD	311.02	239.62	53.825	21.948	.50773	29.488	5.4742
#1	-.00001	.00011	-.00028	-.00368	98.325	-.08162	.01183
#2	.00002	-.00008	-.00065	-.00234	98.564	-.04702	.01060
#3	-.00003	-.00023	-.00097	-.00320	97.607	-.05524	.01119
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**252.95**	**.00040**	**-.00076**	**.03371**	**-.00068**	**-.07530**	**.00205**
Stddev	.95	.00002	.00036	.01149	.00019	.00694	.00328
%RSD	.37737	5.7844	47.356	34.092	28.036	9.2191	160.17
#1	253.34	.00040	-.00113	.03444	-.00084	-.08323	.00132
#2	253.64	.00042	-.00041	.02187	-.00072	-.07239	-.00081
#3	251.86	.00037	-.00073	.04482	-.00047	-.07029	.00562
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014



Sample Name: ICSA Acquired: 4/7/2014 10:18:25 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00285**	**-.00220**	**.05392**	**.00059**	**-.00008**	**-.00355**	**-.00308**
Stddev	.00087	.00438	.00141	.00008	.00007	.00085	.00065
%RSD	30.610	199.14	2.6176	13.517	80.522	24.073	21.003
#1	-.00385	-.00277	.05342	.00052	-.00016	-.00338	-.00340
#2	-.00247	.00244	.05284	.00058	-.00005	-.00448	-.00234
#3	-.00223	-.00627	.05552	.00067	-.00004	-.00279	-.00352
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00116**	**-.00031**	F **-10.935**
Stddev	.00018	.00011	.926
%RSD	15.913	34.065	8.4641
#1	.00095	-.00022	-12.002
#2	.00129	-.00028	-10.455
#3	.00123	-.00042	-10.347
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.08000
Low Limit			-.08000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18169.**	**19832.**
Stddev	112.	35.
%RSD	.61888	.17725
#1	18210.	19798.
#2	18255.	19832.
#3	18042.	19868.

Approved: April 08, 2014

Sample Name: ICSAB Acquired: 4/7/2014 10:21:54 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48784**	**253.61**	**.25249**	**-.02631**	**.24658**	**.25053**	**252.94**
Stddev	.00128	.97	.00100	.00029	.00122	.00042	1.07
%RSD	.26200	.38073	.39598	1.1017	.49522	.16956	.42381
#1	.48712	254.72	.25135	-.02645	.24797	.25016	254.18
#2	.48932	253.00	.25289	-.02651	.24568	.25045	252.25
#3	.48709	253.10	.25323	-.02598	.24609	.25099	252.40
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.45977**	**.24425**	**.24984**	**.24159**	**98.047**	**5.0199**	**.00928**
Stddev	.00184	.00111	.00093	.00169	.770	.0603	.00179
%RSD	.40042	.45415	.37278	.70054	.78490	1.2004	19.292
#1	.45765	.24297	.24892	.23966	98.923	5.0724	.01092
#2	.46079	.24483	.24980	.24226	97.744	4.9541	.00955
#3	.46088	.24496	.25078	.24285	97.476	5.0333	.00737
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**252.89**	**.23971**	**-.00093**	**4.9047**	**.47875**	**-.06943**	**.48326**
Stddev	2.70	.00673	.00021	.0324	.00449	.00907	.00399
%RSD	1.0691	2.8062	22.541	.66047	.93691	13.069	.82654
#1	256.01	.24735	-.00069	4.9415	.47366	-.07763	.47886
#2	251.27	.23708	-.00102	4.8806	.48212	-.05968	.48428
#3	251.38	.23469	-.00107	4.8920	.48047	-.07099	.48665
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014

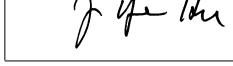
Sample Name: ICSAB Acquired: 4/7/2014 10:21:54 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50460**	**.25139**	**-.00228**	**.00075**	**-.00001**	**-.00415**	**.46294**
Stddev	.00484	.00303	.00028	.00028	.00012	.00053	.00361
%RSD	.95955	1.2043	12.070	37.525	2074.9	12.849	.77960
#1	.49919	.24793	-.00250	.00100	.00013	-.00460	.45998
#2	.50852	.25354	-.00238	.00045	-.00005	-.00428	.46188
#3	.50610	.25272	-.00197	.00079	-.00010	-.00356	.46696
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.24728**	**.47418**	F **-11.337**
Stddev	.00161	.00148	.186
%RSD	.64952	.31253	1.6444
#1	.24622	.47251	-11.551
#2	.24913	.47467	-11.209
#3	.24649	.47535	-11.252
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18403.**	**20133.**
Stddev	43.	540.
%RSD	.23277	2.6836
#1	18449.	19510.
#2	18396.	20434.
#3	18364.	20457.

Approved: April 08, 2014



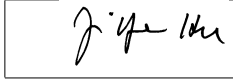
Sample Name: CCV Acquired: 4/7/2014 10:25:19 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40091**	**10.198**	**.41327**	**.50730**	**.99010**	**.05154**	**10.100**	**.05115**
Stddev	.00439	.086	.00042	.00451	.00407	.00060	.053	.00023
%RSD	1.0944	.83978	.10063	.88980	.41078	1.1678	.52671	.44552
#1	.40598	10.165	.41344	.51247	.99307	.05223	10.150	.05139
#2	.39837	10.134	.41358	.50417	.98546	.05125	10.044	.05094
#3	.39839	10.295	.41280	.50526	.99177	.05114	10.108	.05113
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20788**	**.51398**	**.51477**	**4.0135**	**50.396**	**.99286**	**10.125**	**.50759**
Stddev	.00073	.00646	.00143	.0254	.259	.00245	.100	.00267
%RSD	.35278	1.2563	.27875	.63293	.51440	.24658	.98598	.52581
#1	.20862	.52141	.51626	4.0339	50.501	.99385	10.209	.50876
#2	.20715	.50978	.51340	3.9850	50.101	.99007	10.015	.50453
#3	.20788	.51075	.51465	4.0214	50.586	.99466	10.151	.50947
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0135**	**49.509**	**.51488**	**10.252**	**.51643**	**1.2331**	**.42280**	**5.0953**
Stddev	.0024	.266	.00144	.058	.00388	.0007	.00283	.0114
%RSD	.23165	.53763	.27958	.56660	.75138	.05970	.66963	.22392
#1	1.0161	49.641	.51623	10.315	.51975	1.2339	.42027	5.1001
#2	1.0114	49.202	.51336	10.201	.51216	1.2329	.42227	5.0822
#3	1.0130	49.683	.51506	10.241	.51739	1.2324	.42585	5.1035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Approved: April 08, 2014



Sample Name: CCV Acquired: 4/7/2014 10:25:19 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0401**	**1.0151**	**1.0051**	**.52593**	**.99730**	**1.0291**	**.93025**
Stddev	.0065	.0056	.0052	.00088	.01150	.0105	.09935
%RSD	.62928	.54937	.52153	.16695	1.1528	1.0222	10.680
#1	1.0474	1.0179	1.0055	.52691	1.0105	1.0410	.95542
#2	1.0347	1.0087	.99969	.52565	.98943	1.0210	1.0146
#3	1.0381	1.0187	1.0102	.52523	.99197	1.0254	.82073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18975.**	**20319.**
Stddev	237.	190.
%RSD	1.2494	.93715
#1	18716.	20249.
#2	19182.	20534.
#3	19028.	20173.

Approved: April 08, 2014

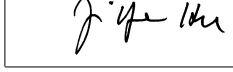
Sample Name: CCB Acquired: 4/7/2014 10:28:35 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00059**	**.01587**	**-.00084**	**.00306**	**.00021**	**.00005**	**-.00677**
Stddev	.00013	.00404	.00034	.00065	.00012	.00001	.01214
%RSD	21.685	25.476	40.978	21.370	57.704	27.581	179.20
#1	-.00050	.01303	-.00116	.00376	.00014	.00006	.00480
#2	-.00054	.01408	-.00087	.00293	.00035	.00007	-.00571
#3	-.00074	.02050	-.00048	.00248	.00014	.00004	-.01941
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00001**	**.00015**	**-.00014**	**-.00020**	**.00243**	**-.05651**	**.00158**
Stddev	.00008	.00010	.00036	.00057	.01021	.03320	.00195
%RSD	993.90	67.930	259.29	286.54	419.27	58.744	123.03
#1	.00001	.00008	-.00029	-.00015	.00462	-.09422	-.00059
#2	-.00008	.00010	-.00040	.00035	.01138	-.03170	.00317
#3	.00009	.00026	.00027	-.00080	-.00869	-.04361	.00218
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00253**	**.00006**	**.00028**	**.01704**	**-.00002**	**.00054**	**.00093**
Stddev	.01192	.00008	.00014	.00959	.00006	.00319	.00078
%RSD	471.01	134.11	50.132	56.268	365.17	594.19	84.664
#1	.00207	-.00003	.00043	.02675	-.00003	-.00194	.00181
#2	-.01606	.00014	.00016	.00758	-.00006	.00414	.00065
#3	.00640	.00007	.00025	.01679	.00005	-.00059	.00032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014



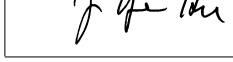
Sample Name: CCB Acquired: 4/7/2014 10:28:35 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00170**	**.00129**	**-.00529**	**-.00038**	**.00006**	**-.00020**	**-.00256**
Stddev	.00074	.00184	.00023	.00009	.00010	.00053	.00100
%RSD	43.160	142.52	4.3299	22.994	149.04	268.17	39.031
#1	.00244	.00333	-.00503	-.00046	-.00002	-.00003	-.00279
#2	.00097	-.00025	-.00538	-.00038	.00017	.00023	-.00147
#3	.00171	.00080	-.00546	-.00029	.00004	-.00080	-.00343
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00003**	**-.00002**	F **.25925**
Stddev	.00015	.00010	.45135
%RSD	464.85	532.95	174.09
#1	.00011	.00009	.69884
#2	.00012	-.00004	.28192
#3	-.00014	-.00011	-.20300
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19131.**	**20210.**
Stddev	96.	241.
%RSD	.50197	1.1920
#1	19097.	20488.
#2	19056.	20061.
#3	19239.	20082.

Approved: April 08, 2014



Sample Name: PBW A2 Acquired: 4/7/2014 10:32:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469613-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00016**	**-.00194**	**-.00050**	**.00191**	**.00088**	**.00002**	**-.01447**	**.00003**
Stddev	.00054	.02715	.00056	.00064	.00034	.00001	.00735	.00004
%RSD	341.69	1397.3	112.32	33.358	38.293	41.718	50.796	127.82
#1	-.00014	-.03123	-.00096	.00190	.00091	.00002	-.01306	-.00002
#2	-.00071	.02237	.00013	.00128	.00053	.00001	-.02242	.00007
#3	.00037	.00303	-.00067	.00256	.00120	.00001	-.00792	.00005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00036**	**-.00005**	**.00004**	**-.00143**	**-.10304**	**.00084**	**-.00646**	**.00000**
Stddev	.00019	.00036	.00079	.00479	.04350	.00108	.00287	.0000
%RSD	52.686	677.11	1915.5	334.31	42.220	128.84	44.436	659.22
#1	.00045	.00022	.00093	-.00446	-.07922	.00088	-.00361	-.00002
#2	.00014	.00008	-.00021	-.00392	-.07665	.00189	-.00935	-.00002
#3	.00049	-.00046	-.00060	.00409	-.15326	-.00026	-.00642	.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00005**	**.00254**	**.00004**	**.00199**	**-.00069**	**-.00158**	**-.00269**	**-.00361**
Stddev	.00002	.00814	.00069	.00376	.00035	.00060	.00052	.00078
%RSD	53.159	320.61	1804.2	188.62	50.725	37.680	19.430	21.675
#1	-.00005	.01145	.00019	.00631	-.00046	-.00217	-.00296	-.00449
#2	-.00007	.00067	-.00071	.00027	-.00052	-.00098	-.00209	-.00298
#3	-.00002	-.00450	.00064	-.00060	-.00110	-.00158	-.00302	-.00338
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

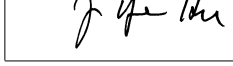
Approved: April 08, 2014

Sample Name: PBW A2 Acquired: 4/7/2014 10:32:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469613-03

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00028**	**-.00002**	**-.00156**	**.00016**	**.00009**	**-.00007**	**.35365**
Stddev	.00033	.00020	.00056	.00167	.00034	.00006	.43885
%RSD	119.95	1146.7	36.088	1073.7	375.30	95.266	124.09
#1	-.00062	.00005	-.00197	.00168	.00043	-.00006	.31906
#2	.00005	.00014	-.00178	-.00162	.00009	-.00013	.80878
#3	-.00027	-.00024	-.00092	.00041	-.00025	-.00001	-.06689
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19428.**	**20240.**
Stddev	71.	288.
%RSD	.36788	1.4241
#1	19510.	20553.
#2	19393.	20182.
#3	19380.	19985.

Approved: April 08, 2014



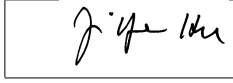
Sample Name: LCSW A2 Acquired: 4/7/2014 10:40:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469613-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.19835**	**4.8996**	**.19579**	**.98880**	**.48473**	**.02473**	**4.9312**	**.02489**
Stddev	.00312	.0363	.00105	.01318	.00210	.00033	.0024	.00015
%RSD	1.5738	.74136	.53537	1.3331	.43403	1.3332	.04804	.60995
#1	.19783	4.8892	.19649	.98961	.48707	.02466	4.9338	.02500
#2	.20170	4.8696	.19459	1.0016	.48413	.02508	4.9291	.02472
#3	.19552	4.9400	.19631	.97524	.48300	.02443	4.9306	.02495
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10078**	**.24929**	**.25211**	**1.9729**	**24.117**	**.48928**	**4.9025**	**.25313**
Stddev	.00037	.00386	.00148	.0088	.071	.00185	.0013	.00531
%RSD	.36420	1.5484	.58618	.44488	.29433	.37771	.02686	2.0976
#1	.10089	.24909	.25326	1.9754	24.186	.49133	4.9010	.24721
#2	.10037	.25325	.25044	1.9802	24.044	.48774	4.9029	.25471
#3	.10108	.24554	.25263	1.9632	24.120	.48876	4.9036	.25748
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49957**	**24.270**	**.25174**	**.00916**	**.25501**	**.59546**	**.19953**	**2.5320**
Stddev	.00264	.116	.00099	.00366	.00174	.00366	.00404	.0227
%RSD	.52748	.47753	.39464	39.939	.68052	.61490	2.0261	.89778
#1	.50061	24.388	.25204	.01331	.25692	.59715	.19959	2.5356
#2	.49658	24.266	.25063	.00643	.25353	.59126	.19545	2.5077
#3	.50153	24.156	.25254	.00773	.25460	.59797	.20353	2.5528
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

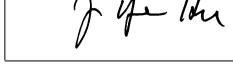


Sample Name: LCSW A2 Acquired: 4/7/2014 10:40:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469613-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.53389**	**.48207**	**.48725**	**.25526**	**.49263**	**.50112**	**6.3518**
Stddev	.00247	.00128	.00155	.00162	.00714	.00315	.2475
%RSD	.46251	.26468	.31787	.63586	1.4484	.62854	3.8966
#1	.53601	.48352	.48865	.25584	.49348	.50401	6.1184
#2	.53118	.48157	.48559	.25342	.49930	.50158	6.3255
#3	.53447	.48112	.48752	.25651	.48511	.49776	6.6113
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18648.**	**19858.**
Stddev	339.	282.
%RSD	1.8186	1.4185
#1	18505.	20174.
#2	18403.	19767.
#3	19035.	19633.

Approved: April 08, 2014



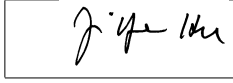
Sample Name: L1403158701 Acquired: 4/7/2014 10:43:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00073**	**.15674**	**.00403**	**47.380**	**.02297**	**.00003**	**3.8025**
Stddev	.00008	.00985	.00066	.211	.00044	.00000	.0361
%RSD	11.244	6.2827	16.483	.44430	1.9055	8.7200	.94857
#1	-.00066	.16732	.00382	47.420	.02272	.00003	3.7691
#2	-.00082	.15505	.00349	47.567	.02272	.00004	3.7975
#3	-.00069	.14785	.00477	47.152	.02347	.00003	3.8407
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**.00276**	**.00038**	**.00434**	**.03912**	**3.8371**	**.00893**
Stddev	.00005	.00026	.00045	.00014	.00217	.0283	.00168
%RSD	25.278	9.5459	118.17	3.1136	5.5419	.73728	18.830
#1	-.00015	.00275	.00033	.00447	.03811	3.8504	.00871
#2	-.00025	.00302	.00086	.00420	.04161	3.8563	.00737
#3	-.00023	.00250	-.00004	.00435	.03764	3.8046	.01071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.0421**	**.41027**	**.00302**	F **459.00**	**.00455**	**.39999**	**-.00235**
Stddev	.0151	.00093	.00005	2.77	.00056	.00536	.00209
%RSD	.37367	.22747	1.7876	.60366	12.400	1.3407	88.764
#1	4.0368	.41032	.00308	456.00	.00452	.39752	.00004
#2	4.0303	.40932	.00297	459.52	.00513	.40615	-.00381
#3	4.0591	.41118	.00302	461.47	.00400	.39631	-.00329
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 08, 2014



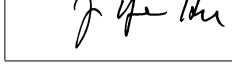
Sample Name: L1403158701 Acquired: 4/7/2014 10:43:19 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00143**	**-.00306**	**5.1660**	**.00031**	**.04813**	**.00079**	**-.00055**
Stddev	.00065	.00281	.0196	.00045	.00022	.00076	.00056
%RSD	45.654	91.809	.37913	146.21	.45614	96.252	101.56
#1	.00068	-.00201	5.1434	-.00003	.04834	.00056	-.00103
#2	.00176	-.00092	5.1777	.00083	.04790	.00017	.00006
#3	.00184	-.00623	5.1768	.00013	.04816	.00163	-.00069
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00073**	**.02949**	**.09327**
Stddev	.00041	.00018	.58426
%RSD	55.802	.61884	626.40
#1	.00037	.02930	.43103
#2	.00064	.02966	-.58137
#3	.00117	.02949	.43015
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18508.**	**21096.**
Stddev	55.	77.
%RSD	.29908	.36449
#1	18515.	21119.
#2	18449.	21159.
#3	18559.	21010.

Approved: April 08, 2014



Sample Name: L1404000302 Acquired: 4/7/2014 10:46:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469613-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00042**	**.13073**	**-.00043**	**.36432**	**.17053**	**-.00001**	**23.783**
Stddev	.00049	.01675	.00127	.00999	.00044	.00001	.047
%RSD	116.72	12.813	293.43	2.7416	.25604	104.89	.19755
#1	-.00055	.12193	-.00103	.37526	.17068	-.00001	23.836
#2	-.00084	.12022	.00103	.36200	.17004	-.00001	23.747
#3	.00012	.15005	-.00130	.35569	.17087	.00000	23.766
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.00012**	**-.00013**	**.00169**	**.17349**	**2.9868**	**.04303**
Stddev	.00018	.00017	.00047	.00046	.00581	.0282	.00021
%RSD	72.403	142.28	357.61	27.286	3.3516	.94495	.47994
#1	.00046	.00008	-.00067	.00205	.16685	2.9548	.04325
#2	.00019	-.00003	.00023	.00117	.17594	3.0083	.04285
#3	.00011	.00031	.00004	.00185	.17768	2.9972	.04300
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.2285**	**.11209**	**.00300**	F **1362.2**	**-.00027**	**.01537**	**-.00035**
Stddev	.0485	.00049	.00002	11.2	.00044	.00183	.00160
%RSD	.58910	.44089	.59722	.82152	166.39	11.907	456.41
#1	8.2519	.11152	.00301	1366.1	-.00077	.01715	-.00194
#2	8.2608	.11241	.00302	1349.6	-.00003	.01547	-.00037
#3	8.1728	.11234	.00298	1370.9	.00001	.01350	.00126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 08, 2014

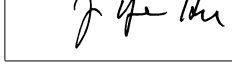
Sample Name: L1404000302 Acquired: 4/7/2014 10:46:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469613-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00239**	**.00482**	**1.7097**	**.00077**	**1.8263**	**.00081**	**-.00354**
Stddev	.00185	.00061	.0136	.00040	.0015	.00043	.00305
%RSD	77.437	12.760	.79605	51.270	.08136	53.488	86.255
#1	.00451	.00551	1.7001	.00096	1.8276	.00123	-.00255
#2	.00112	.00460	1.7253	.00032	1.8267	.00084	-.00696
#3	.00154	.00434	1.7038	.00103	1.8247	.00036	-.00111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00014**	**.00501**	**1.9947**
Stddev	.00012	.00003	.2909
%RSD	83.564	.54070	14.583
#1	.00023	.00498	2.2414
#2	.00018	.00503	1.6740
#3	.00001	.00501	2.0687
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**17621.**	**20007.**
Stddev	130.	47.
%RSD	.73862	.23303
#1	17476.	19960.
#2	17728.	20053.
#3	17660.	20008.

Approved: April 08, 2014



Sample Name: L1404000302DP Acquired: 4/7/2014 10:50:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469613-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00048**	**.13445**	**.00176**	**.29577**	**.17228**	**.00001**	**23.961**
Stddev	.00068	.03588	.00232	.00349	.00086	.00003	.112
%RSD	140.44	26.689	131.26	1.1785	.49701	278.25	.46939
#1	-.00097	.14077	.00421	.29737	.17157	.00003	23.855
#2	.00029	.16675	-.00040	.29816	.17203	.00002	23.947
#3	-.00076	.09583	.00149	.29177	.17323	-.00002	24.079
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.00028**	**.00034**	**.00152**	**.19542**	**3.0521**	**.04198**
Stddev	.00005	.00005	.00016	.00022	.00312	.0612	.00123
%RSD	39.982	18.992	46.828	14.707	1.5968	2.0039	2.9390
#1	.00017	.00031	.00052	.00128	.19214	2.9869	.04085
#2	.00015	.00022	.00021	.00156	.19575	3.0610	.04179
#3	.00007	.00031	.00030	.00173	.19836	3.1083	.04330
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.2853**	**.11080**	**.00298**	F **1406.9**	**.00095**	**.01332**	**.00012**
Stddev	.0556	.00136	.00028	32.0	.00076	.00104	.00074
%RSD	.67049	1.2233	9.2601	2.2715	80.042	7.8438	635.07
#1	8.2239	.10924	.00268	1442.5	.00179	.01268	-.00020
#2	8.3322	.11165	.00303	1397.3	.00073	.01452	-.00041
#3	8.2999	.11152	.00322	1380.8	.00032	.01274	.00097
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 08, 2014

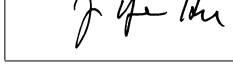
Sample Name: L1404000302DP Acquired: 4/7/2014 10:50:40 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469613-05

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00231**	**-.00029**	**1.7701**	**.00110**	**1.8415**	**.00076**	**-.00231**
Stddev	.00100	.00381	.0150	.00027	.0083	.00105	.00290
%RSD	43.105	1317.5	.84718	24.484	.45135	138.69	125.45
#1	.00326	-.00022	1.7739	.00099	1.8353	.00055	-.00330
#2	.00127	.00348	1.7827	.00141	1.8382	.00189	-.00458
#3	.00239	-.00413	1.7535	.00091	1.8510	-.00018	.00095
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00026**	**.00246**	**1.6830**
Stddev	.00025	.00013	.1753
%RSD	94.916	5.3859	10.416
#1	.00025	.00238	1.8808
#2	.00002	.00261	1.5470
#3	.00052	.00238	1.6211
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**17632.**	**20182.**
Stddev	49.	209.
%RSD	.27525	1.0355
#1	17682.	20420.
#2	17585.	20030.
#3	17631.	20095.

Approved: April 08, 2014



Sample Name: L1404000302S Acquired: 4/7/2014 10:54:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469613-06

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.21098**	**5.1762**	**.21337**	**1.2870**	**.67666**	**.02549**	**30.015**
Stddev	.00058	.0684	.00071	.0100	.00191	.00006	.236
%RSD	.27330	1.3214	.33349	.77717	.28284	.23336	.78568
#1	.21142	5.2335	.21413	1.2954	.67568	.02554	30.134
#2	.21119	5.1005	.21326	1.2896	.67544	.02550	29.743
#3	.21033	5.1945	.21271	1.2759	.67887	.02542	30.168
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02597**	**.09817**	**.24874**	**.24452**	**2.1918**	**29.602**	**.55364**
Stddev	.00007	.00039	.00110	.00037	.0106	.166	.00458
%RSD	.28340	.40208	.44079	.15166	.48316	.55942	.82669
#1	.02597	.09816	.24992	.24482	2.1956	29.637	.55262
#2	.02590	.09857	.24853	.24463	2.1799	29.422	.54966
#3	.02605	.09778	.24776	.24411	2.2001	29.747	.55864
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.229**	**.33956**	**.50846**	F **1481.1**	**.24254**	**.02682**	**.23868**
Stddev	.072	.00331	.00222	18.8	.00055	.00320	.00038
%RSD	.54261	.97415	.43744	1.2675	.22719	11.926	.16050
#1	13.241	.34051	.51035	1459.5	.24295	.02458	.23824
#2	13.152	.33588	.50902	1494.0	.24275	.03049	.23887
#3	13.294	.34229	.50601	1489.7	.24191	.02541	.23893
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 08, 2014

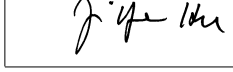
Sample Name: L1404000302S Acquired: 4/7/2014 10:54:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469613-06

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.61780**	**.21753**	**4.4574**	**.52698**	**2.4106**	**.49832**	**.22199**
Stddev	.00657	.00497	.0471	.00245	.0202	.00181	.00114
%RSD	1.0641	2.2848	1.0560	.46506	.83778	.36273	.51483
#1	.61556	.21321	4.5079	.52527	2.4250	.49683	.22157
#2	.62520	.22296	4.4496	.52978	2.3876	.49780	.22111
#3	.61263	.21643	4.4147	.52588	2.4194	.50033	.22328
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.49646**	**.51233**	**8.6646**
Stddev	.00207	.00128	.8539
%RSD	.41790	.24996	9.8547
#1	.49810	.51359	7.6954
#2	.49714	.51237	8.9920
#3	.49412	.51103	9.3063
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**17505.**	**20333.**
Stddev	38.	191.
%RSD	.21511	.94142
#1	17490.	20317.
#2	17478.	20532.
#3	17548.	20150.

Approved: April 08, 2014



Sample Name: L1404000304 Acquired: 4/7/2014 10:57:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00070**	**.05128**	**-.00001**	**.11458**	**.03485**	**.00003**	**185.24**
Stddev	.00028	.01507	.00169	.00178	.00025	.00004	.61
%RSD	40.308	29.378	11657.	1.5504	.71920	135.64	.32996
#1	-.00084	.03400	-.00082	.11507	.03456	.00007	184.82
#2	-.00087	.06163	-.00115	.11607	.03500	-.00002	185.94
#3	-.00037	.05821	.00193	.11261	.03500	.00005	184.96
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00086**	**.00032**	**.00063**	**.01546**	**.05209**	**3.1164**	**.02693**
Stddev	.00007	.00023	.00011	.00038	.00672	.0050	.00149
%RSD	8.4838	71.172	17.218	2.4273	12.909	.15989	5.5444
#1	.00093	.00050	.00076	.01514	.04436	3.1210	.02717
#2	.00086	.00040	.00056	.01588	.05658	3.1172	.02533
#3	.00078	.00006	.00059	.01537	.05534	3.1111	.02828
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**61.963**	**.13507**	**.00012**	**108.40**	**.00155**	**.00712**	**.00235**
Stddev	.424	.00267	.00028	.44	.00071	.00348	.00331
%RSD	.68389	1.9775	236.84	.40260	46.139	48.895	141.01
#1	61.510	.13213	.00043	108.11	.00080	.00325	.00605
#2	62.350	.13736	.00003	108.90	.00161	.00811	.00132
#3	62.029	.13572	-.00010	108.18	.00222	.01000	-.00033
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014

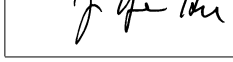
Sample Name: L1404000304 Acquired: 4/7/2014 10:57:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00356**	**-.00099**	**3.4858**	**.00056**	F **6.4929**	**-.00139**	**-.00163**
Stddev	.00129	.00249	.0063	.00045	.1381	.00149	.00081
%RSD	36.176	252.82	.18105	80.036	2.1262	107.04	50.122
#1	.00383	-.00122	3.4837	.00083	6.3952	-.00301	-.00243
#2	.00216	.00161	3.4809	.00082	6.6508	-.00009	-.00080
#3	.00469	-.00335	3.4929	.00004	6.4326	-.00107	-.00165
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					4.5000		
Low Limit					-.00800		

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00027**	**.04559**	**.23638**
Stddev	.00038	.00023	.18033
%RSD	138.92	.51297	76.289
#1	.00013	.04585	.15850
#2	-.00032	.04552	.10808
#3	-.00063	.04540	.44257
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18363.**	**20275.**
Stddev	49.	430.
%RSD	.26753	2.1204
#1	18309.	20766.
#2	18374.	20091.
#3	18405.	19967.

Approved: April 08, 2014



Sample Name: L14040005 Acquired: 4/7/2014 11:01:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00061**	**.10124**	**-.00033**	**.16941**	**.02820**	**.00002**	**50.690**
Stddev	.00026	.00507	.00055	.00079	.00039	.00001	.082
%RSD	42.410	5.0075	165.05	.46496	1.3882	57.352	.16136
#1	-.00047	.10587	.00010	.17025	.02782	.00001	50.611
#2	-.00091	.10203	-.00014	.16869	.02860	.00003	50.774
#3	-.00046	.09582	-.00095	.16930	.02819	.00001	50.685
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00035**	**-.00023**	**.00076**	**.00103**	**.21999**	**2.1493**	**.04057**
Stddev	.00002	.00016	.00047	.00044	.00399	.0312	.00169
%RSD	4.4014	68.784	61.445	42.964	1.8142	1.4508	4.1566
#1	.00036	-.00039	.00128	.00054	.22303	2.1845	.04171
#2	.00033	-.00008	.00037	.00116	.22147	2.1250	.03863
#3	.00035	-.00022	.00062	.00140	.21547	2.1384	.04137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**20.630**	**.03818**	**.00045**	F **752.49**	**.00326**	**.01638**	**-.00101**
Stddev	.116	.00045	.00005	8.65	.00042	.00415	.00191
%RSD	.56242	1.1809	11.041	1.1491	12.742	25.329	189.58
#1	20.519	.03769	.00040	744.22	.00309	.01350	-.00288
#2	20.750	.03826	.00044	751.78	.00373	.01450	-.00108
#3	20.620	.03858	.00050	761.47	.00295	.02113	.00094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 08, 2014

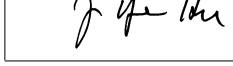
Sample Name: L14040005 Acquired: 4/7/2014 11:01:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00075**	**.00006**	**5.1230**	**-.00030**	**2.3649**	**.00026**	**-.00178**
Stddev	.00147	.00024	.0430	.00012	.0016	.00045	.00142
%RSD	195.64	400.71	.83992	41.353	.06611	172.11	79.876
#1	.00244	.00029	5.1515	-.00035	2.3652	.00028	-.00050
#2	-.00022	.00008	5.1441	-.00016	2.3662	.00071	-.00331
#3	.00004	-.00019	5.0735	-.00039	2.3631	-.00020	-.00153
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00042**	**.02326**	**.10054**
Stddev	.00019	.00026	.30620
%RSD	45.964	1.1000	304.57
#1	.00051	.02355	-.03019
#2	.00020	.02320	-.11860
#3	.00056	.02305	.45041
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**17885.**	**20482.**
Stddev	87.	282.
%RSD	.48371	1.3745
#1	17791.	20803.
#2	17960.	20368.
#3	17905.	20275.

Approved: April 08, 2014



Sample Name: L14040005PS Acquired: 4/7/2014 11:05:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469981-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20208**	**5.0206**	**.20540**	**1.1493**	**.51186**	**.02500**	**50.507**
Stddev	.00161	.0359	.00253	.0048	.00164	.00010	.063
%RSD	.79700	.71411	1.2335	.41674	.32135	.39862	.12458
#1	.20391	5.0332	.20337	1.1548	.50996	.02509	50.540
#2	.20088	5.0484	.20824	1.1460	.51293	.02500	50.434
#3	.20143	4.9801	.20458	1.1471	.51268	.02489	50.546
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02561**	**.09812**	**.24421**	**.24443**	**2.1510**	**27.350**	**.53444**
Stddev	.00002	.00073	.00102	.00175	.0169	.033	.00125
%RSD	.09731	.74408	.41878	.71538	.78754	.12129	.23368
#1	.02562	.09731	.24523	.24268	2.1692	27.383	.53307
#2	.02558	.09874	.24419	.24618	2.1357	27.350	.53551
#3	.02562	.09829	.24319	.24442	2.1480	27.317	.53473
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.065**	**.26615**	**.50269**	F **701.08**	**.24652**	**.01470**	**.24143**
Stddev	.067	.00380	.00285	.72	.00136	.00018	.00304
%RSD	.28996	1.4271	.56768	.10212	.55239	1.2310	1.2607
#1	23.124	.27052	.49961	700.64	.24509	.01488	.23808
#2	23.078	.26371	.50524	701.91	.24667	.01468	.24402
#3	22.992	.26421	.50322	700.70	.24780	.01452	.24220
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 08, 2014

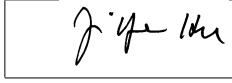
Sample Name: L14040005PS Acquired: 4/7/2014 11:05:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469981-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.61174**	**.20774**	**7.1752**	**.00001**	**2.6152**	**.49102**	**.22906**
Stddev	.00635	.00324	.0248	.00019	.0054	.00073	.00343
%RSD	1.0388	1.5573	.34494	2013.5	.20494	.14948	1.4967
#1	.60465	.20608	7.1564	.00021	2.6192	.49030	.22610
#2	.61692	.21147	7.2032	.00000	2.6091	.49098	.23281
#3	.61364	.20568	7.1659	-.00018	2.6173	.49176	.22826
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.49227**	**.52363**	**.04909**
Stddev	.00233	.00136	.17382
%RSD	.47301	.25965	354.09
#1	.49496	.52304	.13965
#2	.49108	.52519	.15893
#3	.49079	.52267	-.15131
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18143.**	**20470.**
Stddev	33.	201.
%RSD	.18425	.98027
#1	18150.	20239.
#2	18107.	20568.
#3	18173.	20603.

Approved: April 08, 2014



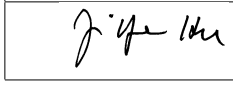
Sample Name: L14040005SDL Acquired: 4/7/2014 11:08:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469981-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00049**	**.02971**	**.00060**	**.04961**	**.00569**	**.00002**	**9.8527**	**-.00015**
Stddev	.00050	.01544	.00037	.00130	.00040	.00004	.0657	.00009
%RSD	103.89	51.962	62.542	2.6274	6.9552	170.95	.66649	56.091
#1	.00007	.04511	.00042	.04931	.00538	.00004	9.7776	-.00007
#2	-.00092	.01423	.00103	.05104	.00614	.00005	9.8990	-.00024
#3	-.00061	.02979	.00035	.04849	.00555	-.00002	9.8816	-.00015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**.00005**	**.00015**	**.04483**	**.44603**	**.00970**	**4.0858**	**.00829**
Stddev	.00016	.00068	.00022	.00582	.03155	.00071	.0511	.00032
%RSD	102.52	1496.2	140.83	12.973	7.0743	7.3654	1.2514	3.8633
#1	-.00002	-.00014	-.00005	.04490	.46534	.00948	4.0824	.00857
#2	.00030	.00080	.00012	.03898	.46313	.01050	4.1386	.00837
#3	.00018	-.00052	.00038	.05061	.40962	.00913	4.0365	.00794
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**149.80**	**.00081**	**.00965**	**.00022**	**.00066**	**-.00001**	**1.0457**
Stddev	.00004	.51	.00050	.00212	.00091	.00252	.00136	.0115
%RSD	167.12	.34251	62.353	21.916	404.53	380.69	9625.6	1.0966
#1	.00007	149.38	.00031	.00725	-.00069	.00275	.00052	1.0500
#2	-.00001	150.37	.00081	.01125	.00112	.00137	-.00156	1.0545
#3	.00002	149.65	.00131	.01045	.00024	-.00213	.00099	1.0328
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

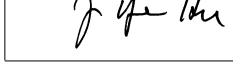


Sample Name: L14040005SDL Acquired: 4/7/2014 11:08:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469981-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**.45777**	**.00051**	**.00060**	**.00010**	**.00592**	**.41281**
Stddev	.00047	.00415	.00054	.00177	.00022	.00005	.21086
%RSD	258.55	.90559	106.48	297.45	226.14	.89507	51.080
#1	-.00044	.45332	.00024	-.00062	.00012	.00588	.18788
#2	-.00046	.46152	.00114	-.00022	.00030	.00598	.60600
#3	.00036	.45848	.00015	.00263	-.00013	.00589	.44454
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19315.**	**21088.**
Stddev	106.	383.
%RSD	.55085	1.8151
#1	19268.	20656.
#2	19240.	21221.
#3	19437.	21386.

Approved: April 08, 2014



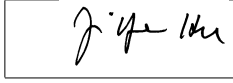
Sample Name: CCV Acquired: 4/7/2014 11:12:11 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40611**	**10.165**	**.41047**	**.53182**	**1.0023**	**.05169**	**10.158**
Stddev	.00131	.038	.00208	.00234	.0036	.00010	.032
%RSD	.32193	.37771	.50757	.43979	.35993	.19306	.31579
#1	.40732	10.134	.41169	.53410	1.0028	.05168	10.151
#2	.40630	10.208	.41165	.53193	.99855	.05180	10.131
#3	.40472	10.154	.40806	.52942	1.0057	.05160	10.194
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05087**	**.20707**	**.51426**	**.51155**	**4.0255**	**50.687**	**1.0002**
Stddev	.00013	.00046	.00150	.00189	.0268	.086	.0067
%RSD	.24889	.22408	.29251	.37033	.66502	.16957	.67061
#1	.05091	.20758	.51553	.51299	4.0044	50.619	1.0006
#2	.05096	.20698	.51465	.51227	4.0164	50.659	.99337
#3	.05072	.20667	.51260	.50941	4.0556	50.784	1.0068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.063**	**.50739**	**1.0111**	**50.273**	**.51108**	**10.203**	**.51563**
Stddev	.035	.00219	.0017	.256	.00278	.026	.00077
%RSD	.34567	.43067	.16949	.51010	.54442	.25801	.15022
#1	10.025	.50741	1.0114	50.259	.51423	10.189	.51605
#2	10.093	.50957	1.0092	50.023	.51009	10.186	.51610
#3	10.072	.50520	1.0126	50.536	.50893	10.233	.51473
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 08, 2014



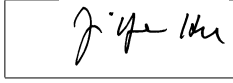
Sample Name: CCV Acquired: 4/7/2014 11:12:11 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2298**	**.42090**	**5.0896**	**1.0397**	**1.0250**	**1.0085**	**.52807**
Stddev	.0014	.00016	.0160	.0095	.0026	.0036	.00518
%RSD	.11579	.03720	.31395	.90986	.25636	.35570	.98013
#1	1.2307	.42073	5.0868	1.0462	1.0220	1.0064	.53287
#2	1.2305	.42103	5.0752	1.0439	1.0268	1.0065	.52875
#3	1.2281	.42094	5.1068	1.0288	1.0261	1.0127	.52259
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0087**	**1.0238**	F **.47082**
Stddev	.0026	.0021	.33278
%RSD	.25633	.20091	70.681
#1	1.0106	1.0257	.10117
#2	1.0097	1.0240	.56477
#3	1.0057	1.0216	.74653
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19088.**	**20638.**
Stddev	82.	106.
%RSD	.43166	.51322
#1	19013.	20569.
#2	19076.	20585.
#3	19176.	20760.

Approved: April 08, 2014



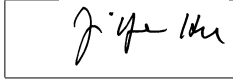
Sample Name: CCB Acquired: 4/7/2014 11:15:26 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**.01133**	**-.00001**	**.01759**	**.00040**	**.00004**	**-.00421**	**.00013**
Stddev	.00052	.00791	.00104	.00076	.00008	.00001	.00127	.00012
%RSD	8597.4	69.808	13462.	4.3261	19.292	25.617	30.061	98.670
#1	-.00053	.01994	-.00005	.01843	.00049	.00003	-.00424	-.00002
#2	-.00001	.00966	.00106	.01736	.00036	.00004	-.00294	.00017
#3	.00052	.00439	-.00103	.01696	.00035	.00005	-.00547	.00022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**-.00014**	**.00007**	**-.00358**	**-.00710**	**.00325**	**-.02224**	**.00003**
Stddev	.00025	.00017	.00038	.00455	.03661	.00129	.02009	.00009
%RSD	236.05	126.13	573.43	127.11	515.40	39.798	90.332	273.17
#1	.00035	-.00016	.00039	-.00025	-.00832	.00245	-.00552	.00013
#2	-.00016	.00005	-.00035	-.00876	-.04308	.00474	-.01667	.00000
#3	.00013	-.00030	.00015	-.00173	.03010	.00256	-.04452	-.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**.09228**	**-.00052**	**.00384**	**.00103**	**-.00015**	**-.00094**	**-.00679**
Stddev	.00017	.00135	.00060	.00088	.00132	.00189	.00074	.00143
%RSD	81.337	1.4576	114.57	23.050	127.28	1246.3	78.011	21.087
#1	.00006	.09296	-.00046	.00364	.00012	-.00233	-.00169	-.00516
#2	.00017	.09073	-.00116	.00480	.00044	.00103	-.00022	-.00787
#3	.00041	.09314	.00004	.00307	.00254	.00085	-.00092	-.00732
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

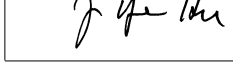


Sample Name: CCB Acquired: 4/7/2014 11:15:26 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.00007**	**-.00034**	**-.00007**	**.00021**	**-.00001**	**.05421**
Stddev	.00015	.00013	.00014	.00172	.00036	.00010	.23340
%RSD	361.35	198.76	41.426	2595.3	175.16	762.25	430.55
#1	-.00015	-.00008	-.00042	-.00198	.00056	-.00001	.01781
#2	-.00010	.00013	-.00043	.00135	.00023	-.00012	.30367
#3	.00013	.00016	-.00018	.00043	-.00017	.00009	-.15885
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19114.**	**20553.**
Stddev	124.	122.
%RSD	.64998	.59538
#1	19043.	20672.
#2	19041.	20560.
#3	19257.	20427.

Approved: April 08, 2014



Sample Name: L1404000306 Acquired: 4/7/2014 11:19:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00047**	**2.3839**	**.00191**	**.21544**	**.09667**	**.00025**	**11.831**
Stddev	.00053	.0402	.00094	.00025	.00020	.00001	.052
%RSD	113.28	1.6869	49.238	.11453	.20413	5.5845	.43925
#1	-.00060	2.4117	.00135	.21549	.09690	.00023	11.832
#2	.00011	2.3378	.00138	.21517	.09652	.00026	11.779
#3	-.00092	2.4022	.00299	.21566	.09660	.00025	11.883
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00031**	**.00258**	**.00400**	**.01393**	**5.4482**	**2.3289**	**.02623**
Stddev	.00005	.00029	.00027	.00028	.0230	.0834	.00174
%RSD	17.149	11.300	6.6997	2.0212	.42135	3.5806	6.6176
#1	.00026	.00230	.00380	.01421	5.4640	2.2656	.02797
#2	.00031	.00289	.00390	.01393	5.4219	2.4234	.02622
#3	.00037	.00256	.00431	.01364	5.4587	2.2978	.02449
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.5922**	**.14518**	**.00213**	F **780.69**	**.00630**	**.41755**	**.00371**
Stddev	.0283	.00269	.00015	20.40	.00022	.00339	.00151
%RSD	.78668	1.8505	6.9476	2.6131	3.4475	.81271	40.710
#1	3.6115	.14802	.00214	789.77	.00618	.41993	.00264
#2	3.6054	.14268	.00227	757.33	.00617	.41366	.00544
#3	3.5598	.14485	.00198	794.98	.00655	.41905	.00306
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 08, 2014

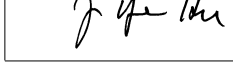
Sample Name: L1404000306 Acquired: 4/7/2014 11:19:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00078**	**.00032**	**4.1595**	**.00055**	**.54643**	**.01995**	**-.00205**
Stddev	.00176	.00052	.0030	.00044	.00243	.00175	.00302
%RSD	225.66	161.72	.07185	79.517	.44398	8.7961	147.55
#1	-.00121	.00005	4.1561	.00102	.54752	.01871	.00087
#2	.00140	-.00001	4.1615	.00047	.54365	.01917	-.00186
#3	.00215	.00093	4.1610	.00016	.54811	.02196	-.00516
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00426**	**.20646**	**6.6592**
Stddev	.00026	.00061	.4063
%RSD	6.2069	.29504	6.1019
#1	.00397	.20581	6.6268
#2	.00434	.20655	7.0808
#3	.00449	.20702	6.2701
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18221.**	**20846.**
Stddev	70.	341.
%RSD	.38560	1.6350
#1	18293.	20496.
#2	18218.	21177.
#3	18153.	20864.

Approved: April 08, 2014



Sample Name: L1404002401 Acquired: 4/7/2014 11:22:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**.05249**	**-.00068**	**.01839**	**.01316**	**.00007**	**7.1532**	**.00012**
Stddev	.00006	.00933	.00120	.00018	.00035	.00002	.0379	.00008
%RSD	948.05	17.769	176.19	.95977	2.6279	23.112	.52996	70.927
#1	.00000	.04197	-.00206	.01852	.01356	.00006	7.1922	.00014
#2	.00005	.05576	-.00005	.01819	.01300	.00009	7.1508	.00003
#3	-.00007	.05975	.00007	.01847	.01292	.00007	7.1165	.00019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**-.00020**	**.00026**	**.06986**	**.92520**	**.00153**	**4.0397**	**.00719**
Stddev	.00009	.00059	.00040	.01007	.02538	.00108	.0341	.00020
%RSD	114.87	294.46	154.48	14.416	2.7432	70.353	.84421	2.7784
#1	.00018	.00030	-.00017	.07778	.94528	.00193	4.0676	.00729
#2	.00005	-.00006	.00062	.05852	.89667	.00031	4.0017	.00733
#3	.00001	-.00085	.00033	.07327	.93363	.00235	4.0499	.00696
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00025**	**1.2269**	**.00067**	**.00836**	**-.00010**	**-.00007**	**-.00195**	**2.0113**
Stddev	.00015	.0108	.00027	.00239	.00130	.00063	.00335	.0070
%RSD	61.766	.87719	40.762	28.573	1352.9	954.05	171.64	.35012
#1	-.00018	1.2394	.00062	.00770	.00062	-.00031	.00149	2.0163
#2	-.00014	1.2206	.00097	.01101	-.00159	-.00054	-.00521	2.0032
#3	-.00043	1.2209	.00043	.00637	.00069	.00065	-.00214	2.0143
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

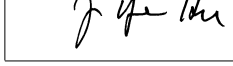
Approved: April 08, 2014

Sample Name: L1404002401 Acquired: 4/7/2014 11:22:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00020**	**.04793**	**.00096**	**-.00156**	**.00020**	**.00225**	**.13212**
Stddev	.00003	.00003	.00040	.00028	.00021	.00014	.13861
%RSD	13.713	.07245	41.767	17.860	101.92	6.2429	104.91
#1	-.00020	.04791	.00078	-.00134	.00012	.00241	.29085
#2	-.00023	.04792	.00067	-.00187	.00005	.00217	.03495
#3	-.00017	.04797	.00141	-.00146	.00044	.00216	.07057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19592.**	**20703.**
Stddev	43.	390.
%RSD	.22070	1.8834
#1	19631.	20299.
#2	19601.	20733.
#3	19545.	21077.

Approved: April 08, 2014



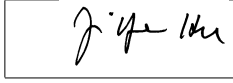
Sample Name: L1404002403 Acquired: 4/7/2014 11:26:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.05771**	**-.00013**	**.02102**	**.03842**	**.00007**	**4.5106**	**.00013**
Stddev	.00003	.01822	.00084	.00034	.00099	.00002	.0309	.00005
%RSD	24.678	31.567	646.50	1.6263	2.5860	31.153	.68560	39.102
#1	.00016	.05122	.00067	.02098	.03904	.00006	4.5327	.00012
#2	.00013	.07829	-.00102	.02137	.03895	.00006	4.5239	.00008
#3	.00010	.04363	-.00004	.02069	.03728	.00010	4.4753	.00018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**-.00033**	**.00071**	**.03096**	**1.3118**	**.00220**	**1.7344**	**.00194**
Stddev	.00004	.00021	.00022	.00326	.0200	.00226	.0064	.00007
%RSD	22.822	62.864	31.282	10.530	1.5261	102.87	.37099	3.6541
#1	.00023	-.00047	.00092	.03423	1.3316	.00003	1.7342	.00186
#2	.00020	-.00043	.00048	.02771	1.3122	.00202	1.7410	.00195
#3	.00014	-.00009	.00073	.03095	1.2916	.00455	1.7281	.00200
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**2.5037**	**.00272**	**.00462**	**.00116**	**.00054**	**-.00069**	**2.2264**
Stddev	.00011	.0311	.00086	.00262	.00037	.00134	.00182	.0147
%RSD	210.89	1.2409	31.483	56.757	31.700	249.78	262.83	.65875
#1	.00007	2.5172	.00226	.00531	.00101	-.00059	-.00078	2.2107
#2	.00016	2.5257	.00218	.00172	.00089	.00202	.00117	2.2397
#3	-.00006	2.4682	.00371	.00683	.00157	.00018	-.00247	2.2287
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

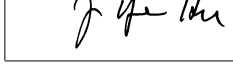


Sample Name: L1404002403 Acquired: 4/7/2014 11:26:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**.07868**	**-.00008**	**-.00205**	**.00020**	**.00458**	**.48278**
Stddev	.00012	.00083	.00017	.00064	.00006	.00003	.49941
%RSD	59.673	1.0525	205.17	31.371	31.931	.57185	103.45
#1	.00017	.07928	-.00015	-.00181	.00013	.00461	.44867
#2	.00034	.07902	-.00021	-.00156	.00023	.00457	.99838
#3	.00011	.07774	.00011	-.00278	.00024	.00456	.00130
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19530.**	**20345.**
Stddev	83.	303.
%RSD	.42307	1.4891
#1	19463.	20655.
#2	19504.	20049.
#3	19622.	20331.

Approved: April 08, 2014



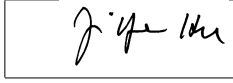
Sample Name: L1404002405 Acquired: 4/7/2014 11:29:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00039**	**.03419**	**-.00158**	**.11102**	**.02270**	**.00005**	**99.384**	**.00065**
Stddev	.00013	.01028	.00121	.00158	.00004	.00002	.100	.00007
%RSD	33.373	30.054	76.293	1.4267	.15544	47.953	.10050	10.832
#1	-.00027	.04243	-.00295	.11270	.02270	.00007	99.484	.00071
#2	-.00038	.03746	-.00070	.10955	.02274	.00002	99.284	.00066
#3	-.00053	.02268	-.00109	.11080	.02267	.00006	99.385	.00057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**.00022**	**.00007**	**.71688**	**8.2291**	**.03764**	**38.501**	**.08161**
Stddev	.00011	.00024	.00023	.00090	.0853	.00086	.141	.00082
%RSD	35.304	108.97	309.21	.12542	1.0365	2.2822	.36727	1.0085
#1	.00029	.00045	.00017	.71647	8.3081	.03841	38.596	.08095
#2	.00021	-.00003	.00024	.71791	8.2405	.03671	38.338	.08135
#3	.00042	.00025	-.00019	.71626	8.1387	.03780	38.567	.08254
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00020**	**6.2234**	**.00220**	**.00802**	**-.00061**	**.00036**	**.00026**	**3.1729**
Stddev	.00012	.0098	.00029	.00063	.00175	.00139	.00242	.0211
%RSD	59.486	.15817	13.351	7.9047	286.93	382.70	949.06	.66531
#1	-.00032	6.2336	.00194	.00747	.00049	-.00008	-.00161	3.1878
#2	-.00009	6.2226	.00215	.00787	-.00263	.00192	.00299	3.1821
#3	-.00019	6.2139	.00252	.00872	.00031	-.00075	-.00062	3.1487
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404002405 Acquired: 4/7/2014 11:29:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00037**	**2.1051**	**-.00105**	**-.00138**	**-.00008**	**.00820**	**.15204**
Stddev	.00060	.0030	.00175	.00149	.00021	.00008	.53253
%RSD	161.06	.14450	166.47	108.25	253.22	.94086	350.26
#1	-.00106	2.1085	-.00076	-.00103	.00015	.00828	.76652
#2	-.00011	2.1025	-.00294	-.00009	-.00017	.00819	-.17498
#3	.00005	2.1044	.00053	-.00302	-.00023	.00813	-.13543
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18666.**	**20635.**
Stddev	185.	227.
%RSD	.99322	1.1000
#1	18457.	20832.
#2	18731.	20687.
#3	18810.	20387.

Approved: April 08, 2014

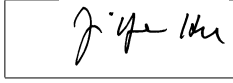
Sample Name: L1404002407 Acquired: 4/7/2014 11:33:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00005**	**.06478**	**-.00162**	**.01456**	**.01451**	**.00009**	**2.6247**	**.00020**
Stddev	.00014	.00736	.00067	.00068	.00022	.00002	.0278	.00012
%RSD	265.92	11.354	41.326	4.7033	1.5034	26.305	1.0598	63.398
#1	-.00007	.06762	-.00130	.01428	.01448	.00006	2.6543	.00028
#2	.00009	.05643	-.00239	.01407	.01474	.00011	2.6208	.00005
#3	-.00018	.07029	-.00117	.01535	.01431	.00009	2.5991	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.00028**	**.00017**	**.14493**	**.88632**	**.00140**	**1.9894**	**.01017**
Stddev	.00009	.00037	.00016	.00355	.05878	.00158	.0333	.00033
%RSD	350.41	128.43	89.553	2.4518	6.6315	112.14	1.6738	3.2009
#1	.00013	.00057	.00000	.14505	.88081	.00108	2.0182	.00988
#2	-.00003	.00042	.00029	.14842	.94765	.00002	1.9970	.01052
#3	-.00002	-.00013	.00023	.14131	.83049	.00312	1.9530	.01009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**1.1369**	**.00119**	**.01956**	**.00189**	**.00107**	**.00026**	**2.3500**
Stddev	.00025	.0193	.00035	.00364	.00155	.00169	.00134	.0032
%RSD	602.82	1.7003	29.553	18.603	82.434	158.82	508.98	.13566
#1	.00016	1.1412	.00144	.01541	.00190	.00080	.00143	2.3472
#2	.00003	1.1158	.00079	.02220	.00032	.00288	-.00120	2.3493
#3	-.00031	1.1537	.00135	.02107	.00343	-.00048	.00056	2.3535
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

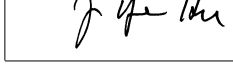


Sample Name: L1404002407 Acquired: 4/7/2014 11:33:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00028**	**.01697**	**.00237**	**-.00254**	**.00016**	**.00500**	**.35464**
Stddev	.00014	.00030	.00094	.00163	.00012	.00004	.22216
%RSD	52.315	1.7682	39.619	64.070	75.973	.85498	62.643
#1	.00041	.01732	.00233	-.00439	.00002	.00503	.58873
#2	.00012	.01676	.00333	-.00193	.00021	.00495	.14674
#3	.00030	.01684	.00145	-.00131	.00025	.00503	.32844
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19765.**	**20788.**
Stddev	13.	376.
%RSD	.06450	1.8088
#1	19756.	20533.
#2	19779.	20611.
#3	19759.	21220.

Approved: April 08, 2014



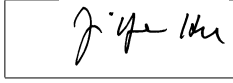
Sample Name: L1404002409 Acquired: 4/7/2014 11:36:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469613-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**.08003**	**-.00133**	**.01306**	**.01408**	**.00008**	**2.4653**	**.00013**
Stddev	.00035	.01007	.00148	.00040	.00048	.00002	.0210	.00003
%RSD	380.32	12.580	111.55	3.0596	3.4015	21.711	.85087	24.070
#1	-.00031	.09164	-.00171	.01296	.01356	.00006	2.4411	.00013
#2	.00025	.07377	.00031	.01272	.01418	.00008	2.4777	.00016
#3	.00034	.07467	-.00258	.01350	.01450	.00010	2.4771	.00010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**-.00021**	**.00076**	**.13730**	**.87928**	**.00230**	**1.8570**	**.00985**
Stddev	.00021	.00034	.00086	.00407	.03307	.00225	.0196	.00030
%RSD	473.46	162.53	112.77	2.9657	3.7611	97.898	1.0539	3.0759
#1	.00010	-.00050	.00035	.13373	.91263	.00484	1.8354	.00954
#2	.00005	-.00027	.00018	.14174	.84650	.00148	1.8621	.00987
#3	-.00028	.00016	.00175	.13644	.87871	.00057	1.8736	.01014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**1.1095**	**.00104**	**.00527**	**-.00039**	**.00219**	**-.00160**	**2.3132**
Stddev	.00014	.0278	.00056	.00158	.00081	.00109	.00241	.0245
%RSD	76.737	2.5082	53.856	30.090	208.29	49.863	150.54	1.0580
#1	-.00004	1.0850	.00139	.00345	-.00076	.00123	-.00397	2.3110
#2	-.00019	1.1398	.00039	.00595	.00054	.00338	-.00168	2.3387
#3	-.00032	1.1037	.00133	.00639	-.00094	.00196	.00085	2.2899
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

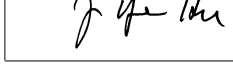


Sample Name: L1404002409 Acquired: 4/7/2014 11:36:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469613-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00027**	**.01660**	**.00229**	**-.00230**	**.00043**	**.00377**	**.40033**
Stddev	.00018	.00021	.00069	.00139	.00021	.00010	.11876
%RSD	68.118	1.2352	30.207	60.271	48.313	2.5487	29.666
#1	.00007	.01641	.00215	-.00386	.00034	.00386	.34270
#2	.00042	.01682	.00304	-.00120	.00067	.00378	.53691
#3	.00030	.01659	.00168	-.00185	.00029	.00367	.32138
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19827.**	**21068.**
Stddev	26.	405.
%RSD	.13227	1.9246
#1	19852.	21516.
#2	19799.	20963.
#3	19829.	20726.

Approved: April 08, 2014



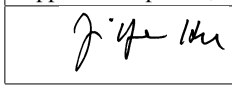
Sample Name: L1404002409S Acquired: 4/7/2014 11:40:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469613-07

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20159**	**5.0782**	**.19822**	**1.0240**	**.49681**	**.02545**	**7.4966**	**.02492**
Stddev	.00149	.0250	.00090	.0069	.00027	.00015	.0160	.00010
%RSD	.74144	.49329	.45205	.67349	.05436	.59818	.21390	.38760
#1	.20039	5.0716	.19752	1.0185	.49682	.02528	7.5043	.02481
#2	.20111	5.0571	.19923	1.0217	.49653	.02554	7.5074	.02494
#3	.20326	5.1059	.19792	1.0317	.49707	.02553	7.4782	.02500
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10351**	**.25592**	**.25519**	**2.1030**	**25.617**	**.48788**	**6.7385**	**.26244**
Stddev	.00030	.00112	.00087	.0046	.022	.00097	.0125	.00189
%RSD	.28934	.43890	.34114	.21818	.08700	.19981	.18557	.72056
#1	.10317	.25463	.25426	2.1076	25.602	.48828	6.7244	.26026
#2	.10360	.25666	.25599	2.1031	25.643	.48859	6.7480	.26364
#3	.10375	.25647	.25531	2.0984	25.607	.48677	6.7432	.26342
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50568**	**25.586**	**.25466**	**.01434**	**.25757**	**.60657**	**.20332**	**4.8513**
Stddev	.00080	.093	.00046	.00298	.00109	.00345	.00078	.0068
%RSD	.15724	.36276	.18049	20.767	.42469	.56851	.38226	.13956
#1	.50487	25.498	.25443	.01158	.25709	.60271	.20328	4.8480
#2	.50646	25.579	.25435	.01395	.25679	.60765	.20256	4.8591
#3	.50572	25.683	.25519	.01750	.25882	.60935	.20411	4.8468
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

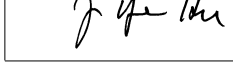


Sample Name: L1404002409S Acquired: 4/7/2014 11:40:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469613-07

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.54955**	**.52003**	**.48717**	**.26667**	**.49780**	**.51037**	**7.2935**
Stddev	.00411	.00138	.00086	.00250	.00282	.00194	.4523
%RSD	.74762	.26499	.17571	.93859	.56707	.38017	6.2013
#1	.54582	.52128	.48795	.26491	.49513	.50834	6.7848
#2	.54886	.51855	.48626	.26556	.49750	.51220	7.6501
#3	.55395	.52025	.48732	.26953	.50076	.51058	7.4458
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19196.**	**20615.**
Stddev	12.	95.
%RSD	.06285	.46087
#1	19207.	20707.
#2	19183.	20518.
#3	19197.	20621.

Approved: April 08, 2014



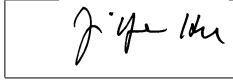
Sample Name: L1404003701 Acquired: 4/7/2014 11:43:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00015**	**.11581**	**-.00070**	**.02057**	**.04925**	**.00007**	**16.780**	**.00018**
Stddev	.00033	.01203	.00072	.00055	.00027	.00002	.074	.00004
%RSD	223.72	10.390	103.03	2.6784	.54854	23.762	.43910	20.605
#1	.00013	.12285	-.00084	.02065	.04896	.00007	16.702	.00015
#2	-.00051	.12267	-.00135	.02107	.04950	.00008	16.791	.00016
#3	-.00006	.10192	.00008	.01998	.04928	.00005	16.848	.00022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00034**	**-.00005**	**.00092**	**.13966**	**1.3241**	**.02320**	**7.1662**	**.03250**
Stddev	.00019	.00031	.00079	.00538	.0230	.00041	.1305	.00056
%RSD	56.649	598.08	85.989	3.8547	1.7375	1.7779	1.8209	1.7093
#1	.00056	-.00041	.00005	.13379	1.3233	.02339	7.0172	.03186
#2	.00022	.00014	.00111	.14083	1.3016	.02273	7.2599	.03290
#3	.00024	.00011	.00159	.14436	1.3476	.02348	7.2216	.03272
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**29.194**	**.00201**	**.01248**	**-.00057**	**.00263**	**-.00144**	**2.6006**
Stddev	.00007	.089	.00022	.00147	.00191	.00111	.00014	.0202
%RSD	45.147	.30614	11.063	11.762	338.25	42.248	9.6037	.77628
#1	.00008	29.132	.00200	.01081	-.00129	.00306	-.00152	2.5780
#2	.00023	29.296	.00179	.01356	.00160	.00137	-.00128	2.6071
#3	.00018	29.153	.00223	.01307	-.00201	.00346	-.00153	2.6168
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404003701 Acquired: 4/7/2014 11:43:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**.28144**	**-.00038**	**-.00261**	**.00027**	**.00407**	**.13286**
Stddev	.00014	.00145	.00079	.00095	.00016	.00010	.11718
%RSD	1684.4	.51638	206.80	36.319	60.725	2.4735	88.201
#1	-.00005	.27989	-.00095	-.00351	.00023	.00395	.04824
#2	-.00012	.28167	.00052	-.00162	.00013	.00413	.08373
#3	.00015	.28277	-.00072	-.00269	.00045	.00412	.26661
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19262.**	**20417.**
Stddev	90.	194.
%RSD	.46954	.94935
#1	19366.	20637.
#2	19217.	20345.
#3	19202.	20270.

Approved: April 08, 2014

Sample Name: L1404003703 Acquired: 4/7/2014 11:47:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00027**	**.10321**	**.00026**	**.01848**	**.05046**	**.00008**	**17.392**	**.00020**
Stddev	.00015	.00135	.00139	.00029	.00048	.00001	.011	.00009
%RSD	55.567	1.3038	532.90	1.5797	.94923	16.903	.06376	45.782
#1	-.00038	.10351	-.00042	.01854	.04994	.00008	17.381	.00024
#2	-.00033	.10438	.00186	.01816	.05055	.00007	17.403	.00009
#3	-.00010	.10174	-.00066	.01873	.05089	.00009	17.392	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00060**	**.00034**	**.00089**	**.13560**	**1.3477**	**.02415**	**7.3546**	**.03464**
Stddev	.00018	.00019	.00025	.00176	.0268	.00171	.0373	.00082
%RSD	30.612	56.953	28.583	1.2994	1.9864	7.0825	.50746	2.3783
#1	.00077	.00014	.00109	.13357	1.3494	.02357	7.3280	.03414
#2	.00064	.00035	.00097	.13658	1.3736	.02281	7.3386	.03419
#3	.00040	.00052	.00060	.13666	1.3201	.02607	7.3973	.03559
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00009**	**29.667**	**.00248**	**.00831**	**-.00092**	**.00212**	**.00191**	**2.6457**
Stddev	.00013	.071	.00063	.00543	.00126	.00121	.00020	.0484
%RSD	139.88	.23866	25.530	65.331	136.95	57.167	10.529	1.8280
#1	.00004	29.613	.00238	.00207	-.00116	.00082	.00211	2.6876
#2	-.00021	29.747	.00191	.01095	-.00204	.00322	.00171	2.6566
#3	-.00010	29.641	.00316	.01192	.00044	.00231	.00190	2.5928
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

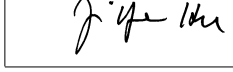
Approved: April 08, 2014

Sample Name: L1404003703 Acquired: 4/7/2014 11:47:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**.28963**	**.00006**	**-.00302**	**-.00005**	**.00480**	**.01602**
Stddev	.00046	.00116	.00099	.00148	.00007	.00005	.38437
%RSD	775.32	.40166	1657.1	48.946	139.37	1.1205	2398.9
#1	.00025	.29029	-.00073	-.00382	.00002	.00478	-.42002
#2	.00016	.29030	-.00026	-.00392	-.00012	.00486	.30575
#3	-.00059	.28828	.00118	-.00131	-.00005	.00476	.16234
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19279.**	**20586.**
Stddev	129.	652.
%RSD	.67008	3.1685
#1	19373.	21165.
#2	19333.	20713.
#3	19132.	19879.

Approved: April 08, 2014



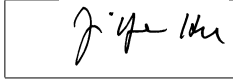
Sample Name: L1404004002 Acquired: 4/7/2014 11:50:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00043**	**.09971**	**-.00099**	**.01661**	**.04817**	**.00007**	**16.606**	**.00013**
Stddev	.00052	.00324	.00052	.00033	.00020	.00001	.022	.00012
%RSD	122.81	3.2494	53.084	1.9917	.40565	15.803	.13470	91.076
#1	-.00082	.10338	-.00074	.01678	.04794	.00008	16.592	.00000
#2	.00017	.09725	-.00159	.01682	.04831	.00006	16.632	.00025
#3	-.00062	.09850	-.00063	.01623	.04824	.00007	16.594	.00015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00043**	**.00018**	**.00126**	**.14190**	**1.2512**	**.02243**	**6.9667**	**.03271**
Stddev	.00024	.00013	.00032	.00155	.0777	.00072	.0708	.00080
%RSD	55.242	72.280	25.598	1.0921	6.2103	3.1992	1.0163	2.4551
#1	.00064	.00003	.00157	.14163	1.1629	.02279	6.8858	.03182
#2	.00050	.00025	.00130	.14051	1.2817	.02291	6.9975	.03337
#3	.00017	.00025	.00093	.14357	1.3091	.02161	7.0170	.03294
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00009**	**28.299**	**.00262**	**.00742**	**-.00166**	**.00125**	**-.00209**	**2.5406**
Stddev	.00013	.158	.00019	.00328	.00202	.00150	.00155	.0305
%RSD	142.58	.55830	7.1291	44.176	121.50	120.39	74.333	1.2011
#1	-.00006	28.223	.00251	.00440	-.00096	.00038	-.00386	2.5444
#2	.00002	28.481	.00251	.00694	-.00009	.00298	-.00139	2.5084
#3	-.00024	28.193	.00283	.01090	-.00394	.00039	-.00100	2.5690
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

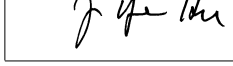


Sample Name: L1404004002 Acquired: 4/7/2014 11:50:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00016**	**.27619**	**.00050**	**.00071**	**.00003**	**.00473**	**.07269**
Stddev	.00064	.00065	.00176	.00152	.00037	.00001	.20803
%RSD	397.02	.23511	353.41	215.87	1275.1	.30633	286.19
#1	-.00050	.27682	-.00080	-.00033	-.00017	.00473	.19093
#2	.00078	.27623	.00250	.00246	.00046	.00471	-.16751
#3	.00021	.27552	-.00021	-.00001	-.00020	.00474	.19465
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19263.**	**20995.**
Stddev	161.	271.
%RSD	.83458	1.2929
#1	19219.	21299.
#2	19130.	20910.
#3	19442.	20776.

Approved: April 08, 2014



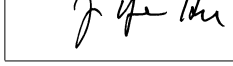
Sample Name: CCV Acquired: 4/7/2014 11:54:25 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.39447**	**9.8801**	**.39765**	**.50197**	**.96340**	**.04972**	**9.8232**	**.04979**
Stddev	.00230	.0143	.00070	.00225	.00639	.00017	.0251	.00002
%RSD	.58348	.14511	.17618	.44859	.66287	.35172	.25516	.04480
#1	.39204	9.8639	.39715	.49996	.96896	.04954	9.8501	.04977
#2	.39662	9.8855	.39845	.50441	.95642	.04988	9.8004	.04980
#3	.39473	9.8910	.39735	.50154	.96481	.04973	9.8191	.04981
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20112**	**.49660**	**.49962**	**3.8878**	**49.230**	**.96901**	**9.8089**	**.50224**
Stddev	.00038	.00254	.00006	.0190	.169	.00433	.0795	.01008
%RSD	.18799	.51176	.01224	.48753	.34378	.44647	.81002	2.0061
#1	.20142	.49378	.49965	3.8978	49.420	.97357	9.7298	.49102
#2	.20070	.49873	.49955	3.8659	49.094	.96496	9.8082	.50517
#3	.20124	.49728	.49966	3.8996	49.177	.96852	9.8887	.51052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.98401**	**48.799**	**.49703**	**9.9114**	**.49947**	**1.1986**	**.41065**	**4.9475**
Stddev	.00093	.298	.00092	.0570	.00173	.0027	.00438	.0065
%RSD	.09414	.60983	.18468	.57559	.34717	.22749	1.0677	.13195
#1	.98319	49.019	.49723	9.9761	.49763	1.1962	.40948	4.9434
#2	.98384	48.461	.49603	9.8683	.49972	1.2015	.40697	4.9440
#3	.98502	48.919	.49783	9.8898	.50107	1.1981	.41550	4.9550
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Approved: April 08, 2014



Sample Name: CCV Acquired: 4/7/2014 11:54:25 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0098**	**.98791**	**.96828**	**.51570**	**.97206**	**.98981**	**.90270**
Stddev	.0031	.00337	.00219	.00309	.00357	.00120	.53168
%RSD	.30720	.34122	.22620	.60002	.36717	.12105	58.899
#1	1.0121	.99104	.97016	.51402	.96804	.99062	1.4643
#2	1.0111	.98836	.96587	.51927	.97485	.98843	.83661
#3	1.0063	.98434	.96880	.51381	.97330	.99037	.40716
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19553.**	**20591.**
Stddev	36.	364.
%RSD	.18290	1.7663
#1	19573.	20978.
#2	19574.	20538.
#3	19512.	20257.

Approved: April 08, 2014

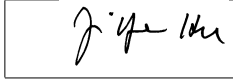
Sample Name: CCB Acquired: 4/7/2014 11:57:41 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00037**	**.02072**	**.00030**	**.00684**	**.00011**	**.00004**	**.00983**	**.00003**
Stddev	.00011	.00641	.00114	.00075	.00017	.00003	.00255	.00008
%RSD	30.819	30.923	372.82	10.901	152.41	89.338	25.913	238.55
#1	-.00042	.02271	-.00093	.00769	.00015	.00000	.00996	.00011
#2	-.00045	.02589	.00053	.00637	-.00008	.00007	.01231	.00003
#3	-.00024	.01355	.00131	.00644	.00027	.00004	.00722	-.00005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**.00016**	**.00012**	**.00384**	**-.03760**	**.00211**	**-.01303**	**.00003**
Stddev	.00003	.00023	.00069	.00285	.03274	.00148	.00401	.00006
%RSD	42.715	146.39	558.86	74.359	87.074	70.393	30.747	222.95
#1	.00009	.00043	.00061	.00194	-.07506	.00382	-.01456	.00001
#2	.00004	.00002	.00044	.00245	-.01445	.00123	-.01606	-.00003
#3	.00007	.00003	-.00067	.00712	-.02330	.00127	-.00849	.00009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00001**	**.05681**	**.00010**	**.00197**	**.00065**	**-.00124**	**-.00180**	**-.00820**
Stddev	.00010	.00942	.00078	.00558	.00135	.00136	.00219	.00082
%RSD	1653.5	16.574	751.75	282.92	209.35	109.61	121.47	9.9787
#1	-.00011	.05441	.00092	.00819	.00028	-.00281	-.00063	-.00843
#2	.00007	.04883	.00002	-.00262	.00214	-.00042	-.00432	-.00888
#3	.00005	.06720	-.00063	.00036	-.00049	-.00050	-.00045	-.00729
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: CCB Acquired: 4/7/2014 11:57:41 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00042**	**.00005**	**-.00070**	**-.00037**	**.00025**	**-.00008**	**.05364**
Stddev	.00029	.00016	.00040	.00169	.00017	.00010	.13157
%RSD	69.168	348.32	57.525	457.99	68.620	122.99	245.25
#1	-.00011	.00010	-.00116	-.00072	.00041	.00003	.18639
#2	-.00068	.00016	-.00058	.00147	.00026	-.00014	-.07671
#3	-.00046	-.00013	-.00038	-.00185	.00007	-.00013	.05126
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19484.**	**21136.**
Stddev	143.	61.
%RSD	.73426	.28803
#1	19319.	21205.
#2	19574.	21092.
#3	19559.	21110.

Approved: April 08, 2014

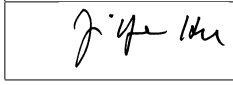
Sample Name: L1404004008 Acquired: 4/7/2014 12:01:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00007**	**.05418**	**.00043**	**.00913**	**.02234**	**.00006**	**3.5491**	**.00011**
Stddev	.00028	.01073	.00182	.00022	.00042	.00001	.0117	.00010
%RSD	374.15	19.811	426.64	2.4213	1.8645	11.424	.33025	90.282
#1	-.00002	.06399	.00237	.00890	.02203	.00005	3.5587	.00000
#2	-.00038	.04271	-.00125	.00934	.02281	.00006	3.5526	.00013
#3	.00017	.05583	.00016	.00915	.02217	.00007	3.5360	.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00016**	**-.00010**	**.00067**	**.09716**	**.73014**	**.00098**	**1.2693**	**.00493**
Stddev	.00038	.00007	.00033	.00484	.01487	.00205	.0090	.00013
%RSD	240.06	69.740	50.153	4.9851	2.0370	208.58	.70576	2.6325
#1	-.00028	-.00007	.00103	.09517	.74503	.00001	1.2633	.00478
#2	.00032	-.00005	.00059	.09362	.73009	-.00040	1.2796	.00498
#3	.00043	-.00017	.00038	.10268	.71529	.00334	1.2650	.00503
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00012**	**9.9675**	**.00056**	**.00450**	**-.00055**	**.00085**	**-.00060**	**1.6362**
Stddev	.00003	.0668	.00063	.00377	.00100	.00140	.00309	.0104
%RSD	26.603	.67061	112.47	83.764	181.89	166.06	515.83	.63898
#1	-.00013	9.8965	.00040	.00067	-.00106	.00079	-.00042	1.6287
#2	-.00009	9.9766	.00125	.00462	-.00118	.00228	.00240	1.6481
#3	-.00015	10.029	.00002	.00820	.00060	-.00053	-.00378	1.6317
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404004008 Acquired: 4/7/2014 12:01:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**.02721**	**.00134**	**-.00245**	**.00005**	**.00278**	**.28262**
Stddev	.00015	.00040	.00049	.00093	.00006	.00011	.67382
%RSD	86.462	1.4778	36.638	37.867	111.17	3.8598	238.42
#1	.00016	.02730	.00185	-.00325	-.00002	.00280	1.0509
#2	.00033	.02756	.00088	-.00265	.00009	.00288	.00508
#3	.00003	.02677	.00128	-.00144	.00008	.00267	-.20810
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19484.**	**20527.**
Stddev	146.	184.
%RSD	.74924	.89407
#1	19317.	20739.
#2	19588.	20430.
#3	19546.	20413.

Approved: April 08, 2014

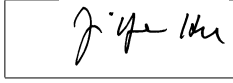
Sample Name: L1404004010 Acquired: 4/7/2014 12:04:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00020**	**.08882**	**.00072**	**.01473**	**.04716**	**.00010**	**16.353**	**.00021**
Stddev	.00035	.02704	.00031	.00065	.00059	.00002	.128	.00004
%RSD	172.52	30.446	43.279	4.4175	1.2458	18.882	.78443	20.118
#1	-.00023	.08153	.00107	.01398	.04649	.00009	16.216	.00016
#2	-.00053	.06617	.00060	.01520	.04743	.00008	16.373	.00023
#3	.00016	.11875	.00048	.01499	.04758	.00011	16.470	.00023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00035**	**.00022**	**.00065**	**.13283**	**1.2695**	**.02161**	**6.8172**	**.03087**
Stddev	.00021	.00022	.00021	.00381	.0137	.00205	.0727	.00134
%RSD	60.294	100.67	32.619	2.8648	1.0752	9.4666	1.0657	4.3566
#1	.00051	.00044	.00079	.13409	1.2769	.02397	6.7338	.02933
#2	.00011	.00020	.00040	.13584	1.2537	.02052	6.8665	.03146
#3	.00044	.00001	.00074	.12855	1.2778	.02034	6.8514	.03181
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**28.705**	**.00220**	**.00121**	**.00124**	**.00095**	**-.00140**	**2.5197**
Stddev	.00013	.162	.00056	.00300	.00127	.00204	.00249	.0242
%RSD	105.30	.56407	25.234	248.70	101.96	214.48	177.43	.96178
#1	-.00003	28.519	.00239	.00317	.00219	.00321	.00144	2.5260
#2	.00020	28.783	.00158	.00269	-.00020	.00042	-.00322	2.4930
#3	.00021	28.813	.00264	-.00225	.00174	-.00077	-.00243	2.5402
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

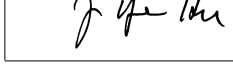


Sample Name: L1404004010 Acquired: 4/7/2014 12:04:54 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00014**	**.27162**	**.00137**	**-.00077**	**.00032**	**.00425**	**.02299**
Stddev	.00017	.00223	.00084	.00135	.00015	.00013	.62562
%RSD	122.77	.82072	61.341	175.73	46.003	3.0604	2720.9
#1	.00000	.26934	.00078	-.00215	.00022	.00416	-.60755
#2	-.00032	.27173	.00233	.00055	.00049	.00418	.64357
#3	-.00008	.27380	.00100	-.00070	.00025	.00440	.03297
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19522.**	**20814.**
Stddev	43.	482.
%RSD	.22194	2.3176
#1	19537.	21327.
#2	19557.	20746.
#3	19474.	20370.

Approved: April 08, 2014



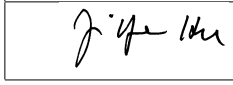
Sample Name: L1404004012 Acquired: 4/7/2014 12:08:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00047**	**.10761**	**-.00014**	**.01580**	**.04866**	**.00010**	**16.709**	**.00021**
Stddev	.00033	.00341	.00113	.00041	.00042	.00003	.066	.00012
%RSD	71.213	3.1718	804.18	2.5673	.85451	29.616	.39276	55.095
#1	-.00037	.10600	-.00116	.01618	.04914	.00008	16.766	.00016
#2	-.00020	.10529	-.00034	.01537	.04849	.00009	16.725	.00034
#3	-.00084	.11153	.00108	.01585	.04836	.00013	16.637	.00013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00035**	**.00004**	**.00072**	**.14776**	**1.3063**	**.02326**	**7.0132**	**.03155**
Stddev	.00028	.00027	.00072	.00476	.0437	.00080	.0886	.00005
%RSD	78.215	618.09	99.818	3.2227	3.3457	3.4554	1.2637	.17364
#1	.00016	-.00025	.00127	.15033	1.3190	.02310	7.0865	.03149
#2	.00023	.00009	.00098	.15070	1.2577	.02413	7.0384	.03160
#3	.00067	.00029	-.00009	.14227	1.3423	.02255	6.9147	.03154
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**28.726**	**.00273**	**.00751**	**.00083**	**.00123**	**.00137**	**2.6288**
Stddev	.00011	.123	.00058	.00138	.00153	.00165	.00059	.0053
%RSD	683.53	.42955	21.418	18.425	185.30	134.58	43.254	.20367
#1	-.00001	28.868	.00340	.00734	-.00061	.00311	.00077	2.6350
#2	-.00013	28.646	.00233	.00896	.00065	.00007	.00196	2.6260
#3	.00009	28.664	.00245	.00621	.00243	.00049	.00140	2.6255
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

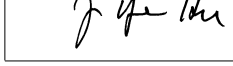


Sample Name: L1404004012 Acquired: 4/7/2014 12:08:26 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**.28141**	**.00029**	**-.00155**	**.00009**	**.00467**	**.27727**
Stddev	.00015	.00136	.00072	.00148	.00031	.00003	.73552
%RSD	354.49	.48444	247.27	95.161	339.14	.62774	265.27
#1	-.00002	.28253	.00106	.00006	.00036	.00466	-.32054
#2	-.00007	.28181	.00016	-.00187	.00017	.00464	.05372
#3	.00022	.27989	-.00035	-.00285	-.00025	.00470	1.0986
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19256.**	**21165.**
Stddev	163.	57.
%RSD	.84628	.27156
#1	19220.	21194.
#2	19433.	21201.
#3	19114.	21098.

Approved: April 08, 2014



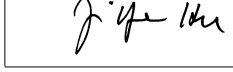
Sample Name: L1404004014 Acquired: 4/7/2014 12:11:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.02575**	**.00079**	**.00779**	**.02230**	**.00006**	**3.5107**	**.00008**
Stddev	.00027	.00649	.00088	.00072	.00054	.00001	.0244	.00006
%RSD	885.24	25.221	111.90	9.3020	2.4029	22.719	.69586	71.597
#1	.00003	.02835	.00027	.00830	.02221	.00006	3.5049	.00003
#2	-.00024	.01836	.00029	.00696	.02287	.00007	3.5375	.00014
#3	.00030	.03055	.00180	.00812	.02181	.00004	3.4897	.00006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**-.00002**	**.00044**	**.09496**	**.79082**	**.00293**	**1.2606**	**.00536**
Stddev	.00013	.00021	.00043	.00408	.06528	.00194	.0240	.00021
%RSD	165.40	968.42	98.697	4.2968	8.2549	66.099	1.9004	3.8420
#1	.00006	.00021	.00054	.09235	.80300	.00069	1.2331	.00540
#2	.00022	-.00008	-.00004	.09967	.72031	.00399	1.2771	.00553
#3	-.00004	-.00020	.00082	.09287	.84916	.00410	1.2717	.00513
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00009**	**10.065**	**.00022**	**.00468**	**.00091**	**.00160**	**-.00021**	**1.6498**
Stddev	.00023	.144	.00050	.00162	.00232	.00059	.00106	.0088
%RSD	263.80	1.4344	226.22	34.513	254.88	37.013	512.88	.53129
#1	-.00015	9.9961	.00013	.00309	-.00170	.00226	-.00143	1.6551
#2	.00017	10.231	.00076	.00632	.00171	.00112	.00037	1.6545
#3	-.00027	9.9673	-.00023	.00464	.00272	.00142	.00044	1.6396
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404004014 Acquired: 4/7/2014 12:11:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00013**	**.02510**	**.00159**	**-.00194**	**.00018**	**.00441**	**.44906**
Stddev	.00024	.00016	.00077	.00251	.00021	.00015	.21825
%RSD	185.63	.65518	48.339	129.09	119.34	3.4401	48.601
#1	.00002	.02528	.00141	-.00110	.00030	.00449	.40695
#2	.00000	.02499	.00092	.00003	.00031	.00424	.68530
#3	-.00041	.02501	.00243	-.00477	-.00007	.00451	.25494
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19704.**	**20974.**
Stddev	34.	676.
%RSD	.17325	3.2234
#1	19674.	21138.
#2	19698.	20231.
#3	19741.	21554.

Approved: April 08, 2014

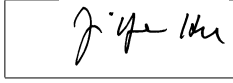
Sample Name: L1404004016 Acquired: 4/7/2014 12:15:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00005**	**.07329**	**-.00048**	**.01324**	**.04711**	**.00007**	**16.578**	**.00020**
Stddev	.00011	.00981	.00098	.00067	.00032	.00002	.082	.00003
%RSD	249.65	13.387	202.22	5.0878	.68667	30.365	.49563	14.668
#1	.00006	.08182	-.00139	.01378	.04688	.00006	16.484	.00020
#2	-.00002	.06257	-.00061	.01346	.04698	.00006	16.615	.00018
#3	-.00017	.07547	.00055	.01249	.04748	.00009	16.635	.00023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00037**	**.00006**	**.00049**	**.13909**	**1.2723**	**.02164**	**6.8313**	**.03158**
Stddev	.00019	.00017	.00023	.00050	.0200	.00046	.0503	.00015
%RSD	51.305	305.98	46.127	.35700	1.5713	2.1054	.73623	.46955
#1	.00058	-.00013	.00060	.13964	1.2698	.02126	6.7956	.03141
#2	.00021	.00021	.00064	.13867	1.2536	.02150	6.8095	.03161
#3	.00033	.00009	.00023	.13896	1.2934	.02214	6.8888	.03170
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**27.807**	**.00287**	**.00840**	**-.00045**	**.00071**	**.00051**	**2.5444**
Stddev	.00013	.233	.00009	.00437	.00195	.00176	.00133	.0271
%RSD	2467.8	.83823	3.1637	52.055	432.70	249.18	262.02	1.0636
#1	.00004	27.581	.00288	.01061	.00059	.00138	-.00095	2.5174
#2	-.00015	27.795	.00296	.01122	.00076	.00204	.00164	2.5716
#3	.00010	28.047	.00278	.00336	-.00270	-.00129	.00083	2.5442
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

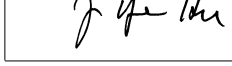


Sample Name: L1404004016 Acquired: 4/7/2014 12:15:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.27564**	**.00080**	**-.00191**	**.00026**	**.00609**	**.50243**
Stddev	.00022	.00203	.00034	.00036	.00025	.00003	.48997
%RSD	223.70	.73546	41.831	18.970	95.417	.50706	97.521
#1	.00031	.27334	.00064	-.00167	.00055	.00610	1.0156
#2	-.00013	.27642	.00058	-.00174	.00012	.00611	.03952
#3	.00012	.27716	.00119	-.00233	.00012	.00605	.45218
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19591.**	**21416.**
Stddev	12.	59.
%RSD	.06081	.27702
#1	19578.	21450.
#2	19594.	21348.
#3	19601.	21451.

Approved: April 08, 2014



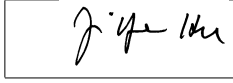
Sample Name: L1404004018 Acquired: 4/7/2014 12:19:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00030**	**.10412**	**-.00029**	**.01383**	**.04868**	**.00007**	**16.826**	**.00018**
Stddev	.00038	.03303	.00096	.00042	.00023	.00003	.069	.00006
%RSD	124.69	31.726	324.62	3.0493	.47905	45.908	.41120	30.234
#1	-.00034	.06638	-.00137	.01337	.04849	.00004	16.746	.00015
#2	.00009	.12780	.00001	.01421	.04894	.00011	16.866	.00016
#3	-.00066	.11816	.00047	.01390	.04861	.00007	16.866	.00025
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00048**	**.00006**	**.00096**	**.13987**	**1.3152**	**.02279**	**7.0082**	**.03319**
Stddev	.00027	.00025	.00017	.00066	.0440	.00223	.0959	.00056
%RSD	55.737	396.86	17.882	.47215	3.3419	9.7892	1.3688	1.6932
#1	.00078	.00024	.00078	.13911	1.2645	.02099	6.8974	.03255
#2	.00027	.00017	.00112	.14017	1.3387	.02528	7.0620	.03360
#3	.00038	-.00022	.00096	.14033	1.3425	.02209	7.0652	.03343
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**28.430**	**.00266**	**.00687**	**-.00047**	**.00115**	**.00139**	**2.5874**
Stddev	.00019	.194	.00077	.00222	.00035	.00052	.00247	.0053
%RSD	650.38	.68235	28.965	32.393	75.264	45.316	178.00	.20657
#1	.00024	28.212	.00273	.00434	-.00007	.00105	.00132	2.5839
#2	-.00002	28.496	.00340	.00852	-.00061	.00068	-.00105	2.5847
#3	-.00013	28.583	.00186	.00775	-.00073	.00171	.00389	2.5935
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

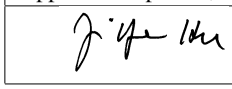


Sample Name: L1404004018 Acquired: 4/7/2014 12:19:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00039**	**.27941**	**.00083**	**-.00178**	**.00008**	**.00501**	**.41202**
Stddev	.00036	.00112	.00016	.00152	.00040	.00003	.38600
%RSD	91.762	.40181	19.453	85.375	511.32	.56398	93.686
#1	-.00079	.27812	.00073	-.00129	.00029	.00499	.70253
#2	-.00009	.28001	.00101	-.00348	.00033	.00504	-.02598
#3	-.00030	.28011	.00073	-.00056	-.00038	.00499	.55950
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19464.**	**21200.**
Stddev	39.	64.
%RSD	.20105	.30325
#1	19509.	21163.
#2	19445.	21164.
#3	19437.	21275.

Approved: April 08, 2014



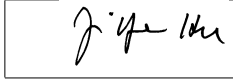
Sample Name: CCV Acquired: 4/7/2014 12:22:41 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40685**	**10.040**	**.40602**	**.51622**	**.99104**	**.05097**	**10.018**
Stddev	.00348	.017	.00242	.00267	.00342	.00036	.010
%RSD	.85542	.17277	.59573	.51629	.34483	.70234	.09873
#1	.41083	10.022	.40627	.51816	.99161	.05135	10.015
#2	.40437	10.056	.40830	.51318	.98737	.05065	10.010
#3	.40535	10.042	.40348	.51731	.99414	.05090	10.029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05073**	**.20534**	**.50903**	**.50905**	**3.9877**	**50.155**	**.99251**
Stddev	.00002	.00014	.00484	.00060	.0122	.142	.00371
%RSD	.04826	.06764	.95027	.11864	.30578	.28317	.37409
#1	.05072	.20522	.51294	.50854	3.9782	50.186	.99150
#2	.05071	.20549	.50362	.50971	3.9835	50.000	.98941
#3	.05076	.20531	.51052	.50889	4.0015	50.279	.99663
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.9864**	**.49887**	**1.0056**	**50.076**	**.50889**	**10.085**	**.50881**
Stddev	.0680	.00328	.0016	.297	.00069	.005	.00061
%RSD	.68074	.65810	.16043	.59283	.13628	.05032	.11952
#1	9.9319	.49570	1.0038	50.058	.50822	10.081	.50895
#2	9.9647	.49865	1.0061	49.788	.50960	10.090	.50933
#3	10.063	.50226	1.0069	50.381	.50884	10.083	.50814
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 08, 2014



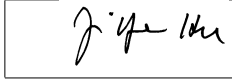
Sample Name: CCV Acquired: 4/7/2014 12:22:41 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2178**	**.41792**	**5.0289**	**1.0317**	**1.0087**	**.98884**	**.52627**
Stddev	.0029	.00219	.0175	.0050	.0031	.00119	.00302
%RSD	.24228	.52494	.34879	.48716	.30554	.12059	.57363
#1	1.2146	.41748	5.0111	1.0339	1.0107	.98968	.52841
#2	1.2203	.41598	5.0462	1.0260	1.0051	.98747	.52282
#3	1.2187	.42030	5.0295	1.0353	1.0103	.98936	.52758
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0071**	**1.0167**	F **.60742**
Stddev	.0092	.0046	.15411
%RSD	.91445	.45237	25.372
#1	1.0170	1.0219	.68384
#2	.99881	1.0130	.70839
#3	1.0054	1.0152	.43003
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18974.**	**20839.**
Stddev	159.	153.
%RSD	.84018	.73625
#1	18808.	20993.
#2	19125.	20836.
#3	18989.	20686.

Approved: April 08, 2014



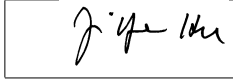
Sample Name: CCB Acquired: 4/7/2014 12:25:56 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00028**	**.00393**	**-.00046**	**.00565**	**-.00007**	**.00004**	**.00477**	**-.00004**
Stddev	.00007	.01729	.00057	.00075	.00016	.00004	.01223	.00005
%RSD	24.958	440.05	124.33	13.290	223.01	93.505	256.65	109.11
#1	-.00029	.02204	-.00111	.00645	-.00022	.00003	.01516	.00000
#2	-.00020	-.01239	-.00007	.00553	-.00007	.00008	.00785	-.00009
#3	-.00034	.00214	-.00019	.00496	.00009	.00001	-.00871	-.00004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00010**	**-.00021**	**.00007**	**-.00299**	**-.03808**	**.00223**	**-.01184**	**.00006**
Stddev	.00032	.00015	.00007	.00140	.02521	.00117	.01173	.00002
%RSD	325.62	68.216	101.38	46.765	66.216	52.571	99.019	38.474
#1	-.00028	-.00038	.00015	-.00461	-.04568	.00342	-.02538	.00004
#2	.00027	-.00015	.00003	-.00221	-.05861	.00220	-.00513	.00006
#3	-.00028	-.00011	.00003	-.00216	-.00994	.00107	-.00502	.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**.04064**	**.00064**	**.00484**	**-.00072**	**.00093**	**-.00159**	**-.00860**
Stddev	.00014	.01851	.00023	.00383	.00110	.00235	.00098	.00094
%RSD	199.47	45.556	35.588	79.162	153.30	252.70	61.688	10.943
#1	.00012	.02710	.00066	.00919	.00025	-.00159	-.00075	-.00798
#2	.00017	.03307	.00040	.00201	-.00049	.00304	-.00134	-.00968
#3	-.00009	.06173	.00086	.00330	-.00192	.00134	-.00266	-.00813
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: CCB Acquired: 4/7/2014 12:25:56 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**-.00003**	**.00028**	**-.00007**	**-.00029**	**.00000**	**.04227**
Stddev	.00018	.00003	.00061	.00134	.00008	.0001	.24840
%RSD	135.85	105.79	217.11	1991.1	25.935	1918.7	587.66
#1	.00001	-.00003	.00095	.00047	-.00038	-.00007	-.22551
#2	.00005	-.00005	-.00024	.00092	-.00028	-.00005	.26515
#3	.00034	.00000	.00013	-.00159	-.00023	.00010	.08717
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19251.**	**20851.**
Stddev	25.	33.
%RSD	.12918	.16055
#1	19235.	20866.
#2	19279.	20813.
#3	19238.	20875.

Approved: April 08, 2014

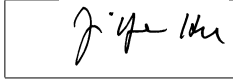
Sample Name: PBW 50 Acquired: 4/7/2014 12:29:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470004-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00049**	**.01138**	**-.00001**	**.00305**	**.00049**	**.00003**	**-.01117**	**-.00013**
Stddev	.00022	.02711	.00034	.00057	.00044	.00005	.00694	.00008
%RSD	44.985	238.27	4347.7	18.566	90.630	138.36	62.146	60.188
#1	-.00038	.04019	.00036	.00240	.00063	.00003	-.01914	-.00016
#2	-.00035	.00756	-.00007	.00329	.00083	-.00001	-.00791	-.00019
#3	-.00075	-.01362	-.00031	.00346	-.00001	.00008	-.00645	-.00004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00037**	**.00000**	**-.00027**	**.00467**	**-.08636**	**.00081**	**-.01476**	**.00005**
Stddev	.00013	.00018	.00010	.00298	.05012	.00083	.01957	.00004
%RSD	35.571	4204.9	36.838	63.734	58.033	102.90	132.56	78.642
#1	.00028	.00009	-.00032	.00578	-.06998	.00056	-.02718	.00001
#2	.00031	.00013	-.00015	.00693	-.04648	.00013	.00780	.00005
#3	.00052	-.00021	-.00033	.00130	-.14262	.00174	-.02491	.00008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**.00991**	**.00017**	**.00506**	**-.00036**	**-.00071**	**-.00194**	**-.00642**
Stddev	.00016	.00180	.00089	.00252	.00070	.00134	.00076	.00032
%RSD	84.607	18.144	506.94	49.801	192.02	188.05	39.291	4.9963
#1	-.00035	.01142	.00079	.00698	.00008	.00076	-.00123	-.00637
#2	-.00003	.01038	.00057	.00221	.00000	-.00103	-.00184	-.00676
#3	-.00020	.00792	-.00084	.00599	-.00117	-.00187	-.00275	-.00613
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: PBW 50 Acquired: 4/7/2014 12:29:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470004-03

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00046**	**.00002**	**-.00059**	**.00083**	**.00010**	**-.00007**	**.59032**
Stddev	.00015	.00006	.00089	.00145	.00025	.00007	.33493
%RSD	32.816	305.06	152.34	174.28	263.94	100.84	56.737
#1	-.00043	.00001	-.00158	-.00037	-.00006	-.00006	.32747
#2	-.00062	.00008	-.00033	.00244	-.00004	-.00015	.47606
#3	-.00032	-.00003	.00015	.00042	.00039	-.00001	.96744
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19398.**	**20959.**
Stddev	96.	31.
%RSD	.49486	.14716
#1	19370.	20981.
#2	19505.	20973.
#3	19319.	20924.

Approved: April 08, 2014

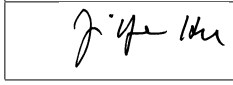
Sample Name: F BLANK Acquired: 4/7/2014 12:33:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470004-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**.00522**	**.00021**	**.00263**	**.00049**	**.00006**	**.01331**	**.00023**
Stddev	.00073	.00387	.00102	.00099	.00011	.00000	.01243	.00029
%RSD	412.75	74.053	477.59	37.517	21.860	4.0948	93.371	125.39
#1	-.00102	.00932	-.00011	.00363	.00059	.00007	.02527	.00057
#2	.00026	.00473	.00136	.00263	.00038	.00006	.01421	.00001
#3	.00023	.00163	-.00060	.00165	.00048	.00006	.00046	.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**-.00012**	**-.00017**	**.00518**	**-.08722**	**.00203**	**-.00888**	**.00014**
Stddev	.00015	.00031	.00034	.00451	.02003	.00046	.00531	.00002
%RSD	113.43	259.41	194.85	87.059	22.963	22.617	59.761	12.321
#1	.00030	-.00016	.00016	.00048	-.09187	.00166	-.01068	.00016
#2	.00001	.00021	-.00017	.00558	-.10452	.00255	-.00291	.00013
#3	.00008	-.00041	-.00051	.00947	-.06528	.00189	-.01306	.00014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.05330**	**.00065**	**.00158**	**.00025**	**.00166**	**-.00050**	**-.00526**
Stddev	.00006	.00670	.00040	.00305	.00106	.00142	.00263	.00160
%RSD	150.09	12.579	62.155	192.79	421.13	85.454	525.12	30.330
#1	-.00003	.04558	.00034	-.00010	-.00082	.00326	.00030	-.00481
#2	-.00010	.05765	.00111	-.00026	.00027	.00053	-.00344	-.00704
#3	.00002	.05668	.00051	.00511	.00129	.00120	.00163	-.00394
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: F BLANK Acquired: 4/7/2014 12:33:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470004-05

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**-.00009**	**-.00030**	**-.00124**	**.00022**	**.00188**	**.19911**
Stddev	.00001	.00004	.00061	.00053	.00044	.00003	.20237
%RSD	25.580	46.677	203.95	42.669	202.24	1.3601	101.64
#1	-.00004	-.00005	.00040	-.00120	-.00026	.00190	.27873
#2	-.00004	-.00013	-.00076	-.00178	.00031	.00185	-.03097
#3	-.00006	-.00010	-.00054	-.00073	.00059	.00187	.34956
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19456.**	**20731.**
Stddev	53.	379.
%RSD	.27352	1.8278
#1	19396.	21076.
#2	19497.	20793.
#3	19475.	20325.

Approved: April 08, 2014

Sample Name: LCSW 50 Acquired: 4/7/2014 12:36:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470004-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.19928**	**4.9229**	**.19975**	**1.0069**	**.48116**	**.02518**	**4.9549**	**.02487**
Stddev	.00123	.0310	.00073	.0101	.00242	.00026	.0144	.00017
%RSD	.61564	.62912	.36603	1.0047	.50256	1.0505	.29019	.66616
#1	.20001	4.9418	.20032	1.0117	.48360	.02528	4.9705	.02505
#2	.19786	4.8871	.19893	.99527	.48110	.02488	4.9520	.02472
#3	.19996	4.9397	.20001	1.0137	.47877	.02538	4.9421	.02485
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10264**	**.25355**	**.25278**	**1.9528**	**24.372**	**.48501**	**4.8179**	**.24985**
Stddev	.00045	.00236	.00052	.0026	.094	.00187	.0123	.00199
%RSD	.44092	.93090	.20441	.13251	.38636	.38599	.25552	.79496
#1	.10315	.25482	.25336	1.9504	24.478	.48567	4.8112	.24758
#2	.10249	.25082	.25262	1.9525	24.296	.48646	4.8321	.25125
#3	.10229	.25500	.25236	1.9555	24.343	.48289	4.8104	.25073
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50269**	**24.224**	**.25263**	**.00213**	**.25631**	**.60212**	**.20504**	**2.5716**
Stddev	.00211	.165	.00130	.00102	.00417	.00569	.00214	.0334
%RSD	.42023	.67926	.51317	47.964	1.6284	.94537	1.0439	1.3002
#1	.50513	24.394	.25390	.00178	.26047	.60565	.20750	2.5930
#2	.50153	24.214	.25131	.00329	.25634	.60515	.20400	2.5887
#3	.50142	24.066	.25268	.00133	.25212	.59555	.20362	2.5330
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

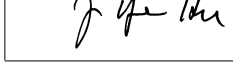
Approved: April 08, 2014

Sample Name: LCSW 50 Acquired: 4/7/2014 12:36:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470004-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.54439**	**.49527**	**.48230**	**.26365**	**.49386**	**.50400**	**.59088**
Stddev	.00441	.00127	.00239	.00279	.00456	.00355	.26047
%RSD	.81094	.25661	.49571	1.0598	.92246	.70513	44.081
#1	.54872	.49659	.48267	.26543	.49586	.50582	.82117
#2	.54456	.49405	.48448	.26043	.48865	.49990	.64328
#3	.53989	.49517	.47974	.26510	.49708	.50626	.30821
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19354.**	**20877.**
Stddev	174.	125.
%RSD	.90124	.59841
#1	19257.	21020.
#2	19555.	20788.
#3	19249.	20824.

Approved: April 08, 2014



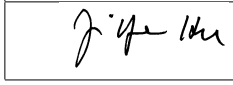
Sample Name: L1404021502 Acquired: 4/7/2014 12:40:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470004-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00037**	**.05556**	**-.00073**	**.16027**	**.08867**	**.00005**	**143.40**
Stddev	.00029	.01030	.00114	.00269	.00103	.00003	1.24
%RSD	77.384	18.540	155.60	1.6764	1.1597	59.125	.86726
#1	-.00020	.06680	-.00175	.16292	.08974	.00002	144.47
#2	-.00021	.04658	.00050	.15755	.08856	.00008	143.70
#3	-.00070	.05330	-.00094	.16034	.08769	.00004	142.04
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00064**	**-.00002**	**.00135**	**.00406**	**.33344**	**8.6177**	**.01830**
Stddev	.00005	.00025	.00038	.00011	.00319	.1208	.00153
%RSD	7.2660	1068.2	28.014	2.7218	.95781	1.4023	8.3855
#1	.00064	-.00023	.00161	.00415	.33315	8.7519	.01746
#2	.00059	-.00010	.00091	.00409	.33676	8.5838	.02007
#3	.00068	.00026	.00152	.00394	.33039	8.5175	.01736
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**39.163**	**.01226**	**.01028**	**107.99**	**.00368**	**1.6597**	**-.00127**
Stddev	.262	.00022	.00006	.52	.00059	.0050	.00204
%RSD	.66989	1.7847	.60464	.47763	15.904	.30388	160.60
#1	39.330	.01241	.01021	108.44	.00335	1.6639	-.00342
#2	39.299	.01236	.01030	108.10	.00436	1.6611	-.00102
#3	38.861	.01201	.01033	107.43	.00334	1.6541	.00063
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014



Sample Name: L1404021502 Acquired: 4/7/2014 12:40:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470004-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00304**	**.00225**	**7.2087**	**.00003**	**.47908**	**-.00175**	**-.00248**
Stddev	.00100	.00057	.0056	.00023	.00424	.00108	.00137
%RSD	33.033	25.370	.07767	837.60	.88457	61.495	55.436
#1	.00190	.00289	7.2079	.00022	.48276	-.00286	-.00398
#2	.00344	.00180	7.2146	.00008	.48004	-.00071	-.00216
#3	.00379	.00205	7.2035	-.00022	.47445	-.00169	-.00129
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00009**	**.00511**	F **-.17738**
Stddev	.00039	.00017	.47031
%RSD	426.90	3.3590	265.14
#1	.00015	.00493	-.70708
#2	-.00033	.00526	-.01622
#3	.00045	.00514	.19115
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18697.**	**21053.**
Stddev	100.	308.
%RSD	.53597	1.4633
#1	18623.	20754.
#2	18811.	21034.
#3	18658.	21370.

Approved: April 08, 2014

Sample Name: L1404021502DP Acquired: 4/7/2014 12:43:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470004-06

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00032**	**.06658**	**.00179**	**.16141**	**.09037**	**.00006**	**145.09**	**.00067**
Stddev	.00048	.01638	.00166	.00086	.00017	.00002	.45	.00012
%RSD	147.01	24.596	92.374	.53439	.18313	25.258	.31111	18.193
#1	-.00087	.04781	.00313	.16180	.09019	.00007	144.74	.00059
#2	.00003	.07792	.00232	.16042	.09041	.00005	144.93	.00060
#3	-.00014	.07403	-.00006	.16200	.09052	.00008	145.60	.00080
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**.00137**	**.00390**	**.33668**	**8.7875**	**.01931**	**39.777**	**.01256**
Stddev	.00012	.00028	.00068	.00262	.0693	.00105	.215	.00027
%RSD	795.02	20.214	17.438	.77905	.78912	5.4287	.54136	2.1161
#1	-.00011	.00115	.00445	.33759	8.7368	.01835	39.531	.01230
#2	.00011	.00169	.00412	.33372	8.8665	.02042	39.868	.01254
#3	-.00005	.00129	.00314	.33873	8.7591	.01915	39.932	.01284
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01051**	**110.51**	**.00324**	**1.6849**	**-.00053**	**.00207**	**-.00001**	**7.3751**
Stddev	.00022	.54	.00025	.0216	.00164	.00025	.00258	.0391
%RSD	2.1053	.48759	7.5547	1.2827	310.95	12.107	44984.	.53022
#1	.01046	109.97	.00339	1.6912	-.00049	.00236	.00247	7.3983
#2	.01076	110.50	.00296	1.7026	.00109	.00196	.00019	7.3970
#3	.01032	111.05	.00338	1.6608	-.00218	.00190	-.00267	7.3299
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

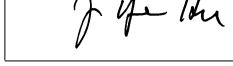
Approved: April 08, 2014

Sample Name: L1404021502DP Acquired: 4/7/2014 12:43:36 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470004-06

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**.48333**	**-.00023**	**-.00200**	**.00009**	**.00508**	**.00610**
Stddev	.00045	.00161	.00137	.00024	.00011	.00005	.25747
%RSD	240.51	.33350	594.24	11.833	129.87	.91996	4221.1
#1	-.00054	.48195	.00078	-.00227	.00015	.00511	-.14855
#2	-.00034	.48293	-.00178	-.00181	-.00004	.00503	-.13647
#3	.00032	.48510	.00031	-.00193	.00015	.00511	.30332
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18722.**	**20762.**
Stddev	76.	245.
%RSD	.40659	1.1793
#1	18689.	21019.
#2	18809.	20738.
#3	18668.	20531.

Approved: April 08, 2014



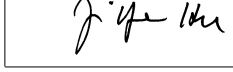
Sample Name: L1404021502S Acquired: 4/7/2014 12:47:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470004-07

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20537**	**5.0032**	**.20427**	**1.2030**	**.57376**	**.02513**	**146.16**	**.02586**
Stddev	.00344	.0097	.00176	.0180	.00242	.00041	.24	.00010
%RSD	1.6735	.19421	.86111	1.4983	.42129	1.6368	.16439	.39557
#1	.20931	4.9979	.20439	1.2234	.57118	.02559	146.00	.02588
#2	.20379	5.0145	.20597	1.1965	.57413	.02499	146.04	.02574
#3	.20300	4.9974	.20246	1.1891	.57597	.02480	146.43	.02595
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.09992**	**.24950**	**.25250**	**2.2757**	**33.679**	**.51148**	**43.559**	**.25212**
Stddev	.00032	.00421	.00122	.0066	.048	.00301	.122	.00487
%RSD	.32389	1.6854	.48136	.29168	.14348	.58763	.28116	1.9317
#1	.10020	.25423	.25340	2.2773	33.635	.50859	43.574	.25612
#2	.09957	.24812	.25112	2.2684	33.672	.51125	43.674	.25354
#3	.09998	.24616	.25297	2.2814	33.731	.51459	43.431	.24670
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.51576**	**133.82**	**.24841**	**1.6213**	**.24540**	**.60985**	**.20612**	**9.7597**
Stddev	.00201	.48	.00087	.0083	.00365	.00415	.00234	.0474
%RSD	.39004	.35931	.34966	.51299	1.4856	.67986	1.1353	.48513
#1	.51552	133.27	.24848	1.6233	.24862	.60507	.20392	9.7050
#2	.51388	134.01	.24752	1.6121	.24144	.61252	.20588	9.7851
#3	.51788	134.17	.24925	1.6283	.24614	.61195	.20858	9.7889
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

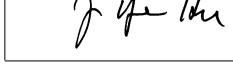


Sample Name: L1404021502S Acquired: 4/7/2014 12:47:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470004-07

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.54089**	**.96994**	**.47765**	**.25148**	**.50145**	**.49829**	**.49360**
Stddev	.00685	.00287	.00100	.00334	.00844	.00331	.03599
%RSD	1.2658	.29589	.21024	1.3276	1.6838	.66424	7.2918
#1	.54661	.96958	.47881	.25512	.51093	.50199	.52621
#2	.53330	.96727	.47708	.25077	.49868	.49730	.45498
#3	.54276	.97297	.47706	.24855	.49473	.49559	.49961
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18540.**	**20683.**
Stddev	187.	311.
%RSD	1.0066	1.5035
#1	18326.	20482.
#2	18624.	20525.
#3	18669.	21041.

Approved: April 08, 2014



Sample Name: L1404023004 Acquired: 4/7/2014 12:50:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01453**	**.49913**	**-.00028**	**.04979**	**.10764**	**.00008**	**103.47**	**.00049**
Stddev	.00020	.01893	.00245	.00162	.00031	.00001	.48	.00009
%RSD	1.3601	3.7931	890.18	3.2613	.28831	13.910	.46062	17.782
#1	.01432	.48780	.00239	.05162	.10735	.00007	103.01	.00058
#2	.01457	.48860	-.00079	.04852	.10797	.00007	103.96	.00049
#3	.01471	.52099	-.00243	.04924	.10760	.00009	103.43	.00041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00149**	**.00163**	**.02194**	**.78670**	**18.675**	**.01158**	**22.497**	**.05966**
Stddev	.00014	.00068	.00046	.00451	.079	.00112	.155	.00094
%RSD	9.4417	41.580	2.0975	.57323	.42279	9.6392	.68819	1.5684
#1	.00148	.00187	.02165	.78351	18.622	.01172	22.337	.05906
#2	.00136	.00087	.02170	.79186	18.766	.01261	22.508	.06074
#3	.00164	.00217	.02247	.78472	18.637	.01039	22.646	.05918
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00178**	**196.35**	**.00673**	**5.2639**	**.00205**	**.00218**	**-.00192**	**2.1367**
Stddev	.00018	6.36	.00036	.0269	.00182	.00197	.00253	.0151
%RSD	9.9336	3.2399	5.3168	.51152	88.758	90.463	131.36	.70489
#1	.00198	190.66	.00676	5.2540	.00292	.00273	-.00040	2.1310
#2	.00166	203.22	.00635	5.2433	-.00004	.00381	-.00054	2.1252
#3	.00169	195.18	.00707	5.2944	.00328	-.00001	-.00484	2.1537
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

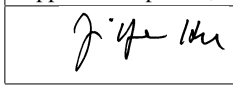
Approved: April 08, 2014

Sample Name: L1404023004 Acquired: 4/7/2014 12:50:22 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00075**	**.59393**	**.00228**	**-.00237**	**.00028**	**.09019**	**.80837**
Stddev	.00026	.00164	.00065	.00151	.00028	.00038	.25084
%RSD	34.192	.27605	28.528	63.953	100.56	.42226	31.031
#1	.00062	.59263	.00155	-.00103	.00012	.09012	.75208
#2	.00105	.59577	.00253	-.00206	.00061	.08985	.59046
#3	.00058	.59340	.00278	-.00401	.00012	.09060	1.0826
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18702.**	**21057.**
Stddev	24.	278.
%RSD	.12897	1.3199
#1	18686.	21375.
#2	18729.	20939.
#3	18690.	20858.

Approved: April 08, 2014



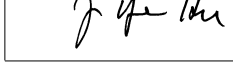
Sample Name: L1404023801 Acquired: 4/7/2014 12:54:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00039**	**.35183**	**-.00122**	**.01125**	**.02012**	**.00004**	**8.5929**
Stddev	.00043	.01943	.00145	.00059	.00034	.00002	.0209
%RSD	110.56	5.5215	119.52	5.2506	1.7087	47.538	.24304
#1	-.00072	.35453	-.00127	.01156	.01972	.00003	8.6161
#2	.00010	.36977	.00027	.01162	.02025	.00002	8.5755
#3	-.00055	.33120	-.00264	.01057	.02037	.00006	8.5872
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00023**	**-.00003**	**.00020**	**.02385**	**.07878**	**.92100**	**.00336**
Stddev	.00013	.00014	.00009	.00050	.00382	.02380	.00058
%RSD	57.427	457.52	44.515	2.1039	4.8495	2.5843	17.370
#1	.00008	.00004	.00026	.02342	.08313	.90787	.00336
#2	.00030	-.00019	.00010	.02372	.07726	.90665	.00278
#3	.00031	.00006	.00024	.02440	.07596	.94847	.00395
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.4695**	**.00884**	**-.00005**	**6.5937**	**.00151**	**.11187**	**-.00077**
Stddev	.0496	.00019	.00011	.0064	.00081	.00267	.00114
%RSD	1.4293	2.1146	208.76	.09658	53.379	2.3830	147.94
#1	3.4319	.00862	.00000	6.5883	.00228	.11378	-.00148
#2	3.5257	.00893	.00002	6.5920	.00067	.11301	.00054
#3	3.4508	.00896	-.00018	6.6007	.00159	.10883	-.00138
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014



Sample Name: L1404023801 Acquired: 4/7/2014 12:54:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00219**	**.00006**	**1.6714**	**.00047**	**.05739**	**.00044**	**-.00086**
Stddev	.00043	.00215	.0111	.00021	.00090	.00153	.00200
%RSD	19.715	3429.4	.66196	44.924	1.5726	347.88	231.30
#1	.00215	.00043	1.6776	.00025	.05731	-.00040	-.00314
#2	.00264	-.00225	1.6779	.00067	.05833	-.00048	-.00008
#3	.00178	.00201	1.6586	.00050	.05653	.00220	.00062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00010**	**.07817**	F **-.07007**
Stddev	.00012	.00122	.20796
%RSD	125.87	1.5656	296.79
#1	.00011	.07947	-.24329
#2	-.00003	.07800	-.12747
#3	.00022	.07704	.16056
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19314.**	**20652.**
Stddev	267.	233.
%RSD	1.3820	1.1283
#1	19022.	20889.
#2	19373.	20423.
#3	19546.	20642.

Approved: April 08, 2014

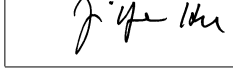
Sample Name: L1404023801PS Acquired: 4/7/2014 12:57:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470190-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20127**	**5.2256**	**.19976**	**1.0254**	**.49861**	**.02462**	**12.680**	**.02520**
Stddev	.00386	.0517	.00103	.0191	.00047	.00040	.043	.00006
%RSD	1.9171	.98985	.51761	1.8624	.09524	1.6062	.33707	.25760
#1	.20498	5.1673	.20078	1.0447	.49882	.02497	12.636	.02514
#2	.20154	5.2432	.19980	1.0252	.49807	.02470	12.685	.02520
#3	.19728	5.2662	.19871	1.0065	.49894	.02419	12.721	.02527
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10267**	**.24926**	**.27480**	**2.0291**	**25.341**	**.48937**	**7.9356**	**.26233**
Stddev	.00009	.00343	.00076	.0235	.172	.00197	.0946	.00860
%RSD	.08878	1.3768	.27581	1.1565	.68061	.40320	1.1928	3.2769
#1	.10267	.25266	.27545	2.0021	25.144	.49077	7.8263	.25256
#2	.10276	.24933	.27397	2.0404	25.415	.48712	7.9906	.26568
#3	.10258	.24580	.27498	2.0447	25.465	.49023	7.9899	.26874
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50468**	**30.627**	**.25379**	**.09554**	**.25537**	**.61638**	**.20551**	**4.0317**
Stddev	.00061	.233	.00104	.00321	.00100	.00417	.00431	.0392
%RSD	.12181	.75998	.41016	3.3596	.39271	.67671	2.0986	.97176
#1	.50398	30.388	.25259	.09899	.25649	.62046	.20201	4.0767
#2	.50499	30.638	.25438	.09264	.25508	.61657	.21033	4.0053
#3	.50508	30.854	.25441	.09500	.25455	.61212	.20419	4.0131
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

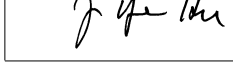


Sample Name: L1404023801PS Acquired: 4/7/2014 12:57:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470190-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**.54474**	**.47938**	**.25957**	**.49280**	**.57086**	**.63303**
Stddev	.00023	.00109	.00149	.00344	.00878	.00217	1.0703
%RSD	108.72	.20038	.30997	1.3244	1.7815	.37931	169.07
#1	.00004	.54357	.47869	.26179	.50130	.57130	-.60141
#2	.00047	.54573	.48109	.26131	.49332	.56851	1.3014
#3	.00012	.54494	.47838	.25561	.48377	.57278	1.1991
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19239.**	**20325.**
Stddev	135.	849.
%RSD	.70338	4.1780
#1	19089.	21240.
#2	19353.	20175.
#3	19273.	19561.

Approved: April 08, 2014



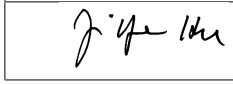
Sample Name: L1404023801SDL Acquired: 4/7/2014 13:00:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG470190-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**.08099**	**.00060**	**.00810**	**.00422**	**.00009**	**1.6075**	**.00000**
Stddev	.00053	.01712	.00257	.00061	.00065	.00002	.1467	.0002
%RSD	868.81	21.134	431.64	7.4765	15.298	24.608	9.1283	7124.9
#1	.00034	.06281	.00095	.00862	.00347	.00008	1.4381	-.00019
#2	.00014	.09680	-.00214	.00743	.00456	.00011	1.6882	-.00003
#3	-.00066	.08337	.00298	.00825	.00462	.00007	1.6961	.00021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00071**	**.00000**	**.00593**	**.01151**	**.08364**	**.00194**	**.65111**	**.00180**
Stddev	.00062	.0001	.00161	.00476	.03002	.00063	.06126	.00010
%RSD	87.292	2348.7	27.151	41.319	35.890	32.408	9.4079	5.5293
#1	.00024	-.00004	.00518	.00612	.04898	.00264	.58780	.00169
#2	.00048	.00006	.00483	.01511	.10053	.00143	.65545	.00187
#3	.00141	-.00003	.00778	.01331	.10141	.00175	.71008	.00186
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00209**	**1.2553**	**.00069**	**.02817**	**.00026**	**.00323**	**-.00127**	**.33378**
Stddev	.00321	.1081	.00136	.00025	.00157	.00322	.00088	.02280
%RSD	153.89	8.6083	197.12	.89532	598.43	99.534	69.317	6.8315
#1	-.00006	1.1305	-.00008	.02804	-.00008	.00168	-.00182	.32113
#2	.00054	1.3184	-.00011	.02801	-.00111	.00108	-.00025	.32011
#3	.00578	1.3169	.00227	.02846	.00197	.00693	-.00174	.36010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404023801SDL Acquired: 4/7/2014 13:00:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG470190-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00011**	**.01071**	**.00064**	**.00219**	**-.00012**	**.01908**	**.29088**
Stddev	.00021	.00102	.00099	.00251	.00034	.00384	.59731
%RSD	182.43	9.4779	154.95	114.92	288.24	20.151	205.34
#1	.00007	.00955	.00088	-.00071	.00015	.01668	.95956
#2	-.00034	.01118	.00148	.00350	-.00001	.01704	.10296
#3	-.00008	.01141	-.00045	.00377	-.00051	.02351	-.18987
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19845.**	**21141.**
Stddev	44.	687.
%RSD	.22369	3.2501
#1	19798.	21896.
#2	19852.	20977.
#3	19886.	20551.

Approved: April 08, 2014

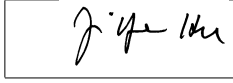
Sample Name: CCV Acquired: 4/7/2014 13:04:31 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40283**	**10.070**	**.40607**	**.51630**	**.98544**	**.05081**	**10.017**
Stddev	.00306	.063	.00071	.00381	.00061	.00032	.029
%RSD	.76046	.62328	.17396	.73776	.06188	.62164	.28805
#1	.39947	10.008	.40527	.51191	.98592	.05052	9.9969
#2	.40357	10.069	.40659	.51819	.98564	.05076	10.005
#3	.40546	10.133	.40635	.51878	.98476	.05115	10.050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05036**	**.20581**	**.50753**	**.50995**	**3.9705**	**50.295**	**.98117**
Stddev	.00005	.00044	.00220	.00126	.0021	.065	.00130
%RSD	.09638	.21426	.43307	.24636	.05235	.12975	.13282
#1	.05040	.20551	.50539	.50957	3.9681	50.229	.98062
#2	.05031	.20559	.50740	.50893	3.9719	50.295	.98024
#3	.05036	.20631	.50978	.51136	3.9714	50.360	.98266
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.9321**	**.50891**	**.99597**	**50.082**	**.50471**	**10.102**	**.50728**
Stddev	.0558	.00665	.00179	.050	.00149	.089	.00166
%RSD	.56194	1.3069	.17992	.09912	.29475	.87652	.32803
#1	9.8699	.50186	.99623	50.025	.50509	10.198	.50562
#2	9.9780	.50980	.99406	50.100	.50307	10.024	.50895
#3	9.9483	.51508	.99762	50.120	.50597	10.084	.50728
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 08, 2014



Sample Name: CCV Acquired: 4/7/2014 13:04:31 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2191**	**.42315**	**5.0342**	**1.0452**	**1.0164**	**.98182**	**.53405**
Stddev	.0047	.00408	.0042	.0025	.0028	.00111	.00461
%RSD	.38887	.96336	.08345	.23967	.27638	.11281	.86307
#1	1.2244	.42770	5.0343	1.0451	1.0164	.98072	.52873
#2	1.2155	.42191	5.0299	1.0427	1.0137	.98294	.53670
#3	1.2172	.41983	5.0383	1.0477	1.0193	.98180	.53673
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.99337**	**1.0179**	F **.84532**
Stddev	.00769	.0022	.31237
%RSD	.77439	.21809	36.953
#1	.98623	1.0176	1.1615
#2	.99236	1.0158	.83748
#3	1.0015	1.0202	.53694
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19150.**	**20351.**
Stddev	36.	152.
%RSD	.18797	.74852
#1	19172.	20509.
#2	19169.	20339.
#3	19108.	20205.

Approved: April 08, 2014

Sample Name: CCB Acquired: 4/7/2014 13:07:48 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00057**	**.00558**	**-.00037**	**.00621**	**.00049**	**.00005**	**-.00379**	**.00006**
Stddev	.00049	.02033	.00130	.00068	.00029	.00004	.00295	.00007
%RSD	84.654	364.33	349.51	10.917	60.284	87.284	77.626	118.89
#1	-.00079	-.01540	-.00175	.00544	.00055	.00009	-.00309	-.00002
#2	-.00091	.02520	-.00020	.00649	.00075	.00001	-.00127	.00013
#3	-.00002	.00694	.00083	.00670	.00017	.00004	-.00703	.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**-.00010**	**.00007**	**.00012**	**-.07674**	**.00284**	**-.01480**	**.00003**
Stddev	.00018	.00048	.00050	.00512	.00687	.00057	.01746	.00002
%RSD	201.68	475.38	746.44	4445.0	8.9468	20.048	117.96	88.467
#1	-.00012	-.00040	-.00011	.00360	-.07945	.00227	-.02533	.00005
#2	.00018	-.00036	-.00032	-.00576	-.06894	.00341	-.02442	.00002
#3	.00021	.00045	.00063	.00250	-.08184	.00286	.00535	.00000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**.03345**	**-.00001**	**.00354**	**-.00125**	**.00049**	**.00098**	**-.00816**
Stddev	.00022	.00965	.00085	.00425	.00079	.00087	.00248	.00048
%RSD	121.99	28.833	14759.	119.84	63.378	176.88	251.67	5.8224
#1	.00009	.02236	.00093	.00332	-.00200	-.00042	.00240	-.00832
#2	.00002	.03818	-.00023	.00789	-.00133	.00132	-.00188	-.00853
#3	.00042	.03983	-.00072	-.00059	-.00042	.00058	.00242	-.00763
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

Sample Name: CCB Acquired: 4/7/2014 13:07:48 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00034**	**-.00007**	**.00002**	**-.00069**	**.00000**	**-.00002**	**.00684**
Stddev	.00034	.00013	.00066	.00236	.0001	.00014	.38495
%RSD	100.23	202.41	3054.1	342.74	3687.0	719.69	5629.9
#1	.00072	-.00017	-.00073	-.00337	.00011	-.00011	-.20207
#2	.00028	.00008	.00027	.00104	.00004	.00014	-.22850
#3	.00004	-.00011	.00052	.00027	-.00016	-.00008	.45108
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19251.**	**20377.**
Stddev	50.	320.
%RSD	.26041	1.5680
#1	19226.	20009.
#2	19218.	20539.
#3	19308.	20584.

Approved: April 08, 2014

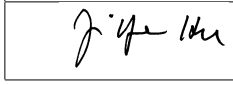
Sample Name: L1404023803 Acquired: 4/7/2014 13:11:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00043**	**.01588**	**-.00015**	**.07263**	**.00072**	**.00006**	**.14553**
Stddev	.00023	.01400	.00021	.00019	.00027	.00003	.00316
%RSD	52.110	88.172	140.77	.25536	37.263	49.826	2.1706
#1	-.00056	.02924	-.00011	.07284	.00045	.00004	.14816
#2	-.00017	.01708	.00004	.07250	.00071	.00009	.14641
#3	-.00057	.00131	-.00037	.07255	.00099	.00004	.14203
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**-.00010**	**.00037**	**.00057**	**.06170**	**-.05184**	**.00209**
Stddev	.00002	.00022	.00043	.00052	.00324	.02982	.00087
%RSD	60.158	230.65	115.91	92.724	5.2482	57.515	41.539
#1	.00003	-.00019	.00086	.00095	.06115	-.01788	.00283
#2	.00006	.00016	.00008	-.00003	.05878	-.06390	.00230
#3	.00002	-.00025	.00017	.00077	.06518	-.07374	.00114
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01440**	**.00054**	**.00025**	**1.6684**	**.00031**	**.00706**	**-.00084**
Stddev	.01520	.00006	.00006	.0103	.00053	.00248	.00051
%RSD	105.56	10.650	26.017	.61735	170.06	35.163	60.629
#1	-.00055	.00054	.00023	1.6581	-.00030	.00613	-.00026
#2	.02984	.00049	.00032	1.6684	.00066	.00988	-.00103
#3	.01392	.00060	.00019	1.6787	.00057	.00518	-.00123
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014



Sample Name: L1404023803 Acquired: 4/7/2014 13:11:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00097**	**.00150**	**.22763**	**-.00014**	**.00023**	**.00014**	**-.00228**
Stddev	.00041	.00207	.00064	.00040	.00015	.00191	.00221
%RSD	41.911	138.12	.28274	284.71	64.445	1358.8	96.769
#1	.00144	.00232	.22694	-.00020	.00009	.00222	-.00455
#2	.00073	-.00086	.22822	-.00050	.00038	-.00027	-.00216
#3	.00074	.00304	.22771	.00028	.00021	-.00153	-.00014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00009**	**.00207**	F **-.29546**
Stddev	.00047	.00011	.39613
%RSD	506.32	5.4289	134.07
#1	-.00031	.00194	-.69051
#2	.00061	.00212	-.29761
#3	-.00001	.00215	.10174
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19070.**	**20151.**
Stddev	253.	141.
%RSD	1.3274	.70007
#1	18875.	20304.
#2	19356.	20026.
#3	18981.	20123.

Approved: April 08, 2014

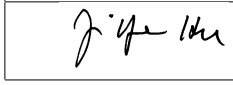
Sample Name: L1404023901 Acquired: 4/7/2014 13:15:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00028**	**1.1677**	**.00050**	**.00850**	**.02047**	**.00012**	**4.0336**	**.00017**
Stddev	.00022	.0230	.00092	.00100	.00014	.00002	.0220	.00006
%RSD	79.938	1.9706	184.78	11.751	.70105	18.191	.54650	37.437
#1	.00015	1.1691	.00154	.00964	.02043	.00011	4.0492	.00025
#2	.00054	1.1440	.00013	.00776	.02063	.00011	4.0083	.00012
#3	.00015	1.1900	-.00018	.00811	.02036	.00015	4.0431	.00015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00080**	**.00559**	**.00520**	**1.4524**	**.70270**	**.00380**	**.64582**	**.03180**
Stddev	.00023	.00013	.00044	.0012	.01961	.00118	.01341	.00017
%RSD	28.391	2.3887	8.4288	.08278	2.7906	31.173	2.0766	.53429
#1	.00094	.00572	.00470	1.4538	.69647	.00253	.65584	.03161
#2	.00092	.00560	.00538	1.4515	.72467	.00399	.65102	.03191
#3	.00054	.00545	.00553	1.4520	.68697	.00487	.63058	.03189
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00038**	**1.2293**	**.00270**	**.06202**	**.00320**	**.00100**	**-.00132**	**3.4502**
Stddev	.00025	.0248	.00037	.00329	.00301	.00164	.00290	.0084
%RSD	64.340	2.0180	13.798	5.3071	94.165	163.66	219.49	.24446
#1	.00013	1.2283	.00240	.06302	.00079	.00096	-.00259	3.4592
#2	.00040	1.2546	.00259	.05835	.00222	-.00061	.00200	3.4426
#3	.00062	1.2050	.00312	.06470	.00658	.00266	-.00338	3.4488
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404023901 Acquired: 4/7/2014 13:15:03 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00088**	**.01762**	**.06069**	**-.00210**	**.01170**	**.02670**	**3.1359**
Stddev	.00046	.00006	.00112	.00049	.00020	.00017	.2480
%RSD	52.562	.31237	1.8517	23.134	1.7099	.62210	7.9071
#1	.00037	.01769	.05939	-.00251	.01188	.02683	3.2798
#2	.00101	.01759	.06143	-.00156	.01149	.02651	3.2784
#3	.00126	.01760	.06123	-.00222	.01174	.02676	2.8496
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19476.**	**20854.**
Stddev	19.	9.
%RSD	.09814	.04545
#1	19465.	20850.
#2	19498.	20865.
#3	19465.	20848.

Approved: April 08, 2014

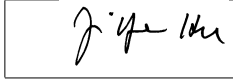
Sample Name: L1404023903 Acquired: 4/7/2014 13:18:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00012**	**1.3032**	**.00109**	**.03428**	**.03711**	**.00015**	**7.5126**	**.00038**
Stddev	.00014	.0204	.00095	.00147	.00007	.00002	.0100	.00002
%RSD	114.32	1.5627	87.752	4.2816	.19934	15.407	.13369	5.5892
#1	-.00001	1.2819	.00104	.03538	.03702	.00018	7.5208	.00036
#2	-.00027	1.3225	.00206	.03484	.03716	.00013	7.5014	.00040
#3	-.00008	1.3050	.00016	.03261	.03714	.00015	7.5156	.00039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00138**	**.00343**	**.00974**	**1.8444**	**2.4091**	**.00302**	**2.7241**	**.03553**
Stddev	.00003	.00016	.00033	.0118	.0490	.00050	.0220	.00030
%RSD	2.4135	4.7462	3.3421	.63880	2.0340	16.627	.80614	.84687
#1	.00141	.00331	.01011	1.8333	2.3577	.00351	2.7478	.03518
#2	.00138	.00361	.00950	1.8567	2.4145	.00303	2.7201	.03565
#3	.00135	.00337	.00962	1.8431	2.4552	.00251	2.7044	.03575
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00137**	**6.8973**	**.00315**	**.44382**	**.00246**	**.00189**	**.00043**	**7.6284**
Stddev	.00012	.0578	.00020	.00311	.00060	.00266	.00477	.0428
%RSD	8.5840	.83794	6.4754	.70174	24.600	140.98	1102.9	.56110
#1	.00141	6.9315	.00302	.44036	.00177	.00446	.00283	7.6174
#2	.00124	6.9298	.00304	.44641	.00293	.00206	-.00506	7.6756
#3	.00146	6.8306	.00338	.44468	.00267	-.00086	.00354	7.5921
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404023903 Acquired: 4/7/2014 13:18:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00012**	**.05838**	**.06706**	**-.00229**	**.00935**	**.01337**	**2.9886**
Stddev	.00025	.00028	.00079	.00164	.00012	.00008	.1050
%RSD	204.31	.48297	1.1801	71.443	1.3320	.58401	3.5134
#1	.00003	.05866	.06718	-.00174	.00935	.01329	3.0658
#2	-.00041	.05839	.06621	-.00101	.00947	.01338	2.8690
#3	.00002	.05810	.06778	-.00414	.00922	.01345	3.0310
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19085.**	**20226.**
Stddev	25.	254.
%RSD	.12855	1.2579
#1	19111.	20519.
#2	19062.	20101.
#3	19084.	20059.

Approved: April 08, 2014

Sample Name: L1404024504 Acquired: 4/7/2014 13:22:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00055**	**.10838**	**.00024**	**.22484**	**.00367**	**.00000**	**22.168**
Stddev	.00050	.02361	.00051	.00250	.00019	.0000	.118
%RSD	89.732	21.785	214.62	1.1138	5.1302	245.69	.53433
#1	-.00099	.13236	.00064	.22270	.00353	.00000	22.053
#2	-.00001	.10762	.00041	.22759	.00388	-.00001	22.162
#3	-.00066	.08515	-.00034	.22423	.00360	.00000	22.290
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**.01275**	**.00018**	**.00302**	**.00799**	**4.4131**	**7.2395**
Stddev	.00008	.00020	.00030	.00062	.00507	.0651	.0384
%RSD	36.954	1.5609	166.79	20.439	63.548	1.4744	.53053
#1	.00029	.01264	.00035	.00247	.00595	4.3384	7.1962
#2	.00022	.01264	-.00017	.00290	.01376	4.4435	7.2525
#3	.00013	.01298	.00036	.00369	.00424	4.4574	7.2697
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.9810**	**.00125**	**.02611**	F **1175.3**	**.03100**	**6.4871**	**-.00159**
Stddev	.0640	.00006	.00035	11.5	.00073	.0006	.00183
%RSD	1.2853	5.0139	1.3334	.97772	2.3562	.00938	114.55
#1	4.9081	.00121	.02617	1162.0	.03109	6.4870	-.00298
#2	5.0065	.00122	.02642	1181.2	.03168	6.4877	.00047
#3	5.0283	.00132	.02573	1182.5	.03022	6.4865	-.00227
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 08, 2014

Sample Name: L1404024504 Acquired: 4/7/2014 13:22:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**.00032**	**1.5160**	**-.00032**	**.09996**	**-.00106**	**-.00225**
Stddev	.00174	.00085	.0053	.00008	.00077	.00128	.00105
%RSD	4829.1	263.73	.34701	25.040	.76574	121.03	46.907
#1	-.00157	.00105	1.5216	-.00026	.09917	-.00053	-.00195
#2	-.00039	.00051	1.5152	-.00030	.10004	-.00253	-.00342
#3	.00185	-.00060	1.5112	-.00042	.10069	-.00012	-.00137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00003**	**.00429**	F **-.87442**
Stddev	.00052	.00007	.07988
%RSD	1958.1	1.5859	9.1352
#1	.00055	.00435	-.96572
#2	-.00047	.00431	-.81743
#3	-.00016	.00422	-.84010
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**17778.**	**20234.**
Stddev	11.	112.
%RSD	.06080	.55108
#1	17788.	20340.
#2	17767.	20244.
#3	17781.	20118.

Approved: April 08, 2014

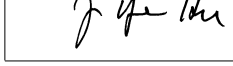
Sample Name: L1404029201 Acquired: 4/7/2014 13:25:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00009**	**.01475**	**.00078**	**.01207**	**.00874**	**.00007**	**9.8695**	**.00024**
Stddev	.00025	.01850	.00141	.00035	.00040	.00001	.0162	.00010
%RSD	271.45	125.40	180.46	2.8807	4.5651	13.684	.16367	41.106
#1	.00007	-.00576	.00236	.01229	.00828	.00007	9.8636	.00015
#2	-.00039	.01985	-.00035	.01167	.00896	.00006	9.8571	.00023
#3	.00003	.03017	.00033	.01224	.00898	.00008	9.8877	.00035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.00002**	**.00439**	**.01288**	**1.7972**	**.03210**	**1.4059**	**.05979**
Stddev	.00011	.00032	.00030	.00161	.0163	.00098	.0354	.00049
%RSD	386.56	1894.2	6.8650	12.525	.90458	3.0532	2.5169	.82397
#1	.00013	.00037	.00467	.01117	1.7878	.03182	1.3745	.05940
#2	-.00008	-.00009	.00444	.01310	1.7879	.03319	1.4442	.05962
#3	.00004	-.00023	.00407	.01437	1.8160	.03130	1.3990	.06034
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**2.3131**	**.00109**	**.00596**	**-.00063**	**.00131**	**-.00071**	**1.1411**
Stddev	.00008	.0226	.00017	.00559	.00112	.00045	.00447	.0080
%RSD	72.859	.97879	15.092	93.687	177.20	34.329	625.75	.70427
#1	.00003	2.3385	.00107	.00081	-.00073	.00105	.00177	1.1486
#2	.00011	2.3056	.00127	.00519	-.00171	.00182	.00196	1.1422
#3	.00018	2.2952	.00094	.01190	.00054	.00105	-.00587	1.1326
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404029201 Acquired: 4/7/2014 13:25:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**.06104**	**-.00046**	**-.00226**	**.00008**	**.00572**	**1.4137**
Stddev	.00031	.00043	.00108	.00186	.00059	.00004	.0549
%RSD	1300.3	.69721	236.06	82.448	767.08	.62780	3.8832
#1	-.00034	.06057	.00002	-.00441	.00008	.00573	1.4356
#2	.00025	.06115	-.00169	-.00115	.00066	.00575	1.3513
#3	.00016	.06140	.00030	-.00122	-.00051	.00568	1.4544
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18771.**	**20046.**
Stddev	136.	401.
%RSD	.72608	2.0019
#1	18775.	20483.
#2	18905.	19959.
#3	18632.	19695.

Approved: April 08, 2014

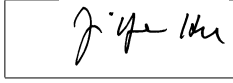
Sample Name: L1404029203 Acquired: 4/7/2014 13:29:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**1.2929**	**.09552**	**.01032**	**.03800**	**.00031**	**10.805**	**.00100**
Stddev	.00025	.0105	.00137	.00104	.00007	.00001	.016	.00002
%RSD	433.20	.81491	1.4356	10.079	.17566	3.7903	.14609	1.5167
#1	-.00012	1.2941	.09660	.01032	.03805	.00031	10.788	.00098
#2	-.00027	1.2818	.09398	.00928	.03793	.00029	10.809	.00101
#3	.00022	1.3028	.09598	.01136	.03803	.00031	10.819	.00100
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00129**	**.01392**	**.03673**	**9.0035**	**2.0122**	**.03376**	**1.8130**	**.66268**
Stddev	.00009	.00041	.00069	.0898	.0537	.00109	.0182	.00656
%RSD	6.9118	2.9222	1.8758	.99710	2.6670	3.2308	1.0059	.99022
#1	.00138	.01374	.03733	8.9093	1.9715	.03342	1.7920	.65546
#2	.00120	.01439	.03597	9.0881	2.0730	.03288	1.8249	.66429
#3	.00129	.01364	.03688	9.0129	1.9921	.03498	1.8222	.66829
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00048**	**2.3533**	**.00475**	**.05459**	**.01464**	**.00162**	**.00123**	**3.0446**
Stddev	.00026	.0246	.00094	.00568	.00102	.00108	.00039	.0040
%RSD	53.234	1.0439	19.893	10.399	6.9609	66.935	31.856	.13056
#1	.00028	2.3339	.00428	.05919	.01425	.00041	.00168	3.0401
#2	.00040	2.3809	.00414	.05632	.01388	.00250	.00108	3.0462
#3	.00077	2.3451	.00584	.04824	.01580	.00194	.00094	3.0475
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

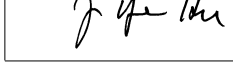


Sample Name: L1404029203 Acquired: 4/7/2014 13:29:18 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00945**	**.07454**	**.06793**	**.00031**	**.00486**	**.06405**	**7.9023**
Stddev	.00012	.00045	.00064	.00225	.00030	.00042	.5219
%RSD	1.3184	.59819	.93953	721.07	6.1568	.65799	6.6048
#1	.00953	.07411	.06765	-.00222	.00514	.06453	7.4674
#2	.00931	.07500	.06866	.00209	.00490	.06392	8.4811
#3	.00952	.07451	.06748	.00106	.00455	.06372	7.7584
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19219.**	**20001.**
Stddev	210.	255.
%RSD	1.0910	1.2726
#1	18994.	20269.
#2	19255.	19972.
#3	19409.	19762.

Approved: April 08, 2014



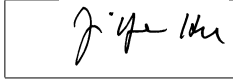
Sample Name: L1404029204 Acquired: 4/7/2014 13:32:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00028**	**.84736**	**.07944**	**.01133**	**.03488**	**.00025**	**10.467**	**.00081**
Stddev	.00020	.01884	.00057	.00037	.00035	.00001	.018	.00012
%RSD	69.662	2.2238	.72127	3.2583	1.0130	3.1649	.17091	15.149
#1	-.00041	.83924	.07931	.01099	.03449	.00025	10.448	.00094
#2	-.00006	.83394	.07894	.01127	.03497	.00024	10.471	.00070
#3	-.00038	.86890	.08007	.01172	.03518	.00024	10.484	.00080
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00103**	**.00996**	**.01968**	**5.9455**	**1.8240**	**.03220**	**1.6716**	**.49888**
Stddev	.00005	.00026	.00044	.0191	.0497	.00043	.0247	.00234
%RSD	4.8700	2.6277	2.2410	.32153	2.7269	1.3420	1.4763	.46849
#1	.00109	.01010	.01976	5.9234	1.7847	.03232	1.6541	.50145
#2	.00099	.01011	.02008	5.9565	1.8800	.03172	1.6998	.49830
#3	.00102	.00965	.01921	5.9565	1.8074	.03256	1.6608	.49689
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00038**	**3.8971**	**.00339**	**.05856**	**.01126**	**.00125**	**.00092**	**2.2921**
Stddev	.00032	.0046	.00041	.00126	.00038	.00052	.00466	.0201
%RSD	85.661	.11668	11.991	2.1570	3.3757	42.035	503.94	.87498
#1	.00026	3.9023	.00366	.05761	.01127	.00070	-.00388	2.3041
#2	.00013	3.8942	.00293	.05999	.01087	.00130	.00124	2.3032
#3	.00075	3.8948	.00360	.05808	.01163	.00174	.00542	2.2689
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404029204 Acquired: 4/7/2014 13:32:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.06192**	**.07147**	**.04100**	**-.00235**	**.00335**	**.04311**	**4.1394**
Stddev	.00046	.00105	.00034	.00189	.00023	.00013	.5368
%RSD	.74466	1.4681	.82120	80.466	6.8365	.29943	12.967
#1	.06230	.07026	.04115	-.00292	.00349	.04322	4.7540
#2	.06206	.07216	.04062	-.00024	.00348	.04314	3.7627
#3	.06141	.07198	.04124	-.00389	.00309	.04297	3.9016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19545.**	**20796.**
Stddev	12.	72.
%RSD	.05960	.34767
#1	19534.	20717.
#2	19557.	20810.
#3	19545.	20860.

Approved: April 08, 2014

Sample Name: L1404030401 Acquired: 4/7/2014 13:36:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00056**	**.04066**	**.00121**	**.07649**	**.00097**	**-.00001**	**3.3230**
Stddev	.00033	.02510	.00194	.00098	.00045	.00001	.0068
%RSD	58.970	61.727	159.95	1.2800	46.090	187.10	.20546
#1	-.00029	.03301	.00328	.07759	.00049	-.00002	3.3304
#2	-.00047	.02028	-.00056	.07570	.00138	.00000	3.3218
#3	-.00093	.06869	.00092	.07619	.00104	.00000	3.3169
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**-.00047**	**.16808**	**.01042**	**.48618**	**4.8269**	**.01307**
Stddev	.00012	.00029	.00436	.00001	.00290	.0390	.00088
%RSD	130.64	62.142	2.5932	.12222	.59568	.80804	6.7016
#1	-.00004	-.00070	.17261	.01042	.48449	4.8446	.01402
#2	.00014	-.00014	.16774	.01042	.48952	4.7822	.01290
#3	.00018	-.00058	.16391	.01044	.48452	4.8539	.01230
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.91158**	**.00705**	**.14809**	F **964.81**	**.02156**	**119.83**	**.00081**
Stddev	.02230	.00010	.00181	4.10	.00058	.35	.00069
%RSD	2.4463	1.4345	1.2190	.42454	2.6882	.29148	84.964
#1	.89129	.00694	.14652	961.16	.02099	119.47	.00002
#2	.90798	.00714	.15006	969.24	.02215	120.16	.00119
#3	.93545	.00708	.14769	964.03	.02155	119.87	.00124
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 08, 2014

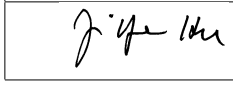
Sample Name: L1404030401 Acquired: 4/7/2014 13:36:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00181**	**-.00114**	**.82006**	**-.00041**	**.01685**	**-.00006**	**-.00229**
Stddev	.00108	.00158	.01404	.00041	.00006	.00212	.00149
%RSD	59.651	138.93	1.7123	101.46	.37933	3376.1	64.876
#1	.00095	-.00104	.81331	-.00033	.01690	-.00177	-.00175
#2	.00303	.00039	.83620	-.00004	.01688	.00230	-.00397
#3	.00146	-.00277	.81067	-.00085	.01678	-.00072	-.00115
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00092**	**.00927**	F **-.49290**
Stddev	.00022	.00014	.16104
%RSD	23.767	1.4657	32.672
#1	.00094	.00927	-.39586
#2	.00069	.00941	-.40404
#3	.00112	.00914	-.67879
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18051.**	**19963.**
Stddev	275.	375.
%RSD	1.5254	1.8760
#1	17733.	20353.
#2	18209.	19931.
#3	18212.	19606.

Approved: April 08, 2014



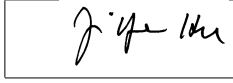
Sample Name: L1404030402 Acquired: 4/7/2014 13:39:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00084**	**.00071**	**-.00028**	**.07708**	**.00078**	**.00000**	**3.0617**
Stddev	.00032	.01255	.00173	.00062	.00043	.00003	.0143
%RSD	37.798	1761.5	625.94	.80077	54.971	1820.5	.46816
#1	-.00119	.01335	.00139	.07767	.00058	-.00003	3.0583
#2	-.00060	-.01176	-.00014	.07644	.00048	.00003	3.0494
#3	-.00072	.00056	-.00207	.07715	.00126	.00000	3.0774
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**-.00076**	**.21266**	**.01186**	**.58063**	**4.6641**	**.01344**
Stddev	.00009	.00033	.00257	.00045	.00363	.0096	.00167
%RSD	128.01	43.010	1.2089	3.7779	.62458	.20635	12.420
#1	.00005	-.00043	.21017	.01139	.57647	4.6530	.01290
#2	.00017	-.00079	.21250	.01192	.58233	4.6696	.01211
#3	-.00001	-.00108	.21530	.01228	.58310	4.6698	.01531
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.81647**	**.00773**	**.14239**	F **954.70**	**.02516**	**125.67**	**-.00067**
Stddev	.01753	.00019	.00105	14.94	.00073	.39	.00067
%RSD	2.1469	2.4198	.74021	1.5648	2.9006	.30872	100.14
#1	.79987	.00752	.14223	939.89	.02494	125.62	-.00109
#2	.83480	.00776	.14352	954.45	.02456	125.32	-.00101
#3	.81474	.00789	.14143	969.76	.02597	126.09	.00010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 08, 2014



Sample Name: L1404030402 Acquired: 4/7/2014 13:39:58 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00201**	**.00029**	**.72805**	**-.00007**	**.01810**	**.00017**	**-.00225**
Stddev	.00123	.00242	.00884	.00021	.00016	.00060	.00334
%RSD	61.052	844.56	1.2140	302.83	.87620	359.10	148.72
#1	.00281	.00179	.73062	-.00020	.01792	.00061	-.00423
#2	.00060	.00158	.73532	.00018	.01819	.00039	-.00412
#3	.00263	-.00251	.71821	-.00019	.01820	-.00051	.00161
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00085**	**.00929**	F **-.13928**
Stddev	.00040	.00012	.37812
%RSD	47.369	1.2617	271.49
#1	.00066	.00932	.09936
#2	.00131	.00939	-.57523
#3	.00058	.00916	.05804
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**17933.**	**20366.**
Stddev	109.	364.
%RSD	.60604	1.7889
#1	18047.	20719.
#2	17922.	20387.
#3	17831.	19992.

Approved: April 08, 2014

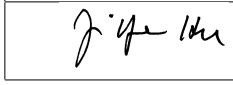
Sample Name: L1404030501 Acquired: 4/7/2014 13:43:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00017**	**.76317**	**.00714**	**.12077**	**.03817**	**.00012**	**29.616**	**.00119**
Stddev	.00021	.02282	.00136	.00197	.00050	.00001	.032	.00005
%RSD	122.83	2.9898	19.033	1.6282	1.3207	5.1722	.10705	3.9187
#1	-.00009	.73696	.00855	.12021	.03760	.00013	29.584	.00116
#2	-.00042	.77857	.00584	.12296	.03857	.00012	29.647	.00124
#3	-.00001	.77398	.00703	.11915	.03834	.00013	29.616	.00116
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00188**	**.00473**	**.00654**	**1.4235**	**21.136**	**.05461**	**7.1773**	**1.2434**
Stddev	.00024	.00027	.00010	.0096	.040	.00064	.0573	.0051
%RSD	12.642	5.7485	1.5490	.67590	.19114	1.1680	.79806	.41240
#1	.00174	.00468	.00664	1.4171	21.092	.05445	7.1237	1.2375
#2	.00175	.00502	.00653	1.4346	21.172	.05532	7.2377	1.2456
#3	.00216	.00448	.00644	1.4189	21.144	.05407	7.1704	1.2470
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01298**	**86.494**	**.00382**	**.10605**	**.00575**	**.01256**	**.00127**	**3.7567**
Stddev	.00008	.078	.00075	.00058	.00242	.00107	.00110	.0105
%RSD	.63448	.09034	19.501	.55028	42.064	8.4948	86.778	.27946
#1	.01293	86.437	.00305	.10611	.00704	.01255	.00117	3.7446
#2	.01294	86.583	.00388	.10660	.00296	.01363	.00241	3.7630
#3	.01308	86.462	.00454	.10544	.00726	.01150	.00022	3.7626
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

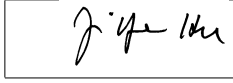


Sample Name: L1404030501 Acquired: 4/7/2014 13:43:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.58081**	**.01106**	**.00040**	**.00273**	**.08135**	**2.6672**
Stddev	.00013	.00026	.00022	.00196	.00019	.00044	.3686
%RSD	53.723	.04428	2.0056	485.56	7.0481	.54433	13.820
#1	.00025	.58098	.01128	-.00118	.00254	.08085	3.0928
#2	.00038	.58094	.01084	-.00020	.00271	.08167	2.4464
#3	.00011	.58052	.01105	.00259	.00293	.08155	2.4626
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19062.**	**20755.**
Stddev	44.	40.
%RSD	.23229	.19062
#1	19113.	20800.
#2	19041.	20727.
#3	19032.	20738.

Approved: April 08, 2014



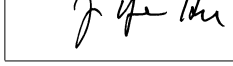
Sample Name: CCV Acquired: 4/7/2014 13:47:10 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40036**	**10.027**	**.40826**	**.50993**	**.98266**	**.05040**	**10.001**	**.05055**
Stddev	.00123	.063	.00098	.00115	.00286	.00010	.015	.00011
%RSD	.30599	.62915	.23941	.22612	.29121	.20756	.14695	.20985
#1	.40161	9.9651	.40750	.51118	.98442	.05050	9.9889	.05065
#2	.39916	10.025	.40793	.50890	.98421	.05029	9.9956	.05054
#3	.40032	10.091	.40937	.50972	.97936	.05040	10.017	.05044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20558**	**.50338**	**.51097**	**3.9733**	**50.491**	**.97632**	**9.9789**	**.50359**
Stddev	.00056	.00296	.00173	.0034	.097	.00115	.0038	.00398
%RSD	.27240	.58901	.33840	.08607	.19185	.11763	.03807	.79077
#1	.20622	.50651	.51290	3.9713	50.429	.97499	9.9828	.49906
#2	.20528	.50061	.51045	3.9773	50.443	.97699	9.9752	.50512
#3	.20522	.50301	.50956	3.9714	50.603	.97697	9.9787	.50657
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.99695**	**50.866**	**.50444**	**10.070**	**.50492**	**1.2149**	**.41831**	**4.9943**
Stddev	.00160	.144	.00181	.018	.00152	.0020	.00101	.0055
%RSD	.16095	.28217	.35868	.17866	.30120	.16624	.24179	.11047
#1	.99803	50.973	.50589	10.064	.50428	1.2128	.41815	4.9912
#2	.99511	50.923	.50503	10.057	.50665	1.2168	.41939	4.9909
#3	.99771	50.703	.50241	10.091	.50382	1.2151	.41738	5.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value								
Range								

Approved: April 08, 2014



Sample Name: CCV Acquired: 4/7/2014 13:47:10 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.0445**	**1.0180**	**.96798**	**.53940**	**.98785**	**1.0274**	**.97587**
Stddev	.0091	.0035	.00364	.00517	.00242	.0034	.20330
%RSD	.87149	.33951	.37618	.95868	.24473	.32650	20.833
#1	1.0514	1.0153	.96388	.54075	.99047	1.0295	1.0077
#2	1.0480	1.0168	.97084	.54376	.98571	1.0236	1.1613
#3	1.0342	1.0219	.96922	.53369	.98735	1.0292	.75851
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19007.**	**20345.**
Stddev	73.	150.
%RSD	.38199	.73871
#1	18936.	20514.
#2	19081.	20295.
#3	19004.	20226.

Approved: April 08, 2014

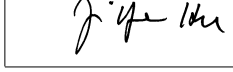
Sample Name: CCB Acquired: 4/7/2014 13:50:26 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00046**	**.02321**	**.00032**	**.00337**	**.00053**	**.00008**	**.00427**
Stddev	.00036	.01834	.00088	.00080	.00035	.00003	.00290
%RSD	79.965	79.025	278.27	23.798	65.361	41.811	67.894
#1	-.00008	.04107	.00133	.00361	.00023	.00011	.00349
#2	-.00081	.02413	-.00024	.00403	.00092	.00005	.00747
#3	-.00048	.00442	-.00014	.00248	.00045	.00006	.00184
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.00009**	**-.00021**	**-.00016**	**-.00010**	**-.03628**	**.00235**
Stddev	.00004	.00018	.00033	.00046	.00313	.05058	.00140
%RSD	155.94	213.83	159.39	289.74	3002.9	139.40	59.478
#1	.00005	.00023	-.00055	.00009	.00137	.02115	.00396
#2	.00005	-.00012	-.00016	-.00068	-.00370	-.05581	.00168
#3	-.00002	.00015	.00010	.00012	.00202	-.07419	.00141
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01782**	**.00012**	**.00011**	**.07074**	**.00006**	**.00442**	**-.00150**
Stddev	.01159	.00000	.00016	.00947	.00047	.00646	.00143
%RSD	65.061	1.3465	146.16	13.387	778.13	145.96	95.460
#1	-.01915	.00012	.00011	.07409	-.00042	.01172	-.00277
#2	-.00562	.00012	.00027	.07809	.00009	-.00056	.00005
#3	-.02869	.00012	-.00005	.06006	.00051	.00211	-.00178
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014



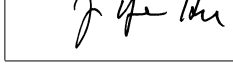
Sample Name: CCB Acquired: 4/7/2014 13:50:26 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00035**	**-.00128**	**-.00855**	**-.00018**	**.00008**	**-.00023**	**-.00046**
Stddev	.00027	.00270	.00064	.00012	.00003	.00168	.00269
%RSD	77.238	210.12	7.4445	69.434	38.870	737.04	585.45
#1	.00010	.00115	-.00899	-.00028	.00006	.00163	-.00330
#2	.00064	-.00081	-.00782	-.00004	.00012	-.00066	-.00015
#3	.00033	-.00418	-.00884	-.00021	.00007	-.00165	.00206
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00013**	**.00003**	F **.44381**
Stddev	.00024	.00006	.17577
%RSD	191.16	191.43	39.605
#1	.00034	.00009	.26959
#2	-.00013	.00001	.62110
#3	.00017	-.00002	.44075
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19231.**	**20634.**
Stddev	35.	94.
%RSD	.18424	.45443
#1	19206.	20613.
#2	19271.	20552.
#3	19214.	20736.

Approved: April 08, 2014



Sample Name: L1404030601 Acquired: 4/7/2014 13:54:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00037**	**.06141**	**.00070**	**.48077**	**.14396**	**-.00001**	**336.35**
Stddev	.00036	.01540	.00145	.00249	.00047	.00001	.23
%RSD	95.859	25.075	206.04	.51853	.32541	76.861	.06843
#1	-.00062	.06490	.00211	.48355	.14371	-.00002	336.45
#2	.00004	.04456	.00078	.48004	.14450	.00000	336.51
#3	-.00053	.07476	-.00078	.47873	.14367	-.00001	336.08
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00148**	**.00024**	**.00286**	**.01742**	**.29859**	**22.468**	**.04582**
Stddev	.00009	.00001	.00029	.00028	.00404	.038	.00126
%RSD	6.2416	2.7174	10.138	1.6230	1.3528	.16903	2.7390
#1	.00153	.00025	.00313	.01711	.30066	22.424	.04444
#2	.00137	.00024	.00255	.01748	.30118	22.484	.04615
#3	.00153	.00024	.00289	.01766	.29394	22.495	.04688
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**133.57**	**.00585**	**.01739**	**296.48**	**.00699**	**2.8774**	**-.00038**
Stddev	.64	.00006	.00023	2.08	.00014	.0124	.00218
%RSD	.48074	1.0889	1.3183	.70031	1.9330	.43150	573.33
#1	132.86	.00583	.01722	294.09	.00707	2.8713	.00160
#2	133.73	.00580	.01730	297.47	.00683	2.8692	-.00003
#3	134.12	.00592	.01765	297.87	.00706	2.8917	-.00271
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014

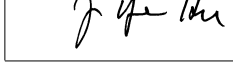
Sample Name: L1404030601 Acquired: 4/7/2014 13:54:05 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00536**	**-.00094**	**19.307**	**-.00034**	**1.7472**	**-.00421**	**-.00394**
Stddev	.00086	.00187	.103	.00036	.0059	.00172	.00142
%RSD	16.056	198.23	.53568	107.94	.33997	40.869	36.075
#1	.00632	.00098	19.239	.00008	1.7540	-.00239	-.00484
#2	.00466	-.00275	19.257	-.00050	1.7433	-.00444	-.00468
#3	.00510	-.00106	19.426	-.00059	1.7442	-.00581	-.00230
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00545**	**.00597**	F **-.61301**
Stddev	.00018	.00009	.32438
%RSD	3.2627	1.4712	52.915
#1	.00527	.00603	-.89970
#2	.00562	.00587	-.67841
#3	.00545	.00601	-.26091
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**17713.**	**20336.**
Stddev	78.	207.
%RSD	.44004	1.0162
#1	17651.	20553.
#2	17686.	20316.
#3	17800.	20141.

Approved: April 08, 2014



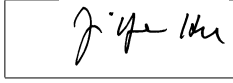
Sample Name: L1404031801 Acquired: 4/7/2014 13:57:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00040**	**.12564**	**.00031**	**.05321**	**.14517**	**.00006**	**189.11**	**.00078**
Stddev	.00033	.02784	.00085	.00084	.00079	.00003	.37	.00005
%RSD	81.789	22.155	277.36	1.5817	.54227	46.453	.19509	6.1531
#1	-.00061	.15511	.00083	.05418	.14470	.00003	188.95	.00074
#2	-.00058	.12201	-.00068	.05266	.14473	.00006	188.84	.00084
#3	-.00002	.09980	.00076	.05279	.14608	.00008	189.53	.00077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00251**	**.00525**	**.14184**	**.99013**	**13.050**	**.01595**	**38.987**	**.03793**
Stddev	.00015	.00017	.00201	.00019	.073	.00022	.099	.00026
%RSD	6.0293	3.2581	1.4191	.01941	.55663	1.3832	.25299	.69539
#1	-.00263	.00526	.13952	.99031	13.014	.01618	38.999	.03772
#2	-.00257	.00541	.14292	.98992	13.002	.01592	38.883	.03783
#3	-.00234	.00507	.14308	.99016	13.133	.01574	39.079	.03822
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.85164**	**28.956**	**.00216**	**2.7465**	**.00127**	**.00247**	**.00252**	**15.479**
Stddev	.00060	.110	.00033	.0447	.00120	.00242	.00257	.032
%RSD	.07095	.38131	15.475	1.6289	94.364	97.819	102.13	.20351
#1	.85210	28.888	.00199	2.6950	.00214	.00341	-.00026	15.453
#2	.85186	28.897	.00194	2.7754	.00177	.00428	.00480	15.514
#3	.85096	29.084	.00254	2.7692	-.00010	-.00027	.00301	15.470
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404031801 Acquired: 4/7/2014 13:57:45 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00064**	**.32954**	**-.00127**	**-.00216**	**-.00016**	**.05935**	**1.5257**
Stddev	.00039	.00135	.00068	.00175	.00037	.00083	.3658
%RSD	60.386	.41061	53.414	80.702	236.44	1.3934	23.977
#1	.00065	.32938	-.00185	-.00403	.00017	.05845	1.7797
#2	.00025	.32827	-.00144	-.00190	-.00056	.06008	1.6909
#3	.00103	.33096	-.00052	-.00057	-.00008	.05952	1.1064
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18525.**	**20309.**
Stddev	124.	52.
%RSD	.66747	.25615
#1	18382.	20275.
#2	18587.	20284.
#3	18605.	20369.

Approved: April 08, 2014

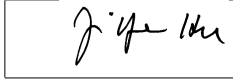
Sample Name: L1404032601 Acquired: 4/7/2014 14:01:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**.26697**	**.00048**	**.08517**	**.05544**	**.00006**	**79.677**	**.00034**
Stddev	.00034	.01319	.00168	.00195	.00054	.00002	.100	.00005
%RSD	303.39	4.9400	348.02	2.2883	.98238	33.380	.12499	15.498
#1	-.00012	.26466	-.00144	.08293	.05488	.00009	79.566	.00039
#2	-.00005	.28116	.00172	.08614	.05597	.00005	79.705	.00034
#3	.00050	.25509	.00117	.08644	.05549	.00005	79.759	.00029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00005**	**.00172**	**.01288**	**.22925**	**4.1913**	**.02689**	**5.8222**	**.07268**
Stddev	.00017	.00022	.00009	.00531	.0553	.00203	.0318	.00145
%RSD	323.03	12.990	.70868	2.3159	1.3203	7.5494	.54632	1.9907
#1	-.00021	.00171	.01279	.22662	4.1478	.02456	5.8028	.07102
#2	.00014	.00150	.01297	.23536	4.1725	.02791	5.8049	.07359
#3	-.00009	.00194	.01287	.22578	4.2536	.02822	5.8590	.07345
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00153**	**246.66**	**.00246**	**.19574**	**.00132**	**.00209**	**.00126**	**3.5688**
Stddev	.00007	1.93	.00053	.00286	.00264	.00240	.00413	.0792
%RSD	4.6824	.78167	21.356	1.4600	199.60	114.70	327.39	2.2183
#1	.00154	246.51	.00250	.19507	.00436	.00076	-.00024	3.6139
#2	.00160	248.65	.00296	.19329	-.00031	.00066	-.00190	3.6151
#3	.00146	244.81	.00192	.19888	-.00008	.00486	.00593	3.4774
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404032601 Acquired: 4/7/2014 14:01:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00027**	**.51709**	**.00296**	**-.00305**	**.00167**	**.14696**	**.28988**
Stddev	.00034	.00086	.00085	.00310	.00007	.00046	.41493
%RSD	126.05	.16636	28.840	101.90	4.4038	.31105	143.14
#1	-.00018	.51710	.00219	-.00622	.00167	.14659	.18684
#2	.00001	.51623	.00283	-.00002	.00174	.14747	.74662
#3	-.00065	.51795	.00388	-.00290	.00159	.14682	-.06381
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18618.**	**21198.**
Stddev	32.	77.
%RSD	.16991	.36275
#1	18648.	21278.
#2	18622.	21125.
#3	18585.	21191.

Approved: April 08, 2014

Sample Name: L1404032801 Acquired: 4/7/2014 14:04:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00092**	**.10166**	**.00071**	**.44755**	**.01704**	**.00005**	**11.158**
Stddev	.00026	.01820	.00161	.00175	.00039	.00003	.025
%RSD	27.838	17.905	228.37	.39168	2.2689	47.802	.22711
#1	-.00095	.11970	.00168	.44559	.01748	.00003	11.167
#2	-.00065	.10199	.00160	.44897	.01677	.00005	11.130
#3	-.00116	.08330	-.00116	.44810	.01686	.00008	11.178
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00223**	**-.00036**	**.00163**	**.02956**	**.63362**	**13.330**	**.07577**
Stddev	.00005	.00031	.00009	.00060	.00849	.082	.00060
%RSD	2.2054	86.977	5.7598	2.0279	1.3393	.61353	.79060
#1	.00228	-.00015	.00157	.03004	.63020	13.342	.07567
#2	.00219	-.00071	.00158	.02975	.62739	13.244	.07641
#3	.00222	-.00020	.00174	.02889	.64329	13.406	.07523
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.7308**	**.07580**	**.00115**	F **1696.5**	**.00201**	**3.1501**	**.00043**
Stddev	.0178	.00085	.00011	5.5	.00085	.0155	.00135
%RSD	.47759	1.1217	9.3790	.32712	42.404	.49254	314.11
#1	3.7216	.07532	.00123	1693.2	.00107	3.1424	-.00108
#2	3.7194	.07531	.00103	1693.4	.00273	3.1680	.00084
#3	3.7513	.07678	.00118	1702.9	.00224	3.1400	.00152
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 08, 2014

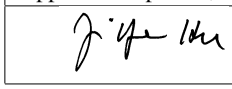
Sample Name: L1404032801 Acquired: 4/7/2014 14:04:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**.00136**	**11.381**	**.00031**	**.20666**	**.00436**	**-.00244**
Stddev	.00160	.00553	.050	.00005	.00066	.00069	.00234
%RSD	1900.9	407.36	.44202	17.417	.32099	15.847	95.785
#1	.00170	.00074	11.362	.00029	.20695	.00383	-.00082
#2	-.00056	.00717	11.438	.00028	.20590	.00410	-.00512
#3	-.00140	-.00384	11.343	.00038	.20713	.00514	-.00137
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00061**	**.04295**	**1.3019**
Stddev	.00006	.00032	.3154
%RSD	9.3422	.74691	24.228
#1	.00056	.04322	1.6306
#2	.00068	.04304	1.2733
#3	.00060	.04260	1.0017
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**17458.**	**19984.**
Stddev	67.	148.
%RSD	.38348	.74223
#1	17382.	20086.
#2	17485.	20051.
#3	17507.	19814.

Approved: April 08, 2014



Sample Name: L1404032901 Acquired: 4/7/2014 14:08:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470004-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00116**	**.29151**	**.00580**	**57.482**	**.01615**	**.00013**	**3.0478**
Stddev	.00031	.01510	.00053	.835	.00039	.00001	.0095
%RSD	26.505	5.1807	9.0897	1.4534	2.4073	9.2573	.31248
#1	-.00124	.27700	.00524	56.549	.01571	.00014	3.0374
#2	-.00082	.29038	.00586	57.737	.01645	.00012	3.0499
#3	-.00142	.30714	.00629	58.160	.01629	.00012	3.0560
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**.00268**	**.00110**	**.06156**	**.09065**	**4.0665**	**.00936**
Stddev	.00002	.00012	.00027	.00044	.00700	.0383	.00029
%RSD	252.37	4.5898	24.345	.70791	7.7230	.94225	3.0592
#1	-.00003	.00256	.00123	.06158	.09725	4.0683	.00921
#2	.00001	.00268	.00079	.06199	.09138	4.1039	.00969
#3	.00000	.00281	.00127	.06112	.08331	4.0274	.00918
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.9422**	**.46704**	**.00253**	F **510.44**	**.00616**	**12.892**	**.00528**
Stddev	.0566	.01332	.00015	2.80	.00050	.008	.00059
%RSD	1.4369	2.8516	6.1148	.54847	8.1283	.05950	11.129
#1	3.9875	.45214	.00243	512.52	.00570	12.884	.00466
#2	3.8787	.47119	.00271	507.26	.00609	12.896	.00583
#3	3.9605	.47778	.00245	511.55	.00669	12.898	.00535
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 08, 2014

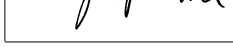
Sample Name: L1404032901 Acquired: 4/7/2014 14:08:31 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470004-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00125**	**-.00244**	**5.4028**	**.00065**	**.03993**	**.00052**	**-.00152**
Stddev	.00054	.00232	.0250	.00069	.00011	.00032	.00124
%RSD	42.672	95.408	.46261	105.79	.28480	61.698	81.616
#1	.00169	-.00495	5.3762	-.00012	.04006	.00019	-.00021
#2	.00142	-.00199	5.4065	.00086	.03984	.00054	-.00167
#3	.00066	-.00037	5.4258	.00122	.03990	.00083	-.00267
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00093**	**.08335**	**.36555**
Stddev	.00017	.00064	.35107
%RSD	18.123	.76816	96.038
#1	.00074	.08347	.73599
#2	.00103	.08392	.32293
#3	.00103	.08266	.03774
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18348.**	**19938.**
Stddev	68.	433.
%RSD	.37082	2.1705
#1	18405.	20402.
#2	18367.	19865.
#3	18272.	19546.

Approved: April 08, 2014



Sample Name: L1404032901S Acquired: 4/7/2014 14:12:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470004-08

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20310**	**5.2705**	**.20748**	**58.529**	**.50017**	**.02504**	**8.0030**
Stddev	.00026	.0167	.00249	.407	.00164	.00016	.0211
%RSD	.13026	.31595	1.1984	.69578	.32799	.63352	.26395
#1	.20289	5.2768	.20461	58.673	.50068	.02520	8.0264
#2	.20340	5.2830	.20877	58.844	.49833	.02488	7.9854
#3	.20302	5.2516	.20906	58.069	.50149	.02503	7.9970
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02496**	**.10220**	**.24894**	**.29067**	**2.0334**	**29.574**	**.49830**
Stddev	.00008	.00033	.00079	.00055	.0036	.098	.00139
%RSD	.32944	.32774	.31607	.18923	.17859	.32991	.27850
#1	.02497	.10182	.24896	.29097	2.0372	29.668	.49942
#2	.02503	.10246	.24814	.29004	2.0299	29.473	.49675
#3	.02487	.10232	.24971	.29101	2.0332	29.580	.49874
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.6625**	**.69459**	**.49866**	F **530.89**	**.24781**	**12.764**	**.24283**
Stddev	.0037	.00806	.00117	6.38	.00111	.017	.00197
%RSD	.04288	1.1607	.23397	1.2016	.44758	.12945	.81091
#1	8.6664	.68577	.49734	527.25	.24653	12.780	.24332
#2	8.6622	.69642	.49953	527.17	.24840	12.747	.24451
#3	8.6590	.70159	.49912	538.26	.24849	12.765	.24066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 08, 2014

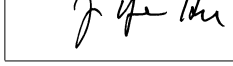
Sample Name: L1404032901S Acquired: 4/7/2014 14:12:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470004-08

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.59546**	**.19786**	**7.8262**	**.54048**	**.54418**	**.47639**	**.24372**
Stddev	.00125	.00527	.0217	.00449	.00071	.00163	.00235
%RSD	.21038	2.6631	.27675	.83165	.13112	.34251	.96323
#1	.59419	.19180	7.8015	.53559	.54500	.47468	.24143
#2	.59669	.20137	7.8347	.54443	.54372	.47655	.24612
#3	.59549	.20041	7.8423	.54142	.54382	.47793	.24361
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.49454**	**.57621**	**.78095**
Stddev	.00026	.00064	.27389
%RSD	.05189	.11190	35.072
#1	.49435	.57569	.47512
#2	.49483	.57601	1.0037
#3	.49443	.57693	.86406
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18222.**	**20257.**
Stddev	22.	235.
%RSD	.12250	1.1619
#1	18215.	20502.
#2	18247.	20238.
#3	18204.	20033.

Approved: April 08, 2014



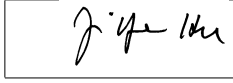
Sample Name: CCV Acquired: 4/7/2014 14:15:42 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40583**	**10.030**	**.40300**	F **.75081**	**.98118**	**.05037**	**10.021**
Stddev	.00137	.037	.00321	.01008	.00354	.00013	.024
%RSD	.33851	.36720	.79706	1.3422	.36094	.26237	.23466
#1	.40425	9.9904	.39979	.76113	.98420	.05023	10.046
#2	.40656	10.035	.40300	.75031	.98204	.05041	10.019
#3	.40669	10.063	.40621	.74100	.97728	.05048	9.9992
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value				.50000			
Range				10.000%			

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05030**	**.20569**	**.50406**	**.51085**	**3.9554**	**50.747**	**.97639**
Stddev	.00014	.00087	.00165	.00078	.0215	.172	.00076
%RSD	.26946	.42458	.32646	.15276	.54448	.33869	.07748
#1	.05019	.20470	.50229	.51016	3.9689	50.900	.97564
#2	.05045	.20634	.50554	.51170	3.9667	50.780	.97715
#3	.05027	.20604	.50435	.51069	3.9306	50.561	.97639
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.9126**	**.50310**	**.99187**	**51.143**	**.50246**	**10.023**	**.50477**
Stddev	.0390	.00213	.00118	.268	.00171	.054	.00120
%RSD	.39371	.42390	.11909	.52473	.33994	.54361	.23784
#1	9.9105	.50131	.99050	51.385	.50056	10.084	.50344
#2	9.8746	.50254	.99252	51.191	.50295	9.9811	.50509
#3	9.9526	.50546	.99258	50.854	.50387	10.003	.50578
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 08, 2014



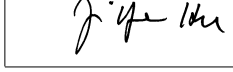
Sample Name: CCV Acquired: 4/7/2014 14:15:42 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2122**	**.41980**	**5.0106**	**1.0523**	**1.0248**	**.96145**	**.54434**
Stddev	.0027	.00241	.0108	.0035	.0015	.00348	.00267
%RSD	.22242	.57493	.21578	.32913	.14669	.36150	.49136
#1	1.2102	.41745	4.9984	1.0483	1.0240	.95989	.54230
#2	1.2152	.41967	5.0146	1.0539	1.0265	.95903	.54336
#3	1.2110	.42227	5.0188	1.0547	1.0238	.96544	.54737
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.99647**	**1.0230**	F **.85452**
Stddev	.00276	.0014	.47643
%RSD	.27740	.13625	55.754
#1	.99349	1.0214	.83451
#2	.99697	1.0236	.38841
#3	.99894	1.0239	1.3406
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19131.**	**20671.**
Stddev	28.	57.
%RSD	.14785	.27426
#1	19164.	20717.
#2	19112.	20689.
#3	19117.	20608.

Approved: April 08, 2014



Sample Name: CCB Acquired: 4/7/2014 14:18:58 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00045**	**.02066**	**-.00010**	F **.13704**	**.00061**	**.00009**	**.00267**
Stddev	.00015	.03239	.00265	.00086	.00007	.00002	.01491
%RSD	33.689	156.76	2587.0	.62473	11.314	17.500	557.59
#1	-.00044	.02041	.00269	.13802	.00053	.00009	-.00407
#2	-.00030	-.01160	-.00257	.13668	.00064	.00010	-.00767
#3	-.00060	.05317	-.00043	.13643	.00066	.00007	.01977
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				.10000			
Low Limit				-.10000			

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00009**	**.00014**	**.00002**	**-.00012**	**.00194**	**-.00505**	**.00194**
Stddev	.00014	.00007	.00026	.00021	.00492	.01612	.00295
%RSD	157.36	52.573	1165.6	179.80	253.03	318.90	152.05
#1	-.00023	.00010	.00032	-.00005	.00616	-.02353	.00183
#2	.00004	.00023	-.00007	-.00036	.00313	.00224	.00493
#3	-.00007	.00010	-.00017	.00005	-.00346	.00613	-.00096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00862**	**.00012**	**.00027**	**.10416**	**-.00051**	**.00265**	**-.00191**
Stddev	.00452	.00008	.00012	.00610	.00040	.00615	.00138
%RSD	52.387	63.626	42.499	5.8583	78.912	232.51	72.520
#1	-.01063	.00004	.00015	.11083	-.00009	.00502	-.00165
#2	-.01178	.00013	.00038	.09886	-.00089	-.00434	-.00067
#3	-.00345	.00020	.00028	.10279	-.00053	.00725	-.00340
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014

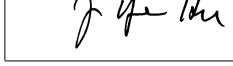
Sample Name: CCB Acquired: 4/7/2014 14:18:58 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00053**	**-.00175**	**.00074**	**.00002**	**.00003**	**.00098**	**-.00213**
Stddev	.00151	.00244	.00112	.00038	.00005	.00030	.00071
%RSD	284.93	139.81	151.17	2140.8	151.70	31.015	33.087
#1	-.00010	-.00315	.00115	.00043	.00009	.00066	-.00158
#2	-.00221	.00107	-.00053	-.00032	.00000	.00127	-.00293
#3	.00072	-.00316	.00160	-.00005	.00000	.00101	-.00189
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00012**	**.00010**	**-.05246**
Stddev	.00010	.00011	.33442
%RSD	88.062	107.98	637.54
#1	.00003	.00013	.00884
#2	.00008	-.00002	.24708
#3	.00023	.00020	-.41329
Check ?	Chk Pass	Chk Pass	Chk Pass
High Limit			
Low Limit			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18954.**	**20565.**
Stddev	83.	115.
%RSD	.43667	.55982
#1	19021.	20696.
#2	18979.	20519.
#3	18862.	20481.

Approved: April 08, 2014



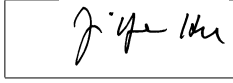
Sample Name: LLICV Acquired: 4/7/2014 14:22:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00263**	**.09278**	**.00323**	**.09986**	**.00670**	**.00039**	**.06016**	**.00031**
Stddev	.00017	.00860	.00191	.00175	.00057	.00002	.00683	.00008
%RSD	6.6137	9.2687	59.186	1.7519	8.5431	4.9807	11.356	25.569
#1	.00282	.09916	.00484	.10121	.00634	.00037	.05230	.00039
#2	.00247	.09619	.00373	.10049	.00640	.00039	.06351	.00023
#3	.00261	.08300	.00112	.09789	.00736	.00041	.06468	.00032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00122**	**.00304**	**.00336**	**.02734**	**.25363**	**.00921**	**.05329**	**.00335**
Stddev	.00026	.00028	.00044	.00487	.03663	.00121	.01858	.00016
%RSD	21.168	9.2116	13.006	17.796	14.443	13.159	34.866	4.7200
#1	.00106	.00312	.00316	.02780	.27422	.00902	.07398	.00317
#2	.00109	.00274	.00386	.03197	.27533	.01050	.03803	.00341
#3	.00152	.00328	.00305	.02227	.21133	.00810	.04787	.00346
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00649**	**.42556**	**.00367**	**.06842**	**.00159**	**.00980**	**.00325**	**.02771**
Stddev	.00016	.07305	.00028	.00449	.00113	.00377	.00261	.00155
%RSD	2.5374	17.166	7.5828	6.5576	70.754	38.413	80.249	5.5874
#1	.00649	.38338	.00396	.06412	.00226	.01412	.00199	.02772
#2	.00632	.38339	.00365	.07307	.00222	.00807	.00626	.02615
#3	.00665	.50992	.00340	.06808	.00029	.00721	.00152	.02925
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

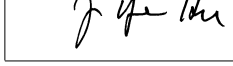


Sample Name: LLICV Acquired: 4/7/2014 14:22:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00694**	**.00650**	**.00652**	**.00283**	**.00633**	**.00733**	**.02532**
Stddev	.00010	.00011	.00070	.00138	.00068	.00011	.40020
%RSD	1.3705	1.6484	10.744	48.912	10.730	1.4704	1580.3
#1	.00687	.00644	.00723	.00398	.00557	.00738	.44462
#2	.00691	.00663	.00650	.00130	.00656	.00741	-.35256
#3	.00705	.00644	.00583	.00320	.00687	.00721	-.01608
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18923.**	**20212.**
Stddev	94.	278.
%RSD	.49603	1.3759
#1	19030.	20449.
#2	18879.	20282.
#3	18859.	19906.

Approved: April 08, 2014



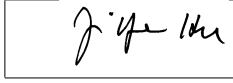
Sample Name: PBW 41 Acquired: 4/7/2014 14:26:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469562-03WG469562-04WG469562-01WG469562-0

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00065**	**.02092**	**.00171**	**.07295**	**.00097**	**.00006**	**-.00491**	**.00003**
Stddev	.00023	.00545	.00057	.00281	.00063	.00001	.00911	.00004
%RSD	34.823	26.074	33.531	3.8546	64.291	14.941	185.60	112.16
#1	-.00064	.02582	.00105	.07503	.00048	.00005	-.00579	.00001
#2	-.00043	.02188	.00196	.07407	.00076	.00007	.00461	.00008
#3	-.00088	.01505	.00211	.06975	.00168	.00006	-.01354	.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**-.00004**	**.00043**	**.01097**	**-.01807**	**.00153**	**-.01816**	**.00010**
Stddev	.00022	.00025	.00047	.00152	.03075	.00166	.01241	.00013
%RSD	1368.2	613.60	108.16	13.813	170.22	108.95	68.337	125.63
#1	.00019	-.00003	.00093	.01139	-.03756	.00110	-.02157	.00016
#2	.00001	.00020	.00000	.00929	-.03402	.00336	-.00440	-.00004
#3	-.00025	-.00029	.00036	.01223	.01738	.00012	-.02850	.00019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**.06574**	**.00062**	**.00386**	**.00092**	**-.00006**	**-.00116**	**.00122**
Stddev	.00010	.02689	.00020	.00557	.00108	.00095	.00207	.00112
%RSD	156.04	40.907	32.959	144.26	117.93	1681.7	178.60	91.643
#1	-.00018	.09152	.00049	.01018	.00204	.00101	-.00133	.00066
#2	-.00001	.03786	.00086	.00171	-.00012	-.00082	-.00314	.00050
#3	-.00001	.06782	.00052	-.00031	.00083	-.00036	.00099	.00251
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

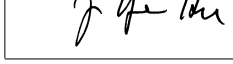


Sample Name: PBW 41 Acquired: 4/7/2014 14:26:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469562-03WG469562-04WG469562-01WG469562-0

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**.00001**	**.00055**	**-.00231**	**-.00006**	**.00256**	**.22157**
Stddev	.00017	.00009	.00073	.00094	.00029	.00032	.51477
%RSD	137.78	679.60	132.96	40.537	518.14	12.382	232.33
#1	-.00005	-.00009	.00135	-.00272	.00007	.00287	-.35551
#2	.00014	.00008	.00037	-.00297	-.00039	.00258	.63349
#3	.00029	.00006	-.00007	-.00124	.00016	.00224	.38672
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18968.**	**19524.**
Stddev	223.	415.
%RSD	1.1778	2.1278
#1	18841.	19864.
#2	18838.	19647.
#3	19226.	19061.

Approved: April 08, 2014



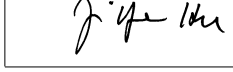
Sample Name: LCSW 41 Acquired: 4/7/2014 14:29:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469562-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00007**	**5.2746**	**.00086**	**.05911**	**.00172**	**.00009**	**5.2432**	**.00002**
Stddev	.00015	.0110	.00166	.00179	.00031	.00003	.0306	.00004
%RSD	203.39	.20891	193.24	3.0335	17.911	29.387	.58264	177.95
#1	.00001	5.2868	.00044	.06065	.00137	.00006	5.2278	.00006
#2	.00002	5.2717	.00268	.05954	.00194	.00010	5.2235	.00004
#3	-.00025	5.2654	-.00055	.05714	.00185	.00011	5.2784	-.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00010**	**.00009**	**.00029**	**2.0751**	**26.278**	**.00078**	**5.1978**	**.27776**
Stddev	.00002	.00021	.00083	.0137	.081	.00116	.0284	.00921
%RSD	17.382	229.07	284.24	.65876	.30748	148.65	.54632	3.3144
#1	-.00008	.00033	.00032	2.0642	26.185	.00028	5.2154	.28687
#2	-.00012	-.00006	.00111	2.0707	26.330	-.00004	5.1650	.26846
#3	-.00010	.00000	-.00055	2.0904	26.320	.00211	5.2129	.27796
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00013**	**26.448**	**.00016**	**.00371**	**-.00113**	**-.00203**	**-.00024**	**-.00285**
Stddev	.00012	.105	.00018	.00357	.00131	.00048	.00244	.00133
%RSD	92.687	.39529	109.96	96.064	116.33	23.702	1033.1	46.694
#1	.00000	26.328	.00001	.00316	-.00015	-.00171	-.00282	-.00178
#2	-.00023	26.519	.00012	.00752	-.00261	-.00258	.00008	-.00244
#3	-.00016	26.496	.00036	.00045	-.00061	-.00179	.00203	-.00434
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

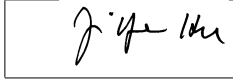


Sample Name: LCSW 41 Acquired: 4/7/2014 14:29:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469562-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00027**	**-.00004**	**-.00041**	**-.00056**	**.00025**	**.00159**	**.01862**
Stddev	.00036	.00015	.00049	.00043	.00018	.00010	.33667
%RSD	133.36	401.13	118.82	76.167	69.660	6.0210	1807.8
#1	-.00069	-.00015	.00011	-.00065	.00045	.00156	-.36959
#2	-.00008	-.00009	-.00050	-.00094	.00010	.00170	.19510
#3	-.00004	.00013	-.00085	-.00010	.00021	.00152	.23035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18920.**	**19465.**
Stddev	234.	396.
%RSD	1.2368	2.0348
#1	18782.	19009.
#2	18789.	19662.
#3	19191.	19724.

Approved: April 08, 2014



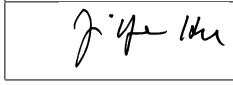
Sample Name: L1403165903 Acquired: 4/7/2014 14:33:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469562-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00019**	**.02514**	**.00104**	**.06149**	**.09192**	**.00007**	**22.064**	**.00020**
Stddev	.00029	.01292	.00085	.00065	.00069	.00001	.101	.00005
%RSD	150.67	51.417	81.367	1.0616	.74988	14.159	.45995	24.934
#1	.00032	.02901	.00033	.06076	.09271	.00008	22.166	.00016
#2	-.00014	.01072	.00081	.06169	.09148	.00008	21.963	.00019
#3	.00039	.03568	.00198	.06202	.09155	.00006	22.064	.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**.00036**	**.00080**	**.00688**	**1.0859**	**.02651**	**6.7934**	**.00018**
Stddev	.00021	.00016	.00017	.00243	.0484	.00117	.0742	.00007
%RSD	988.99	45.128	21.276	35.299	4.4548	4.4073	1.0928	38.980
#1	-.00026	.00023	.00098	.00917	1.1160	.02519	6.8609	.00024
#2	.00012	.00055	.00065	.00713	1.0301	.02696	6.7139	.00010
#3	.00007	.00030	.00077	.00433	1.1117	.02740	6.8054	.00020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**30.204**	**.00138**	**.00781**	**-.00002**	**.00131**	**.00240**	**2.8980**
Stddev	.00030	.125	.00047	.00551	.00160	.00147	.00487	.0358
%RSD	537.23	.41519	33.821	70.471	8705.4	112.33	202.51	1.2362
#1	.00015	30.343	.00173	.00250	.00169	.00134	-.00123	2.9288
#2	.00008	30.171	.00085	.00745	-.00148	.00277	.00794	2.8587
#3	-.00040	30.099	.00155	.01349	-.00026	-.00018	.00051	2.9065
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1403165903 Acquired: 4/7/2014 14:33:21 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469562-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**.70684**	**-.00060**	**-.00141**	**.00040**	**.00401**	**.28128**
Stddev	.00048	.00358	.00135	.00169	.00019	.00007	.61161
%RSD	2440.4	.50694	226.00	119.46	46.779	1.7294	217.44
#1	.00007	.71070	-.00209	-.00275	.00041	.00409	.60654
#2	-.00049	.70363	-.00026	.00049	.00058	.00397	-.42423
#3	.00048	.70618	.00055	-.00199	.00021	.00397	.66153
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18667.**	**20006.**
Stddev	319.	869.
%RSD	1.7085	4.3416
#1	19025.	19160.
#2	18414.	20895.
#3	18560.	19963.

Approved: April 08, 2014

Sample Name: L1403165903DP Acquired: 4/7/2014 14:36:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469562-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**.03194**	**.00010**	**.05347**	**.09244**	**.00004**	**22.243**
Stddev	.00062	.01161	.00116	.00108	.00013	.00001	.040
%RSD	291.33	36.362	1214.1	2.0221	.13720	19.341	.17813
#1	.00034	.02201	-.00101	.05432	.09244	.00005	22.202
#2	-.00009	.02909	-.00001	.05384	.09256	.00003	22.246
#3	-.00089	.04471	.00130	.05226	.09231	.00004	22.281
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**.00008**	**.00013**	**.00082**	**.01690**	**.99863**	**.02880**
Stddev	.00003	.00008	.00024	.00042	.00620	.03613	.00112
%RSD	16.431	110.36	187.15	50.978	36.697	3.6176	3.8993
#1	.00020	.00006	.00016	.00087	.01018	1.0133	.02777
#2	.00015	.00017	-.00012	.00038	.02240	1.0251	.02999
#3	.00017	.00000	.00034	.00121	.01812	.95748	.02863
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.8744**	**.00024**	**-.00033**	**30.489**	**.00128**	**.01257**	**-.00009**
Stddev	.0469	.00004	.00004	.072	.00057	.00400	.00181
%RSD	.68297	17.364	13.393	.23603	44.448	31.802	1951.5
#1	6.8455	.00028	-.00030	30.570	.00188	.00873	-.00151
#2	6.9286	.00020	-.00039	30.464	.00075	.01671	.00195
#3	6.8491	.00023	-.00032	30.432	.00121	.01228	-.00071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014

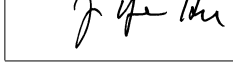
Sample Name: L1403165903DP Acquired: 4/7/2014 14:36:55 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469562-05

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00195**	**-.00215**	**2.9069**	**-.00002**	**.71526**	**.00113**	**-.00151**
Stddev	.00119	.00617	.0378	.00009	.00414	.00225	.00047
%RSD	60.726	287.55	1.3008	454.98	.57909	198.29	31.013
#1	.00221	.00325	2.9319	.00001	.71125	.00102	-.00162
#2	.00066	-.00888	2.9254	-.00013	.71500	.00344	-.00100
#3	.00299	-.00081	2.8634	.00006	.71952	-.00105	-.00191
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00016**	**.00401**	F **-.10848**
Stddev	.00007	.00002	.34549
%RSD	45.123	.62102	318.48
#1	.00022	.00401	.26147
#2	.00017	.00404	-.16418
#3	.00008	.00399	-.42273
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18688.**	**20079.**
Stddev	157.	439.
%RSD	.84137	2.1885
#1	18864.	19722.
#2	18560.	19946.
#3	18641.	20570.

Approved: April 08, 2014



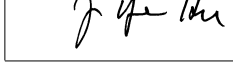
Sample Name: L1403165903S Acquired: 4/7/2014 14:40:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469562-06

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00049**	**5.1947**	**.00108**	**.04396**	**.08645**	**.00008**	**26.271**	**.00027**
Stddev	.00044	.0550	.00207	.00103	.00018	.00001	.097	.00009
%RSD	90.926	1.0581	191.94	2.3513	.21073	7.2382	.36944	33.603
#1	-.00004	5.1569	.00304	.04469	.08624	.00009	26.200	.00018
#2	-.00092	5.2577	.00129	.04278	.08652	.00008	26.382	.00027
#3	-.00050	5.1694	-.00109	.04442	.08658	.00008	26.232	.00036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00006**	**.00024**	**.00131**	**2.0319**	**27.057**	**.02643**	**11.426**	**.25410**
Stddev	.00038	.00039	.00057	.0169	.079	.00144	.107	.00647
%RSD	630.54	163.66	43.554	.83393	.29273	5.4453	.93478	2.5458
#1	-.00046	.00003	.00196	2.0196	26.974	.02727	11.310	.24682
#2	.00030	.00069	.00108	2.0512	27.132	.02726	11.520	.25629
#3	-.00002	.00000	.00089	2.0250	27.066	.02477	11.448	.25919
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00031**	**55.196**	**.00087**	**.00487**	**.00026**	**.00112**	**.00089**	**2.7842**
Stddev	.00010	.268	.00066	.00462	.00129	.00242	.00268	.0170
%RSD	33.415	.48549	76.209	95.021	503.83	215.71	299.71	.60950
#1	-.00037	54.962	.00095	.01005	-.00077	-.00118	.00068	2.7936
#2	-.00038	55.488	.00017	.00335	-.00016	.00364	.00367	2.7646
#3	-.00019	55.137	.00149	.00119	.00170	.00091	-.00167	2.7943
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

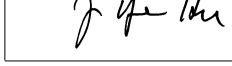


Sample Name: L1403165903S Acquired: 4/7/2014 14:40:28 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469562-06

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**.67818**	**-.00084**	**-.00145**	**-.00005**	**.00396**	**.11668**
Stddev	.00022	.00246	.00109	.00158	.00026	.00008	.53493
%RSD	124.23	.36257	130.10	108.66	492.89	2.0208	458.44
#1	.00000	.67591	-.00145	-.00065	-.00020	.00405	-.33657
#2	.00042	.68079	.00042	-.00327	.00025	.00389	.70672
#3	.00011	.67784	-.00148	-.00044	-.00021	.00393	-.02011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19104.**	**20568.**
Stddev	186.	243.
%RSD	.97284	1.1822
#1	19214.	20772.
#2	19209.	20634.
#3	18889.	20299.

Approved: April 08, 2014



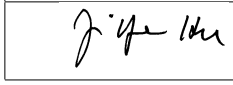
Sample Name: L1403166705 Acquired: 4/7/2014 14:44:00 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00037**	**.03715**	**.00035**	**.05212**	**.12841**	**.00008**	**51.645**	**.00032**
Stddev	.00027	.00468	.00154	.00063	.00148	.00001	.227	.00010
%RSD	71.211	12.598	439.17	1.2012	1.1493	14.118	.43913	29.930
#1	-.00009	.03631	.00153	.05275	.13011	.00008	51.898	.00031
#2	-.00042	.04219	-.00140	.05213	.12767	.00007	51.576	.00042
#3	-.00061	.03294	.00092	.05150	.12746	.00009	51.460	.00023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00026**	**-.00022**	**-.00025**	**.15421**	**2.3907**	**.08250**	**20.365**	**.05492**
Stddev	.00027	.00022	.00053	.00326	.0125	.00117	.239	.00114
%RSD	103.34	102.43	213.58	2.1108	.52473	1.4171	1.1745	2.0674
#1	.00050	.00003	.00036	.15061	2.4031	.08352	20.634	.05618
#2	.00030	-.00029	-.00062	.15506	2.3908	.08277	20.174	.05462
#3	-.00003	-.00040	-.00049	.15695	2.3780	.08122	20.288	.05397
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00007**	**75.539**	**.00168**	**.01156**	**-.00025**	**.00082**	**-.00191**	**3.2837**
Stddev	.00007	.439	.00051	.00262	.00099	.00187	.00255	.0415
%RSD	106.37	.58081	30.440	22.660	400.06	227.84	133.49	1.2648
#1	-.00013	76.009	.00219	.01242	.00015	-.00092	.00097	3.3308
#2	.00001	75.468	.00117	.01364	.00048	.00059	-.00282	3.2525
#3	-.00009	75.140	.00169	.00862	-.00137	.00280	-.00388	3.2677
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

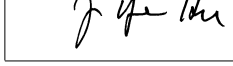


Sample Name: L1403166705 Acquired: 4/7/2014 14:44:00 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**1.5278**	**-.00093**	**-.00155**	**-.00006**	**.00298**	**.65712**
Stddev	.00051	.0036	.00117	.00204	.00034	.00008	.17080
%RSD	241.62	.23781	125.90	131.30	552.02	2.8175	25.993
#1	-.00024	1.5319	-.00212	-.00342	.00033	.00307	.85280
#2	-.00071	1.5267	.00022	-.00186	-.00032	.00294	.53790
#3	.00032	1.5249	-.00088	.00062	-.00020	.00292	.58066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18402.**	**20271.**
Stddev	241.	527.
%RSD	1.3081	2.5994
#1	18477.	19716.
#2	18597.	20334.
#3	18133.	20764.

Approved: April 08, 2014



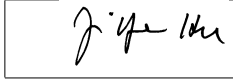
Sample Name: L1403166705PS Acquired: 4/7/2014 14:47:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469896-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.19612**	**5.1316**	**.20249**	**1.0497**	**.59760**	**.02493**	**51.295**	**.02531**
Stddev	.00207	.1150	.00146	.0108	.00077	.00014	.238	.00010
%RSD	1.0542	2.2404	.72119	1.0319	.12910	.55555	.46338	.39197
#1	.19624	5.0119	.20174	1.0503	.59742	.02491	51.021	.02537
#2	.19400	5.1419	.20418	1.0386	.59693	.02481	51.425	.02537
#3	.19812	5.2411	.20156	1.0603	.59845	.02508	51.440	.02520
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10294**	**.24812**	**.25376**	**2.1020**	**27.775**	**.55702**	**22.986**	**.29715**
Stddev	.00028	.00151	.00119	.0167	.175	.00246	.377	.01916
%RSD	.27445	.60808	.46920	.79467	.62941	.44234	1.6398	6.4495
#1	.10320	.24778	.25275	2.0838	27.577	.55435	22.572	.27665
#2	.10264	.24682	.25346	2.1055	27.909	.55920	23.078	.30018
#3	.10299	.24978	.25507	2.1167	27.840	.55751	23.308	.31462
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.50280**	**92.792**	**.25036**	**.01168**	**.25088**	**.61769**	**.20714**	**5.4131**
Stddev	.00156	.204	.00117	.00041	.00436	.00868	.00493	.0187
%RSD	.30975	.21962	.46549	3.4836	1.7378	1.4052	2.3785	.34464
#1	.50102	92.564	.24949	.01197	.24654	.60771	.20756	5.3952
#2	.50354	92.856	.24990	.01185	.25085	.62192	.21184	5.4324
#3	.50386	92.956	.25168	.01121	.25526	.62345	.20202	5.4119
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

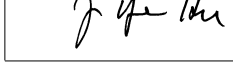


Sample Name: L1403166705PS Acquired: 4/7/2014 14:47:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG469896-03

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00034**	**1.8866**	**.47403**	**.26902**	**.48419**	**.51732**	**.31019**
Stddev	.00014	.0022	.00229	.00137	.00424	.00169	.13371
%RSD	42.062	.11501	.48270	.50906	.87575	.32723	43.107
#1	-.00018	1.8847	.47572	.26867	.48350	.51895	.27811
#2	-.00038	1.8890	.47143	.26785	.48034	.51557	.45703
#3	-.00046	1.8862	.47495	.27052	.48873	.51745	.19544
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18597.**	**19600.**
Stddev	155.	1114.
%RSD	.83579	5.6817
#1	18432.	20823.
#2	18741.	19332.
#3	18617.	18645.

Approved: April 08, 2014



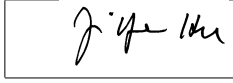
Sample Name: L1403166705SDL Acquired: 4/7/2014 14:50:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469896-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00038**	**.01541**	**.00149**	**.02847**	**.02630**	**.00005**	**10.416**	**-.00001**
Stddev	.00045	.00437	.00092	.00109	.00018	.00000	.013	.00011
%RSD	118.70	28.344	61.874	3.8309	.70004	3.1274	.12166	1337.5
#1	.00002	.01453	.00130	.02966	.02623	.00005	10.402	-.00003
#2	-.00086	.02015	.00250	.02821	.02651	.00006	10.420	.00011
#3	-.00029	.01155	.00068	.02753	.02616	.00005	10.426	-.00011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00035**	**-.00014**	**.00077**	**.03390**	**.45917**	**.01918**	**4.1051**	**.01149**
Stddev	.00007	.00014	.00053	.00086	.01217	.00087	.0181	.00067
%RSD	20.774	100.01	68.564	2.5342	2.6503	4.5344	.43965	5.8608
#1	.00027	-.00029	.00105	.03347	.45371	.01819	4.0956	.01073
#2	.00042	-.00010	.00109	.03489	.47312	.01981	4.0938	.01172
#3	.00035	-.00002	.00016	.03334	.45069	.01954	4.1259	.01202
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00007**	**14.939**	**-.00019**	**.00773**	**-.00022**	**.00077**	**-.00155**	**.67262**
Stddev	.00010	.071	.00027	.00015	.00059	.00140	.00265	.00692
%RSD	129.24	.47786	137.78	1.9694	269.36	180.98	170.72	1.0290
#1	-.00019	14.902	-.00034	.00773	-.00035	-.00013	-.00455	.66500
#2	-.00001	15.021	-.00036	.00788	-.00073	.00238	-.00060	.67432
#3	-.00002	14.894	.00011	.00758	.00042	.00006	.00049	.67853
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

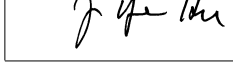


Sample Name: L1403166705SDL Acquired: 4/7/2014 14:50:52 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG469896-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00014**	**.30774**	**.00046**	**.00100**	**-.00005**	**.00130**	**.33312**
Stddev	.00027	.00029	.00034	.00191	.00024	.00014	.31144
%RSD	197.35	.09561	73.182	192.17	472.15	10.408	93.490
#1	.00013	.30784	.00007	.00317	-.00026	.00142	.66551
#2	-.00041	.30797	.00065	-.00042	.00021	.00116	.28582
#3	-.00013	.30741	.00066	.00023	-.00011	.00134	.04804
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19253.**	**20630.**
Stddev	274.	535.
%RSD	1.4252	2.5918
#1	19157.	21197.
#2	19040.	20559.
#3	19563.	20135.

Approved: April 08, 2014



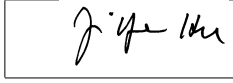
Sample Name: CCV Acquired: 4/7/2014 14:54:30 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.39870**	**10.200**	**.40832**	**.53110**	**.98636**	**.05039**	**10.200**
Stddev	.00946	.035	.00120	.01416	.00153	.00092	.081
%RSD	2.3729	.34147	.29371	2.6666	.15556	1.8248	.79350
#1	.40209	10.178	.40862	.53483	.98468	.05063	10.291
#2	.38801	10.183	.40935	.51545	.98768	.04937	10.137
#3	.40600	10.240	.40700	.54303	.98672	.05116	10.171
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05071**	**.20821**	**.50475**	**.51840**	**3.9671**	**51.161**	**.97950**
Stddev	.00032	.00116	.00874	.00310	.0154	.079	.00071
%RSD	.62878	.55571	1.7316	.59811	.38826	.15468	.07213
#1	.05038	.20692	.50818	.51486	3.9618	51.130	.97877
#2	.05072	.20856	.49481	.52061	3.9550	51.102	.98017
#3	.05102	.20915	.51125	.51974	3.9845	51.251	.97956
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.9531**	**.49492**	**.99500**	**51.144**	**.50679**	**10.113**	**.50802**
Stddev	.0208	.01180	.00073	.093	.00242	.012	.00315
%RSD	.20889	2.3846	.07291	.18234	.47694	.11641	.61937
#1	9.9305	.49717	.99464	51.041	.50404	10.122	.50710
#2	9.9573	.48215	.99584	51.223	.50775	10.118	.50544
#3	9.9714	.50543	.99453	51.166	.50858	10.100	.51153
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 08, 2014



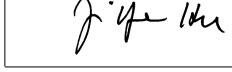
Sample Name: CCV Acquired: 4/7/2014 14:54:30 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2177**	**.42407**	**5.0537**	**1.0597**	**1.0498**	**.95751**	F **.55003**
Stddev	.0065	.00431	.0066	.0112	.0013	.00130	.00730
%RSD	.53650	1.0167	.13100	1.0593	.12581	.13594	1.3273
#1	1.2109	.41932	5.0611	1.0467	1.0500	.95622	.54172
#2	1.2181	.42517	5.0483	1.0668	1.0484	.95882	.55541
#3	1.2240	.42773	5.0516	1.0655	1.0511	.95749	.55297
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value							.50000
Range							10.000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.98574**	**1.0426**	F **.69943**
Stddev	.02391	.0006	.14397
%RSD	2.4259	.06080	20.584
#1	.99137	1.0430	.67747
#2	.95952	1.0429	.85313
#3	1.0063	1.0419	.56771
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			-10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18951.**	**20643.**
Stddev	3.	33.
%RSD	.01559	.16210
#1	18948.	20660.
#2	18952.	20664.
#3	18954.	20604.

Approved: April 08, 2014



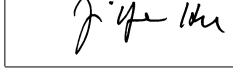
Sample Name: CCB Acquired: 4/7/2014 14:57:47 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00049**	**.00910**	**.00058**	**.02106**	**.00082**	**.00006**	**-.00612**	**.00004**
Stddev	.00028	.00951	.00070	.00088	.00032	.00002	.00454	.00004
%RSD	56.957	104.54	121.41	4.1705	39.102	32.541	74.170	96.921
#1	-.00051	.00653	.00002	.02144	.00078	.00008	-.00897	.00004
#2	-.00075	.00113	.00035	.02006	.00052	.00004	-.00089	.00007
#3	-.00020	.01962	.00136	.02169	.00116	.00006	-.00851	.00000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**-.00029**	**.00012**	**.00274**	**-.06934**	**.00352**	**-.01067**	**.00006**
Stddev	.00025	.00021	.00027	.00455	.02366	.00072	.02073	.00004
%RSD	266.34	70.260	219.53	166.11	34.122	20.443	194.16	59.026
#1	-.00015	-.00048	-.00008	-.00228	-.09378	.00428	.01114	.00002
#2	.00036	-.00007	.00043	.00659	-.06770	.00286	-.03011	.00009
#3	.00008	-.00033	.00002	.00390	-.04654	.00340	-.01306	.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00009**	**.05760**	**.00056**	**.00324**	**-.00025**	**.00212**	**-.00288**	**-.00805**
Stddev	.00015	.01240	.00052	.00368	.00071	.00051	.00292	.00050
%RSD	172.41	21.519	92.253	113.84	285.03	24.206	101.48	6.2350
#1	.00008	.05665	-.00001	.00617	.00057	.00188	-.00256	-.00838
#2	-.00012	.07045	.00101	-.00090	-.00070	.00271	-.00595	-.00830
#3	-.00022	.04571	.00069	.00443	-.00062	.00177	-.00013	-.00747
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: CCB Acquired: 4/7/2014 14:57:47 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00028**	**.00016**	**-.00104**	**-.00164**	**.00024**	**.00010**	**.05562**
Stddev	.00031	.00014	.00055	.00170	.00030	.00005	.36781
%RSD	112.60	85.692	52.799	103.36	124.18	50.288	661.24
#1	-.00064	.00032	-.00088	-.00019	-.00010	.00006	-.17439
#2	-.00012	.00007	-.00166	-.00123	.00042	.00008	-.13857
#3	-.00007	.00009	-.00059	-.00351	.00041	.00016	.47983
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19113.**	**19825.**
Stddev	55.	34.
%RSD	.28653	.17068
#1	19064.	19864.
#2	19103.	19806.
#3	19172.	19804.

Approved: April 08, 2014

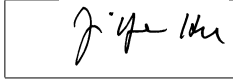
Sample Name: PBW 1T Acquired: 4/7/2014 15:01:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470240-03

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00064**	**.02661**	**.00189**	**.01547**	**.00083**	**.00006**	**-.01417**	**-.00014**
Stddev	.00031	.02045	.00144	.00114	.00024	.00002	.00263	.00014
%RSD	47.646	76.871	76.231	7.3413	28.847	25.735	18.578	96.455
#1	-.00029	.00301	.00033	.01470	.00089	.00008	-.01207	-.00025
#2	-.00084	.03917	.00317	.01494	.00057	.00006	-.01712	-.00018
#3	-.00081	.03764	.00217	.01678	.00104	.00005	-.01331	.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00045**	**-.00016**	**.00017**	**-.00442**	**-.05502**	**.00293**	**-.00784**	**.00002**
Stddev	.00004	.00046	.00013	.00452	.02316	.00100	.00340	.00006
%RSD	9.2092	293.38	73.128	102.17	42.100	33.950	43.368	363.63
#1	.00049	-.00045	.00008	-.00427	-.02935	.00179	-.00474	-.00005
#2	.00040	-.00039	.00013	.00002	-.06134	.00341	-.01148	.00005
#3	.00044	.00037	.00032	-.00901	-.07436	.00361	-.00730	.00005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**.03326**	**-.00010**	**.00483**	**.00041**	**.00053**	**-.00231**	**-.00671**
Stddev	.00007	.01194	.00064	.00279	.00221	.00183	.00324	.00073
%RSD	38.509	35.898	638.44	57.673	536.76	346.40	140.39	10.919
#1	-.00012	.01949	-.00057	.00202	.00241	.00118	-.00228	-.00743
#2	-.00019	.04074	-.00036	.00489	-.00197	.00193	-.00556	-.00596
#3	-.00027	.03954	.00063	.00759	.00080	-.00154	.00092	-.00673
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

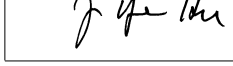


Sample Name: PBW 1T Acquired: 4/7/2014 15:01:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470240-03

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**.00006**	**-.00111**	**.00026**	**-.00004**	**-.00003**	**.33053**
Stddev	.00028	.00003	.00027	.00089	.00009	.00014	.12301
%RSD	1184.5	58.740	23.828	348.42	239.74	424.85	37.217
#1	-.00018	.00003	-.00087	-.00066	-.00001	.00010	.26243
#2	-.00019	.00009	-.00108	.00031	.00003	-.00019	.47253
#3	.00030	.00006	-.00140	.00112	-.00013	-.00002	.25662
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19361.**	**20474.**
Stddev	103.	282.
%RSD	.53396	1.3752
#1	19331.	20766.
#2	19277.	20452.
#3	19477.	20204.

Approved: April 08, 2014



Sample Name: LCSW 1T Acquired: 4/7/2014 15:05:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470240-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.16311**	**5.1858**	**.00013**	**.01537**	**.00100**	**.00007**	**5.1493**	**.00008**
Stddev	.00383	.0214	.00283	.00067	.00028	.00002	.0172	.00019
%RSD	2.3507	.41165	2109.6	4.3467	28.112	28.738	.33389	226.42
#1	.15879	5.1729	-.00302	.01583	.00083	.00006	5.1340	.00003
#2	.16610	5.1740	.00245	.01460	.00085	.00009	5.1459	-.00007
#3	.16444	5.2104	.00097	.01568	.00133	.00005	5.1679	.00029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**-.00011**	**.00068**	**2.0355**	**25.782**	**.00313**	**5.1091**	**.26806**
Stddev	.00015	.00012	.00031	.0068	.028	.00257	.0140	.00647
%RSD	549.65	113.36	45.874	.33372	.10819	82.323	.27352	2.4127
#1	.00011	-.00018	.00104	2.0294	25.753	.00604	5.1238	.26080
#2	.00012	-.00017	.00052	2.0428	25.809	.00217	5.1074	.27021
#3	-.00015	.00003	.00048	2.0343	25.785	.00117	5.0960	.27319
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00012**	**25.830**	**.00052**	**.00127**	**-.00075**	**.00029**	**-.00106**	**-.00849**
Stddev	.00017	.049	.00060	.00564	.00258	.00059	.00218	.00077
%RSD	137.69	.19047	115.97	443.37	343.39	205.98	205.46	9.0521
#1	.00007	25.790	.00037	.00704	-.00211	.00094	.00063	-.00930
#2	-.00018	25.885	.00000	-.00422	.00222	.00015	-.00029	-.00841
#3	-.00026	25.816	.00117	.00099	-.00236	-.00022	-.00352	-.00776
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

Sample Name: LCSW 1T Acquired: 4/7/2014 15:05:01 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470240-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**-.00018**	**.00059**	**-.00096**	**.00010**	**.00162**	**.21539**
Stddev	.00019	.00008	.00078	.00176	.00047	.00009	.60186
%RSD	178.21	45.426	131.54	182.55	475.10	5.7183	279.43
#1	-.00011	-.00018	.00104	.00060	-.00028	.00164	.32064
#2	.00023	-.00010	.00104	-.00062	-.00005	.00171	.75769
#3	.00020	-.00027	-.00031	-.00287	.00063	.00153	-.43215
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18930.**	**19834.**
Stddev	170.	100.
%RSD	.89981	.50560
#1	18910.	19941.
#2	18771.	19819.
#3	19110.	19742.

Approved: April 08, 2014

Sample Name: L1404033501 Acquired: 4/7/2014 15:08:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470240-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00049**	**.36317**	**.00051**	**.31057**	**.00513**	**.00010**	**444.92**
Stddev	.00048	.03094	.00030	.00076	.00015	.00002	2.57
%RSD	98.324	8.5206	59.726	.24506	3.0010	15.971	.57689
#1	-.00103	.32799	.00034	.31119	.00529	.00012	447.50
#2	-.00013	.38618	.00033	.31080	.00498	.00009	444.92
#3	-.00031	.37533	.00086	.30973	.00512	.00009	442.36
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00075**	**.00154**	**.00026**	**.00000**	**.42100**	**8.6005**	**.39066**
Stddev	.00015	.00012	.00005	.00032	.00777	.0615	.00226
%RSD	20.019	7.7963	18.797	9987.0	1.8465	.71470	.57732
#1	.00060	.00141	.00030	-.00033	.41212	8.5878	.39133
#2	.00090	.00156	.00027	.00002	.42660	8.6673	.39251
#3	.00074	.00164	.00021	.00032	.42427	8.5464	.38815
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**59.614**	**.57076**	**-.00016**	**188.99**	**.00524**	**.01963**	**-.00164**
Stddev	.260	.00293	.00015	.44	.00078	.00349	.00218
%RSD	.43637	.51413	96.391	.23243	14.863	17.765	132.89
#1	59.912	.57415	-.00031	189.50	.00601	.01816	.00063
#2	59.501	.56903	-.00001	188.69	.00445	.01712	-.00184
#3	59.430	.56909	-.00015	188.79	.00525	.02361	-.00372
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014

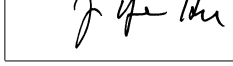
Sample Name: L1404033501 Acquired: 4/7/2014 15:08:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470240-01

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00045**	**-.00257**	**.35834**	**-.00044**	**1.1098**	**-.00521**	**-.00274**
Stddev	.00082	.00362	.00149	.00016	.0087	.00097	.00247
%RSD	184.16	140.62	.41527	37.315	.78359	18.622	90.169
#1	.00050	-.00198	.35960	-.00029	1.1183	-.00439	-.00096
#2	-.00083	.00071	.35871	-.00041	1.1102	-.00495	-.00170
#3	-.00101	-.00645	.35670	-.00062	1.1009	-.00628	-.00557
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00003**	**.00518**	F **-.55030**
Stddev	.00017	.00040	.58621
%RSD	628.15	7.7539	106.52
#1	-.00022	.00486	-.50246
#2	.00004	.00505	-1.1590
#3	.00010	.00563	.01052
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**17924.**	**20374.**
Stddev	13.	123.
%RSD	.07444	.60263
#1	17932.	20233.
#2	17909.	20443.
#3	17931.	20447.

Approved: April 08, 2014



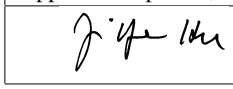
Sample Name: L1404033501DP Acquired: 4/7/2014 15:12:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470240-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00077**	**.39134**	**.00053**	**.31046**	**.00508**	**.00011**	**456.47**
Stddev	.00044	.03039	.00086	.00396	.00014	.00004	.98
%RSD	56.599	7.7649	162.39	1.2746	2.8355	35.245	.21467
#1	-.00059	.35680	.00049	.30650	.00491	.00014	456.43
#2	-.00127	.41397	-.00031	.31047	.00515	.00012	457.48
#3	-.00045	.40323	.00140	.31441	.00518	.00006	455.52
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00073**	**.00155**	**.00067**	**-.00017**	**.43254**	**8.8585**	**.40019**
Stddev	.00007	.00003	.00017	.00014	.00655	.0352	.00205
%RSD	9.4765	2.2138	24.909	79.416	1.5138	.39749	.51200
#1	.00081	.00154	.00069	-.00021	.43240	8.8970	.40208
#2	.00068	.00152	.00083	-.00002	.43916	8.8507	.40049
#3	.00069	.00158	.00049	-.00029	.42607	8.8279	.39801
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**61.186**	**.58284**	**-.00009**	**194.17**	**.00544**	**.01377**	**.00050**
Stddev	.285	.00737	.00021	.70	.00020	.00574	.00262
%RSD	.46605	1.2642	244.08	.36247	3.6609	41.682	521.39
#1	60.921	.57540	-.00033	194.49	.00542	.02038	.00294
#2	61.488	.58297	.00006	194.65	.00525	.01096	.00085
#3	61.150	.59014	.00001	193.36	.00565	.00998	-.00228
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014



Sample Name: L1404033501DP Acquired: 4/7/2014 15:12:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470240-05

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**-.00127**	**.36230**	**-.00050**	**1.1422**	**-.00571**	**-.00096**
Stddev	.00078	.00074	.00402	.00045	.0020	.00120	.00243
%RSD	685.77	58.234	1.1094	89.965	.17412	21.046	254.34
#1	.00054	-.00156	.35861	-.00042	1.1426	-.00433	.00064
#2	-.00078	-.00182	.36658	-.00098	1.1439	-.00653	-.00375
#3	.00059	-.00043	.36171	-.00009	1.1400	-.00626	.00024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00002**	**.00415**	F **-.50019**
Stddev	.00024	.00010	.56551
%RSD	1551.6	2.3378	113.06
#1	-.00021	.00406	-1.1471
#2	-.00009	.00425	-.25388
#3	.00025	.00414	-.09960
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18281.**	**20369.**
Stddev	30.	160.
%RSD	.16166	.78454
#1	18315.	20552.
#2	18265.	20302.
#3	18263.	20254.

Approved: April 08, 2014

Sample Name: L1404033501S Acquired: 4/7/2014 15:15:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470240-06

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.16441**	**5.6016**	**.00064**	**.31256**	**.00505**	**.00010**	**464.14**
Stddev	.00026	.0287	.00149	.00221	.00008	.00003	.79
%RSD	.15706	.51277	231.46	.70587	1.4919	33.087	.17066
#1	.16446	5.5810	.00233	.31028	.00504	.00013	464.11
#2	.16413	5.5893	-.00051	.31273	.00499	.00006	463.36
#3	.16464	5.6344	.00012	.31468	.00514	.00011	464.94
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00081**	**.00147**	**.00053**	**-.00012**	**2.3941**	**35.701**	**.40373**
Stddev	.00004	.00009	.00058	.00075	.0110	.058	.00205
%RSD	5.0105	6.0966	108.65	603.16	.45738	.16227	.50890
#1	.00085	.00144	.00008	-.00064	2.4035	35.709	.40515
#2	.00083	.00158	.00119	.00074	2.3821	35.640	.40138
#3	.00077	.00141	.00033	-.00047	2.3969	35.755	.40467
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**66.330**	**.82213**	**-.00014**	**222.23**	**.00603**	**.01451**	**.00063**
Stddev	.199	.00273	.00013	1.26	.00068	.00463	.00032
%RSD	.30024	.33257	90.842	.56889	11.243	31.902	50.684
#1	66.556	.82402	-.00009	223.30	.00681	.01623	.00089
#2	66.179	.81899	-.00005	220.84	.00571	.01804	.00072
#3	66.254	.82337	-.00029	222.57	.00558	.00927	.00027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014

Sample Name: L1404033501S Acquired: 4/7/2014 15:15:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470240-06

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00103**	**-.00226**	**.36963**	**-.00056**	**1.1486**	**-.00429**	**-.00351**
Stddev	.00067	.00179	.00402	.00046	.0037	.00031	.00098
%RSD	64.746	79.323	1.0865	81.116	.32580	7.2918	28.035
#1	.00180	-.00333	.37023	-.00004	1.1449	-.00440	-.00426
#2	.00060	-.00325	.37332	-.00079	1.1485	-.00394	-.00239
#3	.00069	-.00019	.36535	-.00086	1.1524	-.00454	-.00387
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00021**	**.00439**	F **-.96389**
Stddev	.00040	.00006	1.0308
%RSD	187.01	1.4421	106.95
#1	.00016	.00440	-2.1541
#2	-.00016	.00433	-.35620
#3	.00063	.00445	-.38137
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18232.**	**20643.**
Stddev	19.	43.
%RSD	.10227	.20780
#1	18253.	20609.
#2	18225.	20691.
#3	18218.	20629.

Approved: April 08, 2014

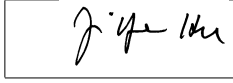
Sample Name: L1403162101 Acquired: 4/7/2014 15:21:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00013**	**-.00237**	**.00195**	**.01120**	**.00973**	**.00006**	**6.5213**	**-.00011**
Stddev	.00024	.01886	.00014	.00126	.00041	.00003	.0458	.00007
%RSD	179.25	795.78	6.9535	11.268	4.1998	50.654	.70266	67.876
#1	.00009	.00844	.00208	.01243	.00956	.00009	6.4938	-.00011
#2	-.00039	.00860	.00197	.01126	.00944	.00004	6.4960	-.00018
#3	-.00010	-.02415	.00181	.00991	.01020	.00004	6.5742	-.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00020**	**.00026**	**.00014**	**.01656**	**.07033**	**.00325**	**2.6076**	**.00059**
Stddev	.00026	.00022	.00021	.00085	.03527	.00023	.0304	.00002
%RSD	129.84	83.907	145.19	5.1457	50.148	7.1284	1.1666	3.2268
#1	.00027	.00037	.00039	.01638	.10417	.00298	2.5907	.00058
#2	-.00009	.00041	.00002	.01581	.03379	.00338	2.5894	.00058
#3	.00043	.00001	.00003	.01749	.07301	.00339	2.6427	.00061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00015**	**.35458**	**.00015**	**.00941**	**.00079**	**.00072**	**-.00065**	**.43280**
Stddev	.00021	.01147	.00050	.00083	.00093	.00109	.00198	.00661
%RSD	134.29	3.2337	327.81	8.8256	117.09	152.02	305.09	1.5280
#1	-.00005	.34134	-.00013	.00880	.00016	-.00040	-.00080	.43111
#2	-.00039	.36097	.00073	.01036	.00185	.00178	.00140	.44010
#3	-.00002	.36142	-.00014	.00908	.00036	.00077	-.00255	.42720
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1403162101 Acquired: 4/7/2014 15:21:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**.00753**	**.00524**	**-.00054**	**.00002**	**.00207**	**.54735**
Stddev	.00026	.00029	.00062	.00090	.00018	.00012	.33159
%RSD	142.14	3.8022	11.788	164.94	795.77	5.9519	60.581
#1	-.00021	.00737	.00594	-.00153	-.00011	.00196	.74726
#2	-.00043	.00735	.00478	.00023	-.00005	.00206	.73021
#3	.00009	.00786	.00500	-.00034	.00023	.00220	.16459
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19802.**	**21012.**
Stddev	117.	62.
%RSD	.58962	.29525
#1	19867.	21083.
#2	19872.	20970.
#3	19667.	20983.

Approved: April 08, 2014

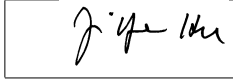
Sample Name: L1403162104 Acquired: 4/7/2014 15:24:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00056**	**.02320**	**.00066**	**.00970**	**.00360**	**.00007**	**5.4619**	**-.00009**
Stddev	.00025	.02986	.00065	.00028	.00029	.00003	.0434	.00015
%RSD	44.188	128.68	98.181	2.8504	7.9729	51.223	.79385	171.24
#1	-.00061	.04721	-.00005	.01002	.00340	.00011	5.4178	-.00022
#2	-.00079	-.01023	.00122	.00957	.00347	.00004	5.4634	-.00011
#3	-.00030	.03263	.00083	.00952	.00393	.00005	5.5045	.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**.00017**	**.00016**	**.01015**	**.02354**	**.00336**	**1.7524**	**.00007**
Stddev	.00018	.00036	.00023	.00300	.05400	.00050	.0123	.00005
%RSD	58.842	214.14	141.74	29.518	229.41	14.960	.70291	72.308
#1	.00025	.00057	.00024	.00814	.03591	.00337	1.7412	.00008
#2	.00015	-.00015	-.00010	.00871	.07028	.00285	1.7505	.00002
#3	.00049	.00010	.00034	.01359	-.03557	.00385	1.7656	.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00029**	**.57641**	**-.00041**	**.00171**	**-.00033**	**.00023**	**-.00438**	**.36619**
Stddev	.00023	.00373	.00040	.00307	.00144	.00085	.00230	.01294
%RSD	79.891	.64775	98.694	179.52	442.63	370.30	52.483	3.5329
#1	-.00006	.57480	-.00046	.00126	.00118	-.00021	-.00174	.35456
#2	-.00052	.57376	.00002	.00497	-.00047	-.00031	-.00550	.36387
#3	-.00028	.58068	-.00078	-.00111	-.00169	.00121	-.00591	.38012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

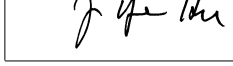


Sample Name: L1403162104 Acquired: 4/7/2014 15:24:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00007**	**.00694**	**.00070**	**.00025**	**.00042**	**.00133**	**.55981**
Stddev	.00039	.00003	.00114	.00164	.00015	.00008	.07069
%RSD	563.38	.41802	162.75	644.92	35.174	6.2427	12.627
#1	-.00042	.00697	.00194	.00213	.00059	.00138	.50615
#2	.00034	.00693	.00048	-.00092	.00034	.00123	.63991
#3	-.00013	.00692	-.00031	-.00045	.00033	.00137	.53339
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19862.**	**21029.**
Stddev	11.	85.
%RSD	.05487	.40486
#1	19874.	21126.
#2	19856.	20967.
#3	19855.	20994.

Approved: April 08, 2014



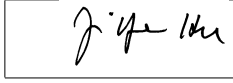
Sample Name: L1403162105 Acquired: 4/7/2014 15:28:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00010**	**.05281**	**.00102**	**.00913**	**.00354**	**.00007**	**5.8120**	**-.00002**
Stddev	.00009	.01733	.00074	.00081	.00049	.00003	.0273	.00010
%RSD	92.506	32.816	72.280	8.8886	13.832	37.879	.46896	495.65
#1	.00020	.06017	.00105	.01003	.00315	.00004	5.7862	.00007
#2	.00006	.06524	.00027	.00890	.00409	.00008	5.8094	-.00012
#3	.00003	.03301	.00174	.00845	.00339	.00009	5.8405	-.00001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**-.00016**	**-.00010**	**.03504**	**.07075**	**.00284**	**1.8558**	**.00074**
Stddev	.00010	.00060	.00040	.00319	.03373	.00061	.0205	.00004
%RSD	33.819	367.67	402.34	9.1080	47.680	21.481	1.1035	4.8703
#1	.00042	.00036	-.00001	.03781	.05063	.00352	1.8325	.00070
#2	.00026	-.00002	.00025	.03577	.05192	.00232	1.8641	.00075
#3	.00023	-.00082	-.00054	.03155	.10969	.00269	1.8708	.00076
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00005**	**.64441**	**-.00003**	**.00273**	**.00054**	**-.00149**	**-.00207**	**.40439**
Stddev	.00007	.00822	.00047	.00572	.00066	.00082	.00313	.00469
%RSD	138.46	1.2755	1552.5	209.57	122.02	54.851	151.11	1.1595
#1	.00012	.65045	-.00057	.00779	.00027	-.00190	-.00520	.40272
#2	.00003	.63505	.00016	-.00348	.00129	-.00202	-.00207	.40077
#3	-.00001	.64772	.00031	.00388	.00006	-.00055	.00106	.40969
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1403162105 Acquired: 4/7/2014 15:28:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 10 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**.00727**	**.00065**	**.00125**	**.00033**	**.00358**	**.25752**
Stddev	.00021	.00006	.00027	.00234	.00017	.00010	.06827
%RSD	195.42	.79025	41.518	187.67	53.051	2.8774	26.511
#1	.00035	.00721	.00082	-.00071	.00050	.00360	.32646
#2	-.00002	.00730	.00079	.00384	.00034	.00346	.18994
#3	-.00001	.00731	.00034	.00061	.00015	.00367	.25616
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19754.**	**21457.**
Stddev	16.	199.
%RSD	.08046	.92788
#1	19759.	21675.
#2	19737.	21408.
#3	19767.	21286.

Approved: April 08, 2014

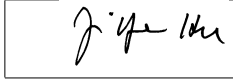
Sample Name: CCV Acquired: 4/7/2014 15:31:56 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.40518**	**10.156**	**.41034**	**.53036**	**.99546**	**.05061**	**10.124**
Stddev	.00417	.083	.00226	.00436	.00120	.00036	.030
%RSD	1.0293	.81509	.55138	.82165	.12097	.70232	.29859
#1	.40623	10.089	.40838	.53324	.99430	.05079	10.094
#2	.40872	10.248	.40983	.53249	.99671	.05083	10.155
#3	.40058	10.130	.41281	.52535	.99537	.05020	10.123
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05110**	**.20843**	**.50768**	**.52113**	**3.9853**	**51.027**	**.98390**
Stddev	.00025	.00044	.00303	.00148	.0088	.211	.00152
%RSD	.49814	.20913	.59766	.28489	.22025	.41374	.15410
#1	.05082	.20845	.50869	.51966	3.9753	50.808	.98225
#2	.05132	.20885	.51008	.52263	3.9918	51.229	.98420
#3	.05115	.20798	.50427	.52112	3.9888	51.044	.98524
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.9262**	**.49790**	**1.0006**	**51.473**	**.51034**	**10.147**	**.51343**
Stddev	.0931	.00464	.0015	.194	.00168	.076	.00120
%RSD	.93752	.93263	.14904	.37655	.32896	.74965	.23316
#1	9.8266	.49307	1.0020	51.249	.50900	10.234	.51356
#2	10.011	.50233	1.0006	51.589	.51222	10.112	.51456
#3	9.9411	.49831	.99905	51.581	.50979	10.095	.51218
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 08, 2014



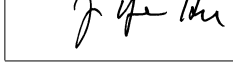
Sample Name: CCV Acquired: 4/7/2014 15:31:56 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2211**	**.42180**	**5.0662**	**1.0615**	**1.0444**	**.96483**	F **.55561**
Stddev	.0015	.00479	.0116	.0018	.0046	.00204	.00246
%RSD	.12632	1.1365	.22827	.17320	.43615	.21134	.44288
#1	1.2225	.42642	5.0569	1.0601	1.0397	.96434	.55296
#2	1.2195	.42215	5.0625	1.0636	1.0488	.96706	.55783
#3	1.2214	.41685	5.0791	1.0608	1.0447	.96307	.55605
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value							.50000
Range							10.000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0048**	**1.0370**	F **1.2085**
Stddev	.0081	.0057	.3134
%RSD	.81013	.54556	25.937
#1	1.0086	1.0381	1.0005
#2	1.0102	1.0420	1.5690
#3	.99541	1.0309	1.0559
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18930.**	**20827.**
Stddev	123.	217.
%RSD	.65208	1.0400
#1	18890.	21068.
#2	18832.	20650.
#3	19069.	20762.

Approved: April 08, 2014



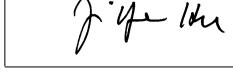
Sample Name: CCB Acquired: 4/7/2014 15:35:13 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00032**	**.00195**	**.00092**	**.01006**	**.00028**	**.00009**	**.00485**
Stddev	.00012	.01830	.00152	.00036	.00038	.00001	.00519
%RSD	36.785	936.80	165.40	3.5832	136.21	9.8856	107.00
#1	-.00020	-.01908	-.00019	.01042	-.00011	.00009	.00294
#2	-.00043	.01427	.00266	.01006	.00065	.00010	.01072
#3	-.00033	.01067	.00029	.00970	.00031	.00009	.00088
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**-.00014**	**.00009**	**.00023**	**-.00438**	**-.01311**	**.00270**
Stddev	.0001	.00005	.00024	.00016	.00471	.03585	.00164
%RSD	8121.2	34.262	273.14	69.752	107.50	273.55	60.832
#1	.00006	-.00010	.00031	.00008	-.00933	-.04099	.00103
#2	.00000	-.00013	-.00017	.00040	.00006	-.02567	.00431
#3	-.00006	-.00019	.00013	.00020	-.00388	.02734	.00276
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01218**	**.00007**	**.00011**	**.03759**	**.00004**	**.00456**	**.00003**
Stddev	.01830	.00012	.00016	.00998	.00075	.00323	.00110
%RSD	150.34	172.73	147.07	26.540	1893.9	70.766	4044.4
#1	-.03319	-.00001	.00003	.03217	.00050	.00302	-.00026
#2	-.00362	.00002	.00029	.03150	.00044	.00827	.00125
#3	.00029	.00021	.00000	.04911	-.00083	.00239	-.00090
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014



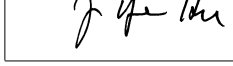
Sample Name: CCB Acquired: 4/7/2014 15:35:13 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00028**	**-.00021**	**-.00788**	**-.00010**	**-.00011**	**-.00080**	**-.00299**
Stddev	.00064	.00367	.00024	.00017	.00005	.00069	.00069
%RSD	228.22	1758.9	3.0726	163.46	45.457	86.703	23.173
#1	-.00045	.00215	-.00761	-.00014	-.00014	-.00154	-.00231
#2	.00061	.00166	-.00798	.00008	-.00014	-.00071	-.00369
#3	.00068	-.00444	-.00807	-.00025	-.00005	-.00016	-.00297
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00003**	**.00017**	F **.52192**
Stddev	.00019	.00006	.19968
%RSD	590.13	34.610	38.258
#1	.00013	.00015	.71466
#2	.00001	.00011	.53515
#3	-.00024	.00023	.31596
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19510.**	**21342.**
Stddev	6.	90.
%RSD	.03102	.42293
#1	19503.	21339.
#2	19512.	21434.
#3	19514.	21254.

Approved: April 08, 2014



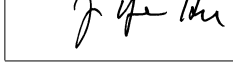
Sample Name: L1404004501 Acquired: 4/7/2014 15:38:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00033**	**.84998**	**.00227**	**.14899**	**.05663**	**.00020**	**6.0797**	**.00021**
Stddev	.00040	.00488	.00139	.00137	.00069	.00002	.0315	.00007
%RSD	123.67	.57409	61.182	.92060	1.2189	7.5825	.51749	33.485
#1	-.00073	.84783	.00283	.14825	.05737	.00020	6.0940	.00014
#2	.00007	.85556	.00331	.14814	.05649	.00018	6.1014	.00028
#3	-.00032	.84654	.00069	.15057	.05601	.00022	6.0436	.00022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00119**	**.00143**	**.00258**	**1.4030**	**2.5504**	**.02493**	**2.7782**	**.07701**
Stddev	.00025	.00013	.00019	.0084	.0294	.00143	.0188	.00091
%RSD	21.072	9.4463	7.3539	.59653	1.1517	5.7426	.67572	1.1795
#1	.00115	.00155	.00236	1.3988	2.5248	.02590	2.7973	.07673
#2	.00097	.00145	.00265	1.4127	2.5825	.02329	2.7776	.07627
#3	.00146	.00128	.00272	1.3976	2.5440	.02562	2.7597	.07802
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00235**	**161.11**	**.00234**	**.02298**	**.00284**	**.00189**	**-.00159**	**2.7872**
Stddev	.00008	.32	.00047	.00071	.00077	.00112	.00258	.0072
%RSD	3.2300	.19776	20.098	3.0790	27.043	59.332	161.64	.25670
#1	.00233	161.40	.00224	.02303	.00369	.00060	.00131	2.7793
#2	.00229	161.16	.00285	.02365	.00219	.00244	-.00250	2.7890
#3	.00243	160.77	.00193	.02224	.00265	.00263	-.00360	2.7933
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

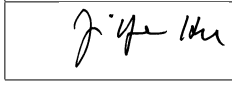


Sample Name: L1404004501 Acquired: 4/7/2014 15:38:50 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.11419**	**.00634**	**-.00087**	**.00205**	**.01742**	**7.2934**
Stddev	.00030	.00083	.00047	.00055	.00033	.00003	.1641
%RSD	912.64	.72518	7.4259	63.245	16.026	.19980	2.2499
#1	-.00029	.11452	.00599	-.00099	.00191	.01745	7.3374
#2	.00009	.11480	.00688	-.00134	.00182	.01738	7.4311
#3	.00030	.11325	.00616	-.00027	.00243	.01743	7.1118
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19111.**	**21779.**
Stddev	67.	50.
%RSD	.34974	.22800
#1	19043.	21752.
#2	19114.	21748.
#3	19177.	21836.

Approved: April 08, 2014



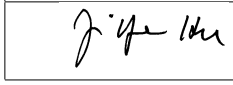
Sample Name: L1403162107 Acquired: 4/7/2014 15:42:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 10 Custom ID2: Custom ID3:
Comment: WG469555-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00040**	**.04082**	**.00001**	**.00806**	**.00577**	**.00009**	**7.3943**	**-.00003**
Stddev	.00013	.01617	.00047	.00056	.00085	.00000	.0964	.00013
%RSD	33.557	39.604	5210.3	6.9935	14.794	3.5197	1.3034	437.70
#1	-.00047	.02628	-.00052	.00833	.00510	.00009	7.2859	-.00016
#2	-.00024	.05823	.00017	.00844	.00547	.00010	7.4268	-.00003
#3	-.00048	.03795	.00038	.00741	.00673	.00009	7.4702	.00010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00034**	**-.00010**	**.00006**	**.01778**	**.04781**	**.00519**	**2.7655**	**.00008**
Stddev	.00001	.00031	.00030	.00297	.02990	.00055	.0501	.00009
%RSD	4.3269	309.91	528.40	16.708	62.533	10.636	1.8112	109.18
#1	.00035	-.00011	-.00002	.01500	.04796	.00524	2.7130	.00012
#2	.00032	.00022	.00039	.01742	.01784	.00461	2.7707	-.00002
#3	.00033	-.00040	-.00020	.02091	.07763	.00571	2.8128	.00016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00004**	**.47745**	**-.00028**	**.00746**	**.00174**	**-.00054**	**-.00099**	**.45524**
Stddev	.00011	.00919	.00079	.00146	.00219	.00118	.00119	.00770
%RSD	250.11	1.9253	283.85	19.559	125.69	216.56	120.51	1.6920
#1	.00010	.47071	-.00100	.00870	-.00079	-.00188	-.00234	.44849
#2	-.00008	.47372	.00056	.00585	.00299	.00036	-.00054	.45359
#3	.00012	.48792	-.00038	.00784	.00303	-.00011	-.00009	.46363
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

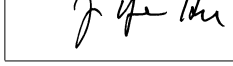


Sample Name: L1403162107 Acquired: 4/7/2014 15:42:27 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 10 Custom ID2: Custom ID3:
Comment: WG469555-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00065**	**.00912**	**.00077**	**.00094**	**.00018**	**.00122**	**.46661**
Stddev	.00034	.00007	.00139	.00142	.00016	.00009	.22355
%RSD	51.606	.79726	180.44	151.15	89.782	7.4673	47.910
#1	-.00028	.00903	.00126	.00194	.00023	.00112	.56163
#2	-.00092	.00915	.00186	-.00068	.00000	.00125	.62694
#3	-.00075	.00916	-.00080	.00156	.00031	.00129	.21124
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19761.**	**21344.**
Stddev	77.	517.
%RSD	.38770	2.4234
#1	19841.	21817.
#2	19752.	21423.
#3	19689.	20792.

Approved: April 08, 2014



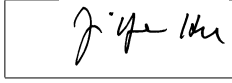
Sample Name: L1403162108S Acquired: 4/7/2014 15:46:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 10 Custom ID2: Custom ID3:
Comment: WG469555-04

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02156**	**.59660**	**.02091**	**.11690**	**.05429**	**.00262**	**7.5069**	**.00277**
Stddev	.00037	.01697	.00137	.00090	.00032	.00004	.0131	.00007
%RSD	1.6937	2.8450	6.5664	.76969	.59438	1.5514	.17489	2.4040
#1	.02114	.58244	.01992	.11591	.05394	.00260	7.4932	.00269
#2	.02176	.59195	.02248	.11709	.05457	.00267	7.5194	.00279
#3	.02179	.61542	.02032	.11768	.05435	.00259	7.5082	.00282
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01129**	**.02617**	**.02846**	**.28297**	**2.5821**	**.05300**	**3.1674**	**.02691**
Stddev	.00030	.00057	.00065	.00270	.0401	.00092	.0774	.00055
%RSD	2.6349	2.1726	2.2716	.95564	1.5532	1.7351	2.4428	2.0495
#1	.01118	.02561	.02784	.28351	2.5727	.05361	3.1100	.02632
#2	.01107	.02675	.02841	.28536	2.6260	.05194	3.2554	.02701
#3	.01163	.02616	.02913	.28003	2.5475	.05345	3.1369	.02741
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05246**	**2.9329**	**.02667**	**.00601**	**.02817**	**.06636**	**.02431**	**.82262**
Stddev	.00050	.0329	.00091	.00051	.00037	.00105	.00211	.00734
%RSD	.96096	1.1207	3.4069	8.4967	1.2986	1.5832	8.6832	.89259
#1	.05188	2.9085	.02641	.00660	.02808	.06598	.02254	.81448
#2	.05273	2.9199	.02768	.00577	.02786	.06555	.02375	.82462
#3	.05277	2.9703	.02592	.00567	.02857	.06754	.02665	.82875
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

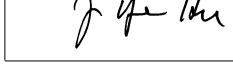


Sample Name: L1403162108S Acquired: 4/7/2014 15:46:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 10 Custom ID2: Custom ID3:
Comment: WG469555-04

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05964**	**.06022**	**.05002**	**.03018**	**.05214**	**.05792**	**.96061**
Stddev	.00077	.00093	.00069	.00243	.00042	.00072	.31303
%RSD	1.2952	1.5431	1.3784	8.0604	.79833	1.2437	32.587
#1	.05889	.05980	.05078	.02922	.05175	.05709	.61182
#2	.06044	.06128	.04984	.03294	.05258	.05823	1.2172
#3	.05959	.05957	.04944	.02837	.05208	.05843	1.0529
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19587.**	**21371.**
Stddev	49.	256.
%RSD	.24996	1.1961
#1	19609.	21639.
#2	19531.	21346.
#3	19621.	21129.

Approved: April 08, 2014



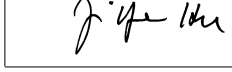
Sample Name: L1403162109SD Acquired: 4/7/2014 15:49:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 10 Custom ID2: Custom ID3:
Comment: WG469555-05

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.02332**	**.61225**	**.02269**	**.12297**	**.05770**	**.00274**	**7.8095**	**.00291**
Stddev	.00031	.02551	.00161	.00079	.00070	.00004	.0585	.00013
%RSD	1.3100	4.1661	7.0901	.64446	1.2141	1.5905	.74951	4.3602
#1	.02325	.58557	.02350	.12220	.05740	.00270	7.7472	.00287
#2	.02305	.61478	.02373	.12291	.05720	.00273	7.8180	.00281
#3	.02365	.63640	.02083	.12379	.05850	.00279	7.8633	.00305
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01202**	**.02788**	**.02943**	**.27111**	**2.7257**	**.05539**	**3.2772**	**.02796**
Stddev	.00033	.00047	.00075	.00753	.0089	.00109	.0530	.00079
%RSD	2.7184	1.6711	2.5495	2.7787	.32530	1.9619	1.6170	2.8078
#1	.01226	.02792	.02861	.26247	2.7358	.05598	3.2227	.02747
#2	.01216	.02740	.02957	.27636	2.7220	.05605	3.2803	.02755
#3	.01165	.02833	.03009	.27448	2.7193	.05413	3.3286	.02887
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05573**	**3.0889**	**.02886**	**.00665**	**.02949**	**.06954**	**.02390**	**.81315**
Stddev	.00067	.0138	.00067	.00240	.00082	.00220	.00196	.01178
%RSD	1.2029	.44799	2.3050	36.054	2.7902	3.1684	8.1947	1.4485
#1	.05540	3.0968	.02945	.00481	.02932	.06705	.02332	.80668
#2	.05528	3.0730	.02814	.00577	.02876	.07033	.02609	.80602
#3	.05650	3.0970	.02900	.00936	.03038	.07124	.02230	.82674
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

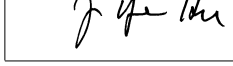


Sample Name: L1403162109SD Acquired: 4/7/2014 15:49:33 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 10 Custom ID2: Custom ID3:
Comment: WG469555-05

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.06260**	**.06392**	**.05048**	**.03234**	**.05472**	**.06044**	**1.4936**
Stddev	.00049	.00119	.00110	.00147	.00157	.00066	.1566
%RSD	.78255	1.8639	2.1756	4.5480	2.8696	1.0930	10.483
#1	.06270	.06284	.04924	.03102	.05395	.06007	1.3197
#2	.06206	.06372	.05133	.03206	.05367	.06006	1.5381
#3	.06303	.06520	.05087	.03393	.05652	.06121	1.6232
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19589.**	**21487.**
Stddev	17.	230.
%RSD	.08546	1.0726
#1	19608.	21735.
#2	19577.	21447.
#3	19580.	21279.

Approved: April 08, 2014



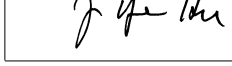
Sample Name: CCV Acquired: 4/7/2014 15:53:05 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.39529**	**9.7399**	**.39938**	**.51288**	**.96956**	**.04877**	**9.7947**
Stddev	.00167	.0851	.00090	.00191	.00379	.00008	.0607
%RSD	.42353	.87360	.22633	.37264	.39090	.16951	.61939
#1	.39603	9.6417	.39986	.51286	.96588	.04869	9.7247
#2	.39337	9.7912	.39834	.51098	.97345	.04876	9.8313
#3	.39647	9.7869	.39994	.51480	.96935	.04886	9.8281
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.04969**	**.20161**	**.48933**	**.50655**	**3.8626**	**49.597**	**.95313**
Stddev	.00011	.00024	.00082	.00033	.0187	.191	.00418
%RSD	.22725	.11754	.16736	.06595	.48475	.38610	.43856
#1	.04972	.20172	.48933	.50691	3.8409	49.378	.94831
#2	.04956	.20178	.48851	.50625	3.8735	49.736	.95534
#3	.04978	.20134	.49015	.50648	3.8733	49.676	.95574
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.5469**	**.47807**	**.97208**	**50.237**	**.49387**	**9.8728**	**.49592**
Stddev	.0209	.00193	.00089	.129	.00061	.0673	.00406
%RSD	.21927	.40348	.09193	.25622	.12313	.68156	.81882
#1	9.5260	.47883	.97260	50.142	.49446	9.9505	.49929
#2	9.5469	.47588	.97260	50.384	.49391	9.8369	.49705
#3	9.5679	.47950	.97105	50.186	.49324	9.8311	.49141
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 08, 2014



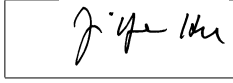
Sample Name: CCV Acquired: 4/7/2014 15:53:05 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2000**	**.41730**	**4.9646**	**1.0263**	**1.0086**	**.92994**	**.54003**
Stddev	.0032	.00450	.0116	.0019	.0098	.00405	.00043
%RSD	.26832	1.0791	.23255	.19032	.96725	.43553	.08019
#1	1.2009	.41237	4.9524	1.0242	.99733	.92538	.54025
#2	1.1964	.41833	4.9754	1.0281	1.0147	.93311	.53953
#3	1.2027	.42120	4.9659	1.0266	1.0138	.93134	.54031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.97626**	**.99160**	F **1.4645**
Stddev	.00084	.00249	.8715
%RSD	.08587	.25076	59.508
#1	.97579	.99432	.62857
#2	.97576	.99104	1.3972
#3	.97723	.98944	2.3676
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19593.**	**21726.**
Stddev	19.	68.
%RSD	.09946	.31096
#1	19609.	21688.
#2	19598.	21804.
#3	19571.	21686.

Approved: April 08, 2014



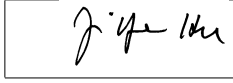
Sample Name: CCB Acquired: 4/7/2014 15:56:22 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00026**	**-.00070**	**-.00036**	**.00809**	**-.00025**	**.00009**	**.00930**
Stddev	.00055	.01198	.00059	.00037	.00004	.00002	.00505
%RSD	210.85	1704.8	166.14	4.5766	17.814	21.956	54.286
#1	.00016	-.00544	.00020	.00810	-.00022	.00007	.01433
#2	-.00006	.01292	-.00098	.00772	-.00023	.00008	.00933
#3	-.00088	-.00959	-.00029	.00846	-.00030	.00011	.00424
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**.00006**	**-.00022**	**-.00013**	**.00233**	**-.05118**	**.00279**
Stddev	.00008	.00012	.00040	.00049	.00318	.04385	.00083
%RSD	92.621	198.59	179.40	384.41	136.60	85.683	29.598
#1	.00016	.00019	-.00068	-.00004	.00224	-.04481	.00189
#2	.00011	.00001	.00006	.00031	-.00081	-.01086	.00351
#3	.00000	-.00003	-.00005	-.00065	.00556	-.09786	.00297
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01799**	**.00010**	**.00008**	**.04212**	**-.00017**	**-.00167**	**.00095**
Stddev	.02183	.00004	.00029	.01025	.00030	.00210	.00135
%RSD	121.35	35.854	344.23	24.333	177.84	125.79	142.82
#1	-.03515	.00008	.00042	.03784	.00016	-.00053	.00227
#2	.00659	.00014	-.00004	.05382	-.00040	-.00039	.00101
#3	-.02542	.00007	-.00013	.03470	-.00026	-.00410	-.00044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014



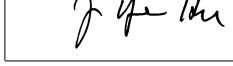
Sample Name: CCB Acquired: 4/7/2014 15:56:22 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00037**	**.00144**	**-.00984**	**-.00016**	**-.00005**	**.00021**	**-.00075**
Stddev	.00119	.00280	.00114	.00035	.00012	.00071	.00047
%RSD	321.48	193.74	11.541	214.16	232.39	341.02	61.773
#1	.00157	.00270	-.00989	.00007	-.00005	.00054	-.00045
#2	.00035	-.00176	-.01096	-.00057	-.00017	-.00061	-.00052
#3	-.00081	.00339	-.00869	.00000	.00007	.00069	-.00129
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00004**	**.00008**	F **.54766**
Stddev	.00009	.00018	.35678
%RSD	244.30	220.32	65.146
#1	.00014	.00028	.52210
#2	.00001	.00002	.20435
#3	-.00004	-.00006	.91653
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19589.**	**22029.**
Stddev	84.	185.
%RSD	.42860	.83969
#1	19678.	22233.
#2	19577.	21981.
#3	19511.	21872.

Approved: April 08, 2014



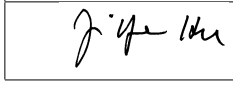
Sample Name: L1404033504 Acquired: 4/7/2014 15:59:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**.03502**	**-.00035**	**.06304**	**.02353**	**.00008**	**148.15**	**.00091**
Stddev	.00031	.00635	.00135	.00124	.00024	.00003	.10	.00009
%RSD	147.21	18.137	386.12	1.9672	1.0073	37.280	.06439	10.196
#1	-.00033	.02899	-.00086	.06314	.02327	.00005	148.14	.00080
#2	-.00045	.03442	.00118	.06176	.02372	.00009	148.07	.00097
#3	.00014	.04165	-.00137	.06423	.02361	.00011	148.26	.00094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.00047**	**.00099**	**.09568**	**3.7023**	**.01608**	**63.787**	**.03314**
Stddev	.00015	.00041	.00004	.00381	.0214	.00064	.218	.00046
%RSD	115.97	86.201	4.2109	3.9785	.57659	3.9782	.34128	1.3894
#1	.00004	.00028	.00103	.09156	3.7066	.01582	63.650	.03294
#2	.00030	.00094	.00096	.09907	3.6792	.01681	63.674	.03281
#3	.00005	.00020	.00097	.09639	3.7212	.01561	64.038	.03367
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00085**	**75.929**	**.00195**	**.01779**	**.00252**	**.00068**	**.00003**	**3.2652**
Stddev	.00023	.349	.00026	.00674	.00035	.00077	.00307	.0210
%RSD	27.647	.45978	13.113	37.892	13.745	112.91	9435.7	.64395
#1	.00109	75.560	.00168	.01137	.00257	.00138	.00356	3.2573
#2	.00062	76.253	.00196	.01720	.00215	.00079	-.00141	3.2494
#3	.00083	75.974	.00219	.02481	.00284	-.00014	-.00205	3.2891
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404033504 Acquired: 4/7/2014 15:59:59 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00020**	**.82276**	**-.00014**	**-.00219**	**.00002**	**.00195**	**.47817**
Stddev	.00030	.00155	.00102	.00178	.00012	.00001	.39264
%RSD	148.86	.18833	742.14	81.397	576.30	.76334	82.114
#1	.00014	.82441	-.00040	-.00221	-.00001	.00194	.88230
#2	-.00032	.82135	-.00100	-.00040	-.00008	.00197	.45409
#3	-.00043	.82251	.00099	-.00396	.00016	.00195	.09812
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18779.**	**22107.**
Stddev	13.	111.
%RSD	.06987	.50366
#1	18764.	22182.
#2	18785.	22160.
#3	18787.	21979.

Approved: April 08, 2014

Sample Name: L1404033508 Acquired: 4/7/2014 16:03:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00057**	**.20870**	**-.00019**	**.21503**	**.02853**	**.00010**	**315.63**	**.00065**
Stddev	.00026	.01998	.00266	.00057	.00010	.00002	.28	.00002
%RSD	46.213	9.5729	1377.6	.26477	.35948	16.299	.08739	3.2816
#1	-.00050	.19137	-.00133	.21568	.02841	.00012	315.87	.00066
#2	-.00086	.23056	.00285	.21460	.02860	.00009	315.69	.00063
#3	-.00035	.20418	-.00209	.21483	.02857	.00009	315.33	.00066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00094**	**.00059**	**.00047**	**.51080**	**5.9411**	**.24249**	**47.331**	**.32863**
Stddev	.00013	.00062	.00037	.01009	.0754	.00184	.038	.00039
%RSD	14.402	105.74	79.088	1.9745	1.2693	.75920	.07952	.11870
#1	.00097	.00130	.00058	.50061	6.0281	.24358	47.374	.32839
#2	.00105	.00014	.00005	.51100	5.9009	.24353	47.311	.32843
#3	.00079	.00033	.00076	.52077	5.8943	.24037	47.307	.32908
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00011**	**132.26**	**.00413**	**.02062**	**.00235**	**.00230**	**.00157**	**1.6366**
Stddev	.00012	.60	.00067	.00173	.00155	.00244	.00559	.0053
%RSD	106.78	.45004	16.339	8.3839	65.991	106.41	356.98	.32668
#1	.00026	132.94	.00410	.02255	.00201	-.00017	.00558	1.6317
#2	.00006	131.86	.00347	.02013	.00404	.00472	.00394	1.6357
#3	.00003	131.97	.00482	.01920	.00100	.00234	-.00482	1.6423
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

Sample Name: L1404033508 Acquired: 4/7/2014 16:03:32 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**.97810**	**-.00248**	**-.00098**	**.00038**	**.00586**	**.25700**
Stddev	.00017	.00158	.00042	.00178	.00026	.00010	.16155
%RSD	75.528	.16148	16.989	181.55	68.704	1.6595	62.859
#1	-.00003	.97855	-.00208	-.00298	.00054	.00580	.16751
#2	-.00032	.97940	-.00292	.00041	.00051	.00597	.16000
#3	-.00032	.97634	-.00243	-.00037	.00008	.00580	.44350
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18526.**	**21946.**
Stddev	30.	50.
%RSD	.16321	.22762
#1	18530.	21983.
#2	18494.	21967.
#3	18554.	21889.

Approved: April 08, 2014

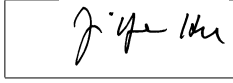
Sample Name: L1404033510 Acquired: 4/7/2014 16:07:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00019**	**.16052**	**.00049**	**.03697**	**.05186**	**.00010**	**63.523**	**.00030**
Stddev	.00059	.01153	.00190	.00036	.00023	.00004	.300	.00013
%RSD	312.63	7.1812	384.79	.98080	.43686	36.579	.47304	44.374
#1	-.00028	.16302	-.00125	.03692	.05211	.00006	63.341	.00037
#2	.00044	.17059	.00022	.03735	.05181	.00012	63.359	.00038
#3	-.00073	.14795	.00251	.03663	.05167	.00012	63.870	.00015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00001**	**.00066**	**.00068**	**.13754**	**1.4563**	**.00817**	**13.292**	**.01117**
Stddev	.00017	.00037	.00042	.00231	.0388	.00143	.098	.00005
%RSD	1911.9	55.123	62.022	1.6765	2.6641	17.503	.73604	.43888
#1	.00019	.00079	.00117	.13958	1.4990	.00659	13.399	.01112
#2	.00000	.00095	.00041	.13504	1.4232	.00854	13.208	.01120
#3	-.00016	.00025	.00047	.13801	1.4467	.00937	13.268	.01121
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00026**	**10.231**	**.00138**	**.01554**	**.00021**	**.00111**	**-.00204**	**2.9365**
Stddev	.00007	.031	.00096	.00608	.00182	.00094	.00270	.0194
%RSD	27.058	.30489	69.412	39.115	849.30	84.614	132.50	.65944
#1	.00029	10.222	.00168	.01081	.00231	.00107	.00104	2.9532
#2	.00031	10.205	.00031	.01341	-.00093	.00207	-.00313	2.9410
#3	.00018	10.265	.00216	.02240	-.00074	.00019	-.00403	2.9152
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

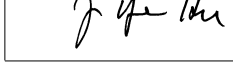


Sample Name: L1404033510 Acquired: 4/7/2014 16:07:04 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**.40155**	**.00402**	**-.00149**	**.00067**	**.00342**	**.61467**
Stddev	.00018	.00219	.00082	.00186	.00012	.00007	.24602
%RSD	125.44	.54624	20.309	125.05	17.517	2.0155	40.024
#1	.00036	.40068	.00442	-.00362	.00080	.00337	.71110
#2	.00003	.39993	.00456	-.00022	.00057	.00350	.79786
#3	.00005	.40405	.00308	-.00062	.00065	.00339	.33505
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19249.**	**22206.**
Stddev	34.	151.
%RSD	.17863	.68055
#1	19270.	22306.
#2	19268.	22281.
#3	19210.	22032.

Approved: April 08, 2014



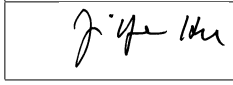
Sample Name: L1404033510PS Acquired: 4/7/2014 16:10:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470272-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20639**	**5.0708**	**.20022**	**1.0876**	**.53005**	**.02492**	**62.458**	**.02525**
Stddev	.00076	.0265	.00175	.0038	.00086	.00011	.118	.00013
%RSD	.36654	.52243	.87640	.35038	.16248	.42337	.18963	.53020
#1	.20725	5.0999	.20204	1.0920	.52912	.02501	62.434	.02519
#2	.20609	5.0645	.20008	1.0856	.53081	.02495	62.587	.02517
#3	.20583	5.0480	.19853	1.0852	.53023	.02480	62.353	.02541
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10161**	**.24978**	**.25473**	**2.0530**	**26.324**	**.49180**	**16.652**	**.24809**
Stddev	.00024	.00042	.00047	.0058	.018	.00033	.066	.00293
%RSD	.23681	.16982	.18389	.28257	.06989	.06709	.39897	1.1816
#1	.10138	.24979	.25427	2.0538	26.318	.49178	16.579	.24900
#2	.10186	.25019	.25521	2.0468	26.344	.49149	16.710	.25046
#3	.10160	.24934	.25471	2.0584	26.309	.49214	16.665	.24481
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49872**	**34.811**	**.24653**	**.01401**	**.25167**	**.61884**	**.20479**	**5.0977**
Stddev	.00047	.035	.00047	.00469	.00140	.00094	.00535	.0095
%RSD	.09485	.09943	.19046	33.482	.55636	.15164	2.6128	.18561
#1	.49818	34.802	.24630	.01877	.25325	.61873	.19913	5.0886
#2	.49907	34.849	.24707	.00940	.25057	.61983	.20976	5.1075
#3	.49891	34.781	.24623	.01384	.25120	.61796	.20549	5.0971
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

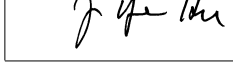


Sample Name: L1404033510PS Acquired: 4/7/2014 16:10:38 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470272-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00037**	**.87158**	**.46879**	**.27146**	**.50334**	**.49638**	**1.4838**
Stddev	.00004	.00105	.00180	.00120	.00150	.00015	.2651
%RSD	11.082	.12045	.38401	.44250	.29898	.02961	17.863
#1	-.00035	.87106	.46671	.27269	.50508	.49623	1.2862
#2	-.00042	.87279	.46985	.27139	.50239	.49652	1.3801
#3	-.00034	.87089	.46981	.27029	.50255	.49639	1.7850
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19251.**	**21929.**
Stddev	10.	228.
%RSD	.05236	1.0408
#1	19254.	21919.
#2	19260.	21706.
#3	19240.	22162.

Approved: April 08, 2014



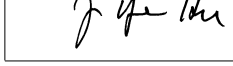
Sample Name: L1404033510SDL Acquired: 4/7/2014 16:14:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG470272-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00054**	**.04060**	**.00003**	**.01406**	**.01047**	**.00006**	**13.141**	**-.00004**
Stddev	.00030	.00808	.00038	.00079	.00023	.00004	.027	.00008
%RSD	55.192	19.894	1502.5	5.6372	2.1686	57.564	.20244	200.17
#1	-.00023	.03738	.00042	.01315	.01045	.00004	13.144	-.00002
#2	-.00055	.03463	-.00034	.01443	.01071	.00010	13.112	-.00013
#3	-.00083	.04979	.00000	.01460	.01025	.00004	13.165	.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**.00029**	**-.00017**	**.02527**	**.25629**	**.00321**	**2.7972**	**.00232**
Stddev	.00026	.00039	.00048	.00070	.03328	.00114	.0093	.00001
%RSD	138.93	134.24	281.75	2.7877	12.984	35.638	.33268	.58936
#1	.00043	-.00007	.00027	.02591	.22540	.00408	2.7913	.00231
#2	.00020	.00023	-.00011	.02539	.25195	.00364	2.7924	.00232
#3	-.00008	.00070	-.00067	.02452	.29153	.00191	2.8080	.00233
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**2.1069**	**.00065**	**.00807**	**.00052**	**-.00001**	**-.00191**	**.59193**
Stddev	.00011	.0088	.00049	.00490	.00042	.00092	.00174	.00646
%RSD	83.404	.41822	75.578	60.752	79.634	9263.8	91.193	1.0918
#1	.00003	2.1085	.00050	.01231	.00007	-.00083	-.00062	.58631
#2	.00012	2.1149	.00120	.00918	.00090	.00098	-.00388	.59899
#3	.00026	2.0975	.00025	.00271	.00060	-.00018	-.00121	.59050
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

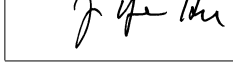


Sample Name: L1404033510SDL Acquired: 4/7/2014 16:14:02 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG470272-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00018**	**.08414**	**.00174**	**-.00007**	**.00005**	**.00125**	**.31644**
Stddev	.00035	.00010	.00023	.00051	.00027	.00010	.31997
%RSD	190.34	.11722	13.460	710.73	591.74	7.5952	101.12
#1	-.00058	.08408	.00154	.00034	-.00015	.00136	.02293
#2	.00003	.08425	.00168	.00009	-.00007	.00119	.65754
#3	.00000	.08408	.00199	-.00064	.00035	.00120	.26883
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19647.**	**22157.**
Stddev	137.	200.
%RSD	.69622	.90319
#1	19798.	22198.
#2	19611.	22334.
#3	19532.	21940.

Approved: April 08, 2014



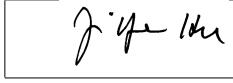
Sample Name: CCV Acquired: 4/7/2014 16:17:39 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41496**	**10.113**	**.41014**	**.54210**	**1.0012**	**.05061**	**10.128**
Stddev	.00075	.019	.00351	.00212	.0014	.00021	.024
%RSD	.18077	.18961	.85502	.39164	.14335	.41653	.23665
#1	.41436	10.134	.40772	.53965	1.0015	.05059	10.146
#2	.41580	10.096	.41416	.54316	1.0025	.05083	10.136
#3	.41472	10.109	.40853	.54347	.99965	.05041	10.101
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05138**	**.20867**	**.50916**	**.52390**	**3.9912**	**51.412**	**.98753**
Stddev	.00034	.00118	.00135	.00369	.0160	.184	.00109
%RSD	.66455	.56435	.26588	.70381	.40082	.35788	.11076
#1	.05101	.20744	.50949	.52066	3.9868	51.521	.98680
#2	.05169	.20978	.51032	.52791	4.0090	51.516	.98879
#3	.05144	.20880	.50767	.52314	3.9779	51.200	.98700
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.7880**	**.48820**	**.99988**	**52.591**	**.50886**	**10.157**	**.50787**
Stddev	.0298	.00045	.00788	.185	.00377	.119	.00512
%RSD	.30478	.09161	.78773	.35100	.74139	1.1743	1.0074
#1	9.8023	.48807	.99369	52.561	.50595	10.088	.50406
#2	9.8080	.48783	1.0087	52.789	.51312	10.294	.51369
#3	9.7537	.48870	.99722	52.423	.50750	10.088	.50587
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 08, 2014



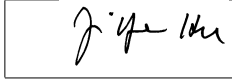
Sample Name: CCV Acquired: 4/7/2014 16:17:39 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2339**	**.42848**	**5.1078**	**1.0699**	**1.0516**	**.95175**	F **.56305**
Stddev	.0052	.00289	.0362	.0055	.0045	.00394	.00400
%RSD	.42246	.67351	.70917	.51575	.42667	.41410	.71027
#1	1.2297	.42517	5.0748	1.0648	1.0554	.94851	.55847
#2	1.2397	.43046	5.1466	1.0758	1.0528	.95060	.56587
#3	1.2322	.42982	5.1021	1.0692	1.0467	.95613	.56479
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value							.50000
Range							10.000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0191**	**1.0316**	F **1.2245**
Stddev	.0023	.0062	.6886
%RSD	.22711	.60004	56.241
#1	1.0172	1.0255	.77269
#2	1.0217	1.0378	2.0171
#3	1.0184	1.0315	.88366
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19075.**	**21616.**
Stddev	73.	23.
%RSD	.38185	.10838
#1	19129.	21643.
#2	18992.	21601.
#3	19103.	21605.

Approved: April 08, 2014



Sample Name: CCB Acquired: 4/7/2014 16:20:56 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00037**	**-.00563**	**.00064**	**.00779**	**-.00024**	**.00010**	**.01380**	**.00002**
Stddev	.00018	.01106	.00069	.00082	.00009	.00002	.00240	.00009
%RSD	48.183	196.61	108.04	10.534	36.023	21.399	17.403	527.37
#1	-.00024	.00709	.00124	.00823	-.00014	.00008	.01653	.00012
#2	-.00030	-.01304	.00079	.00684	-.00027	.00011	.01286	-.00007
#3	-.00058	-.01093	-.00011	.00830	-.00031	.00012	.01201	.00000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00021**	**.00011**	**.00021**	**.00137**	**-.03407**	**.00216**	**-.00377**	**.00005**
Stddev	.00012	.00024	.00053	.00300	.02299	.00187	.01037	.00007
%RSD	56.602	216.15	251.47	218.47	67.495	86.370	275.28	137.14
#1	.00034	.00004	.00062	.00438	-.01682	.00329	.00439	.00011
#2	.00018	-.00008	-.00039	.00137	-.02521	.00318	-.01544	.00007
#3	.00011	.00037	.00040	-.00163	-.06017	.00001	-.00026	-.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.04305**	**.00018**	**.00430**	**-.00004**	**.00059**	**.00271**	**-.00904**
Stddev	.00002	.00668	.00043	.00224	.00079	.00164	.00238	.00052
%RSD	72.283	15.527	236.22	51.936	1912.8	278.24	87.670	5.6979
#1	.00002	.03588	.00011	.00552	.00076	-.00126	.00426	-.00853
#2	.00005	.04414	.00065	.00172	-.00081	.00187	-.00003	-.00903
#3	.00001	.04912	-.00021	.00567	-.00007	.00116	.00390	-.00956
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

Sample Name: CCB Acquired: 4/7/2014 16:20:56 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00011**	**-.00005**	**.00114**	**-.00115**	**.00023**	**.00017**	**.08932**
Stddev	.00036	.00014	.00047	.00054	.00030	.00006	.29386
%RSD	329.32	309.22	41.187	46.394	129.95	35.441	329.00
#1	.00020	-.00019	.00139	-.00173	-.00009	.00022	-.01178
#2	-.00003	-.00004	.00144	-.00068	.00028	.00017	.42038
#3	-.00050	.00010	.00060	-.00105	.00051	.00011	-.14065
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19288.**	**21852.**
Stddev	34.	9.
%RSD	.17833	.04030
#1	19324.	21862.
#2	19282.	21849.
#3	19256.	21845.

Approved: April 08, 2014

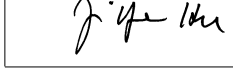
Sample Name: L1404033512 Acquired: 4/7/2014 16:24:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00025**	**.16544**	**-.00118**	**.05731**	**.04027**	**.00009**	**66.587**	**.00042**
Stddev	.00020	.00920	.00041	.00098	.00025	.00001	.195	.00001
%RSD	82.836	5.5598	35.050	1.7161	.62749	10.180	.29234	3.5153
#1	.00048	.15482	-.00143	.05620	.04053	.00010	66.545	.00042
#2	.00015	.17101	-.00070	.05808	.04025	.00009	66.417	.00044
#3	.00011	.17049	-.00140	.05765	.04003	.00009	66.799	.00041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00002**	**.00069**	**.00030**	**.20657**	**1.2220**	**.01070**	**20.067**	**.01096**
Stddev	.00018	.00019	.00043	.00346	.0274	.00153	.084	.00013
%RSD	852.67	26.888	144.14	1.6759	2.2409	14.316	.42007	1.2294
#1	-.00016	.00086	.00078	.20680	1.2529	.01245	20.124	.01111
#2	.00020	.00049	-.00005	.20301	1.2008	.00959	20.107	.01093
#3	.00003	.00071	.00017	.20992	1.2124	.01006	19.970	.01084
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**15.929**	**.00099**	**.01551**	**.00103**	**.00277**	**-.00165**	**3.3462**
Stddev	.00006	.019	.00095	.00286	.00122	.00226	.00340	.0574
%RSD	35.488	.12174	95.521	18.445	118.70	81.475	205.75	1.7150
#1	.00015	15.919	.00029	.01854	.00067	.00459	-.00475	3.3390
#2	.00014	15.916	.00207	.01513	.00003	.00348	-.00219	3.2927
#3	.00026	15.951	.00062	.01285	.00239	.00024	.00198	3.4068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404033512 Acquired: 4/7/2014 16:24:35 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00005**	**.56222**	**.00433**	**-.00223**	**.00050**	**.00313**	**.97880**
Stddev	.00015	.00230	.00071	.00235	.00012	.00006	.23168
%RSD	281.93	.40979	16.467	105.36	24.509	1.8226	23.670
#1	-.00009	.56193	.00358	-.00398	.00055	.00318	1.0306
#2	.00011	.56007	.00442	-.00317	.00058	.00307	1.1802
#3	-.00018	.56465	.00500	.00044	.00036	.00312	.72561
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19170.**	**22118.**
Stddev	60.	21.
%RSD	.31232	.09472
#1	19176.	22119.
#2	19107.	22139.
#3	19226.	22097.

Approved: April 08, 2014

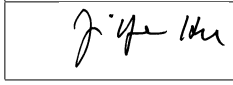
Sample Name: L1404033514 Acquired: 4/7/2014 16:28:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**.14660**	**-.00033**	**.03627**	**.05596**	**.00011**	**64.598**	**.00024**
Stddev	.00028	.01629	.00211	.00064	.00043	.00003	.198	.00010
%RSD	227.19	11.112	638.55	1.7710	.77259	28.160	.30628	42.401
#1	-.00016	.14796	.00004	.03594	.05629	.00014	64.541	.00020
#2	.00014	.16217	-.00260	.03586	.05611	.00009	64.819	.00036
#3	.00039	.12967	.00157	.03701	.05547	.00009	64.436	.00017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00015**	**.00042**	**.00053**	**.13791**	**1.4288**	**.00736**	**12.576**	**.00554**
Stddev	.00022	.00046	.00022	.00434	.0113	.00118	.107	.00004
%RSD	146.38	111.44	41.734	3.1436	.78815	16.088	.85189	.72773
#1	.00041	.00071	.00033	.14104	1.4417	.00632	12.625	.00552
#2	.00000	-.00012	.00076	.13973	1.4210	.00865	12.651	.00559
#3	.00005	.00065	.00050	.13296	1.4237	.00712	12.454	.00552
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00030**	**9.0808**	**.00117**	**.02020**	**.00185**	**.00194**	**-.00006**	**2.9635**
Stddev	.00019	.0184	.00043	.00361	.00144	.00230	.00109	.0350
%RSD	62.886	.20212	36.345	17.867	77.872	118.24	1875.9	1.1795
#1	.00044	9.0604	.00075	.01609	.00252	.00065	.00119	2.9642
#2	.00009	9.0959	.00115	.02285	.00020	.00058	-.00054	2.9981
#3	.00038	9.0862	.00160	.02166	.00284	.00460	-.00083	2.9282
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404033514 Acquired: 4/7/2014 16:28:08 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00022**	**.41238**	**.00282**	**-.00117**	**.00058**	**.00212**	**.66813**
Stddev	.00011	.00135	.00063	.00070	.00044	.00002	.54907
%RSD	50.429	.32618	22.453	59.652	76.411	.86393	82.180
#1	-.00012	.41215	.00219	-.00195	.00024	.00213	1.3021
#2	-.00021	.41383	.00346	-.00062	.00042	.00213	.34653
#3	-.00034	.41116	.00281	-.00093	.00107	.00210	.35574
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19200.**	**22013.**
Stddev	48.	91.
%RSD	.24799	.41441
#1	19255.	22080.
#2	19170.	22050.
#3	19175.	21909.

Approved: April 08, 2014

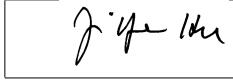
Sample Name: L1404033601 Acquired: 4/7/2014 16:31:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00026**	**.07012**	**.00062**	**.17470**	**.00929**	**.00011**	**241.94**
Stddev	.00033	.01950	.00216	.00221	.00037	.00003	1.06
%RSD	128.68	27.810	346.58	1.2624	4.0213	30.058	.43945
#1	.00000	.08113	.00187	.17632	.00929	.00011	242.98
#2	-.00064	.08163	.00187	.17559	.00892	.00008	241.98
#3	-.00014	.04760	-.00187	.17219	.00967	.00015	240.85
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00088**	**.00258**	**.00059**	**-.00017**	**.25841**	**6.0394**	**.26122**
Stddev	.00007	.00012	.00015	.00054	.00365	.0340	.00197
%RSD	8.5059	4.7337	25.342	309.24	1.4130	.56366	.75401
#1	.00084	.00246	.00070	-.00008	.25559	6.0238	.26310
#2	.00097	.00270	.00066	.00031	.26253	6.0784	.26140
#3	.00083	.00259	.00042	-.00075	.25711	6.0159	.25917
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**74.322**	**.80728**	**-.00006**	**157.31**	**.01367**	**.01434**	**.00045**
Stddev	.166	.00597	.00014	1.12	.00040	.00274	.00277
%RSD	.22289	.73987	253.16	.71128	2.9252	19.122	614.79
#1	74.451	.80305	.00007	158.25	.01350	.01747	-.00189
#2	74.379	.81411	-.00020	157.61	.01413	.01239	.00350
#3	74.135	.80468	-.00004	156.07	.01338	.01315	-.00026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014



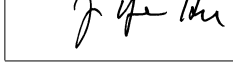
Sample Name: L1404033601 Acquired: 4/7/2014 16:31:42 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00188**	**-.00229**	**6.2595**	**-.00025**	**.98248**	**-.00224**	**-.00265**
Stddev	.00165	.00277	.0340	.00013	.00473	.00086	.00188
%RSD	87.598	121.30	.54345	51.336	.48100	38.515	70.798
#1	.00265	.00062	6.2202	-.00023	.98729	-.00135	-.00468
#2	.00300	-.00490	6.2802	-.00039	.98229	-.00307	-.00231
#3	-.00001	-.00258	6.2779	-.00014	.97785	-.00230	-.00097
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00047**	**.00346**	F **-.39117**
Stddev	.00045	.00001	.37779
%RSD	96.725	.37471	96.579
#1	.00004	.00346	-.72851
#2	-.00060	.00345	-.46202
#3	-.00084	.00348	.01703
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18211.**	**21305.**
Stddev	29.	146.
%RSD	.15847	.68408
#1	18184.	21473.
#2	18241.	21217.
#3	18209.	21224.

Approved: April 08, 2014



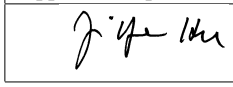
Sample Name: L1404033801 Acquired: 4/7/2014 16:35:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00040**	**.04043**	**-.00046**	**.04912**	**.02127**	**.00007**	**32.749**
Stddev	.00027	.03080	.00090	.00061	.00052	.00002	.067
%RSD	67.201	76.178	197.97	1.2363	2.4586	34.183	.20404
#1	-.00068	.07575	-.00062	.04905	.02144	.00008	32.766
#2	-.00039	.02636	-.00126	.04976	.02069	.00008	32.675
#3	-.00014	.01918	.00052	.04855	.02169	.00004	32.806
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00033**	**.00034**	**.00011**	**.03793**	**.25127**	**1.7608**	**.01184**
Stddev	.00007	.00022	.00023	.00056	.00366	.0246	.00150
%RSD	21.438	64.012	208.70	1.4750	1.4561	1.3950	12.682
#1	.00025	.00047	.00029	.03831	.24910	1.7834	.01140
#2	.00038	.00009	-.00015	.03819	.24922	1.7644	.01060
#3	.00037	.00048	.00019	.03729	.25550	1.7347	.01351
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.0386**	**.01664**	**.00045**	**65.415**	**.04950**	**.01190**	**.00003**
Stddev	.0327	.00049	.00017	.044	.00076	.00046	.00153
%RSD	.36169	2.9338	37.405	.06699	1.5398	3.8773	5408.7
#1	9.0228	.01696	.00035	65.419	.05028	.01220	-.00158
#2	9.0168	.01608	.00064	65.370	.04946	.01137	.00022
#3	9.0762	.01689	.00035	65.457	.04876	.01213	.00145
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014



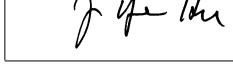
Sample Name: L1404033801 Acquired: 4/7/2014 16:35:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00008**	**-.00095**	**2.2350**	**-.00004**	**.71284**	**.00153**	**-.00164**
Stddev	.00092	.00333	.0297	.00028	.00116	.00237	.00138
%RSD	1107.8	350.42	1.3305	680.17	.16273	154.93	83.986
#1	-.00053	-.00107	2.2529	.00012	.71373	-.00062	-.00093
#2	.00097	-.00422	2.2515	.00012	.71153	.00407	-.00076
#3	-.00069	.00244	2.2007	-.00036	.71327	.00113	-.00322
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00019**	**.00227**	F **-.16279**
Stddev	.00035	.00005	.19746
%RSD	185.67	2.1644	121.30
#1	-.00022	.00232	-.07529
#2	.00039	.00228	-.02420
#3	.00040	.00222	-.38889
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19052.**	**21020.**
Stddev	67.	220.
%RSD	.34948	1.0454
#1	19099.	20858.
#2	18976.	21271.
#3	19081.	20933.

Approved: April 08, 2014



Sample Name: L1404033802 Acquired: 4/7/2014 16:38:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00026**	**.07888**	**.00226**	**.03347**	**.00956**	**.00010**	**108.59**	**.00044**
Stddev	.00031	.01932	.00207	.00082	.00029	.00000	.37	.00003
%RSD	116.29	24.496	91.820	2.4426	3.0215	3.6836	.33977	7.1934
#1	-.00027	.07409	.00079	.03385	.00935	.00011	108.20	.00047
#2	.00005	.10014	.00463	.03253	.00989	.00010	108.64	.00041
#3	-.00057	.06240	.00136	.03402	.00944	.00010	108.93	.00046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00038**	**.00022**	**.00005**	**.04304**	**2.2079**	**.01817**	**20.829**	**.07077**
Stddev	.00015	.00041	.00046	.00466	.0323	.00038	.091	.00012
%RSD	39.363	189.42	1001.0	10.820	1.4626	2.0839	.43683	.17246
#1	.00051	.00015	-.00048	.04415	2.2274	.01840	20.731	.07088
#2	.00041	-.00016	.00024	.04704	2.1706	.01838	20.911	.07081
#3	.00022	.00066	.00038	.03793	2.2257	.01773	20.844	.07064
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00024**	**16.279**	**.00248**	**.01317**	**.00255**	**-.00064**	**-.00240**	**2.4764**
Stddev	.00024	.073	.00041	.00115	.00118	.00053	.00160	.0089
%RSD	98.345	.45040	16.529	8.7106	46.177	83.635	66.849	.36137
#1	.00002	16.197	.00241	.01274	.00268	-.00027	-.00357	2.4671
#2	-.00046	16.300	.00292	.01230	.00131	-.00039	-.00057	2.4772
#3	-.00029	16.340	.00211	.01447	.00365	-.00125	-.00305	2.4850
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

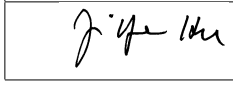
Approved: April 08, 2014

Sample Name: L1404033802 Acquired: 4/7/2014 16:38:47 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00004**	**1.9667**	**-.00022**	**-.00078**	**.00022**	**.00221**	**-.00213**
Stddev	.00071	.0074	.00157	.00112	.00036	.00014	.46433
%RSD	1625.8	.37511	711.48	143.79	162.38	6.2051	21810.
#1	.00071	1.9599	-.00203	-.00196	.00039	.00223	.46793
#2	-.00071	1.9655	.00072	-.00066	.00046	.00206	-.46051
#3	-.00012	1.9745	.00065	.00027	-.00019	.00233	-.01381
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18978.**	**21319.**
Stddev	31.	129.
%RSD	.16527	.60563
#1	18985.	21461.
#2	19004.	21209.
#3	18943.	21288.

Approved: April 08, 2014



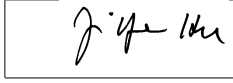
Sample Name: L1404033902 Acquired: 4/7/2014 16:42:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470240-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00031**	**.04973**	**-.00011**	**.02277**	**.05109**	**.00007**	**47.982**
Stddev	.00037	.02335	.00124	.00080	.00033	.00003	.104
%RSD	118.78	46.948	1157.7	3.5018	.64066	47.919	.21658
#1	-.00072	.02407	-.00154	.02185	.05074	.00011	47.862
#2	-.00001	.05539	.00068	.02321	.05138	.00007	48.043
#3	-.00019	.06973	.00054	.02326	.05116	.00004	48.041
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00018**	**.00003**	**.00047**	**.00023**	**.08317**	**.82261**	**.00472**
Stddev	.00013	.00025	.00046	.00015	.00298	.03549	.00177
%RSD	71.079	744.40	97.418	65.458	3.5794	4.3137	37.551
#1	.00033	.00023	-.00006	.00011	.08109	.78303	.00335
#2	.00009	.00011	.00079	.00017	.08184	.83320	.00409
#3	.00012	-.00025	.00068	.00040	.08658	.85159	.00672
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.0558**	**.05879**	**-.00012**	**9.5997**	**.00109**	**.01359**	**.00126**
Stddev	.0562	.00058	.00022	.0555	.00019	.00316	.00118
%RSD	1.1118	.98110	177.07	.57840	17.641	23.248	93.586
#1	5.0940	.05813	-.00008	9.5465	.00090	.01560	.00163
#2	4.9912	.05904	-.00036	9.5955	.00129	.00995	-.00006
#3	5.0822	.05921	.00007	9.6573	.00109	.01522	.00222
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014



Sample Name: L1404033902 Acquired: 4/7/2014 16:42:20 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470240-02

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00314**	**-.00199**	**2.5047**	**.00005**	**.15376**	**.00094**	**-.00090**
Stddev	.00046	.00185	.0325	.00030	.00047	.00077	.00213
%RSD	14.548	92.790	1.2967	655.92	.30632	81.921	236.60
#1	.00300	-.00212	2.4676	-.00014	.15323	.00106	.00107
#2	.00365	-.00377	2.5280	.00039	.15396	.00012	-.00315
#3	.00277	-.00008	2.5184	-.00011	.15411	.00165	-.00061
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00047**	**.00163**	F **-.06701**
Stddev	.00035	.00003	.73461
%RSD	74.936	1.8212	1096.2
#1	.00034	.00160	-.91286
#2	.00020	.00166	.30064
#3	.00087	.00162	.41119
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19289.**	**21682.**
Stddev	26.	72.
%RSD	.13328	.33099
#1	19268.	21760.
#2	19318.	21667.
#3	19282.	21619.

Approved: April 08, 2014

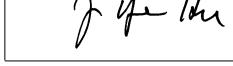
Sample Name: L1404033902S Acquired: 4/7/2014 16:45:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470240-07

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.16897**	**5.2917**	**-.00009**	**.02205**	**.05091**	**.00006**	**53.617**	**.00020**
Stddev	.00122	.0144	.00119	.00072	.00038	.00001	.144	.00006
%RSD	.72401	.27195	1261.2	3.2811	.74392	23.276	.26795	28.587
#1	.16972	5.3029	.00000	.02287	.05126	.00005	53.779	.00026
#2	.16962	5.2754	.00105	.02149	.05097	.00007	53.567	.00021
#3	.16756	5.2967	-.00133	.02179	.05051	.00005	53.505	.00014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00002**	**.00070**	**.00087**	**2.0936**	**27.281**	**.00438**	**9.9877**	**.30863**
Stddev	.00015	.00018	.00011	.0102	.033	.00051	.0251	.00311
%RSD	599.01	26.223	12.054	.48549	.12196	11.539	.25130	1.0066
#1	.00008	.00061	.00078	2.1053	27.284	.00475	10.007	.30941
#2	-.00019	.00091	.00099	2.0891	27.313	.00380	9.9593	.30521
#3	.00004	.00058	.00086	2.0866	27.246	.00459	9.9970	.31128
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00017**	**36.330**	**.00103**	**.00878**	**-.00032**	**.00095**	**-.00037**	**2.5118**
Stddev	.00007	.146	.00049	.00202	.00069	.00145	.00122	.0247
%RSD	43.892	.40053	47.470	23.041	215.80	153.57	328.00	.98505
#1	-.00009	36.495	.00052	.01082	-.00108	-.00071	.00029	2.4840
#2	-.00018	36.272	.00150	.00874	.00027	.00154	.00037	2.5199
#3	-.00023	36.222	.00107	.00677	-.00015	.00201	-.00178	2.5314
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

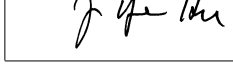


Sample Name: L1404033902S Acquired: 4/7/2014 16:45:53 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470240-07

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**.15530**	**.00047**	**-.00108**	**.00046**	**.00160**	**.02309**
Stddev	.00030	.00053	.00064	.00040	.00019	.00008	.11159
%RSD	139.51	.34262	135.94	37.146	41.600	4.8947	483.32
#1	-.00016	.15586	-.00026	-.00126	.00039	.00151	.11608
#2	.00005	.15524	.00091	-.00062	.00067	.00162	.05384
#3	-.00054	.15480	.00076	-.00136	.00031	.00166	-.10065
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**18978.**	**21484.**
Stddev	66.	183.
%RSD	.34709	.85035
#1	18938.	21497.
#2	18942.	21660.
#3	19054.	21295.

Approved: April 08, 2014



Sample Name: L1404033904 Acquired: 4/7/2014 16:49:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00058**	**.05653**	**-.00120**	**.54040**	**.00585**	**.00006**	**203.83**
Stddev	.00023	.02906	.00148	.00245	.00045	.00004	1.60
%RSD	40.087	51.396	123.00	.45374	7.7045	56.331	.78488
#1	-.00085	.04790	-.00012	.53875	.00599	.00006	202.47
#2	-.00045	.08893	-.00060	.54321	.00622	.00003	205.59
#3	-.00045	.03277	-.00289	.53922	.00535	.00010	203.42
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00108**	**.00088**	**.00095**	**-.00017**	**.20333**	**13.609**	**.11640**
Stddev	.00005	.00025	.00072	.00051	.00035	.048	.00190
%RSD	4.8879	28.976	76.264	299.49	.17357	.35277	1.6355
#1	.00108	.00114	.00103	-.00052	.20293	13.586	.11764
#2	.00102	.00086	.00163	-.00040	.20343	13.664	.11420
#3	.00113	.00063	.00019	.00042	.20362	13.576	.11735
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**111.64**	**.14601**	**.00078**	F **1299.1**	**.00359**	**.01419**	**.00002**
Stddev	1.66	.00461	.00015	30.4	.00079	.00208	.00143
%RSD	1.4888	3.1568	19.641	2.3402	21.936	14.623	7925.7
#1	110.86	.14449	.00060	1284.5	.00409	.01481	.00158
#2	113.55	.15119	.00089	1334.0	.00268	.01188	-.00124
#3	110.51	.14236	.00084	1278.7	.00400	.01589	-.00029
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit				360.00			
Low Limit				-.40000			

Approved: April 08, 2014

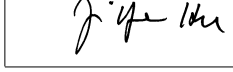
Sample Name: L1404033904 Acquired: 4/7/2014 16:49:25 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00207**	**.00119**	**2.6312**	**-.00040**	F **4.5025**	**-.00104**	**-.00205**
Stddev	.00265	.00065	.0043	.00022	.0244	.00055	.00180
%RSD	128.20	54.792	.16297	54.659	.54075	52.954	87.990
#1	.00336	.00194	2.6317	-.00017	4.4773	-.00089	-.00093
#2	.00382	.00075	2.6267	-.00061	4.5259	-.00164	-.00109
#3	-.00098	.00088	2.6353	-.00042	4.5043	-.00057	-.00413
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail	Chk Pass	Chk Pass
High Limit					4.5000		
Low Limit					-.00800		

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**-.00036**	**.00200**	F **-.52295**
Stddev	.00023	.00004	.27434
%RSD	64.723	2.0503	52.461
#1	-.00011	.00204	-.83453
#2	-.00057	.00196	-.41665
#3	-.00040	.00199	-.31766
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			36.000
Low Limit			-.00320

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**17471.**	**20823.**
Stddev	51.	644.
%RSD	.29295	3.0945
#1	17530.	21082.
#2	17446.	20089.
#3	17437.	21297.

Approved: April 08, 2014



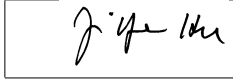
Sample Name: CCV Acquired: 4/7/2014 16:53:07 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41998**	**10.228**	**.41485**	**.54960**	**1.0072**	**.05125**	**10.263**
Stddev	.00270	.023	.00169	.00257	.0050	.00047	.049
%RSD	.64175	.22567	.40839	.46762	.50166	.91059	.47743
#1	.41696	10.235	.41660	.54667	1.0130	.05071	10.320
#2	.42215	10.203	.41321	.55066	1.0052	.05152	10.233
#3	.42083	10.247	.41475	.55148	1.0035	.05151	10.237
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05196**	**.21091**	**.51492**	**.52894**	**4.0188**	**52.151**	**.99101**
Stddev	.00034	.00121	.00579	.00253	.0260	.051	.00337
%RSD	.66236	.57157	1.1249	.47771	.64717	.09837	.33957
#1	.05224	.21195	.50824	.52986	4.0488	52.164	.99489
#2	.05206	.21119	.51859	.53089	4.0036	52.094	.98911
#3	.05157	.20959	.51793	.52609	4.0040	52.195	.98902
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.9550**	**.50343**	**1.0068**	**53.391**	**.51251**	**10.233**	**.51388**
Stddev	.0126	.01238	.0027	.115	.00385	.021	.00434
%RSD	.12649	2.4600	.26368	.21488	.75103	.20982	.84366
#1	9.9695	.49276	1.0089	53.496	.51450	10.254	.51889
#2	9.9466	.50052	1.0077	53.269	.51495	10.232	.51135
#3	9.9488	.51701	1.0039	53.409	.50807	10.211	.51141
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 08, 2014



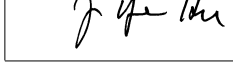
Sample Name: CCV Acquired: 4/7/2014 16:53:07 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2406**	**.42749**	**5.1462**	**1.0804**	**1.0665**	**.95199**	F **.57275**
Stddev	.0113	.00090	.0204	.0118	.0052	.00496	.00568
%RSD	.91137	.21160	.39718	1.0930	.48280	.52090	.99221
#1	1.2490	.42852	5.1645	1.0891	1.0723	.95771	.57560
#2	1.2451	.42714	5.1501	1.0850	1.0646	.94894	.57645
#3	1.2278	.42682	5.1241	1.0669	1.0626	.94931	.56621
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value							.50000
Range							10.000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0317**	**1.0472**	**1.0699**
Stddev	.0090	.0018	.5395
%RSD	.86905	.17092	50.430
#1	1.0213	1.0481	.47396
#2	1.0367	1.0483	1.2104
#3	1.0370	1.0451	1.5252
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19034.**	**21191.**
Stddev	18.	403.
%RSD	.09422	1.9005
#1	19021.	21450.
#2	19026.	21396.
#3	19054.	20727.

Approved: April 08, 2014



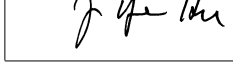
Sample Name: CCB Acquired: 4/7/2014 16:56:23 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00043**	**.01657**	**-.00054**	**.00544**	**.00021**	**.00008**	**.01579**
Stddev	.00008	.01450	.00004	.00042	.00035	.00002	.00240
%RSD	18.355	87.497	7.2009	7.7980	161.03	21.343	15.165
#1	-.00034	.01856	-.00050	.00495	.00045	.00010	.01668
#2	-.00048	.02998	-.00053	.00569	.00038	.00008	.01308
#3	-.00046	.00118	-.00058	.00569	-.00018	.00007	.01762
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**.00010**	**-.00011**	**.00023**	**.00280**	**-.02974**	**.00279**
Stddev	.00009	.00005	.00040	.00039	.00167	.02399	.00036
%RSD	715.04	43.747	368.59	168.69	59.673	80.661	12.784
#1	-.00012	.00009	.00010	.00008	.00470	-.00222	.00252
#2	.00002	.00006	.00014	.00068	.00210	-.04079	.00319
#3	.00006	.00015	-.00057	-.00006	.00158	-.04621	.00266
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01348**	**.00002**	**.00014**	**.11396**	**.00053**	**.00221**	**-.00094**
Stddev	.02311	.00012	.00008	.05126	.00011	.00345	.00089
%RSD	171.42	726.88	54.471	44.983	20.958	156.23	94.324
#1	.01313	.00007	.00023	.17110	.00043	-.00014	-.00133
#2	-.02509	-.00012	.00008	.09880	.00051	.00618	-.00157
#3	-.02848	.00009	.00012	.07199	.00065	.00060	.00007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014



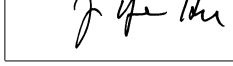
Sample Name: CCB Acquired: 4/7/2014 16:56:23 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**-.00171**	**-.01003**	**-.00002**	**.00015**	**.00186**	**.00086**
Stddev	.00096	.00068	.00140	.00008	.00025	.00108	.00064
%RSD	459.93	39.430	13.990	403.32	164.49	58.000	74.724
#1	-.00125	-.00249	-.00852	-.00011	.00043	.00243	.00012
#2	-.00004	-.00140	-.01028	-.00001	.00005	.00062	.00128
#3	.00066	-.00125	-.01129	.00006	-.00003	.00254	.00118
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00007**	**.00011**	F **.62328**
Stddev	.00024	.00011	.17521
%RSD	345.12	106.56	28.111
#1	.00022	-.00002	.42416
#2	.00020	.00018	.69180
#3	-.00021	.00016	.75386
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19290.**	**21382.**
Stddev	9.	322.
%RSD	.04490	1.5038
#1	19296.	21274.
#2	19294.	21128.
#3	19280.	21743.

Approved: April 08, 2014



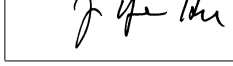
Sample Name: L1404033906 Acquired: 4/7/2014 17:00:00 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00050**	**.08738**	**-.00045**	**.03980**	**.04092**	**.00009**	**59.389**	**.00024**
Stddev	.00031	.01140	.00012	.00054	.00063	.00001	.246	.00007
%RSD	61.311	13.050	26.022	1.3453	1.5307	14.455	.41494	30.071
#1	-.00083	.07668	-.00045	.04025	.04021	.00008	59.166	.00029
#2	-.00044	.09937	-.00056	.03995	.04117	.00010	59.348	.00016
#3	-.00023	.08609	-.00033	.03921	.04139	.00008	59.654	.00027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**.00008**	**.00046**	**.07106**	**1.1730**	**.00871**	**11.197**	**.00314**
Stddev	.00013	.00006	.00013	.00408	.0469	.00066	.211	.00009
%RSD	107.01	75.225	28.894	5.7442	3.9993	7.5471	1.8858	2.9085
#1	-.00003	.00007	.00057	.07193	1.1691	.00842	10.960	.00325
#2	.00022	.00014	.00031	.06662	1.2217	.00946	11.264	.00308
#3	.00018	.00002	.00049	.07465	1.1281	.00825	11.366	.00309
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**19.442**	**.00127**	**.01318**	**.00140**	**-.00002**	**.00418**	**2.9582**
Stddev	.00024	.070	.00050	.00712	.00131	.00118	.00338	.0302
%RSD	174.24	.35856	39.172	54.042	93.386	6313.1	80.932	1.0200
#1	.00003	19.364	.00078	.00993	.00216	-.00130	.00795	2.9233
#2	-.00003	19.499	.00177	.00826	-.00011	.00023	.00142	2.9750
#3	.00041	19.464	.00126	.02134	.00215	.00102	.00317	2.9762
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404033906 Acquired: 4/7/2014 17:00:00 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00012**	**.45554**	**.00165**	**-.00142**	**.00048**	**.00244**	**.25686**
Stddev	.00050	.00143	.00097	.00126	.00030	.00008	.43693
%RSD	429.70	.31421	58.819	88.485	63.502	3.4296	170.10
#1	-.00046	.45463	.00260	-.00007	.00080	.00239	.34497
#2	.00037	.45481	.00167	-.00257	.00043	.00253	.64302
#3	.00044	.45719	.00066	-.00163	.00020	.00238	-.21740
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19081.**	**22011.**
Stddev	122.	178.
%RSD	.64102	.80892
#1	18959.	22102.
#2	19081.	22126.
#3	19204.	21806.

Approved: April 08, 2014

Sample Name: L1404034702 Acquired: 4/7/2014 17:03:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00056**	**.03501**	**-.00061**	**.04031**	**.00145**	**.00008**	**355.94**	**.00153**
Stddev	.00025	.01160	.00401	.00056	.00023	.00004	.61	.00004
%RSD	44.314	33.138	653.05	1.3773	15.886	45.305	.17065	2.9000
#1	-.00029	.04782	-.00081	.04088	.00168	.00005	355.25	.00158
#2	-.00077	.03203	-.00452	.04028	.00144	.00007	356.40	.00150
#3	-.00062	.02519	.00349	.03977	.00122	.00012	356.17	.00151
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00074**	**.00036**	**-.00037**	**.25792**	**7.1812**	**.06465**	**363.45**	**.20850**
Stddev	.00016	.00019	.00075	.00260	.0443	.00149	1.19	.00162
%RSD	22.164	53.476	201.50	1.0069	.61702	2.2973	.32808	.77785
#1	.00072	.00057	-.00051	.25941	7.1723	.06613	362.40	.20718
#2	.00092	.00032	.00043	.25492	7.1421	.06465	363.20	.20801
#3	.00059	.00019	-.00104	.25943	7.2293	.06316	364.75	.21031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00024**	**16.043**	**.00541**	**.01653**	**.00163**	**.00094**	**-.00223**	**2.7697**
Stddev	.00039	.037	.00065	.00448	.00108	.00124	.00190	.0205
%RSD	165.69	.22943	12.007	27.132	66.265	132.58	84.909	.74056
#1	.00012	16.001	.00546	.01564	.00056	.00101	-.00333	2.7767
#2	-.00066	16.067	.00604	.01256	.00273	-.00034	-.00332	2.7859
#3	-.00017	16.062	.00474	.02139	.00160	.00214	-.00004	2.7467
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

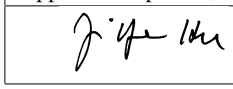
Approved: April 08, 2014

Sample Name: L1404034702 Acquired: 4/7/2014 17:03:34 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00047**	**2.1986**	**-.00310**	**-.00406**	**.00003**	**.00351**	**.01970**
Stddev	.00052	.0056	.00017	.00126	.00004	.00004	.53080
%RSD	110.14	.25222	5.5626	31.125	128.19	1.2662	2694.3
#1	-.00049	2.1933	-.00303	-.00262	-.00001	.00352	.61743
#2	.00006	2.2044	-.00330	-.00501	.00006	.00346	-.39660
#3	-.00098	2.1981	-.00297	-.00453	.00005	.00354	-.16173
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**17690.**	**21498.**
Stddev	101.	155.
%RSD	.57185	.72035
#1	17635.	21626.
#2	17628.	21542.
#3	17807.	21326.

Approved: April 08, 2014



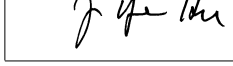
Sample Name: L1404045101 Acquired: 4/7/2014 17:07:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00003**	**.62081**	**.00101**	**.01248**	**.01931**	**.00014**	**22.750**	**.00020**
Stddev	.00007	.00930	.00098	.00116	.00050	.00002	.115	.00002
%RSD	290.24	1.4973	96.882	9.3026	2.5970	17.173	.50574	7.5705
#1	.00010	.61116	.00027	.01189	.01918	.00017	22.779	.00022
#2	.00002	.62971	.00212	.01382	.01986	.00014	22.848	.00020
#3	-.00004	.62156	.00064	.01174	.01888	.00012	22.623	.00019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00075**	**.00380**	**.00936**	**1.0401**	**5.7026**	**.00575**	**2.1475**	**.05207**
Stddev	.00019	.00006	.00065	.0115	.0549	.00135	.0144	.00117
%RSD	25.254	1.4793	6.8931	1.1022	.96206	23.463	.66825	2.2434
#1	.00082	.00376	.00946	1.0292	5.6407	.00634	2.1468	.05136
#2	.00090	.00377	.00994	1.0520	5.7217	.00670	2.1623	.05341
#3	.00054	.00386	.00867	1.0391	5.7453	.00420	2.1336	.05142
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00057**	**2.7312**	**.00274**	**.08147**	**.00238**	**.00010**	**.00277**	**2.5569**
Stddev	.00005	.0166	.00010	.00091	.00213	.00058	.00075	.0314
%RSD	9.2324	.60651	3.7770	1.1176	89.636	592.17	27.285	1.2302
#1	.00053	2.7432	.00265	.08043	.00001	-.00051	.00191	2.5814
#2	.00063	2.7383	.00285	.08188	.00414	.00015	.00303	2.5678
#3	.00055	2.7123	.00271	.08211	.00299	.00065	.00335	2.5214
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404045101 Acquired: 4/7/2014 17:07:07 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**.09570**	**.01260**	**-.00218**	**.00241**	**.03624**	**1.9059**
Stddev	.00024	.00153	.00079	.00091	.00017	.00029	.2902
%RSD	336.26	1.5950	6.3066	41.433	7.0078	.80773	15.228
#1	.00018	.09510	.01185	-.00280	.00224	.03651	2.2388
#2	.00024	.09744	.01253	-.00115	.00240	.03627	1.7722
#3	-.00020	.09457	.01343	-.00260	.00258	.03593	1.7066
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19571.**	**21892.**
Stddev	42.	430.
%RSD	.21479	1.9664
#1	19614.	21863.
#2	19530.	21477.
#3	19570.	22336.

Approved: April 08, 2014

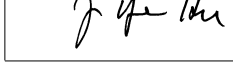
Sample Name: L1404045102 Acquired: 4/7/2014 17:10:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00022**	**2.3064**	**.00199**	**.02041**	**.04205**	**.00028**	**32.496**	**.00022**
Stddev	.00072	.0068	.00148	.00048	.00040	.00003	.068	.00008
%RSD	335.52	.29456	74.445	2.3543	.96226	9.2838	.20825	34.564
#1	.00086	2.3108	.00259	.02077	.04252	.00027	32.571	.00013
#2	-.00056	2.3098	.00307	.01987	.04183	.00026	32.477	.00026
#3	.00035	2.2986	.00030	.02060	.04181	.00031	32.440	.00027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00310**	**.00641**	**.01205**	**4.9654**	**7.8528**	**.00851**	**3.6222**	**.26087**
Stddev	.00022	.00003	.00020	.0117	.0421	.00109	.0276	.00208
%RSD	7.0026	.51348	1.6220	.23584	.53614	12.770	.76283	.79917
#1	.00287	.00639	.01217	4.9725	7.8216	.00972	3.5906	.25853
#2	.00330	.00638	.01215	4.9719	7.8360	.00763	3.6342	.26155
#3	.00314	.00644	.01182	4.9519	7.9007	.00818	3.6417	.26253
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00153**	**6.1184**	**.00695**	**.13143**	**.00424**	**-.00012**	**.00032**	**6.1664**
Stddev	.00004	.0330	.00052	.00182	.00298	.00102	.00192	.0278
%RSD	2.7912	.53911	7.4206	1.3864	70.150	873.31	593.02	.45068
#1	.00157	6.1446	.00666	.13333	.00443	-.00034	-.00133	6.1350
#2	.00149	6.1293	.00665	.13125	.00712	-.00101	-.00012	6.1877
#3	.00154	6.0814	.00755	.12970	.00118	.00100	.00242	6.1766
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404045102 Acquired: 4/7/2014 17:10:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00014**	**.23287**	**.04979**	**-.00059**	**.00735**	**.06017**	**5.1705**
Stddev	.00015	.00120	.00130	.00041	.00026	.00031	.0411
%RSD	105.94	.51626	2.6166	69.732	3.5457	.50909	.79582
#1	.00031	.23421	.05040	-.00091	.00710	.06049	5.2133
#2	.00001	.23251	.04830	-.00013	.00762	.06012	5.1312
#3	.00011	.23189	.05068	-.00073	.00734	.05989	5.1670
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19582.**	**22171.**
Stddev	14.	227.
%RSD	.06976	1.0238
#1	19568.	22430.
#2	19583.	22008.
#3	19595.	22074.

Approved: April 08, 2014

Sample Name: L1404045103 Acquired: 4/7/2014 17:14:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00037**	**1.5910**	**.00136**	**.01254**	**.02868**	**.00021**	**23.304**	**.00021**
Stddev	.00039	.0044	.00137	.00002	.00009	.00000	.034	.00004
%RSD	104.91	.27776	100.20	.19888	.32144	.90964	.14481	17.668
#1	-.00068	1.5926	-.00016	.01256	.02858	.00021	23.337	.00022
#2	-.00050	1.5944	.00177	.01255	.02871	.00021	23.305	.00025
#3	.00007	1.5860	.00248	.01251	.02876	.00021	23.270	.00017
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00273**	**.00315**	**.00554**	**3.6217**	**1.8118**	**.00660**	**2.5739**	**.16801**
Stddev	.00031	.00029	.00042	.0025	.0366	.00218	.0084	.00037
%RSD	11.407	9.2373	7.6455	.06804	2.0188	32.999	.32617	.22069
#1	.00276	.00291	.00506	3.6221	1.7696	.00627	2.5774	.16788
#2	.00240	.00348	.00570	3.6239	1.8349	.00461	2.5800	.16772
#3	.00302	.00307	.00586	3.6190	1.8309	.00893	2.5643	.16843
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00082**	**1.3472**	**.00619**	**.09157**	**.00401**	**.00124**	**.00200**	**4.1289**
Stddev	.00007	.0038	.00057	.00509	.00064	.00057	.00266	.0204
%RSD	8.3982	.27887	9.2923	5.5565	15.993	46.095	133.02	.49465
#1	.00075	1.3478	.00672	.09708	.00454	.00123	.00185	4.1113
#2	.00089	1.3432	.00626	.08705	.00421	.00183	.00473	4.1513
#3	.00082	1.3506	.00558	.09058	.00330	.00068	-.00058	4.1240
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

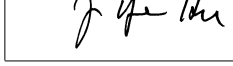
Approved: April 08, 2014

Sample Name: L1404045103 Acquired: 4/7/2014 17:14:10 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**.10897**	**.02560**	**-.00162**	**.00434**	**.03921**	**4.1204**
Stddev	.00014	.00042	.00073	.00059	.00008	.00024	.4412
%RSD	153.28	.38216	2.8449	36.284	1.8892	.61660	10.707
#1	-.00007	.10909	.02547	-.00146	.00443	.03909	3.6670
#2	.00016	.10931	.02639	-.00227	.00428	.03906	4.1460
#3	.00019	.10850	.02495	-.00113	.00430	.03949	4.5483
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19487.**	**22202.**
Stddev	83.	136.
%RSD	.42340	.61174
#1	19516.	22324.
#2	19394.	22225.
#3	19552.	22056.

Approved: April 08, 2014



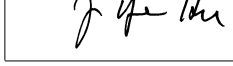
Sample Name: L1404045104 Acquired: 4/7/2014 17:17:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00076**	**3.3961**	**.00311**	**.02283**	**.05921**	**.00039**	**42.184**	**.00021**
Stddev	.00030	.0149	.00081	.00108	.00024	.00001	.032	.00002
%RSD	39.094	.43792	26.060	4.7258	.40861	3.1029	.07530	8.9892
#1	.00100	3.4096	.00217	.02407	.05948	.00040	42.147	.00019
#2	.00043	3.3984	.00363	.02226	.05912	.00038	42.203	.00020
#3	.00084	3.3802	.00352	.02215	.05902	.00039	42.202	.00023
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00292**	**.00965**	**.01177**	**5.4846**	**4.6819**	**.01096**	**3.2295**	**.23818**
Stddev	.00002	.00026	.00066	.0203	.0084	.00086	.0233	.00463
%RSD	.71938	2.6995	5.5755	.37040	.17980	7.8846	.72041	1.9431
#1	.00294	.00983	.01105	5.4975	4.6882	.01100	3.2122	.23465
#2	.00290	.00976	.01232	5.4612	4.6852	.01008	3.2203	.23647
#3	.00292	.00935	.01196	5.4950	4.6723	.01181	3.2559	.24342
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00127**	**3.1003**	**.00789**	**.17901**	**.00792**	**.00128**	**.00086**	**9.0608**
Stddev	.00008	.0131	.00029	.00579	.00059	.00061	.00347	.0160
%RSD	6.5332	.42156	3.7154	3.2330	7.4316	47.827	404.10	.17612
#1	.00125	3.1077	.00780	.17348	.00787	.00064	.00330	9.0442
#2	.00137	3.1079	.00764	.18503	.00736	.00133	.00240	9.0621
#3	.00120	3.0852	.00821	.17852	.00853	.00186	-.00312	9.0760
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404045104 Acquired: 4/7/2014 17:17:41 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00012**	**.26502**	**.08734**	**-.00161**	**.00857**	**.07176**	**7.1212**
Stddev	.00021	.00060	.00068	.00130	.00021	.00055	.3101
%RSD	176.93	.22682	.77642	80.521	2.4859	.77173	4.3552
#1	-.00031	.26495	.08671	-.00296	.00879	.07151	7.0326
#2	-.00017	.26565	.08806	-.00038	.00855	.07239	6.8650
#3	.00011	.26445	.08725	-.00149	.00837	.07137	7.4660
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19697.**	**22118.**
Stddev	24.	381.
%RSD	.12005	1.7213
#1	19701.	22364.
#2	19718.	22310.
#3	19672.	21680.

Approved: April 08, 2014

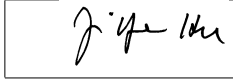
Sample Name: L1404045105 Acquired: 4/7/2014 17:21:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**1.3365**	**.00024**	**.01300**	**.01993**	**.00017**	**20.213**	**.00014**
Stddev	.00023	.0086	.00162	.00117	.00030	.00002	.033	.00013
%RSD	818.16	.64690	686.13	8.9994	1.5022	11.673	.16476	89.876
#1	.00002	1.3426	.00112	.01431	.01972	.00016	20.212	.00012
#2	-.00028	1.3266	-.00164	.01261	.01979	.00020	20.181	.00028
#3	.00017	1.3402	.00122	.01207	.02027	.00016	20.247	.00002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00057**	**.00369**	**.00370**	**1.1975**	**4.1353**	**.00748**	**1.7985**	**.05105**
Stddev	.00017	.00023	.00025	.0056	.0110	.00061	.0164	.00125
%RSD	30.429	6.3333	6.6283	.46642	.26633	8.1505	.91050	2.4533
#1	.00073	.00344	.00342	1.1973	4.1431	.00737	1.7889	.04967
#2	.00060	.00390	.00384	1.1920	4.1227	.00693	1.8174	.05136
#3	.00039	.00372	.00384	1.2032	4.1402	.00814	1.7892	.05212
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00062**	**2.4719**	**.00273**	**.06762**	**.00217**	**.00018**	**-.00130**	**4.8302**
Stddev	.00020	.0128	.00017	.00623	.00080	.00138	.00066	.1801
%RSD	32.901	.51722	6.1483	9.2068	37.123	758.63	50.933	3.7283
#1	.00080	2.4793	.00268	.06925	.00151	.00149	-.00054	4.9298
#2	.00040	2.4571	.00292	.07287	.00306	-.00126	-.00159	4.9385
#3	.00066	2.4793	.00259	.06074	.00193	.00031	-.00177	4.6223
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

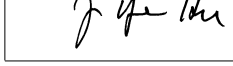


Sample Name: L1404045105 Acquired: 4/7/2014 17:21:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00079**	**.36934**	**.04664**	**-.00202**	**.00372**	**.02137**	**7.9615**
Stddev	.00023	.00137	.00226	.00128	.00041	.00014	.9535
%RSD	29.115	.36989	4.8496	63.683	10.966	.66975	11.977
#1	.00104	.37048	.04467	-.00053	.00325	.02146	7.0445
#2	.00073	.36783	.04911	-.00278	.00392	.02145	7.8923
#3	.00059	.36972	.04615	-.00274	.00398	.02121	8.9478
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19616.**	**21701.**
Stddev	72.	181.
%RSD	.36528	.83323
#1	19692.	21874.
#2	19604.	21717.
#3	19551.	21514.

Approved: April 08, 2014



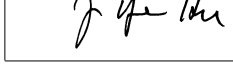
Sample Name: L1404045106 Acquired: 4/7/2014 17:24:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00007**	**1.7346**	**.00211**	**.03399**	**.04740**	**.00023**	**25.461**	**.00026**
Stddev	.00054	.0155	.00079	.00082	.00044	.00002	.079	.00005
%RSD	820.86	.89432	37.432	2.4049	.92352	7.9855	.31164	18.798
#1	-.00055	1.7505	.00144	.03319	.04781	.00024	25.442	.00023
#2	.00028	1.7195	.00191	.03397	.04694	.00024	25.394	.00032
#3	.00047	1.7336	.00298	.03482	.04745	.00021	25.549	.00024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00131**	**.01333**	**.00640**	**2.3151**	**16.413**	**.01904**	**1.5390**	**.09457**
Stddev	.00003	.00023	.00037	.0118	.056	.00139	.0080	.00183
%RSD	2.4075	1.7388	5.7288	.51015	.34273	7.3067	.52335	1.9376
#1	.00129	.01306	.00648	2.3258	16.473	.01851	1.5373	.09668
#2	.00135	.01344	.00600	2.3025	16.361	.02061	1.5319	.09366
#3	.00129	.01348	.00673	2.3171	16.404	.01799	1.5478	.09337
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00246**	**8.1987**	**.00334**	**.10198**	**.00331**	**.00077**	**.00057**	**8.4120**
Stddev	.00022	.0138	.00085	.00193	.00087	.00210	.00149	.0230
%RSD	8.9302	.16850	25.388	1.8960	26.240	274.39	261.45	.27358
#1	.00225	8.2146	.00356	.10019	.00333	.00266	.00188	8.4386
#2	.00245	8.1921	.00405	.10403	.00243	-.00149	-.00105	8.4001
#3	.00269	8.1894	.00240	.10171	.00417	.00113	.00089	8.3974
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404045106 Acquired: 4/7/2014 17:24:43 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00013**	**.25234**	**.03829**	**-.00224**	**.00617**	**.03784**	**4.5292**
Stddev	.00053	.00108	.00099	.00163	.00003	.00044	.3510
%RSD	401.94	.42621	2.5755	72.565	.48166	1.1676	7.7494
#1	-.00046	.25164	.03828	-.00113	.00617	.03828	4.6479
#2	.00056	.25180	.03928	-.00148	.00614	.03740	4.1343
#3	.00030	.25357	.03730	-.00411	.00620	.03784	4.8055
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19652.**	**22115.**
Stddev	40.	362.
%RSD	.20479	1.6372
#1	19608.	21697.
#2	19687.	22323.
#3	19660.	22325.

Approved: April 08, 2014

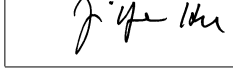
Sample Name: L1404032901 Acquired: 4/7/2014 17:28:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 50 Custom ID2: Custom ID3:
Comment: WG470004-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**-.00297**	**.00119**	**1.2283**	**.00017**	**.00007**	**.06310**	**-.00010**
Stddev	.0004	.02573	.00284	.0243	.00013	.00001	.00644	.00012
%RSD	14135.	866.35	239.34	1.9800	74.030	19.421	10.209	117.85
#1	-.00037	.01030	-.00142	1.2009	.00004	.00006	.06684	-.00019
#2	.00034	.01341	.00422	1.2369	.00018	.00009	.05566	-.00014
#3	.00002	-.03262	.00077	1.2472	.00029	.00007	.06680	.00003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00037**	**-.00054**	**.00120**	**-.00159**	**.01493**	**.00177**	**.06676**	**.00968**
Stddev	.00025	.00010	.00056	.00387	.00438	.00108	.02183	.00022
%RSD	66.464	18.488	46.238	243.38	29.320	60.931	32.707	2.2820
#1	.00021	-.00065	.00167	-.00541	.01129	.00191	.08533	.00945
#2	.00025	-.00048	.00135	-.00169	.01979	.00278	.07224	.00971
#3	.00066	-.00048	.00059	.00233	.01372	.00063	.04270	.00989
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00012**	**10.272**	**.00061**	**.26967**	**.00128**	**-.00122**	**-.00212**	**.08872**
Stddev	.00008	.035	.00093	.00201	.00059	.00051	.00351	.00533
%RSD	69.202	.34265	152.61	.74626	46.056	41.316	165.68	6.0130
#1	-.00014	10.251	-.00007	.26825	.00183	-.00064	-.00606	.09485
#2	-.00020	10.252	.00166	.27197	.00134	-.00153	-.00094	.08518
#3	-.00003	10.313	.00022	.26879	.00066	-.00150	.00065	.08612
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014



Sample Name: L1404032901 Acquired: 4/7/2014 17:28:14 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 50 Custom ID2: Custom ID3:
Comment: WG470004-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00034**	**.00066**	**.00074**	**.00122**	**-.00012**	**.00311**	**.75968**
Stddev	.00025	.00015	.00136	.00118	.00038	.00004	.22539
%RSD	74.057	22.355	184.79	96.365	315.44	1.1351	29.669
#1	-.00057	.00051	.00213	-.00003	-.00044	.00310	.97009
#2	-.00037	.00067	.00067	.00231	.00029	.00315	.78713
#3	-.00007	.00081	-.00059	.00138	-.00021	.00308	.52182
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19928.**	**22256.**
Stddev	70.	347.
%RSD	.35238	1.5574
#1	20003.	22591.
#2	19917.	22277.
#3	19864.	21899.

Approved: April 08, 2014

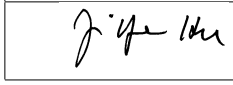
Sample Name: L1404032901S Acquired: 4/7/2014 17:31:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 50 Custom ID2: Custom ID3:
Comment: WG470004-08

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00353**	**.10544**	**.00381**	**1.2461**	**.00990**	**.00059**	**.16249**	**.00048**
Stddev	.00023	.02389	.00257	.0154	.00022	.00004	.00980	.00003
%RSD	6.3842	22.653	67.484	1.2340	2.2721	6.1857	6.0308	6.1367
#1	.00369	.11192	.00418	1.2352	.00971	.00056	.16900	.00049
#2	.00363	.12543	.00617	1.2637	.00985	.00063	.16726	.00044
#3	.00327	.07899	.00107	1.2394	.01015	.00057	.15122	.00049
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00234**	**.00494**	**.00652**	**.03868**	**.53337**	**.01078**	**.15986**	**.01454**
Stddev	.00020	.00011	.00014	.00313	.02949	.00108	.03013	.00007
%RSD	8.3816	2.2257	2.1092	8.0847	5.5283	10.008	18.847	.46238
#1	.00212	.00485	.00656	.03724	.56715	.01036	.18752	.01449
#2	.00241	.00506	.00664	.03654	.52018	.00997	.12775	.01451
#3	.00249	.00492	.00637	.04227	.51278	.01200	.16431	.01461
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00930**	**10.620**	**.00542**	**.26388**	**.00634**	**.01214**	**.00306**	**.13408**
Stddev	.00009	.098	.00057	.00174	.00177	.00137	.00194	.00325
%RSD	.95078	.91980	10.440	.66047	27.900	11.272	63.386	2.4227
#1	.00922	10.724	.00606	.26369	.00828	.01269	.00450	.13060
#2	.00930	10.530	.00500	.26224	.00589	.01058	.00382	.13704
#3	.00939	10.605	.00519	.26571	.00483	.01315	.00085	.13459
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

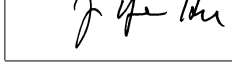


Sample Name: L1404032901S Acquired: 4/7/2014 17:31:49 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 50 Custom ID2: Custom ID3:
Comment: WG470004-08

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.01093**	**.01089**	**.00899**	**.00696**	**.01020**	**.01290**	**.82625**
Stddev	.00022	.00014	.00090	.00205	.00020	.00012	.42170
%RSD	2.0432	1.2667	10.041	29.476	1.9895	.94228	51.038
#1	.01109	.01082	.01003	.00800	.01008	.01278	.34675
#2	.01103	.01081	.00841	.00460	.01044	.01302	.99260
#3	.01068	.01105	.00853	.00829	.01009	.01290	1.1394
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19598.**	**22008.**
Stddev	222.	71.
%RSD	1.1323	.32369
#1	19745.	22090.
#2	19343.	21971.
#3	19707.	21964.

Approved: April 08, 2014



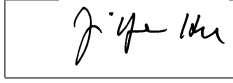
Sample Name: CCV Acquired: 4/7/2014 17:35:24 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41374**	**10.147**	**.41128**	**.54668**	**.99739**	**.05046**	**10.154**
Stddev	.00265	.024	.00124	.00342	.00131	.00014	.029
%RSD	.63986	.23369	.30190	.62550	.13147	.28623	.28932
#1	.41600	10.155	.41271	.55039	.99658	.05056	10.131
#2	.41439	10.165	.41047	.54365	.99891	.05053	10.187
#3	.41083	10.120	.41067	.54599	.99669	.05030	10.143
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05127**	**.20918**	**.50717**	**.52435**	**3.9592**	**51.610**	**.97741**
Stddev	.00026	.00053	.00268	.00204	.0336	.081	.00298
%RSD	.50190	.25310	.52931	.38988	.85001	.15720	.30534
#1	.05119	.20872	.50894	.52410	3.9219	51.517	.97573
#2	.05155	.20975	.50849	.52650	3.9873	51.664	.98086
#3	.05106	.20906	.50408	.52244	3.9683	51.650	.97565
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.7499**	**.48661**	**.99593**	**52.792**	**.50805**	**10.197**	**.50868**
Stddev	.0456	.00402	.00348	.101	.00137	.042	.00145
%RSD	.46777	.82532	.34986	.19186	.26878	.41184	.28463
#1	9.6973	.48199	.99295	52.717	.50733	10.216	.50750
#2	9.7747	.48856	.99976	52.907	.50962	10.148	.51030
#3	9.7778	.48928	.99506	52.751	.50719	10.225	.50823
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 08, 2014



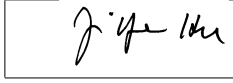
Sample Name: CCV Acquired: 4/7/2014 17:35:24 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2328**	**.42731**	**5.1047**	**1.0789**	**1.0658**	**.93685**	F **.57411**
Stddev	.0037	.00104	.0188	.0022	.0011	.00394	.00210
%RSD	.30210	.24256	.36811	.20812	.10602	.42029	.36654
#1	1.2299	.42834	5.0877	1.0785	1.0671	.93350	.57478
#2	1.2370	.42733	5.1249	1.0813	1.0653	.94119	.57580
#3	1.2316	.42627	5.1015	1.0769	1.0650	.93585	.57175
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value							.50000
Range							10.000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0122**	**1.0358**	F **1.5138**
Stddev	.0064	.0032	.4166
%RSD	.63605	.31105	27.520
#1	1.0191	1.0373	1.0521
#2	1.0113	1.0380	1.6278
#3	1.0063	1.0321	1.8616
Check ?	Chk Pass	Chk Pass	Chk Fail
Value			1.0000
Range			10.000%

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19026.**	**21551.**
Stddev	93.	203.
%RSD	.49033	.94355
#1	18926.	21786.
#2	19041.	21436.
#3	19110.	21431.

Approved: April 08, 2014



Sample Name: CCB Acquired: 4/7/2014 17:38:39 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00033**	**.02177**	**.00041**	**.00775**	**-.00003**	**.00009**	**.00954**
Stddev	.00017	.00379	.00091	.00077	.00016	.00003	.00473
%RSD	51.175	17.429	220.28	9.9729	457.53	34.354	49.610
#1	-.00015	.02595	-.00025	.00857	-.00010	.00006	.01127
#2	-.00048	.02079	.00004	.00766	.00014	.00009	.00418
#3	-.00035	.01856	.00145	.00703	-.00014	.00012	.01315
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00001**	**.00001**	**-.00013**	**.00020**	**.00145**	**-.02026**	**.00232**
Stddev	.00007	.00009	.00027	.00008	.00357	.03167	.00067
%RSD	1071.1	1148.8	207.52	41.586	245.62	156.26	28.767
#1	-.00001	-.00010	.00007	.00014	.00533	-.05667	.00165
#2	.00008	.00005	-.00044	.00029	-.00169	-.00502	.00299
#3	-.00005	.00007	-.00002	.00017	.00071	.00089	.00233
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01683**	**.00011**	**.00009**	**.03635**	**.00046**	**-.00063**	**-.00085**
Stddev	.02709	.00007	.00009	.01503	.00037	.00382	.00151
%RSD	161.00	60.870	107.75	41.360	80.342	603.70	177.17
#1	-.02535	.00016	.00011	.03826	.00015	.00072	-.00238
#2	-.03863	.00013	.00016	.05034	.00036	-.00494	-.00082
#3	.01350	.00003	-.00002	.02045	.00086	.00232	.00064
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014

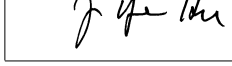
Sample Name: CCB Acquired: 4/7/2014 17:38:39 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00021**	**-.00116**	**-.00933**	**-.00023**	**-.00002**	**.00095**	**-.00088**
Stddev	.00010	.00368	.00191	.00031	.00002	.00111	.00084
%RSD	45.297	316.85	20.424	134.66	123.60	116.53	95.704
#1	-.00024	-.00518	-.00953	-.00012	-.00001	-.00033	-.00124
#2	-.00010	.00205	-.01114	-.00057	-.00004	.00154	.00008
#3	-.00029	-.00036	-.00734	.00001	.00000	.00163	-.00148
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00005**	**.00016**	F **.32716**
Stddev	.00016	.00003	.22706
%RSD	291.15	15.606	69.405
#1	-.00010	.00015	.07751
#2	.00006	.00019	.38258
#3	.00021	.00014	.52138
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19261.**	**21572.**
Stddev	175.	82.
%RSD	.90845	.38174
#1	19060.	21661.
#2	19375.	21499.
#3	19349.	21556.

Approved: April 08, 2014



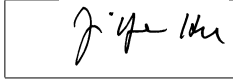
Sample Name: L1404010210 Acquired: 4/7/2014 17:42:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00017**	**.64248**	**-.00057**	**.04192**	**.05766**	**.00012**	**34.202**	**.00020**
Stddev	.00077	.03430	.00148	.00079	.00054	.00001	.182	.00008
%RSD	454.73	5.3383	260.37	1.8847	.94020	9.6349	.53161	39.250
#1	.00020	.60795	-.00124	.04283	.05734	.00011	34.052	.00029
#2	-.00062	.67654	.00113	.04141	.05734	.00013	34.149	.00015
#3	.00093	.64295	-.00158	.04152	.05828	.00014	34.404	.00016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00051**	**.00052**	**.00170**	**.88941**	**1.3382**	**.00550**	**6.9724**	**.12572**
Stddev	.00010	.00020	.00045	.00486	.0566	.00130	.0596	.00241
%RSD	19.245	37.924	26.678	.54622	4.2323	23.636	.85482	1.9204
#1	.00040	.00029	.00138	.89500	1.2739	.00487	6.9420	.12395
#2	.00059	.00066	.00222	.88708	1.3601	.00700	6.9341	.12474
#3	.00054	.00060	.00151	.88616	1.3806	.00464	7.0411	.12847
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00094**	**31.552**	**.00203**	**.03332**	**.00075**	**.00134**	**.00102**	**3.2252**
Stddev	.00016	.177	.00022	.00608	.00061	.00057	.00191	.0406
%RSD	16.761	.56192	10.927	18.247	80.943	42.159	186.85	1.2598
#1	.00112	31.465	.00223	.02691	.00111	.00111	-.00010	3.1824
#2	.00085	31.435	.00179	.03405	.00109	.00093	-.00006	3.2301
#3	.00085	31.756	.00205	.03900	.00005	.00199	.00323	3.2632
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

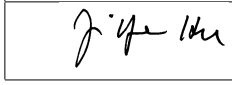


Sample Name: L1404010210 Acquired: 4/7/2014 17:42:17 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00026**	**.30287**	**.00896**	**-.00146**	**.00141**	**.00681**	**1.8215**
Stddev	.00020	.00158	.00128	.00170	.00012	.00012	.1994
%RSD	78.409	.52183	14.267	116.53	8.4714	1.7244	10.949
#1	.00049	.30115	.00767	-.00237	.00154	.00691	1.7942
#2	.00015	.30323	.00896	-.00250	.00137	.00668	2.0332
#3	.00014	.30425	.01023	.00050	.00131	.00684	1.6372
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19236.**	**22021.**
Stddev	197.	344.
%RSD	1.0232	1.5614
#1	19009.	22273.
#2	19341.	22160.
#3	19359.	21629.

Approved: April 08, 2014



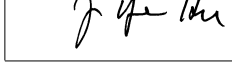
Sample Name: L1404010210PS Acquired: 4/7/2014 17:45:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470014-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20260**	**5.5944**	**.19792**	**1.0773**	**.52956**	**.02471**	**35.617**	**.02460**
Stddev	.00065	.0279	.00087	.0028	.00214	.00004	.203	.00017
%RSD	.32085	.49781	.44082	.25693	.40480	.18060	.56948	.71059
#1	.20335	5.6128	.19709	1.0784	.52838	.02472	35.487	.02440
#2	.20227	5.5623	.19783	1.0741	.52827	.02467	35.513	.02472
#3	.20219	5.6080	.19883	1.0793	.53204	.02476	35.851	.02468
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10069**	**.24620**	**.25199**	**2.7216**	**26.030**	**.47519**	**10.818**	**.34387**
Stddev	.00061	.00098	.00122	.0061	.230	.00191	.079	.00194
%RSD	.60674	.39967	.48439	.22539	.88470	.40177	.73004	.56331
#1	.10004	.24704	.25059	2.7275	25.832	.47315	10.757	.34341
#2	.10077	.24512	.25260	2.7153	25.976	.47548	10.790	.34220
#3	.10125	.24645	.25280	2.7218	26.283	.47694	10.907	.34600
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.48677**	**53.939**	**.24373**	**5.5733**	**.24420**	**.59820**	**.20262**	**5.6983**
Stddev	.00302	.244	.00147	.0282	.00321	.00234	.00154	.0072
%RSD	.62067	.45170	.60456	.50644	1.3164	.39131	.76093	.12678
#1	.48329	53.715	.24204	5.5415	.24544	.59562	.20180	5.6979
#2	.48864	53.903	.24439	5.5954	.24055	.60018	.20439	5.6912
#3	.48839	54.198	.24476	5.5829	.24661	.59881	.20165	5.7057
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

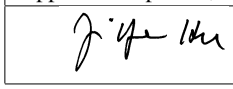


Sample Name: L1404010210PS Acquired: 4/7/2014 17:45:48 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470014-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00001**	**.77863**	**.47190**	**.27209**	**.49524**	**.49768**	**3.4384**
Stddev	.00027	.00553	.00280	.00435	.00090	.00135	.0072
%RSD	2269.8	.71015	.59402	1.6000	.18224	.27133	.21007
#1	-.00025	.77445	.47062	.26713	.49479	.49659	3.4396
#2	.00029	.77654	.47511	.27527	.49464	.49726	3.4307
#3	-.00007	.78490	.46996	.27387	.49627	.49919	3.4450
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19266.**	**22052.**
Stddev	43.	131.
%RSD	.22437	.59396
#1	19288.	22110.
#2	19293.	22143.
#3	19216.	21902.

Approved: April 08, 2014



Sample Name: L1404010210SDL Acquired: 4/7/2014 17:49:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG470014-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00026**	**.16398**	**-.00099**	**.01387**	**.01155**	**.00008**	**6.9416**	**-.00001**
Stddev	.00050	.03720	.00183	.00038	.00014	.00001	.0074	.00008
%RSD	192.75	22.686	185.57	2.7440	1.2107	12.091	.10625	604.97
#1	-.00074	.20254	-.00001	.01404	.01144	.00008	6.9369	.00008
#2	.00025	.12831	-.00311	.01343	.01171	.00009	6.9501	-.00008
#3	-.00029	.16108	.00015	.01413	.01150	.00007	6.9378	-.00004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00047**	**.00013**	**.00045**	**.18584**	**.26310**	**.00267**	**1.4260**	**.02676**
Stddev	.00003	.00008	.00025	.00245	.05002	.00109	.0111	.00021
%RSD	6.2991	59.699	56.636	1.3177	19.011	40.771	.77558	.78438
#1	.00050	.00004	.00072	.18312	.31986	.00392	1.4356	.02681
#2	.00045	.00019	.00039	.18653	.24399	.00217	1.4284	.02653
#3	.00045	.00017	.00023	.18787	.22546	.00193	1.4139	.02694
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00027**	**6.2365**	**.00118**	**.01156**	**.00082**	**-.00095**	**-.00191**	**.73580**
Stddev	.00002	.0045	.00040	.00215	.00043	.00040	.00083	.01165
%RSD	7.5404	.07136	33.805	18.576	52.791	42.137	43.420	1.5837
#1	.00024	6.2341	.00081	.01362	.00051	-.00087	-.00287	.74341
#2	.00028	6.2416	.00112	.01173	.00131	-.00059	-.00139	.74161
#3	.00027	6.2337	.00161	.00933	.00063	-.00138	-.00147	.72239
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

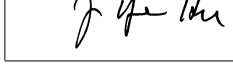
Approved: April 08, 2014

Sample Name: L1404010210SDL Acquired: 4/7/2014 17:49:06 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG470014-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00023**	**.06213**	**.00292**	**-.00044**	**.00041**	**.00231**	**1.0444**
Stddev	.00011	.00020	.00027	.00348	.00016	.00008	.1518
%RSD	47.543	.32665	9.3556	783.09	40.283	3.4078	14.531
#1	-.00024	.06191	.00307	.00120	.00060	.00240	1.1220
#2	-.00012	.06231	.00261	.00191	.00031	.00228	1.1416
#3	-.00033	.06218	.00309	-.00444	.00032	.00225	.86950
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19705.**	**22223.**
Stddev	68.	28.
%RSD	.34286	.12457
#1	19765.	22228.
#2	19718.	22247.
#3	19632.	22193.

Approved: April 08, 2014



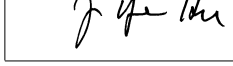
Sample Name: L1404012802 Acquired: 4/7/2014 17:52:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00042**	**.26577**	**.00032**	**.03425**	**.04595**	**.00012**	**42.834**	**.00035**
Stddev	.00022	.00929	.00225	.00050	.00013	.00000	.006	.00006
%RSD	52.220	3.4960	698.65	1.4647	.28296	.47299	.01509	16.531
#1	-.00067	.25873	.00203	.03482	.04597	.00012	42.828	.00035
#2	-.00031	.27630	-.00222	.03401	.04607	.00012	42.841	.00029
#3	-.00028	.26227	.00116	.03391	.04582	.00012	42.834	.00040
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00115**	**.00039**	**.00191**	**.88940**	**1.6791**	**.00915**	**10.236**	**.13496**
Stddev	.00012	.00013	.00023	.00595	.0140	.00095	.110	.00221
%RSD	10.006	34.885	12.200	.66935	.83441	10.394	1.0705	1.6381
#1	.00103	.00049	.00167	.89515	1.6839	.01023	10.268	.13262
#2	.00126	.00043	.00191	.88979	1.6900	.00878	10.327	.13527
#3	.00117	.00023	.00213	.88327	1.6633	.00844	10.114	.13701
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00041**	**75.948**	**.00379**	**.04205**	**.00008**	**-.00012**	**.00177**	**3.3618**
Stddev	.00018	.188	.00054	.00187	.00136	.00202	.00550	.0456
%RSD	44.086	.24710	14.122	4.4473	1705.5	1625.3	311.51	1.3561
#1	.00053	76.148	.00354	.03990	-.00083	.00033	.00317	3.4020
#2	.00051	75.776	.00344	.04296	.00164	.00163	-.00430	3.3123
#3	.00020	75.920	.00441	.04329	-.00057	-.00233	.00644	3.3711
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

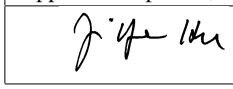


Sample Name: L1404012802 Acquired: 4/7/2014 17:52:39 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00008**	**.26262**	**.00316**	**-.00060**	**.00086**	**.00780**	**.95109**
Stddev	.00003	.00039	.00048	.00097	.00014	.00015	.04156
%RSD	33.590	.14823	15.295	160.46	16.494	1.9415	4.3701
#1	.00006	.26253	.00263	-.00087	.00074	.00794	.94618
#2	.00007	.26229	.00330	.00047	.00081	.00764	.91220
#3	.00011	.26305	.00357	-.00141	.00101	.00781	.99490
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19063.**	**21709.**
Stddev	158.	299.
%RSD	.82908	1.3754
#1	18899.	22053.
#2	19075.	21558.
#3	19215.	21516.

Approved: April 08, 2014



Sample Name: L1404012802PS Acquired: 4/7/2014 17:56:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470015-01

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.20547**	**5.3212**	**.20180**	**1.0875**	**.52589**	**.02510**	**43.418**	**.02525**
Stddev	.00159	.0227	.00057	.0087	.00145	.00014	.080	.00006
%RSD	.77316	.42608	.28392	.79659	.27593	.57509	.18528	.23621
#1	.20446	5.2950	.20124	1.0811	.52450	.02509	43.372	.02524
#2	.20465	5.3338	.20239	1.0840	.52739	.02496	43.511	.02531
#3	.20731	5.3347	.20178	1.0974	.52579	.02525	43.371	.02520
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.10313**	**.24847**	**.25546**	**2.7486**	**26.849**	**.48942**	**13.790**	**.35415**
Stddev	.00008	.00242	.00040	.0081	.123	.00161	.070	.00449
%RSD	.07929	.97320	.15837	.29311	.45880	.32803	.50801	1.2673
#1	.10306	.24783	.25536	2.7393	26.721	.49025	13.711	.34946
#2	.10312	.24644	.25512	2.7533	26.967	.49044	13.846	.35458
#3	.10322	.25115	.25591	2.7533	26.859	.48757	13.813	.35840
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.49679**	**94.273**	**.24879**	**5.8412**	**.24761**	**.61155**	**.20624**	**5.7912**
Stddev	.00048	.503	.00057	.0141	.00221	.00157	.00101	.0099
%RSD	.09618	.53385	.22963	.24174	.89160	.25661	.48743	.17053
#1	.49625	93.717	.24827	5.8368	.24963	.61073	.20729	5.8021
#2	.49718	94.698	.24940	5.8298	.24525	.61057	.20613	5.7829
#3	.49693	94.403	.24869	5.8570	.24795	.61336	.20529	5.7887
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

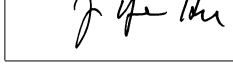
Approved: April 08, 2014

Sample Name: L1404012802PS Acquired: 4/7/2014 17:56:11 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment: WG470015-01

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00029**	**.75056**	**.46816**	**.27402**	**.50136**	**.50831**	**1.8569**
Stddev	.00044	.00223	.00108	.00413	.00247	.00082	.2208
%RSD	152.28	.29659	.23004	1.5072	.49298	.16195	11.892
#1	-.00064	.75041	.46786	.26940	.49925	.50827	1.8384
#2	-.00045	.75285	.46936	.27737	.50076	.50751	1.6458
#3	.00021	.74841	.46727	.27528	.50408	.50916	2.0863
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19111.**	**21923.**
Stddev	20.	196.
%RSD	.10316	.89189
#1	19088.	22137.
#2	19123.	21878.
#3	19121.	21754.

Approved: April 08, 2014



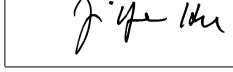
Sample Name: L1404012802SDL Acquired: 4/7/2014 17:59:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG470015-02

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226	Cd2288
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00015**	**.11524**	**.00006**	**.01226**	**.00914**	**.00009**	**8.3382**	**.00003**
Stddev	.00030	.00788	.00141	.00060	.00025	.00001	.0599	.00010
%RSD	195.56	6.8388	2235.4	4.8689	2.6860	7.0519	.71872	336.32
#1	-.00018	.12054	-.00156	.01164	.00894	.00009	8.2772	.00008
#2	-.00044	.10619	.00076	.01231	.00942	.00010	8.3969	-.00008
#3	.00016	.11900	.00098	.01283	.00907	.00010	8.3406	.00009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707	Mg2790	Mn2576
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00039**	**.00016**	**.00055**	**.18062**	**.30841**	**.00320**	**2.0061**	**.02809**
Stddev	.00010	.00026	.00034	.00319	.00558	.00080	.0418	.00026
%RSD	24.185	169.60	61.895	1.7679	1.8103	24.883	2.0814	.91000
#1	.00045	.00005	.00019	.17783	.30575	.00233	1.9596	.02782
#2	.00028	-.00004	.00087	.18410	.31482	.00389	2.0402	.02833
#3	.00045	.00045	.00060	.17993	.30465	.00338	2.0186	.02814
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Elem	Mo2020	Na5895	Ni2316	P_2149	Pb2203	Sb2068	Se1960	Si2124
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00003**	**14.365**	**.00117**	**.01168**	**.00098**	**.00027**	**-.00230**	**.73218**
Stddev	.00014	.116	.00031	.00323	.00080	.00147	.00315	.00232
%RSD	503.56	.81032	26.742	27.645	81.791	535.75	137.24	.31623
#1	.00011	14.331	.00107	.01535	.00051	.00026	-.00593	.73109
#2	-.00017	14.494	.00092	.00927	.00190	.00174	-.00022	.73061
#3	-.00003	14.269	.00152	.01043	.00052	-.00119	-.00074	.73483
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit								
Low Limit								

Approved: April 08, 2014

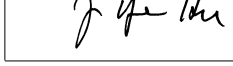


Sample Name: L1404012802SDL Acquired: 4/7/2014 17:59:29 Type: Unk
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: 5 Custom ID2: Custom ID3:
Comment: WG470015-02

Elem	Sn1899	Sr4077	Ti3372	Tl1908	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00009**	**.05124**	**.00248**	**.00102**	**.00015**	**.00302**	**.78637**
Stddev	.00053	.00099	.00046	.00157	.00017	.00002	.13587
%RSD	620.41	1.9369	18.385	153.10	111.63	.55838	17.278
#1	.00061	.05023	.00209	-.00071	.00006	.00300	.63653
#2	-.00045	.05221	.00298	.00143	.00005	.00302	.90155
#3	.00010	.05127	.00236	.00234	.00035	.00303	.82102
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19626.**	**21904.**
Stddev	28.	231.
%RSD	.14120	1.0558
#1	19656.	22149.
#2	19619.	21873.
#3	19602.	21689.

Approved: April 08, 2014



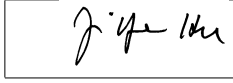
Sample Name: CCV Acquired: 4/7/2014 18:03:05 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.41292**	**10.107**	**.40709**	**.53987**	**.99454**	**.05038**	**10.110**
Stddev	.00157	.070	.00361	.00249	.00177	.00008	.023
%RSD	.38108	.68946	.88597	.46198	.17840	.15563	.22309
#1	.41111	10.064	.41120	.54006	.99587	.05030	10.087
#2	.41397	10.187	.40560	.53729	.99253	.05038	10.132
#3	.41368	10.070	.40447	.54226	.99523	.05045	10.111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.05099**	**.20852**	**.50592**	**.52129**	**3.9746**	**51.629**	**.97351**
Stddev	.00023	.00082	.00126	.00169	.0108	.089	.00137
%RSD	.44224	.39199	.24974	.32329	.27206	.17273	.14025
#1	.05084	.20920	.50468	.52308	3.9851	51.624	.97372
#2	.05088	.20761	.50721	.51974	3.9753	51.721	.97205
#3	.05125	.20875	.50587	.52104	3.9635	51.542	.97476
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.8373**	**.50060**	**.98869**	**52.912**	**.50533**	**10.056**	**.50512**
Stddev	.0671	.00670	.00141	.139	.00163	.009	.00215
%RSD	.68170	1.3391	.14265	.26209	.32232	.08980	.42569
#1	9.8384	.50008	.98811	53.023	.50590	10.057	.50493
#2	9.9039	.50755	.98767	52.957	.50349	10.046	.50307
#3	9.7698	.49417	.99030	52.757	.50660	10.063	.50736
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value							
Range							

Approved: April 08, 2014



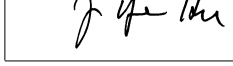
Sample Name: CCV Acquired: 4/7/2014 18:03:05 Type: QC
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.2211**	**.42547**	**5.0578**	**1.0706**	**1.0551**	**.93542**	F **.56875**
Stddev	.0057	.00315	.0038	.0090	.0021	.00249	.00511
%RSD	.46364	.73933	.07558	.84323	.19948	.26597	.89808
#1	1.2255	.42326	5.0577	1.0757	1.0526	.93258	.57164
#2	1.2147	.42408	5.0541	1.0601	1.0564	.93647	.56285
#3	1.2232	.42907	5.0617	1.0759	1.0561	.93721	.57176
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Fail
Value							.50000
Range							10.000%

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**1.0150**	**1.0356**	**.98904**
Stddev	.0029	.0006	.43263
%RSD	.29063	.06299	43.742
#1	1.0117	1.0360	1.2210
#2	1.0158	1.0349	1.2562
#3	1.0174	1.0360	.48989
Check ?	Chk Pass	Chk Pass	Chk Pass
Value			
Range			

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19068.**	**20995.**
Stddev	6.	317.
%RSD	.03157	1.5110
#1	19066.	20950.
#2	19064.	20703.
#3	19075.	21333.

Approved: April 08, 2014



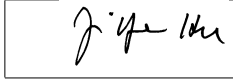
Sample Name: CCB Acquired: 4/7/2014 18:06:21 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3082	As1890	B_2496	Ba4554	Be3131	Ca4226
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00046**	**.00214**	**.00004**	**.00542**	**.00035**	**.00012**	**.00163**
Stddev	.00053	.01278	.00054	.00102	.00066	.00002	.00680
%RSD	114.59	598.50	1463.3	18.769	189.23	19.896	418.14
#1	-.00060	-.01072	.00028	.00471	-.00013	.00015	.00572
#2	-.00090	.01484	.00041	.00659	.00109	.00013	-.00623
#3	.00012	.00229	-.00058	.00497	.00008	.00010	.00539
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Cd2288	Co2286	Cr2677	Cu2247	Fe2611	K_7664	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.00000**	**.00007**	**-.00004**	**-.00016**	**.00167**	**-.00889**	**.00277**
Stddev	.0000	.00013	.00040	.00004	.00539	.01007	.00043
%RSD	2011.1	192.21	1087.3	25.954	322.30	113.25	15.394
#1	.00002	.00014	-.00006	-.00011	.00746	-.00767	.00248
#2	.00001	.00015	-.00042	-.00018	.00077	.00051	.00258
#3	-.00003	-.00008	.00037	-.00019	-.00321	-.01952	.00326
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_2149	Pb2203
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.01798**	**.00010**	**.00016**	**.03467**	**.00108**	**.00399**	**.00029**
Stddev	.01359	.00008	.00029	.01956	.00086	.00169	.00128
%RSD	75.604	78.680	184.34	56.421	79.431	42.316	447.23
#1	-.03363	.00009	-.00014	.01412	.00153	.00243	.00118
#2	-.01119	.00018	.00045	.05306	.00009	.00375	.00086
#3	-.00912	.00003	.00017	.03684	.00162	.00578	-.00118
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Approved: April 08, 2014



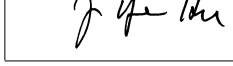
Sample Name: CCB Acquired: 4/7/2014 18:06:21 Type: Blank
Method: ICP-THERMO2_6010_200.7(v2981) Mode: CONC Corr. Factor: 1.000000
User: JYH Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sb2068	Se1960	Si2124	Sn1899	Sr4077	Ti3372	Tl1908
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.00069**	**.00228**	**-.00926**	**.00014**	**-.00011**	**.00033**	**-.00111**
Stddev	.00116	.00231	.00100	.00053	.00009	.00096	.00239
%RSD	167.57	101.52	10.796	365.45	82.679	293.57	215.22
#1	-.00199	.00171	-.00940	.00044	-.00001	-.00074	.00130
#2	.00021	.00031	-.01019	.00046	-.00012	.00062	-.00115
#3	-.00029	.00483	-.00820	-.00046	-.00019	.00110	-.00347
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit							
Low Limit							

Elem	V_2924	Zn2062	Zr3391
Units	ppm	ppm	ppm
Avg	**.00006**	**.00013**	F **.57128**
Stddev	.00017	.00011	.14322
%RSD	275.15	84.448	25.070
#1	-.00013	.00006	.70887
#2	.00012	.00007	.42302
#3	.00020	.00025	.58194
Check ?	Chk Pass	Chk Pass	Chk Fail
High Limit			.10000
Low Limit			-.10000

Int. Std.	Y_2243	Y_3774
Units	Cts/S	Cts/S
Avg	**19369.**	**21310.**
Stddev	55.	455.
%RSD	.28619	2.1334
#1	19376.	21639.
#2	19311.	20791.
#3	19422.	21498.

Approved: April 08, 2014



2.3.2 Metals ICP-MS Data

2.3.2.1 Summary Data

Login Number: L14031621
Department: Metals
Analyst: Ji Hu

METHOD

Preparation: SW-846 3015

Analysis: SW-846 6020

HOLDING TIMES

Sample Preparation: All holding times were met.

Sample Analysis: All holding times were met.

PREPARATION

Sample preparation proceeded normally.

CALIBRATION

Initial Calibration: All acceptance criteria were met.

Alternate Source Standards: All acceptance criteria were met.

Interference Check Standards: All acceptance criteria were met.

Continuing Calibration: WG469374 - Due to continuing calibration verification internal standard failure for germanium on 04-Apr-2014 at 12:34, client sample 04 was reanalyzed later in the analytical sequence for arsenic, cobalt, manganese and selenium.

Continuing Calibration Blank: All acceptance criteria were met.

Low Level Check: All acceptance criteria were met.

BATCH QA/QC

Method Blank: All acceptance criteria were met.

Laboratory Control Sample: All acceptance criteria were met.

Serial Dilution/Post Digestion Spikes: WG469374 - All acceptance criteria were met.

Matrix Spikes: WG469374 - Sample 07 was chosen by the client for MS/MSD analysis. Samples 08(MS) and 09(MSD) met all acceptance criteria.

SAMPLES

Samples: WG469374 - Due to internal standard failure for germanium on 04-Apr-2014 at 12:21, client sample 03 was reanalyzed later in the analytical sequence for arsenic, cobalt, manganese and selenium.

Narrative ID: 80746
Approved By: Sheri Pfalzgraf

Microbac

Lab Report #: L14031621
Lab Project #: 2820.216
Project Name: Radford AAP
Lab Contact: Stephanie Mossburg

Certificate of Analysis

Sample #:	L14031621-01	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	40MW7GW32714	**Prep Method:**	3015	**Prep Date:**	03/31/2014 09:29
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	04/04/2014 10:40
Workgroup #:	WG469374	**Analyst:**	JYH	**Run Date:**	04/04/2014 11:41
Collect Date:	03/27/2014 09:57	**Dilution:**	1	**File ID:**	NI.040414.114146
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2		U	0.00100	0.000500
Barium, Total	7440-39-3	0.118		0.00300	0.00150
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Lead, Total	7439-92-1		U	0.00100	0.000500
Manganese, Total	7439-96-5	0.00188	J	0.00200	0.00100
Selenium, Total	7782-49-2		U	0.00100	0.000500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-02	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	40EQR32714	**Prep Method:**	3015	**Prep Date:**	03/31/2014 09:29
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	04/04/2014 10:40
Workgroup #:	WG469374	**Analyst:**	JYH	**Run Date:**	04/04/2014 11:44
Collect Date:	03/27/2014 10:45	**Dilution:**	1	**File ID:**	NI.040414.114448
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2		U	0.00100	0.000500
Barium, Total	7440-39-3		U	0.00300	0.00150
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Lead, Total	7439-92-1		U	0.00100	0.000500
Manganese, Total	7439-96-5	0.00166	J	0.00200	0.00100
Selenium, Total	7782-49-2		U	0.00100	0.000500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-03	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	40FB32714	**Prep Method:**	3015	**Prep Date:**	03/31/2014 09:29
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	04/04/2014 10:40
Workgroup #:	WG469374	**Analyst:**	JYH	**Run Date:**	04/04/2014 13:40
Collect Date:	03/27/2014 11:00	**Dilution:**	1	**File ID:**	NI.040414.134019
Sample Tag:	02	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2		U	0.00100	0.000500
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Manganese, Total	7439-96-5		U	0.00200	0.00100
Selenium, Total	7782-49-2		U	0.00100	0.000500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-03	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	40FB32714	**Prep Method:**	3015	**Prep Date:**	03/31/2014 09:29
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	04/04/2014 10:40
Workgroup #:	WG469374	**Analyst:**	JYH	**Run Date:**	04/04/2014 12:18
Collect Date:	03/27/2014 11:00	**Dilution:**	1	**File ID:**	NI.040414.121810
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Barium, Total	7440-39-3		U	0.00300	0.00150
Lead, Total	7439-92-1		U	0.00100	0.000500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-04	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	40MW5GW32714	**Prep Method:**	3015	**Prep Date:**	03/31/2014 09:29
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	04/04/2014 10:40
Workgroup #:	WG469374	**Analyst:**	JYH	**Run Date:**	04/04/2014 12:21
Collect Date:	03/27/2014 14:02	**Dilution:**	1	**File ID:**	NI.040414.122113
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Barium, Total	7440-39-3	0.0341		0.00300	0.00150
Lead, Total	7439-92-1		U	0.00100	0.000500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-04	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	40MW5GW32714	**Prep Method:**	3015	**Prep Date:**	03/31/2014 09:29
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	04/04/2014 10:40
Workgroup #:	WG469374	**Analyst:**	JYH	**Run Date:**	04/04/2014 13:43
Collect Date:	03/27/2014 14:02	**Dilution:**	1	**File ID:**	NI.040414.134330
Sample Tag:	02	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2		U	0.00100	0.000500
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Manganese, Total	7439-96-5	0.00106	J	0.00200	0.00100
Selenium, Total	7782-49-2		U	0.00100	0.000500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-05	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	40DUPGW32714	**Prep Method:**	3015	**Prep Date:**	03/31/2014 09:29
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	04/04/2014 10:40
Workgroup #:	WG469374	**Analyst:**	JYH	**Run Date:**	04/04/2014 13:46
Collect Date:	03/27/2014 14:02	**Dilution:**	1	**File ID:**	NI.040414.134631
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2		U	0.00100	0.000500
Barium, Total	7440-39-3	0.0332		0.00300	0.00150
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Lead, Total	7439-92-1		U	0.00100	0.000500
Manganese, Total	7439-96-5	0.00157	J	0.00200	0.00100
Selenium, Total	7782-49-2		U	0.00100	0.000500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-06	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	40MW6GW32714	**Prep Method:**	3015	**Prep Date:**	03/31/2014 09:29
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	04/04/2014 10:40
Workgroup #:	WG469374	**Analyst:**	JYH	**Run Date:**	04/04/2014 13:49
Collect Date:	03/27/2014 15:42	**Dilution:**	1	**File ID:**	NI.040414.134953
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2		U	0.00100	0.000500
Barium, Total	7440-39-3	0.0127		0.00300	0.00150
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Lead, Total	7439-92-1		U	0.00100	0.000500
Manganese, Total	7439-96-5	0.00166	J	0.00200	0.00100
Selenium, Total	7782-49-2		U	0.00100	0.000500

J	Estimated value ; the analyte concentration was less than the LOQ.
U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #:	L14031621-07	**PrePrep Method:**	N/A	**Instrument:**	ICP-MS2
Client ID:	LFMW01GW32714	**Prep Method:**	3015	**Prep Date:**	03/31/2014 09:29
Matrix:	Water	**Analytical Method:**	6020	**Cal Date:**	04/04/2014 10:40
Workgroup #:	WG469374	**Analyst:**	JYH	**Run Date:**	04/04/2014 11:32
Collect Date:	03/27/2014 17:50	**Dilution:**	1	**File ID:**	NI.040414.113240
Sample Tag:	01	**Units:**	mg/L		

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2		U	0.00100	0.000500
Barium, Total	7440-39-3	0.0698		0.00300	0.00150
Cobalt, Total	7440-48-4		U	0.00100	0.000500
Lead, Total	7439-92-1		U	0.00100	0.000500
Manganese, Total	7439-96-5	0.00275		0.00200	0.00100
Selenium, Total	7782-49-2	0.00149		0.00100	0.000500

U	Analyte was not detected. The concentration is below the reported LOD.

Certificate of Analysis

Sample #: L14031621-08 **PrePrep Method:** N/A **Instrument:** ICP-MS2
Client ID: LFMW01MSGW32714 **Prep Method:** 3015 **Prep Date:** 03/31/2014 09:29
Matrix: Water **Analytical Method:** 6020 **Cal Date:** 04/04/2014 10:40
Workgroup #: WG469374 **Analyst:** JYH **Run Date:** 04/04/2014 11:35
Collect Date: 03/27/2014 18:15 **Dilution:** 1 **File ID:** NI.040414.113542
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2	0.0617		0.00100	0.000500
Barium, Total	7440-39-3	0.124		0.00300	0.00150
Cobalt, Total	7440-48-4	0.0620		0.00100	0.000500
Lead, Total	7439-92-1	0.0628		0.00100	0.000500
Manganese, Total	7439-96-5	0.0683		0.00200	0.00100
Selenium, Total	7782-49-2	0.0610		0.00100	0.000500

Sample #: L14031621-09 **PrePrep Method:** N/A **Instrument:** ICP-MS2
Client ID: LFMW01MSDGW32714 **Prep Method:** 3015 **Prep Date:** 03/31/2014 09:29
Matrix: Water **Analytical Method:** 6020 **Cal Date:** 04/04/2014 10:40
Workgroup #: WG469374 **Analyst:** JYH **Run Date:** 04/04/2014 11:38
Collect Date: 03/27/2014 18:15 **Dilution:** 1 **File ID:** NI.040414.113844
Sample Tag: 01 **Units:** mg/L

Analyte	CAS #	Result	Qual	LOQ	LOD
Arsenic, Total	7440-38-2	0.0629		0.00100	0.000500
Barium, Total	7440-39-3	0.124		0.00300	0.00150
Cobalt, Total	7440-48-4	0.0623		0.00100	0.000500
Lead, Total	7439-92-1	0.0626		0.00100	0.000500
Manganese, Total	7439-96-5	0.0671		0.00200	0.00100
Selenium, Total	7782-49-2	0.0627		0.00100	0.000500

2.3.2.2 QC Summary Data

Example 6020 Calculations
Perkin Elmer NexION 300X

1.0 Initial Calibration (ICAL) Parameters
The system performs linear regression from data consisting of a blank and three standards.

2.0 Calculating the concentration (C) of an element in water using data from prep log, run log, and quantitation report (note:the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:	**Example:**
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Final volume	100
Vi = Initial volume	40
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in (ug/L)	0.25

3.0 Calculating the concentration (C) of an element in soil using data from prep log, run log, and quantitation report (note: the data system performs this calculation automatically when correction factors have been entered):

$$Cx = Cs \times \frac{Vf}{Vi} \times D$$

Where:	**Example:**
Cs = Concentration computed by the data system (ug/L)	0.1
Vf = Final volume	200
Vi = Initial volume	0.5
D = Dilution factor as a multiplier (10X = 10)	1
Cx = Concentration of element in (ug/kg)	40

4.0 Adjusting the concentration to dry weight:

$$Cdry = \frac{Cx \times 100}{Px}$$

Where:	**Example:**
Cx = Concentration calculated as received (wet basis)	40
Px = Percent solids of sample (%wt)	80
$Cdry$ = Concentration calculated as dry weight (ug/kg)	50

50 ug/kg = 0.050 mg/kg

Perkin Elmer NexION ICP/MS

STANDARDS KEY

QC Std 1 - ICV
QC Std 2 - ICB
QC Std 3 - LLICV
QC Std 4 - ICSA
QC Std 5 - ICSAB
QC Std 6 - CCV
QC Std 7 - CCB
QC Std 8 - LLCCV

Calibration Solutions

Analyte	Stock Conc. (mg/L)	S1 (mg/L)	S2 (mg/L)	S3 (mg/L)	S4 (mg/L)
Al	10	0	0.00005	0.05	0.1
Sb	10	0	0.00005	0.05	0.1
As	10	0	0.00005	0.05	0.1
Ba	10	0	0.00005	0.05	0.1
Be	10	0	0.00005	0.05	0.1
Ca	1000	0	0.005	5	10
Cd	10	0	0.0005	0.05	0.1
Cr	10	0	0.0005	0.05	0.1
Co	10	0	0.0005	0.05	0.1
Cu	10	0	0.0005	0.05	0.1
Fe	1000	0	0.005	5	10
Pb	10	0	0.00005	0.05	0.1
Mg	1000	0	0.005	5	10
Mn	10	0	0.00005	0.05	0.1
Ni	10	0	0.00005	0.05	0.1
K	1000	0	0.005	5	10
Se	10	0	0.00005	0.05	0.1
Ag	10	0	0.00005	0.05	0.1
Na	1000	0	0.005	5	10
Tl	10	0	0.00005	0.05	0.1
V	10	0	0.00005	0.05	0.1
U	1000	0	0.00005	0.05	0.1
Zn	10	0	0.00005	0.05	0.1

Microbac Laboratories Inc.
Microwave Digestion Log

Workgroup: WG469188
Analyst: BRG
Spike Analyst: BRG
Run Date: 03/31/2014 09:29
Method: 3015
Balance: BAL016
Instrument: MW-3
Instrument Start: 03/31/2014 09:34

SOP: ME407 Revison 15
Spike Solution: STD62325
Spike Witness: VC
HNO3 Lot #: COA17409
40 & 50 ML. DIGESTION TU COA17392
MS Filters- fisher-Lot#R RGT28963

	SAMPLE #	Type	Matrix	Initial Amount	Final Volume	Initial Vessel Wt	Final Vessel Wt	Spike Amount	Due Date
1	WG469188-03	BLANK	1	40 mL	100 mL	207.427 g	207.416 g		
2	WG469188-05	FLT_BLK	1	40 mL	100 mL	205.927 g	205.909 g		
3	WG469188-04	LCS	1	40 mL	100 mL	203.325 g	203.307 g	.25 mL	
4	L14030032-69	ML69	1	40 mL	100 mL	207.331 g	207.319 g	.25 mL	03/31/14
5	L14030032-70	ML70	1	40 mL	100 mL	207.533 g	207.522 g	.25 mL	03/31/14
6	L14030032-71	ML71	1	40 mL	100 mL	205.181 g	205.161 g	.25 mL	03/31/14
7	L14030032-72	ML72	1	40 mL	100 mL	205.321 g	205.305 g	.25 mL	03/31/14
8	L14031612-01	SAMP	1	40 mL	100 mL	203.088 g	203.058 g		04/08/14
9	L14031612-02	SAMP	1	40 mL	100 mL	207.921 g	207.913 g		04/08/14
10	L14031621-01	SAMP	1	40 mL	100 mL	206.414 g	206.385 g		04/04/14
11	L14031621-02	SAMP	1	40 mL	100 mL	204.849 g	204.817 g		04/04/14
12	L14031621-03	SAMP	1	40 mL	100 mL	205.98 g	205.958 g		04/04/14
13	L14031621-04	SAMP	1	40 mL	100 mL	205.464 g	205.447 g		04/04/14
14	L14031621-05	SAMP	1	40 mL	100 mL	206.564 g	206.543 g		04/04/14
15	L14031621-06	SAMP	1	40 mL	100 mL	206.477 g	206.462 g		04/04/14
16	WG469188-01	REF	1	40 mL	100 mL	204.879 g	204.858 g		
17	L14031621-07	RS01	1	40 mL	100 mL	204.879 g	204.858 g		04/04/14
18	WG469188-06	MS	1	40 mL	100 mL	205.35 g	205.329 g	.25 mL	
19	L14031621-08	MS01	1	40 mL	100 mL	205.35 g	205.329 g	.25 mL	04/04/14
20	WG469188-07	MSD	1	40 mL	100 mL	205.465 g	205.444 g	.25 mL	
21	L14031621-09	SD01	1	40 mL	100 mL	205.465 g	205.444 g	.25 mL	04/04/14
22	WG469188-02	REF	2	40 mL	100 mL	207.736 g	207.723 g		
23	L14031648-01	SAMP	2	40 mL	100 mL	207.736 g	207.723 g		04/04/14
24	L14031648-02	SAMP	2	40 mL	100 mL	206.054 g	206.04 g		04/04/14
25	L14031649-01	SAMP	1	40 mL	100 mL	206.548 g	206.538 g		04/11/14
26	L14031649-02	SAMP	1	40 mL	100 mL	206.044 g	206.031 g		04/11/14
27	L14031649-03	SAMP	1	40 mL	100 mL	207.959 g	207.955 g		04/11/14
28	WG469188-08	DUP	1	40 mL	100 mL	205.795 g	205.786 g		

L14031649-01	filtered digestate

Analyst: Brenda Gregory

Reviewer: Vicki Collins

MW_DIG - Modified 09/30/2009
PDF ID: 3448441
Report generated: 03/31/2014 10:35

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 040414B.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 0
Maintenance Log ID: 49657

Calibration Std: STD63201 ICV Std: STD63149 Post Spike: STD60309
ICSA: STD63199 ICSAB: STD63200 Int. Std: RGT28155
CCV: STD63148 LLCCV: STD63147 Tuning Sol : STD63198
Stannous : Hydroxylamine :

Workgroups: 469374,469895,469526,470019,470020,470070

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
1	NI.040414.102847	Blank	Blank		1		04/04/14 10:28
2	NI.040414.103149	WG470000-01	Calibration Point		1		04/04/14 10:31
3	NI.040414.103451	WG470000-02	Calibration Point		1		04/04/14 10:34
4	NI.040414.103753	WG470000-03	Calibration Point		1		04/04/14 10:37
5	NI.040414.104055	WG470000-04	Calibration Point		1		04/04/14 10:40
6	NI.040414.104400	WG470000-05	Initial Calibration Verification		1		04/04/14 10:44
7	NI.040414.104704	WG470000-06	Initial Calib Blank		1		04/04/14 10:47
8	NI.040414.105007	WG470000-07	Low Level Initial Calibration V		1		04/04/14 10:50
9	NI.040414.105309	WG470000-08	Interference Check		1		04/04/14 10:53
10	NI.040414.105611	WG470000-09	Interference Check		1		04/04/14 10:56
11	NI.040414.105915	WG470000-10	CCV		1		04/04/14 10:59
12	NI.040414.110217	WG470000-11	CCB		1		04/04/14 11:02
13	NI.040414.110519	WG469188-03	Method/Prep Blank	40/100	1		04/04/14 11:05
14	NI.040414.110821	WG469188-05	Filter Blank		1		04/04/14 11:08
15	NI.040414.111123	WG469188-04	Laboratory Control S	40/100	1		04/04/14 11:11
16	NI.040414.111425	L14030032-69	ANYBODY/BRENDA	40/100	1		04/04/14 11:14
17	NI.040414.111727	L14030032-70	ANYBODY/BRENDA	40/100	1		04/04/14 11:17
18	NI.040414.112029	L14030032-71	ANYBODY/BRENDA	40/100	1		04/04/14 11:20
19	NI.040414.112331	L14030032-72	ANYBODY/BRENDA	40/100	1		04/04/14 11:23
20	NI.040414.112635	WG470000-12	CCV		1		04/04/14 11:26
21	NI.040414.112937	WG470000-13	CCB		1		04/04/14 11:29
22	NI.040414.113240	WG469188-01	Reference Sample		1	L14031621-07	04/04/14 11:32
23	NI.040414.113542	WG469188-06	Matrix Spike	40/100	1	L14031621-07	04/04/14 11:35
24	NI.040414.113844	WG469188-07	Matrix Spike Duplica	40/100	1	L14031621-07	04/04/14 11:38
25	NI.040414.114146	L14031621-01	40MW7GW32714	40/100	1		04/04/14 11:41
26	NI.040414.114448	L14031621-02	40EQR32714	40/100	1		04/04/14 11:44
27	NI.040414.114750	WG469378-01	Method/Prep Blank		1		04/04/14 11:47
28	NI.040414.115051	WG469378-02	Laboratory Control S		5		04/04/14 11:50
29	NI.040414.115353	WG469378-02	Laboratory Control S		25		04/04/14 11:53
30	NI.040414.115657	WG470000-14	CCV		1		04/04/14 11:56
31	NI.040414.115958	WG470000-15	CCB		1		04/04/14 11:59
32	NI.040414.120301	L14031612-01	POWMW20-140327	40/100	1		04/04/14 12:03
33	NI.040414.120603	L14031612-02	DUP-01-140327	40/100	1		04/04/14 12:06
34	NI.040414.120905	WG469188-02	Reference Sample		1	L14031648-01	04/04/14 12:09

Page: 1 Approved: April 07, 2014

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 040414B.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 0
Maintenance Log ID: 49657

Calibration Std: STD63201 ICV Std: STD63149 Post Spike: STD60309
ICSA: STD63199 ICSAB: STD63200 Int. Std: RGT28155
CCV: STD63148 LLCCV: STD63147 Tuning Sol : STD63198
Stannous : Hydroxylamine :

Workgroups: 469374,469895,469526,470019,470020,470070

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
35	NI.040414.121207	WG469188-08	Duplicate	40/100	1	L14031648-01	04/04/14 12:12
36	NI.040414.121508	L14031648-02	OUTFALL 301 -GRAB	40/100	1		04/04/14 12:15
37	NI.040414.121810	L14031621-03	40FB32714	40/100	1		04/04/14 12:18
38	NI.040414.122113	L14031621-04	40MW5GW32714	40/100	1		04/04/14 12:21
39	NI.040414.122614	L14031648-02	OUTFALL 301 -GRAB	40/100	50		04/04/14 12:26
40	NI.040414.123151	L14031621-04	40MW5GW32714		5		04/04/14 12:31
41	NI.040414.123455	WG470000-16	CCV		1		04/04/14 12:34
42	NI.040414.123757	WG470000-17	CCB		1		04/04/14 12:37
43	NI.040414.124122	WG470000-18	Low Level Continuing Calibra		1		04/04/14 12:41
44	NI.040414.125046	WG469833-02	Method/Prep Blank	40/100	1		04/04/14 12:50
45	NI.040414.125348	WG469833-03	Laboratory Control S	40/100	1		04/04/14 12:53
46	NI.040414.125650	WG469833-01	Reference Sample		1	L14040274-01	04/04/14 12:56
47	NI.040414.125952	WG469833-04	Duplicate	40/100	1	L14040274-01	04/04/14 12:59
48	NI.040414.130254	WG469833-05	Matrix Spike	40/100	1	L14040274-01	04/04/14 13:02
49	NI.040414.130555	WG469833-06	Matrix Spike Duplica	40/100	1	L14040274-01	04/04/14 13:05
50	NI.040414.130857	L14040243-10	OUTFALL 002/COMP	40/100	2		04/04/14 13:08
51	NI.040414.131159	WG469895-01	Post Digestion Spike		2	L14040243-10	04/04/14 13:11
52	NI.040414.131500	WG469895-02	Serial Dilution		10	L14040243-10	04/04/14 13:15
53	NI.040414.131803	WG470000-19	CCV		1		04/04/14 13:18
54	NI.040414.132105	WG470000-20	CCB		1		04/04/14 13:21
55	NI.040414.134019	L14031621-03	40FB32714	40/100	1		04/04/14 13:40
56	NI.040414.134330	L14031621-04	40MW5GW32714	40/100	1		04/04/14 13:43
57	NI.040414.134631	L14031621-05	40DUPGW32714	40/100	1		04/04/14 13:46
58	NI.040414.134953	L14031621-06	40MW6GW32714	40/100	1		04/04/14 13:49
59	NI.040414.135255	L14031649-01	TCF-EB01-32714	40/100	1		04/04/14 13:52
60	NI.040414.135557	L14031649-02	730-WL-032714	40/100	1		04/04/14 13:55
61	NI.040414.135858	L14031649-03	BW02-GW-032714	40/100	1		04/04/14 13:58
62	NI.040414.140908	WG469374-01	Post Digestion Spike		1	L14031621-06	04/04/14 14:09
63	NI.040414.141210	WG469374-02	Serial Dilution		5	L14031621-06	04/04/14 14:12
64	NI.040414.141514	WG470000-21	CCV		1		04/04/14 14:15
65	NI.040414.141816	WG470000-22	CCB		1		04/04/14 14:18
66	NI.040414.142119	WG470000-23	Low Level Continuing Calibra		1		04/04/14 14:21
67	NI.040414.142521	WG470000-24	Interference Check		1		04/04/14 14:25
68	NI.040414.142823	WG470000-25	Interference Check		1		04/04/14 14:28

Page: 2 Approved: April 07, 2014

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 040414B.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 0
Maintenance Log ID: 49657

Calibration Std: STD63201 ICV Std: STD63149 Post Spike: STD60309
ICSA: STD63199 ICSAB: STD63200 Int. Std: RGT28155
CCV: STD63148 LLCCV: STD63147 Tuning Sol : STD63198
Stannous : Hydroxylamine :

Workgroups: 469374,469895,469526,470019,470020,470070

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
69	NI.040414.143130	WG470000-26	CCV		1		04/04/14 14:31
70	NI.040414.143431	WG470000-27	CCB		1		04/04/14 14:34
71	NI.040414.143751	L14040189-01	201	40/100	1		04/04/14 14:37
72	NI.040414.144053	L14040189-02	201	40/100	1		04/04/14 14:40
73	NI.040414.144404	L14040192-01	201	40/100	1		04/04/14 14:44
74	NI.040414.144706	L14040192-02	201	40/100	1		04/04/14 14:47
75	NI.040414.145007	L14040198-02	202	40/100	1		04/04/14 14:50
76	NI.040414.145309	L14040198-03	202	40/100	1		04/04/14 14:53
77	NI.040414.145611	L14040198-04	UICMW01	40/100	1		04/04/14 14:56
78	NI.040414.145913	L14040198-05	UICMW01	40/100	1		04/04/14 14:59
79	NI.040414.150214	L14040198-06	PATTAKUS WELL	40/100	1		04/04/14 15:02
80	NI.040414.150517	WG470000-28	CCV		1		04/04/14 15:05
81	NI.040414.150819	WG470000-29	CCB		1		04/04/14 15:08
82	NI.040414.151122	L14040198-07	PATTAKUS WELL	40/100	1		04/04/14 15:11
83	NI.040414.151424	L14040272-01	HEAVY METALS INLED		1		04/04/14 15:14
84	NI.040414.151726	L14040274-03	OUTFALL 003 COMP	40/100	1		04/04/14 15:17
85	NI.040414.152027	L14040274-05	OUTFALL 004 COMP	40/100	1		04/04/14 15:20
86	NI.040414.152329	L14040274-08	OUTFALL 203 COMP	40/100	2		04/04/14 15:23
87	NI.040414.152950	L14040274-09	OUTFALL 103 COMP	40/100	1		04/04/14 15:29
88	NI.040414.153251	L14040274-08	OUTFALL 203 COMP	40/100	2000		04/04/14 15:32
89	NI.040414.153555	WG470000-30	CCV		1		04/04/14 15:35
90	NI.040414.153857	WG470000-31	CCB		1		04/04/14 15:38
91	NI.040414.154417	WG469509-03	Method/Prep Blank	40/100	1		04/04/14 15:44
92	NI.040414.154719	WG469509-04	Laboratory Control S	40/100	1		04/04/14 15:47
93	NI.040414.155020	WG469509-01	Reference Sample		1	L14031616-01	04/04/14 15:50
94	NI.040414.155322	WG469509-05	Matrix Spike	40/100	1	L14031616-01	04/04/14 15:53
95	NI.040414.155624	WG469509-06	Matrix Spike Duplica	40/100	1	L14031616-01	04/04/14 15:56
96	NI.040414.155926	L14031616-04	201MW02-140327	40/100	1		04/04/14 15:59
97	NI.040414.160228	L14031616-05	201MW03-140327	40/100	1		04/04/14 16:02
98	NI.040414.160530	WG469526-03	Post Digestion Spike		1	L14031616-05	04/04/14 16:05
99	NI.040414.160832	WG469526-04	Serial Dilution		5	L14031616-05	04/04/14 16:08
100	NI.040414.161133	WG469526-04	Serial Dilution		25	L14031616-05	04/04/14 16:11
101	NI.040414.161437	WG470000-32	CCV		1		04/04/14 16:14
102	NI.040414.161739	WG470000-33	CCB		1		04/04/14 16:17

Page: 3 Approved: April 07, 2014

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 040414B.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 0
Maintenance Log ID: 49657

Calibration Std: STD63201 ICV Std: STD63149 Post Spike: STD60309
ICSA: STD63199 ICSAB: STD63200 Int. Std: RGT28155
CCV: STD63148 LLCCV: STD63147 Tuning Sol : STD63198
Stannous : Hydroxylamine :

Workgroups: 469374,469895,469526,470019,470020,470070

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
103	NI.040414.162043	L14031616-06	DUP-01-140327	40/100	1		04/04/14 16:20
104	NI.040414.162344	WG469509-01	Reference Sample		50	L14031616-01	04/04/14 16:23
105	NI.040414.162646	WG469509-05	Matrix Spike	40/100	50	L14031616-01	04/04/14 16:26
106	NI.040414.162948	WG469509-06	Matrix Spike Duplica	40/100	50	L14031616-01	04/04/14 16:29
107	NI.040414.163250	L14031616-04	201MW02-140327	40/100	50		04/04/14 16:32
108	NI.040414.163552	L14031616-05	201MW03-140327	40/100	50		04/04/14 16:35
109	NI.040414.163853	WG469526-03	Post Digestion Spike		50	L14031616-05	04/04/14 16:38
110	NI.040414.164155	WG469526-04	Serial Dilution		250	L14031616-05	04/04/14 16:41
111	NI.040414.164457	L14031616-06	DUP-01-140327	40/100	50		04/04/14 16:44
112	NI.040414.164801	WG470000-34	CCV		1		04/04/14 16:48
113	NI.040414.165103	WG470000-35	CCB		1		04/04/14 16:51
114	NI.040414.165406	WG470000-36	Low Level Continuing Calibra		1		04/04/14 16:54
115	NI.040414.165750	WG469717-01	Method/Prep Blank	10/200	1		04/04/14 16:57
116	NI.040414.170052	WG469717-02	Laboratory Control S	10/200	1		04/04/14 17:00
117	NI.040414.170354	WG469717-03	Laboratory Control S	10/200	1		04/04/14 17:03
118	NI.040414.170656	L14040187-01	6998	10.058/200	1		04/04/14 17:06
119	NI.040414.170958	L14040187-03	6999	10.014/200	1		04/04/14 17:09
120	NI.040414.171259	L14040187-05	6700	10.166/200	1		04/04/14 17:12
121	NI.040414.171601	L14040187-07	6172	10.273/200	1		04/04/14 17:16
122	NI.040414.171904	L14040187-09	6173	10.003/200	1		04/04/14 17:19
123	NI.040414.172206	L14040187-11	6175	10.21/200	1		04/04/14 17:22
124	NI.040414.172508	L14040187-13	6176	10.014/200	1		04/04/14 17:25
125	NI.040414.172812	WG470000-37	CCV		1		04/04/14 17:28
126	NI.040414.173114	WG470000-38	CCB		1		04/04/14 17:31
127	NI.040414.173418	L14040187-15	6177	10.023/200	1		04/04/14 17:34
128	NI.040414.173720	L14040187-17	6178	10.433/200	1		04/04/14 17:37
129	NI.040414.174022	L14040187-19	6179	10.262/200	1		04/04/14 17:40
130	NI.040414.174324	L14040187-21	6180	10.168/200	1		04/04/14 17:43
131	NI.040414.174625	WG470019-01	Post Digestion Spike		1	L14040187-21	04/04/14 17:46
132	NI.040414.174927	WG470019-02	Serial Dilution		5	L14040187-21	04/04/14 17:49
133	NI.040414.175231	WG470000-39	CCV		1		04/04/14 17:52
134	NI.040414.175533	WG470000-40	CCB		1		04/04/14 17:55
135	NI.040414.175836	WG469722-02	Method/Prep Blank	.5/200	1		04/04/14 17:58
136	NI.040414.180138	WG469722-03	Laboratory Control S	.5/200	1		04/04/14 18:01

Page: 4 Approved: April 07, 2014

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 040414B.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 0
Maintenance Log ID: 49657

Calibration Std: STD63201 ICV Std: STD63149 Post Spike: STD60309
ICSA: STD63199 ICSAB: STD63200 Int. Std: RGT28155
CCV: STD63148 LLCCV: STD63147 Tuning Sol : STD63198
Stannous : Hydroxylamine :

Workgroups: 469374,469895,469526,470019,470020,470070

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
137	NI.040414.180440	WG469722-01	Reference Sample		1	L14040187-22	04/04/14 18:04
138	NI.040414.180741	WG469722-04	Matrix Spike	.527/200	1	L14040187-22	04/04/14 18:07
139	NI.040414.181043	WG469722-05	Matrix Spike Duplica	.509/200	1	L14040187-22	04/04/14 18:10
140	NI.040414.181345	L14040187-02	6998	.528/200	1		04/04/14 18:13
141	NI.040414.181646	L14040187-04	6999	.502/200	1		04/04/14 18:16
142	NI.040414.181948	L14040187-06	6700	.55/200	1		04/04/14 18:19
143	NI.040414.182250	WG470020-01	Post Digestion Spike		1	L14040187-06	04/04/14 18:22
144	NI.040414.182551	WG470020-02	Serial Dilution		5	L14040187-06	04/04/14 18:25
145	NI.040414.182855	WG470000-41	CCV		1		04/04/14 18:28
146	NI.040414.183156	WG470000-42	CCB		1		04/04/14 18:31
147	NI.040414.183459	L14040187-08	6172	.546/200	1		04/04/14 18:34
148	NI.040414.183801	L14040187-10	6173	.518/200	1		04/04/14 18:38
149	NI.040414.184103	L14040187-12	6175	.545/200	1		04/04/14 18:41
150	NI.040414.184405	L14040187-14	6176	.536/200	1		04/04/14 18:44
151	NI.040414.184706	L14040187-16	6177	.51/200	1		04/04/14 18:47
152	NI.040414.185008	L14040187-18	6178	.534/200	1		04/04/14 18:50
153	NI.040414.185310	L14040187-20	6179	.514/200	1		04/04/14 18:53
154	NI.040414.185614	WG470000-43	CCV		1		04/04/14 18:56
155	NI.040414.185916	WG470000-44	CCB		1		04/04/14 18:59
156	NI.040414.190220	WG469777-02	Method/Prep Blank	40/50	50		04/04/14 19:02
157	NI.040414.190522	WG469586-02	Fluid Blank 2		50		04/04/14 19:05
158	NI.040414.190823	WG469777-03	Laboratory Control S	40/50	50		04/04/14 19:08
159	NI.040414.191125	WG469777-01	Reference Sample		50	L14040164-01	04/04/14 19:11
160	NI.040414.191427	WG469777-04	Matrix Spike	40/50	50	L14040164-01	04/04/14 19:14
161	NI.040414.191729	WG469777-05	Matrix Spike Duplica	40/50	50	L14040164-01	04/04/14 19:17
162	NI.040414.192030	L14040085-01	ALAN BLUE X	5/50	50		04/04/14 19:20
163	NI.040414.192332	L14040086-01	RAV 14 BAGS	5/50	50		04/04/14 19:23
164	NI.040414.192634	WG470070-01	Post Digestion Spike		50	L14040086-01	04/04/14 19:26
165	NI.040414.192936	WG470070-02	Serial Dilution		250	L14040086-01	04/04/14 19:29
166	NI.040414.193240	WG470000-45	CCV		1		04/04/14 19:32
167	NI.040414.193542	WG470000-46	CCB		1		04/04/14 19:35
168	NI.040414.193845	WG468797-01	Method/Prep Blank		1		04/04/14 19:38
169	NI.040414.194147	L14030032-73	JI/VICKI		1		04/04/14 19:41
170	NI.040414.194449	L14030032-74	JI/VICKI		1		04/04/14 19:44

Page: 5 Approved: April 07, 2014

Sheri L. Babgard

Microbac

Microbac Laboratories Inc.

Instrument Run Log

Instrument: ICP-MS2 Dataset: 040414B.REP
Analyst1: JYH Analyst2: N/A
Method: 6020/6020A/200.8 SOP: ME700A Rev: 0
Maintenance Log ID: 49657

Calibration Std: STD63201 ICV Std: STD63149 Post Spike: STD60309
ICSA: STD63199 ICSAB: STD63200 Int. Std: RGT28155
CCV: STD63148 LLCCV: STD63147 Tuning Sol : STD63198
Stannous : Hydroxylamine :

Workgroups: 469374,469895,469526,470019,470020,470070

Comments:

Seq.	File ID	Sample	ID	Prep	Dil	Reference	Date/Time
171	NI.040414.194751	L14030032-75	JI/VICKI		1		04/04/14 19:47
172	NI.040414.195053	L14030032-76	JI/VICKI		1		04/04/14 19:50
173	NI.040414.195355	WG468747-01	Method/Prep Blank		1		04/04/14 19:53
174	NI.040414.195657	L14030032-81	ANYBODY/BOB		1		04/04/14 19:56
175	NI.040414.195958	L14030032-81	ANYBODY/BOB		1		04/04/14 19:59
176	NI.040414.200300	L14030032-81	ANYBODY/BOB		1		04/04/14 20:03
177	NI.040414.200602	L14030032-81	ANYBODY/BOB		1		04/04/14 20:06
178	NI.040414.200906	WG470000-47	QC Std 6		1		04/04/14 20:09
179	NI.040414.201208	WG470000-48	QC Std 7		1		04/04/14 20:12
180	NI.040414.201511	WG469216-01	Method/Prep Blank		1		04/04/14 20:15
181	NI.040414.201813	L14030032-85	ANYBODY/BRENDA		1		04/04/14 20:18
182	NI.040414.202114	L14030032-86	ANYBODY/BRENDA		1		04/04/14 20:21
183	NI.040414.202416	L14030032-87	ANYBODY/BRENDA		1		04/04/14 20:24
184	NI.040414.202718	L14030032-88	ANYBODY/BRENDA		1		04/04/14 20:27
185	NI.040414.203022	WG470000-49	QC Std 6		1		04/04/14 20:30
186	NI.040414.203324	WG470000-50	QC Std 7		1		04/04/14 20:33

Page: 6 Approved: April 07, 2014

Microbac

Microbac Laboratories Inc.

Data Checklist

Date: 04-APR-2014
Analyst: JYH
Analyst: NA
Method: 6020/6020A/200.8
Instrument: ICP-MS2
Curve Workgroup: 470000
Runlog ID: 59958
Analytical Workgroups: 469374,469895,469526,470019,470020,470070

Calibration/Linearity	X
ICV/CCV	X
ICV RSD < 3% (EPA 200.7 only)	
ICB/CCB	X
ICSA/ICSAB	X
CRI	
Blank/LCS	X
MS/MSD	X
Post Spike/Serial Dilution	X
Upload Results	X
Data Qualifiers	
Generate PDF Instrument Data	X
Sign/Annotate PDF Data	X
Upload Curve Data	X
Workgroup Forms	X
Case Narrative	1612,1621,1648,1649,272,274,1616
	187,085,086
Client Forms	X
Level X	
Level 3	187
Level 4	1612,1621,1649,1616
Check for compliance with method and project specific requirements	X
Check the completeness of reported information	X
Check the information for the report narrative	X
Primary Reviewer	JYH
Secondary Reviewer	SLP
Comments	

Primary Reviewer:
07-APR-2014

Secondary Reviewer:
07-APR-2014

CHECKLIST1 - Modified 03/05/2008
Generated: APR-07-2014 13:54:52

Microbac Laboratories Inc.

HOLDING TIMES
EQUIVALENT TO AFCEE FORM 9

Analytical Method: 6020 **AAB#:** WG469374

Login Number: L14031621

Client ID	ID	Date Collected	TCLP Date	Time Held	Max Hold	Q	Extract Date	Time Held	Max Hold	Q	Run Date	Time Held	Max Hold	Q
40MW7GW32714	01	03/27/14					03/31/2014	4	180		04/04/14	8.1	180	
40EQR32714	02	03/27/14					03/31/2014	3.9	180		04/04/14	8	180	
40FB32714	03	03/27/14					03/31/2014	3.9	180		04/04/14	8.1	180	
40FB32714	03	03/27/14					03/31/2014	3.9	180		04/04/14	8.1	180	
40MW5GW32714	04	03/27/14					03/31/2014	3.8	180		04/04/14	8	180	
40MW5GW32714	04	03/27/14					03/31/2014	3.8	180		04/04/14	7.9	180	
40DUPGW32714	05	03/27/14					03/31/2014	3.8	180		04/04/14	8	180	
40MW6GW32714	06	03/27/14					03/31/2014	3.7	180		04/04/14	7.9	180	
LFMW01GW32714	07	03/27/14					03/31/2014	3.7	180		04/04/14	7.7	180	
LFMW01MSGW32714	08	03/27/14					03/31/2014	3.6	180		04/04/14	7.7	180	
LFMW01MSDGW32714	09	03/27/14					03/31/2014	3.6	180		04/04/14	7.7	180	

*** = SEE PROJECT QAPP REQUIREMENTS**

HOLD_TIMES - Modified 03/06/2008
PDF File ID: 3459708
Report generated 04/04/2014 14:46

Microbac Laboratories Inc.

METHOD BLANK SUMMARY

Login Number: L14031621
Work Group: WG469374
Blank File ID: NI.040414.110519
Blank Sample ID: WG469188-03
Prep Date: 03/31/14 09:29
Instrument ID: ICP-MS2
Analyzed Date: 04/04/14 11:05
Method: 6020
Analyst: JYH

This Method Blank Applies To The Following Samples:

Client ID	Lab Sample ID	Lab File ID	Time Analyzed	TAG
FLT_BLK	WG469188-05	NI.040414.110821	04/04/14 11:08	01
LCS	WG469188-04	NI.040414.111123	04/04/14 11:11	01
LFMW01GW32714	L14031621-07	NI.040414.113240	04/04/14 11:32	01
LFMW01MSGW32714	L14031621-08	NI.040414.113542	04/04/14 11:35	01
LFMW01MSDGW32714	L14031621-09	NI.040414.113844	04/04/14 11:38	01
40MW7GW32714	L14031621-01	NI.040414.114146	04/04/14 11:41	01
40EQR32714	L14031621-02	NI.040414.114448	04/04/14 11:44	01
DUP	WG469188-08	NI.040414.121207	04/04/14 12:12	01
40FB32714	L14031621-03	NI.040414.121810	04/04/14 12:18	01
40MW5GW32714	L14031621-04	NI.040414.122113	04/04/14 12:21	01
40FB32714	L14031621-03	NI.040414.134019	04/04/14 13:40	02
40MW5GW32714	L14031621-04	NI.040414.134330	04/04/14 13:43	02
40DUPGW32714	L14031621-05	NI.040414.134631	04/04/14 13:46	01
40MW6GW32714	L14031621-06	NI.040414.134953	04/04/14 13:49	01

Report Name: BLANK_SUMMARY
PDF File ID: 3459709
Report generated 04/04/2014 14:46

Microbac Laboratories Inc.

METHOD BLANK REPORT

Login Number: L14031621 Prep Date: 03/31/14 09:29 Sample ID: WG469188-03
Instrument ID: ICP-MS2 Run Date: 04/04/14 11:05 Prep Method: 3015
File ID: NI.040414.110519 Analyst: JYH Method: 6020
Workgroup (AAB#): WG469374 Matrix: Water Units: mg/L
Contract #: Cal ID: ICP-MS-04-APR-14

Analytes	LOD	LOQ	Concentration	Dilution	Qualifier
Arsenic, Total	0.000500	0.00100	0.000500	1	U
Barium, Total	0.00150	0.00300	0.00150	1	U
Cobalt, Total	0.000500	0.00100	0.000500	1	U
Lead, Total	0.000500	0.00100	0.000500	1	U
Manganese, Total	0.00100	0.00200	0.00100	1	U
Selenium, Total	0.000500	0.00100	0.000500	1	U

LOD Method Detection Limit
LOQ Reporting/Practical Quantitation Limit
ND Analyte Not detected at or above reporting limit
* |Analyte concentration| > 1/2 RL

Report Name:BLANK
PDF ID: 3459710
04-APR-2014 14:46

Microbac Laboratories Inc.
LABORATORY CONTROL SAMPLE (LCS)

Login Number: L14031621 Run Date: 04/04/2014 Sample ID: WG469188-04
Instrument ID: ICP-MS2 Run Time: 11:11 Prep Method: 3015
File ID: NI.040414.111123 Analyst: JYH Method: 6020
Workgroup (AAB#): WG469374 Matrix: Water Units: mg/L
QC Key: DOD4 Lot#: STD62325 Cal ID: ICP-MS-04-APR-14

Analytes	Expected	Found	% Rec	LCS Limits	Q
Arsenic, Total	0.0625	0.0607	97.1	80 - 120	
Barium, Total	0.0625	0.0587	94.0	80 - 120	
Cobalt, Total	0.0625	0.0611	97.7	80 - 120	
Lead, Total	0.0625	0.0614	98.2	80 - 120	
Manganese, Total	0.0625	0.0612	97.9	80 - 120	
Selenium, Total	0.0625	0.0610	97.5	80 - 120	

LCS - Modified 03/06/2008
PDF File ID: 3459711
Report generated: 04/04/2014 14:46

Microbac Laboratories Inc.

MS/MSD REPORT

Loginnum:L14031621 Cal ID:ICP-MS2- 04-APR-14 Worknum:WG469374

Instrument ID:ICP-MS2 Contract #: Prep Method:3015

Parent ID:L14031621-07 File ID:NI.040414.113240 Dil:1 Method:6020

Sample ID:L14031621-08 MS File ID:NI.040414.113542 Dil:1 Matrix:Water

Sample ID:L14031621-09 MSD File ID:NI.040414.113844 Dil:1 Units:mg/L

Analyte	Parent	MS Spiked	MS Found	MS %Rec	MSD Spiked	MSD Found	MSD %Rec	%RPD	%Rec Limits	RPD Limit	Q
Arsenic, Total	U	0.0625	0.0617	98.7	0.0625	0.0629	101	1.93	80 - 120	20	
Barium, Total	0.0698	0.0625	0.124	86.3	0.0625	0.124	86.8	0.252	80 - 120	20	
Cobalt, Total	U	0.0625	0.0620	99.2	0.0625	0.0623	99.6	0.378	80 - 120	20	
Lead, Total	U	0.0625	0.0628	100	0.0625	0.0626	100	0.356	80 - 120	20	
Manganese, Total	0.00275	0.0625	0.0683	105	0.0625	0.0671	103	1.81	80 - 120	20	
Selenium, Total	0.00149	0.0625	0.0610	95.2	0.0625	0.0627	98	2.81	80 - 120	20	

* FAILS %REC LIMIT

FAILS RPD LIMIT

MS_MSD - Modified 03/06/2008

PDF File ID: 3459713

Report generated 04/04/2014 14:46

Microbac Laboratories Inc.
Serial Dilution Report

Login: L14031621 **Worknum:** WG469374
Instrument: ICP-MS2 **Method:** 6020
Serial Dil: WG469374-02 **File ID:** NI.040414.141210 **Dil:** 5 **Units:** ug/L
Sample: L14031621-06 **File ID:** NI.040414.134953 **Dil:** 1

Analyte	Sample	Qual	Serial Dil	Qual	% Diff	Q
Arsenic	ND	U	ND	U		
Barium	5.06	X	5.66	F	11.80	
Cobalt	ND	U	ND	U		
Lead	ND	U	ND	U		
Manganese	0.665	F	ND	U		
Selenium	ND	U	ND	U		

U = Result is below MDL.
F = Result is greater than or equal to MDL and less than the RL.
X = Result is greater than or equal to RL and less than 100 times the MDL.
E = %D exceeds control limit of 10% and initial sample result is greater than or equal to 100 times the MDL.

SERIAL_DIL - Modified 09/22/2008
PDF File ID: 3459705
04/04/2014 14:46

Microbac Laboratories Inc.
POST SPIKE REPORT

Sample Login ID: L14031621 **Worknum:** WG469374
Instrument ID: ICP-MS2 **Method:** 6020
Post Spike ID: WG469374-01 **File ID:** NI.040414.140908 **Dil:** 1 **Units:** ug/L
Sample ID: L14031621-06 **File ID:** NI.040414.134953 **Dil:** 1 **Matrix:** Water

Analyte	Post Spike Result	C	Sample Result	C	Spike Added(SA)	% R	Control Limit %R	Q
ARSENIC	50.2		0	U	50	100.4	75 - 125	
BARIUM	54.7		5.06		50	99.3	75 - 125	
COBALT	52.3		0	U	50	104.6	75 - 125	
LEAD	51.2		0	U	50	102.4	75 - 125	
MANGANESE	52.3		0.665	F	50	103.3	75 - 125	
SELENIUM	48.9		0	U	50	97.8	75 - 125	

N = % Recovery exceeds control limits
F = Result is between MDL and RL
U = Sample result is below MDL. A value of zero is used in the calculation

POST_SPIKE - Modified 03/06/2008
PDF File ID: 3459707
Report generated: 04/04/2014 14:46

Microbac Laboratories Inc.
Initial Calibration Summary

Login:	**L14031621**	Workgroup (AAB#):	**WG469374**
Analytical Method:	**6020**	Instrument ID:	**ICP-MS2**
ICAL Worknum:	**WG470000**	Initial Calibration Date:	**04-APR-2014 10:40**

	WG470000-01		WG470000-02		WG470000-03		WG470000-04			
	Conc	INT	Conc	INT	Conc	INT	Conc	INT	R	Q
ARSENIC	0	-22.9	.4	68.4	50	90400	100	176000	1	
BARIUM	0	11.7	.4	179	50	147000	100	285000	.999968	
COBALT	0	349	.4	822	50	422000	100	804000	.99995	
LEAD	0	796	.4	2320	50	1440000	100	2770000	.999977	
MANGANESE	0	1200	.4	1940	50	582000	100	1110000	.999963	
SELENIUM	0	26.1	.4	31.5	50	9870	100	19100	.999997	

INT = Instrument intensity
R = Coefficient of correlation
Q = Data Qualifier
*** = Out of Compliance; R < 0.995**

INT_CAL_ICP - Modified 03/06/2008
PDF File ID: 3459718
Report generated: 04-APR-2014 14:47

Microbac Laboratories Inc.
INITIAL CALIBRATION BLANK (ICB)

Login Number: L14031621 Run Date: 04/04/2014 Sample ID: WG470000-06
Instrument ID: ICP-MS2 Run Time: 10:47 Method: 6020
File ID: NI.040414.104704 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG469374 Cal ID: ICP-MS2 - 04-APR-14
Matrix: WATER

Analytes	MDL	RDL	Concentration	Qualifier
ARSENIC	.2	.4	.2	U
BARIUM	.6	1.2	.6	U
COBALT	.2	.4	.2	U
MANGANESE	.4	.8	.4	U
LEAD	.2	.4	.2	U
SELENIUM	.2	.4	.2	U

U = Result is less than 2 x MDL
F = Result is between MDL and 2 x MDL
* = Result is above 2 x MDL

ICB - Modified 07/14/2009
PDF File ID: 3459720
Report generated 04/04/2014 14:47

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L14031621 Run Date: 04/04/2014 Sample ID: WG470000-11

Instrument ID: ICP-MS2 Run Time: 11:02 Method: 6020

File ID: NI.040414.110217 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG469374 Cal ID: ICP-MS - 04-APR-14

Matrix: WATER QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.200	0.400	0.200	U
Barium	0.600	1.20	0.600	U
Cobalt	0.200	0.400	0.200	U
Lead	0.200	0.400	0.200	U
Manganese	0.400	0.800	0.400	U
Selenium	0.200	0.400	0.200	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3459723
Report generated 04/04/2014 14:47

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L14031621 Run Date: 04/04/2014 Sample ID: WG470000-13

Instrument ID: ICP-MS2 Run Time: 11:29 Method: 6020

File ID: NI.040414.112937 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG469374 Cal ID: ICP-MS - 04-APR-14

Matrix: WATER QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.200	0.400	0.200	U
Barium	0.600	1.20	0.600	U
Cobalt	0.200	0.400	0.200	U
Lead	0.200	0.400	0.200	U
Manganese	0.400	0.800	0.400	U
Selenium	0.200	0.400	0.200	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3459723
Report generated 04/04/2014 14:47

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L14031621 Run Date: 04/04/2014 Sample ID: WG470000-15

Instrument ID: ICP-MS2 Run Time: 11:59 Method: 6020

File ID: NI.040414.115958 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG469374 Cal ID: ICP-MS - 04-APR-14

Matrix: WATER QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.200	0.400	0.200	U
Barium	0.600	1.20	0.600	U
Cobalt	0.200	0.400	0.200	U
Lead	0.200	0.400	0.200	U
Manganese	0.400	0.800	0.400	U
Selenium	0.200	0.400	0.200	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3459723
Report generated 04/04/2014 14:47

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L14031621 Run Date: 04/04/2014 Sample ID: WG470000-17

Instrument ID: ICP-MS2 Run Time: 12:37 Method: 6020

File ID: NI.040414.123757 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG469374 Cal ID: ICP-MS - 04-APR-14

Matrix: WATER QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.200	0.400	0.200	U
Barium	0.600	1.20	0.600	U
Cobalt	0.200	0.400	0.200	U
Lead	0.200	0.400	0.200	U
Manganese	0.400	0.800	0.400	U
Selenium	0.200	0.400	0.200	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3459723
Report generated 04/04/2014 14:47

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L14031621 Run Date: 04/04/2014 Sample ID: WG470000-20

Instrument ID: ICP-MS2 Run Time: 13:21 Method: 6020

File ID: NI.040414.132105 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG469374 Cal ID: ICP-MS - 04-APR-14

Matrix: WATER QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.200	0.400	0.200	U
Barium	0.600	1.20	0.600	U
Cobalt	0.200	0.400	0.200	U
Lead	0.200	0.400	0.200	U
Manganese	0.400	0.800	0.400	U
Selenium	0.200	0.400	0.200	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3459723
Report generated 04/04/2014 14:47

Microbac Laboratories Inc.

CONTINUING CALIBRATION BLANK (CCB)

Login Number: L14031621 Run Date: 04/04/2014 Sample ID: WG470000-22

Instrument ID: ICP-MS2 Run Time: 14:18 Method: 6020

File ID: NI.040414.141816 Analyst: JYH Units: ug/L

Workgroup (AAB#): WG469374 Cal ID: ICP-MS - 04-APR-14

Matrix: WATER QAPP: DOD4

Analytes	MDL	RDL	Concentration	Qualifier
Arsenic	0.200	0.400	0.200	U
Barium	0.600	1.20	0.600	U
Cobalt	0.200	0.400	0.200	U
Lead	0.200	0.400	0.200	U
Manganese	0.400	0.800	0.400	U
Selenium	0.200	0.400	0.200	U

U = Result is less than MDL.
F = Result is between MDL and RL.
* = Result is above RL.

CCB - Modified 03/05/2008
PDF File ID: 3459723
Report generated 04/04/2014 14:47

Microbac Laboratories Inc.

INITIAL CALIBRATION VERIFICATION (ICV)
(Alternate Source)

Login Number: L14031621 Run Date: 04/04/2014 Sample ID: WG470000-05
Instrument ID: ICP-MS2 Run Time: 10:44 Method: 6020
File ID: NI.040414.104400 Analyst: JYH Units: ug/L
Workgroup (AAB#): WG469374 Cal ID: ICP-MS - 04-APR-14
QC Key: DOD4

Analyte		Expected	Found	%REC	LIMITS	Q
Arsenic		50	49.6	99.2	90 - 110	
Barium		50	50.0	100	90 - 110	
Cobalt		50	50.2	100	90 - 110	
Lead		50	50.4	101	90 - 110	
Manganese		50	50.5	101	90 - 110	
Selenium		50	50.3	101	90 - 110	

* Exceeds LIMITS Limit

ICV - Modified 03/06/2008
PDF File ID: 3459719
Report generated 04/04/2014 14:47

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/04/2014 Sample ID: WG470000-10

Instrument ID: ICP-MS2 Run Time: 10:59 Method: 6020

File ID: NI.040414.105915 Analyst: JYH QC Key: DOD4

Workgroup (AAB#): WG469374 Cal ID: ICP-MS - 04-APR-14

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Arsenic		0.0500	0.0495	mg/L	98.9	90 - 110		
Barium		0.0500	0.0489	mg/L	97.9	90 - 110		
Cobalt		0.0500	0.0502	mg/L	100	90 - 110		
Lead		0.0500	0.0502	mg/L	100	90 - 110		
Manganese		0.0500	0.0500	mg/L	99.9	90 - 110		
Selenium		0.0500	0.0497	mg/L	99.3	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3459722

Report generated 04/04/2014 14:47

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/04/2014 Sample ID: WG470000-12

Instrument ID: ICP-MS2 Run Time: 11:26 Method: 6020

File ID: NI.040414.112635 Analyst: JYH QC Key: DOD4

Workgroup (AAB#): WG469374 Cal ID: ICP-MS - 04-APR-14

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Arsenic		0.0500	0.0503	mg/L	101	90 - 110		
Barium		0.0500	0.0492	mg/L	98.3	90 - 110		
Cobalt		0.0500	0.0514	mg/L	103	90 - 110		
Lead		0.0500	0.0506	mg/L	101	90 - 110		
Manganese		0.0500	0.0511	mg/L	102	90 - 110		
Selenium		0.0500	0.0507	mg/L	101	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3459722

Report generated 04/04/2014 14:47

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/04/2014 Sample ID: WG470000-14

Instrument ID: ICP-MS2 Run Time: 11:56 Method: 6020

File ID: NI.040414.115657 Analyst: JYH QC Key: DOD4

Workgroup (AAB#): WG469374 Cal ID: ICP-MS - 04-APR-14

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Arsenic		0.0500	0.0495	mg/L	99.1	90 - 110		
Barium		0.0500	0.0496	mg/L	99.2	90 - 110		
Cobalt		0.0500	0.0509	mg/L	102	90 - 110		
Lead		0.0500	0.0497	mg/L	99.5	90 - 110		
Manganese		0.0500	0.0512	mg/L	102	90 - 110		
Selenium		0.0500	0.0502	mg/L	100	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3459722

Report generated 04/04/2014 14:47

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/04/2014 Sample ID: WG470000-16

Instrument ID: ICP-MS2 Run Time: 12:34 Method: 6020

File ID: NI.040414.123455 Analyst: JYH QC Key: DOD4

Workgroup (AAB#): WG469374 Cal ID: ICP-MS - 04-APR-14

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Arsenic		0.0500	0.0486	mg/L	97.2	90 - 110		
Barium		0.0500	0.0474	mg/L	94.7	90 - 110		
Cobalt		0.0500	0.0478	mg/L	95.6	90 - 110		
Lead		0.0500	0.0510	mg/L	102	90 - 110		
Manganese		0.0500	0.0468	mg/L	93.6	90 - 110		
Selenium		0.0500	0.0487	mg/L	97.3	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3459722

Report generated 04/04/2014 14:47

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/04/2014 Sample ID: WG470000-19

Instrument ID: ICP-MS2 Run Time: 13:18 Method: 6020

File ID: NI.040414.131803 Analyst: JYH QC Key: DOD4

Workgroup (AAB#): WG469374 Cal ID: ICP-MS - 04-APR-14

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Arsenic		0.0500	0.0505	mg/L	101	90 - 110		
Barium		0.0500	0.0480	mg/L	96.0	90 - 110		
Cobalt		0.0500	0.0480	mg/L	96.0	90 - 110		
Lead		0.0500	0.0514	mg/L	103	90 - 110		
Manganese		0.0500	0.0469	mg/L	93.8	90 - 110		
Selenium		0.0500	0.0507	mg/L	101	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3459722

Report generated 04/04/2014 14:47

Microbac Laboratories Inc.

CONTINUING CALIBRATION VERIFICATION (CCV)

Login Number: L14031621 Run Date: 04/04/2014 Sample ID: WG470000-21

Instrument ID: ICP-MS2 Run Time: 14:15 Method: 6020

File ID: NI.040414.141514 Analyst: JYH QC Key: DOD4

Workgroup (AAB#): WG469374 Cal ID: ICP-MS - 04-APR-14

Matrix: WATER

Analyte		Expected	Found	UNITS	%REC	LIMITS		Q
Arsenic		0.0500	0.0499	mg/L	99.8	90 - 110		
Barium		0.0500	0.0496	mg/L	99.1	90 - 110		
Cobalt		0.0500	0.0501	mg/L	100	90 - 110		
Lead		0.0500	0.0504	mg/L	101	90 - 110		
Manganese		0.0500	0.0493	mg/L	98.7	90 - 110		
Selenium		0.0500	0.0508	mg/L	102	90 - 110		

* Exceeds LIMITS Criteria

CCV - Modified 03/05/2008

PDF File ID: 3459722

Report generated 04/04/2014 14:47

Microbac Laboratories Inc.
INTERFERENCE CHECK SAMPLES

Login number: L14031621 **Workgroup (AAB#):** WG469374
Instrument ID: ICP-MS2 **Method:** 6020
Sol. A : WG470000-08 **File ID:** NI.040414.105309 **Units:** ug/L
Sol. AB : WG470000-09 **File ID:** NI.040414.105611 **Matrix:** Water

	Sol. A			Sol. AB			
ANALYTE	True	Found	%Recovery	True	Found	%Recovery	Q
Arsenic	NS	-0.0319	NS	100	98.9	98.9	
Barium	NS	0.0262	NS	100	97.7	97.7	
Cobalt	NS	0.00510	NS	100	98.6	98.6	
Lead	NS	0.0445	NS	100	99.1	99.1	
Manganese	NS	0.118	NS	100	96.8	96.8	
Selenium	NS	-0.00230	NS	100	99.2	99.2	

NS = Not spiked
*** = Recovery of spiked element is outside acceptance limit of 80% - 120% of true value.**
 # = Result for unspiked element is outside the acceptance limits of (+/-) the project reporting limit (RL).
+ = Result for unspiked element is outside the acceptance limits of (+/-) 2 times the project method detection limit (MDL). This criteria is only applicable to specific QAPPs.

ICS - Modified 03/06/2008
PDF File ID: 3459721
Report generated 04/04/2014 14:47

Microbac Laboratories Inc.

INTERNAL STANDARD REPORT

Login: L14031621 **Analytical Method:** 6020
Analytical Workgroup: WG469374 **Matrix:** 1
Instrument: ICP-MS2 **Analyst:** JYH
ICAL Date: 04-APR-2014 10:31

			BISMUTH	GERMANIUM	INDIUM
Sample	Type	Run Date	% Rec	% Rec	% Rec
L14031621-01	SAMP	04-APR-2014 11:41	100.807	115.011	106.067
L14031621-02	SAMP	04-APR-2014 11:44	105.091	118.447	110.613
L14031621-03	SAMP	04-APR-2014 12:18	103.324	109.669	96.039
L14031621-03	SAMP	04-APR-2014 13:40	102.351	115.388	104.256
L14031621-04	SAMP	04-APR-2014 12:21	110.799	**121.639**	105.461
L14031621-04	SAMP	04-APR-2014 13:43	99.891	111.775	101.7
L14031621-05	SAMP	04-APR-2014 13:46	97.023	102.673	94.747
L14031621-06	SAMP	04-APR-2014 13:49	96.875	101.735	94.068
L14031621-07	SAMP	04-APR-2014 11:32	98.648	110.383	103.453
L14031621-08	SAMP	04-APR-2014 11:35	96.867	107.968	102.254
L14031621-09	SAMP	04-APR-2014 11:38	100.553	111.1	105.532
WG469188-03	BLANK	04-APR-2014 11:05	92.503	96.616	95.475
WG469188-04	LCS	04-APR-2014 11:11	107.274	116.381	112.305
WG469188-05	FLT_BLK	04-APR-2014 11:08	93.018	96.326	94.884
WG469374-01	PSPK	04-APR-2014 14:09	95.221	101.367	99.825
WG469374-02	SERIAL	04-APR-2014 14:12	81.412	79.911	81.66
WG470000-05	ICV	04-APR-2014 10:44	100.87	102.979	101.67
WG470000-06	ICB	04-APR-2014 10:47	101.542	103.156	102.312
WG470000-07	LLICV	04-APR-2014 10:50	100.668	104.682	102.569
WG470000-08	ICS	04-APR-2014 10:53	95.04	95.147	94.064
WG470000-09	ICS	04-APR-2014 10:56	105.323	112.521	106.446
WG470000-10	CCV	04-APR-2014 10:59	106.546	114.118	108.62
WG470000-11	CCB	04-APR-2014 11:02	105.745	114.236	108.741
WG470000-12	CCV	04-APR-2014 11:26	105.91	115.449	111.215
WG470000-13	CCB	04-APR-2014 11:29	97.54	108.193	102.241
WG470000-14	CCV	04-APR-2014 11:56	105.437	118.492	110.337
WG470000-15	CCB	04-APR-2014 11:59	105.303	118.506	110.129
WG470000-16	CCV	04-APR-2014 12:34	109.789	**123.054**	108.327
WG470000-17	CCB	04-APR-2014 12:37	99.863	105.186	95.31
WG470000-18	LLCCV	04-APR-2014 12:41	104.855	112.461	102.356
WG470000-19	CCV	04-APR-2014 13:18	95.265	101.538	93.646
WG470000-20	CCB	04-APR-2014 13:21	89.32	93.537	85.395
WG470000-21	CCV	04-APR-2014 14:15	90.773	97.263	94.57
WG470000-22	CCB	04-APR-2014 14:18	87.728	92.298	90.296
WG470000-23	LLCCV	04-APR-2014 14:21	88.099	93.408	92.872
WG470000-24	ICS	04-APR-2014 14:25	83.356	84.335	82.626
WG470000-25	ICS	04-APR-2014 14:28	93.274	101.328	95.338
WG470000-26	CCV	04-APR-2014 14:31	93.325	102.721	97.73
WG470000-27	CCB	04-APR-2014 14:34	90.178	97.541	93.043

Acceptance criteria: 30% - 120% Underlined recoveries are out of range
Acceptance criteria for CCVs and CCBs for method SW846-6020: 80% - 120%

INT_STD_ICPMS - Modified 07/28/2010
PDF File ID: 3459717
Report generated: 04/04/2014 14:47

Microbac Laboratories Inc.
LINEAR RANGE (QUARTERLY)

Login Number: L14031621 **Date:** 01/03/2014
Insturment ID: ICP-MS2 **Method:** 6020

Analyte	Integration Time (Sec.)	Concentration (ug/L)
Antimony	1.00	100.0
Arsenic	1.00	100.0
Barium	1.00	100.0
Cadmium	1.00	100.0
Chromium	1.00	100.0
Cobalt	1.00	100.0
Copper	1.00	100.0
Lead	1.00	100.0
Manganese	1.00	100.0
Nickel	1.00	100.0
Selenium	1.00	100.0
Silver	1.00	100.0
Thallium	1.00	100.0
Uranium	1.00	100.0
Vanadium	1.00	100.0
Zinc	1.00	100.0

Comments:
All analytes passed acceptance criteria at the specified concentration.

LINEAR_RANGE - Modified 03/06/2008
PDF File ID: 3459716
Report generated: 04/04/2014 14:46

2.3.2.3 Raw Data

MassCal File Name

Mass Calibration File Name Default.tun
MassCal File Path C:\NexION Data\MassCal\Default.tun
Peak Search Window: 1.00

Sample Information

Sample Date/Time: Friday, April 04, 2014 09:33:19

Mass Calibration and Resolution

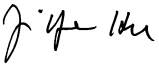
Analyte	E Mass	Meas Mass	Mass C DAC Val	Res DAC Value	Meas Peak WCustom Res
Li	7.016	7.025	1342	2024	0.701
Mg	23.985	23.975	4506	2020	0.697
Co	58.933	58.925	11696	2021	0.690
In	114.904	114.925	22867	2027	0.679
U	238.050	238.025	47459	2040	0.678

Relative Std. Dev.

Mass	Meas. Intens. RSD
5.525	4.623
5.575	3.636
5.625	2.313
5.675	3.571
5.725	2.409
5.775	2.431
5.825	3.238
5.875	4.206
5.925	2.205
5.975	2.562
6.025	2.237
6.075	1.301
6.125	3.918
6.175	7.124
6.225	29.881
6.275	129.603
6.325	63.888
6.375	62.361
6.425	29.916
6.475	10.158
6.525	6.097
6.575	3.935
6.625	2.429
6.675	3.238
6.725	2.429
6.775	2.191
6.825	2.654

Report Date/Time: Friday, April 04, 2014 09:36:30
Page 1

Approved: April 07, 2014

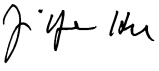


6.875	2.645
6.925	2.393
6.975	3.002
7.025	2.733
7.075	1.955
7.125	3.008
7.175	3.331
7.225	4.626
7.275	37.895
7.325	95.831
7.375	223.607
7.425	122.475
7.475	70.711
7.525	39.123
7.575	72.436
7.625	99.381
7.675	136.931
7.725	91.287
7.775	104.583
7.825	46.481
7.875	91.287
7.925	100.000
7.975	108.653
8.025	34.233
8.075	70.711
8.125	162.980
8.175	122.475
8.225	104.583
8.275	95.831
8.325	136.931
8.375	104.583
8.425	100.000
8.475	149.071
22.525	104.583
22.575	46.566
22.625	36.377
22.675	31.688
22.725	54.694
22.775	30.162
22.825	21.254
22.875	28.315
22.925	38.220
22.975	25.620
23.025	26.987
23.075	22.874
23.125	28.092
23.175	13.552

Approved: April 07, 2014

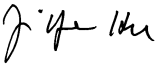
23.225	22.166
23.275	25.495
23.325	28.144
23.375	17.801
23.425	39.671
23.475	26.880
23.525	3.846
23.575	2.138
23.625	1.971
23.675	1.340
23.725	2.220
23.775	2.133
23.825	2.624
23.875	3.707
23.925	2.409
23.975	2.436
24.025	2.356
24.075	3.071
24.125	2.659
24.175	2.085
24.225	2.730
24.275	6.878
24.325	53.931
24.375	39.460
24.425	27.951
24.475	21.550
24.525	3.572
24.575	5.265
24.625	3.182
24.675	1.811
24.725	3.449
24.775	3.041
24.825	1.742
24.875	1.804
24.925	3.082
24.975	2.882
25.025	1.628
25.075	2.202
25.125	3.498
25.175	2.269
25.225	5.173
25.275	40.074
25.325	22.822
25.375	60.858
25.425	57.701
25.475	9.733
57.525	6.081

Approved: April 07, 2014



57.575	1.899
57.625	3.498
57.675	3.736
57.725	3.834
57.775	3.880
57.825	3.914
57.875	2.850
57.925	5.286
57.975	2.793
58.025	2.432
58.075	2.574
58.125	2.568
58.175	2.134
58.225	9.280
58.275	28.675
58.325	23.958
58.375	13.495
58.425	18.640
58.475	7.804
58.525	5.601
58.575	4.789
58.625	3.184
58.675	3.231
58.725	3.349
58.775	2.718
58.825	2.115
58.875	3.778
58.925	3.634
58.975	3.859
59.025	2.236
59.075	2.925
59.125	5.396
59.175	7.816
59.225	11.982
59.275	49.215
59.325	64.358
59.375	84.046
59.425	19.325
59.475	14.052
59.525	3.767
59.575	2.102
59.625	2.618
59.675	4.899
59.725	2.750
59.775	6.544
59.825	2.817
59.875	5.409

Approved: April 07, 2014



59.925	3.852
59.975	3.191
60.025	3.715
60.075	5.643
60.125	2.967
60.175	7.799
60.225	34.429
60.275	64.438
60.325	58.330
60.375	34.233
60.425	25.000
60.475	33.535
113.525	5.261
113.575	3.738
113.625	5.532
113.675	3.035
113.725	4.166
113.775	2.182
113.825	3.300
113.875	2.212
113.925	2.615
113.975	2.403
114.025	3.278
114.075	2.440
114.125	3.329
114.175	2.178
114.225	3.475
114.275	7.683
114.325	31.599
114.375	17.815
114.425	7.713
114.475	7.118
114.525	5.920
114.575	4.386
114.625	5.057
114.675	2.667
114.725	2.883
114.775	3.799
114.825	3.260
114.875	2.933
114.925	2.066
114.975	2.431
115.025	2.841
115.075	2.235
115.125	2.133
115.175	1.498
115.225	2.050

Approved: April 07, 2014

115.275	8.200
115.325	23.570
115.375	57.735
115.425	50.990
115.475	14.374
115.525	15.341
115.575	5.523
115.625	8.844
115.675	5.930
115.725	4.867
115.775	6.447
115.825	6.120
115.875	5.013
115.925	4.420
115.975	7.202
116.025	3.048
116.075	3.554
116.125	5.624
116.175	6.357
116.225	9.215
116.275	20.639
116.325	42.592
116.375	136.931
116.425	66.898
116.475	111.232
236.525	
236.575	10.400
236.625	63.888
236.675	41.749
236.725	49.215
236.775	42.906
236.825	39.219
236.875	39.033
236.925	28.085
236.975	34.967
237.025	40.807
237.075	30.842
237.125	44.231
237.175	30.459
237.225	25.353
237.275	40.088
237.325	25.353
237.375	31.869
237.425	27.082
237.475	26.769
237.525	24.608
237.575	8.621

Approved: April 07, 2014

237.625	9.445
237.675	4.334
237.725	3.217
237.775	3.281
237.825	2.514
237.875	1.694
237.925	2.537
237.975	2.087
238.025	2.585
238.075	2.940
238.125	2.054
238.175	2.778
238.225	1.875
238.275	3.624
238.325	2.884
238.375	1.221
238.425	6.122
238.475	7.163
238.525	19.598
238.575	24.661
238.625	41.937
238.675	50.620
238.725	24.636
238.775	23.903
238.825	24.164
238.875	56.474
238.925	20.412
238.975	34.810
239.025	7.711
239.075	48.290
239.125	32.443
239.175	31.882
239.225	40.406
239.275	26.352
239.325	40.813
239.375	32.401
239.425	60.886
239.475	17.678

Approved: April 07, 2014

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Friday, April 04, 2014 09:37:49
Sample Description:
Method File: C:\NexION Data\Method\ESI Daily Performance.mth
Dataset File: C:\NexION Data\DataSet\033114\Daily Performance Check.509
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time (ns): 33
Current Dead Time (ns): 33

Torch Z position (mm): 0.50

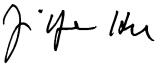
Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	5212.1	5212.097	149.263	2.9	Standard
	Mg	24.0	120901.2	120901.175	3163.983	2.6	Standard
	In	114.9	103311.0	103310.985	2994.145	2.9	Standard
	U	238.1	82197.5	82197.536	2053.347	2.5	Standard
⌈	CeO	155.9	1951.9	0.017	0.000	1.1	Standard
| >	Ce	139.9	114726.1	114726.104	2723.664	2.4	Standard
⌊	Ce++	70.0	999.2	0.009	0.000	1.9	Standard
	Bkgd	220.0	0.3	0.333	0.333	100.0	Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.40	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-8.25	Deflector Voltage
1600.00	ICP RF Power
-1750.00	Analog Stage Voltage
1050.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
5.00	Discriminator Threshold
-2.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
1.01	DRC Mode NEB
-7.00	DRC Mode QRO
-1.50	DRC Mode CRO
-5.00	DRC Mode Cell Entrance/Exit Voltage
0.70	Cell Gas A
200.00	Axial Field Voltage
-17.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-23.00	KED Mode Cell Exit Voltage
3.00	KED Cell Gas A
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

Approved: April 07, 2014



SmartTune Wizard - Summary

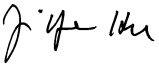
Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ESI SmartTune Fullmicrobac.swz

Start Time: 4/4/2014 9:37:49 AM
End Time: 4/4/2014 9:39:53 AM

Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5212.10
Obtained Intensity (Mg 23.985): 120901.18
Obtained Intensity (In 114.904): 103310.99
Obtained Intensity (U 238.05): 82197.54
Obtained Intensity (Bkgd 220): 0.33
Obtained Formula (CeO 155.9 / Ce 139.905): 0.017 (=1951.93 / 114726.10)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.009 (=999.17 / 114726.10)

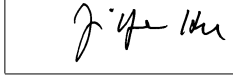
Approved: April 07, 2014



SmartTune Wizard - Details

```
Optimization Details

SmartTune file: C:\NexIONData\Wizard\SmartTune\ESI SmartTune Fullmicrobac.swz

Optimization Status

Start Time: 4/4/2014 9:37:49 AM

Daily Performance Check
        Optimization Settings:
                Method: C:\NexIONData\Method\ESI Daily Performance.mth.
                Intensity Criterion: Be 9.0122 > 2000
                Intensity Criterion: Mg 23.985 > 15000
                Intensity Criterion: In 114.904 > 40000
                Intensity Criterion: U 238.05 > 30000
                Intensity Criterion: Bkgd 220 <= 5
                Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.025
                Formula Criterion: Ce++ 69.9527 / Ce 139.905 <= 0.03

        Optimization Results:
        Initial Try
                Obtained Intensity (Be 9.0122): 5212.10
                Obtained Intensity (Mg 23.985): 120901.18
                Obtained Intensity (In 114.904): 103310.99
                Obtained Intensity (U 238.05): 82197.54
                Obtained Intensity (Bkgd 220): 0.33
                Obtained Formula (CeO 155.9 / Ce 139.905): 0.017 (=1951.93 / 114726.10)
                Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.009 (=999.17 / 114726.10)
[Passed]  Optimum value(s): N/A

End Time: 4/4/2014 9:39:53 AM
```


Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: Blank
Sample Date/Time: Friday, April 04, 2014 10:28:47
Number of Replicates: 3
Autosampler Position: 1
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	113179.7	2.9				ug/L		Standard
	Be	9	16.7	34.6				ug/L		Standard
	Al	27	633.3	23.6				ug/L		Standard
	Sc	45	41381.5	2.7				ug/L		Standard
	Ti	47	30.3	15.2				ug/L		Standard
	V	51	1878.7	2.7				ug/L		Standard
	Cr	52	8034.8	0.3				ug/L		Standard
	Cr	53	470.0	2.8				ug/L		Standard
	Mn	55	1182.4	0.6				ug/L		Standard
	Co	59	333.3	7.3				ug/L		Standard
	Ni	60	71.3	8.9				ug/L		Standard
	Cu	65	64.3	8.8				ug/L		Standard
	Zn	66	125.0	9.7				ug/L		Standard
>	Ge	72	399052.8	3.0				ug/L		Standard
	As	75	-27.6	50.6				ug/L		Standard
	Se	82	26.0	16.1				ug/L		Standard
	Se-1	77	118.3	6.1				ug/L		Standard
>	Ga	71	8.3	34.6				mg/L		Standard
	Rb	85	25.0	40.0				ug/L		Standard
	Y	89	368853.0	3.7				ug/L		Standard
>	Rh	103	10.0					ug/L		Standard
	Mo	98	68.4	15.9				ug/L		Standard
	Ag	107	84.3	6.7				ug/L		Standard
	Cd	111	72.2	18.3				mg/L		Standard
	Cd	114	186.6	16.5				ug/L		Standard
>	In	115	464663.8	2.8				ug/L		Standard
	Sn	118	438.3	7.2				ug/L		Standard
	Sb	123	432.9	8.9				ug/L		Standard
	Ba	135	13.7	18.4				ug/L		Standard
	Ce	140	20.0	25.0				ug/L		Standard
>	Tb	159	663064.4	1.9				ug/L		Standard
	Ho	165	10.0	100.0				ug/L		Standard
	Tl	203	31.7	25.3				ug/L		Standard
	Tl	205	28.3	71.3				ug/L		Standard
	Pb	206	190.3	6.6				ug/L		Standard
	Pb	207	155.3	1.0				ug/L		Standard
	Pb	208	766.0	3.2				ug/L		Standard
	U	238	30.0	16.7				ug/L		Standard
>	Bi	209	364779.9	1.9				ug/L		Standard

Sample ID: Blank
Report Date/Time: Friday, April 04, 2014 10:30:57
Page 1

Approved: April 07, 2014

Na	23	0.0		mg/L	Standard
Mg	24	58.3	47.2	mg/L	Standard
K	39	11.7	65.5	mg/L	Standard
Ca	43	53.3	14.3	mg/L	Standard
Fe	54	190.4	17.4	mg/L	Standard
Fe	57	638.3	8.4	mg/L	Standard
Sc-1	45	41381.5	2.7	mg/L	Standard
Cl	35	4.0	50.0	ug/L	Standard
Kr	83	2.0	86.6	ug/L	Standard
Br	81	2030.1	5.6	ug/L	Standard
P	31	256822.4	2.3	ug/L	Standard
S	34	33254.8	0.6	ug/L	Standard
Sr	88	153.3	19.1	ug/L	Standard
C	12	573.3	20.4	mg/L	Standard
N	14	0.0		mg/L	Standard
Hg	202	0.0		mg/L	Standard
Dy	164	6.3	186.4	mg/L	Standard
Ho-1	165	10.0	100.0	mg/L	Standard
Er	166	6.7	173.2	mg/L	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72			
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			

Sample ID: Blank
Report Date/Time: Friday, April 04, 2014 10:30:57
Page 2

Approved: April 07, 2014

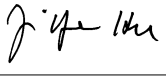
⌈	Y	89
⌊>	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
⌈	Ce	140
⌊>	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14
	Hg	202
	Dy	164
	Ho-1	165
	Er	166

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Blank
Report Date/Time: Friday, April 04, 2014 10:30:57
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: Standard 1
Sample Date/Time: Friday, April 04, 2014 10:31:49
Number of Replicates: 3
Autosampler Position: 1
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	121839.7	2.0				ug/L	113180	Standard
	Be	9	35.0	14.3				ug/L	17	Standard
	Al	27	488.3	13.3				ug/L	633	Standard
	Sc	45	43437.2	1.2				ug/L	41381	Standard
	Ti	47	31.7	1.8				ug/L	30	Standard
	V	51	1968.0	2.8				ug/L	1879	Standard
	Cr	52	8483.0	1.1				ug/L	8035	Standard
	Cr	53	470.0	5.6				ug/L	470	Standard
	Mn	55	1197.7	3.0				ug/L	1182	Standard
	Co	59	349.3	5.3				ug/L	333	Standard
	Ni	60	66.3	6.8				ug/L	71	Standard
	Cu	65	66.0	12.9				ug/L	64	Standard
	Zn	66	133.7	2.2				ug/L	125	Standard
>	Ge	72	426547.6	2.2				ug/L	399053	Standard
	As	75	-22.9	81.7				ug/L	-28	Standard
	Se	82	26.1	16.3				ug/L	26	Standard
	Se-1	77	131.0	6.1				ug/L	118	Standard
>	Ga	71	11.7	24.7				mg/L	8	Standard
	Rb	85	23.3	53.9				ug/L	25	Standard
	Y	89	385788.2	2.4				ug/L	368853	Standard
>	Rh	103	6.7	114.6				ug/L	10	Standard
	Mo	98	43.0	24.5				ug/L	68	Standard
	Ag	107	81.3	11.1				ug/L	84	Standard
	Cd	111	74.9	5.3				mg/L	72	Standard
	Cd	114	178.2	17.3				ug/L	187	Standard
>	In	115	485829.6	3.1				ug/L	464664	Standard
	Sn	118	441.7	17.0				ug/L	438	Standard
	Sb	123	233.1	5.9				ug/L	433	Standard
	Ba	135	11.7	32.5				ug/L	14	Standard
	Ce	140	18.3	78.7				ug/L	20	Standard
>	Tb	159	682985.8	3.2				ug/L	663064	Standard
	Ho	165	10.0					ug/L	10	Standard
	Tl	203	27.3	16.5				ug/L	32	Standard
	Tl	205	28.3	40.8				ug/L	28	Standard
	Pb	206	217.0	3.2				ug/L	190	Standard
	Pb	207	165.7	6.9				ug/L	155	Standard
	Pb	208	795.7	2.5				ug/L	766	Standard
	U	238	21.0	8.2				ug/L	30	Standard
>	Bi	209	382837.1	3.4				ug/L	364780	Standard

Sample ID: Standard 1
Report Date/Time: Friday, April 04, 2014 10:33:59
Page 1

Approved: April 07, 2014

Na	23	0.0		mg/L	0	Standard
Mg	24	53.3	14.3	mg/L	58	Standard
K	39	10.0	50.0	mg/L	12	Standard
Ca	43	55.0	48.1	mg/L	53	Standard
Fe	54	184.0	28.2	mg/L	190	Standard
Fe	57	626.7	3.7	mg/L	638	Standard
Sc-1	45	43437.2	1.2	mg/L	41381	Standard
Cl	35	2.0	0.0	ug/L	4	Standard
Kr	83	1.3	43.3	ug/L	2	Standard
Br	81	2016.8	3.0	ug/L	2030	Standard
P	31	258345.7	1.1	ug/L	256822	Standard
S	34	32765.4	2.9	ug/L	33255	Standard
Sr	88	178.3	13.3	ug/L	153	Standard
C	12	576.7	10.6	mg/L	573	Standard
N	14	0.0		mg/L	0	Standard
Hg	202	0.0		mg/L	0	Standard
Dy	164	9.7	2.9	mg/L	6	Standard
Ho-1	165	10.0		mg/L	10	Standard
Er	166	6.7	86.6	mg/L	7	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
Li	6			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
Ge	72			
As	75			
Se	82			
Se-1	77			
Ga	71			
Rb	85			

Sample ID: Standard 1
Report Date/Time: Friday, April 04, 2014 10:33:59
Page 2

Approved: April 07, 2014

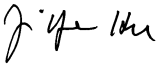
⌈	Y	89
⌊>	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
⌈	Ce	140
⌊>	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14
	Hg	202
	Dy	164
	Ho-1	165
	Er	166

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 1
Report Date/Time: Friday, April 04, 2014 10:33:59
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: Standard 2
Sample Date/Time: Friday, April 04, 2014 10:34:51
Number of Replicates: 3
Autosampler Position: 2
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	117652.2	4.3				ug/L	113180	Standard
	Be	9	130.0	19.2				ug/L	17	Standard
	Al	27	12411.8	3.3				ug/L	633	Standard
	Sc	45	42586.5	3.8				ug/L	41381	Standard
	Ti	47	56.0	8.2				ug/L	30	Standard
	V	51	2455.1	3.1				ug/L	1879	Standard
	Cr	52	8921.0	3.1				ug/L	8035	Standard
	Cr	53	581.7	12.4				ug/L	470	Standard
	Mn	55	1944.5	1.3				ug/L	1182	Standard
	Co	59	822.0	5.7				ug/L	333	Standard
	Ni	60	242.0	4.4				ug/L	71	Standard
	Cu	65	228.0	3.2				ug/L	64	Standard
	Zn	66	297.3	4.0				ug/L	125	Standard
>	Ge	72	420583.7	3.6				ug/L	399053	Standard
	As	75	68.4	63.8				ug/L	-28	Standard
	Se	82	31.5	23.9				ug/L	26	Standard
	Se-1	77	114.3	1.3				ug/L	118	Standard
>	Ga	71	16.7	45.8				mg/L	8	Standard
	Rb	85	38.3	32.8				ug/L	25	Standard
	Y	89	376216.6	3.2				ug/L	368853	Standard
>	Rh	103	5.0	100.0				ug/L	10	Standard
	Mo	98	278.5	9.0				ug/L	68	Standard
	Ag	107	466.0	7.7				ug/L	84	Standard
	Cd	111	252.4	6.2				mg/L	72	Standard
	Cd	114	623.5	6.1				ug/L	187	Standard
>	In	115	475053.8	2.7				ug/L	464664	Standard
	Sn	118	865.0	6.4				ug/L	438	Standard
	Sb	123	430.1	5.5				ug/L	433	Standard
	Ba	135	179.0	8.6				ug/L	14	Standard
	Ce	140	10.0	132.3				ug/L	20	Standard
>	Tb	159	667239.8	3.5				ug/L	663064	Standard
	Ho	165	23.3	49.5				ug/L	10	Standard
	Tl	203	619.0	4.5				ug/L	32	Standard
	Tl	205	543.3	5.5				ug/L	28	Standard
	Pb	206	602.0	2.3				ug/L	190	Standard
	Pb	207	514.0	4.6				ug/L	155	Standard
	Pb	208	2319.7	3.3				ug/L	766	Standard
	U	238	695.0	6.5				ug/L	30	Standard
>	Bi	209	371263.7	2.5				ug/L	364780	Standard

Sample ID: Standard 2
Report Date/Time: Friday, April 04, 2014 10:37:01
Page 1

Approved: April 07, 2014

Na	23	3.3	86.6	mg/L	0	Standard
Mg	24	58.3	21.6	mg/L	58	Standard
K	39	10.0	100.0	mg/L	12	Standard
Ca	43	51.7	14.8	mg/L	53	Standard
Fe	54	179.4	4.9	mg/L	190	Standard
Fe	57	700.0	5.7	mg/L	638	Standard
Sc-1	45	42586.5	3.8	mg/L	41381	Standard
Cl	35	0.0		ug/L	4	Standard
Kr	83	4.0	25.0	ug/L	2	Standard
Br	81	2096.8	3.9	ug/L	2030	Standard
P	31	255714.4	3.0	ug/L	256822	Standard
S	34	32012.1	2.4	ug/L	33255	Standard
Sr	88	165.0	10.9	ug/L	153	Standard
C	12	540.0	3.2	mg/L	573	Standard
N	14	0.0		mg/L	0	Standard
Hg	202	0.0		mg/L	0	Standard
Dy	164	9.2	108.7	mg/L	6	Standard
Ho-1	165	23.3	49.5	mg/L	10	Standard
Er	166	16.7	34.6	mg/L	7	Standard

QC Calculated Values

Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
> Li	6			
Be	9			
Al	27			
Sc	45			
Ti	47			
V	51			
Cr	52			
Cr	53			
Mn	55			
Co	59			
Ni	60			
Cu	65			
Zn	66			
> Ge	72			
As	75			
Se	82			
Se-1	77			
> Ga	71			
Rb	85			

Sample ID: Standard 2
Report Date/Time: Friday, April 04, 2014 10:37:01
Page 2

Approved: April 07, 2014

⌈	Y	89
⌊>	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
⌈	Ce	140
⌊>	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14
	Hg	202
	Dy	164
	Ho-1	165
	Er	166

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 2
Report Date/Time: Friday, April 04, 2014 10:37:01
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: Standard 3
Sample Date/Time: Friday, April 04, 2014 10:37:53
Number of Replicates: 3
Autosampler Position: 3
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	118670.1	4.0				ug/L	113180	Standard
	Be	9	122649.7	3.0	50.0000	1.025	2.1	ug/L	17	Standard
	Al	27	8397468.6	1.3	50.0000	1.494	3.0	ug/L	633	Standard
	Sc	45	43021.0	2.0				ug/L	41381	Standard
	Ti	47	34514.3	2.4	100.0000	1.449	1.4	ug/L	30	Standard
	V	51	475487.8	3.1	50.0000	0.663	1.3	ug/L	1879	Standard
	Cr	52	508991.1	2.1	50.0000	0.326	0.7	ug/L	8035	Standard
	Cr	53	74742.3	2.0	50.0000	0.195	0.4	ug/L	470	Standard
	Mn	55	582024.7	0.8	50.0000	0.473	0.9	ug/L	1182	Standard
	Co	59	421577.4	1.5	50.0000	0.205	0.4	ug/L	333	Standard
	Ni	60	147571.0	3.3	50.0000	0.749	1.5	ug/L	71	Standard
	Cu	65	140230.2	2.4	50.0000	0.596	1.2	ug/L	64	Standard
	Zn	66	79764.1	1.8	50.0000	0.500	1.0	ug/L	125	Standard
>	Ge	72	424873.9	1.8				ug/L	399053	Standard
	As	75	90393.7	1.7	50.0000	0.073	0.1	ug/L	-28	Standard
	Se	82	9872.9	2.1	50.0000	0.170	0.3	ug/L	26	Standard
	Se-1	77	5883.8	2.7	50.0000	0.464	0.9	ug/L	118	Standard
>	Ga	71	38.3	39.8				mg/L	8	Standard
	Rb	85	973.4	8.7				ug/L	25	Standard
	Y	89	379085.0	2.1				ug/L	368853	Standard
>	Rh	103	30.0	72.6				ug/L	10	Standard
	Mo	98	227308.9	2.1	100.0000	2.213	2.2	ug/L	68	Standard
	Ag	107	371424.6	1.7	50.0000	1.048	2.1	ug/L	84	Standard
	Cd	111	169108.8	1.3	50.0000	0.142	0.3	mg/L	72	Standard
	Cd	114	412461.0	0.6	50.0000	0.680	1.4	ug/L	187	Standard
>	In	115	488882.8	1.5				ug/L	464664	Standard
	Sn	118	447360.0	2.1	50.0000	0.365	0.7	ug/L	438	Standard
	Sb	123	290130.0	0.9	50.0000	0.279	0.6	ug/L	433	Standard
	Ba	135	146741.5	0.8	50.0000	0.563	1.1	ug/L	14	Standard
	Ce	140	256.7	36.7				ug/L	20	Standard
>	Tb	159	682351.3	1.2				ug/L	663064	Standard
	Ho	165	46.7	65.5				ug/L	10	Standard
	Tl	203	568632.5	0.2	50.0000	0.415	0.8	ug/L	32	Standard
	Tl	205	512847.3	1.1	50.0000	0.884	1.8	ug/L	28	Standard
	Pb	206	354682.9	0.8	50.0000	0.250	0.5	ug/L	190	Standard
	Pb	207	321609.1	1.2	50.0000	0.325	0.7	ug/L	155	Standard
	Pb	208	1439739.0	0.8	50.0000	0.067	0.1	ug/L	766	Standard
	U	238	667105.0	1.2	50.0000	0.501	1.0	ug/L	30	Standard
>	Bi	209	379295.4	0.7				ug/L	364780	Standard

Sample ID: Standard 3
Report Date/Time: Friday, April 04, 2014 10:40:03
Page 1

Approved: April 07, 2014

	Na	23	23.3	44.6	**5.0000**	2.501	50.0	mg/L	0	Standard
	Mg	24	6664.8	3.8	**5.0000**	0.210	4.2	mg/L	58	Standard
	K	39	651.7	8.1	**5.0000**	0.366	7.3	mg/L	12	Standard
	Ca	43	203.3	15.8	**5.0000**	1.081	21.6	mg/L	53	Standard
	Fe	54	9692.2	1.0	**5.0000**	0.151	3.0	mg/L	190	Standard
	Fe	57	3350.4	0.8	**5.0000**	0.158	3.2	mg/L	638	Standard
>	**Sc-1**	45	43021.0	2.0				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	4.3	58.1				ug/L	2	Standard
	Br	81	1963.5	3.8				ug/L	2030	Standard
	P	31	294503.0	0.5				ug/L	256822	Standard
	S	34	40806.6	1.6				ug/L	33255	Standard
	Sr	88	156.7	9.8				ug/L	153	Standard
	C	12	640.0	10.2				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	16.7	124.9				mg/L	6	Standard
	Ho-1	165	46.7	65.5				mg/L	10	Standard
	Er	166	0.0					mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6			
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: Standard 3
Report Date/Time: Friday, April 04, 2014 10:40:03
Page 2

Approved: April 07, 2014

⌈	Y	89
⌊>	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
⌈	Ce	140
⌊>	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14
	Hg	202
	Dy	164
	Ho-1	165
	Er	166

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 3
Report Date/Time: Friday, April 04, 2014 10:40:03
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: Standard 4
Sample Date/Time: Friday, April 04, 2014 10:40:55
Number of Replicates: 3
Autosampler Position: 4
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	109805.6	5.6				ug/L	113180	Standard
	Be	9	230125.2	2.6	**100.7428**	4.176	4.1	ug/L	17	Standard
	Al	27	15634657.7	3.7	**100.3603**	5.664	5.6	ug/L	633	Standard
	Sc	45	42516.3	3.8				ug/L	41381	Standard
	Ti	47	66938.9	2.8	**199.7272**	2.408	1.2	ug/L	30	Standard
	V	51	895411.4	4.2	**98.4735**	2.184	2.2	ug/L	1879	Standard
	Cr	52	951123.3	3.9	**98.3839**	1.335	1.4	ug/L	8035	Standard
	Cr	53	139585.3	2.4	**98.1265**	0.630	0.6	ug/L	470	Standard
	Mn	55	1111781.9	3.4	**99.1414**	2.481	2.5	ug/L	1182	Standard
	Co	59	803669.5	3.5	**99.0046**	2.015	2.0	ug/L	333	Standard
	Ni	60	276078.3	2.1	**98.0779**	1.602	1.6	ug/L	71	Standard
	Cu	65	265392.1	3.3	**98.6361**	1.256	1.3	ug/L	64	Standard
	Zn	66	153047.5	3.7	**99.3674**	1.057	1.1	ug/L	125	Standard
>	Ge	72	413289.1	2.7				ug/L	399053	Standard
	As	75	175788.4	3.6	**99.9690**	1.776	1.8	ug/L	-28	Standard
	Se	82	19103.3	5.0	**99.7726**	3.265	3.3	ug/L	26	Standard
	Se-1	77	11092.7	3.5	**98.8961**	2.655	2.7	ug/L	118	Standard
>	Ga	71	91.7	38.7				mg/L	8	Standard
	Rb	85	1850.1	13.0				ug/L	25	Standard
	Y	89	372741.1	2.6				ug/L	368853	Standard
>	Rh	103	51.7	56.7				ug/L	10	Standard
	Mo	98	435197.5	3.4	**200.1272**	1.305	0.7	ug/L	68	Standard
	Ag	107	705986.6	4.0	**99.6943**	0.710	0.7	ug/L	84	Standard
	Cd	111	323392.9	3.2	**100.0178**	0.714	0.7	mg/L	72	Standard
	Cd	114	799307.6	4.5	**100.6612**	0.819	0.8	ug/L	187	Standard
>	In	115	467489.4	3.9				ug/L	464664	Standard
	Sn	118	873171.1	1.2	**101.0819**	2.834	2.8	ug/L	438	Standard
	Sb	123	547380.5	2.9	**99.3443**	0.996	1.0	ug/L	433	Standard
	Ba	135	285062.3	2.8	**100.7996**	1.436	1.4	ug/L	14	Standard
	Ce	140	455.0	10.8				ug/L	20	Standard
>	Tb	159	666020.6	3.9				ug/L	663064	Standard
	Ho	165	23.3	24.7				ug/L	10	Standard
	Tl	203	1107800.7	2.4	**99.8953**	1.031	1.0	ug/L	32	Standard
	Tl	205	990265.4	1.7	**99.4507**	0.349	0.4	ug/L	28	Standard
	Pb	206	685617.0	1.8	**99.5261**	0.889	0.9	ug/L	190	Standard
	Pb	207	620651.5	1.6	**99.4423**	0.794	0.8	ug/L	155	Standard
	Pb	208	2772363.8	2.1	**99.3298**	0.967	1.0	ug/L	766	Standard
	U	238	1301435.0	2.3	**99.9657**	1.191	1.2	ug/L	30	Standard
>	Bi	209	370216.3	1.4				ug/L	364780	Standard

Sample ID: Standard 4
Report Date/Time: Friday, April 04, 2014 10:43:05
Page 1

Approved: April 07, 2014

	Na	23	43.3	13.3	**10.1006**	1.417	14.0	mg/L	0	Standard
	Mg	24	12807.1	3.0	**9.8834**	0.555	5.6	mg/L	58	Standard
	K	39	1235.1	3.3	**9.8332**	0.623	6.3	mg/L	12	Standard
	Ca	43	328.3	10.7	**9.6035**	0.805	8.4	mg/L	53	Standard
	Fe	54	18590.4	2.7	**9.8985**	0.591	6.0	mg/L	190	Standard
	Fe	57	5584.4	4.5	**9.6609**	0.125	1.3	mg/L	638	Standard
>	**Sc-1**	45	42516.3	3.8				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	4.3	96.1				ug/L	2	Standard
	Br	81	1986.8	8.6				ug/L	2030	Standard
	P	31	288781.0	4.3				ug/L	256822	Standard
	S	34	40062.9	3.1				ug/L	33255	Standard
	Sr	88	163.3	15.7				ug/L	153	Standard
	C	12	643.3	9.0				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	2.4	243.1				mg/L	6	Standard
	Ho-1	165	23.3	24.7				mg/L	10	Standard
	Er	166	20.0	0.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6			
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72			
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: Standard 4
Report Date/Time: Friday, April 04, 2014 10:43:05
Page 2

Approved: April 07, 2014

⌈	Y	89
⌊>	Rh	103
⌈	Mo	98
|	Ag	107
|	Cd	111
|	Cd	114
|>	In	115
|	Sn	118
|	Sb	123
⌊	Ba	135
⌈	Ce	140
⌊>	Tb	159
⌈	Ho	165
|	Tl	203
|	Tl	205
|	Pb	206
|	Pb	207
|	Pb	208
|	U	238
⌊>	Bi	209
⌈	Na	23
|	Mg	24
|	K	39
|	Ca	43
|	Fe	54
|	Fe	57
⌊>	Sc-1	45
	Cl	35
	Kr	83
	Br	81
	P	31
	S	34
	Sr	88
	C	12
	N	14
	Hg	202
	Dy	164
	Ho-1	165
	Er	166

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: Standard 4
Report Date/Time: Friday, April 04, 2014 10:43:05
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 1
Sample Date/Time: Friday, April 04, 2014 10:44:00
Number of Replicates: 3
Autosampler Position: 201
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	113164.4	1.5				ug/L	113180	Standard
	Be	9	114144.4	6.1	**48.4089**	2.703	5.6	ug/L	17	Standard
	Al	27	7955353.5	3.9	**49.4608**	2.045	4.1	ug/L	633	Standard
	Sc	45	41816.1	6.0				ug/L	41381	Standard
	Ti	47	33327.3	3.5	**99.9532**	1.358	1.4	ug/L	30	Standard
	V	51	455779.5	6.1	**50.2875**	2.031	4.0	ug/L	1879	Standard
	Cr	52	479198.9	4.8	**49.4150**	1.346	2.7	ug/L	8035	Standard
	Cr	53	70252.6	3.4	**49.4850**	0.838	1.7	ug/L	470	Standard
	Mn	55	563758.6	4.0	**50.4841**	0.984	1.9	ug/L	1182	Standard
	Co	59	405555.0	4.7	**50.2070**	1.411	2.8	ug/L	333	Standard
	Ni	60	139212.3	3.9	**49.7003**	0.918	1.8	ug/L	71	Standard
	Cu	65	136161.3	3.9	**50.8701**	0.893	1.8	ug/L	64	Standard
	Zn	66	76987.2	2.5	**50.2098**	0.641	1.3	ug/L	125	Standard
>	**Ge**	72	410942.2	2.1				ug/L	399053	Standard
	As	75	86669.9	2.9	**49.5755**	0.396	0.8	ug/L	-28	Standard
	Se	82	9583.1	3.9	**50.2815**	0.952	1.9	ug/L	26	Standard
	Se-1	77	5602.0	3.5	**49.7453**	0.855	1.7	ug/L	118	Standard
>	**Ga**	71	50.0	20.0				mg/L	8	Standard
	Rb	85	915.0	4.3				ug/L	25	Standard
	Y	89	373749.2	2.8				ug/L	368853	Standard
>	**Rh**	103	25.0	34.6				ug/L	10	Standard
	Mo	98	217749.8	3.0	**99.0781**	0.793	0.8	ug/L	68	Standard
	Ag	107	358566.3	4.0	**50.0942**	0.284	0.6	ug/L	84	Standard
	Cd	111	164293.7	2.4	**50.2758**	0.703	1.4	mg/L	72	Standard
	Cd	114	401499.5	5.1	**50.0161**	1.114	2.2	ug/L	187	Standard
>	**In**	115	472423.1	3.7				ug/L	464664	Standard
	Sn	118	448518.1	1.8	**51.3483**	1.288	2.5	ug/L	438	Standard
	Sb	123	282608.7	2.2	**50.7486**	0.795	1.6	ug/L	433	Standard
	Ba	135	142866.1	2.8	**49.9813**	0.682	1.4	ug/L	14	Standard
	Ce	140	231.7	14.4				ug/L	20	Standard
>	**Tb**	159	665603.7	2.3				ug/L	663064	Standard
	Ho	165	20.0	50.0				ug/L	10	Standard
	Tl	203	558358.4	3.2	**50.6542**	0.982	1.9	ug/L	32	Standard
	Tl	205	490651.1	4.1	**49.5688**	1.486	3.0	ug/L	28	Standard
	Pb	206	345918.1	2.9	**50.4999**	0.822	1.6	ug/L	190	Standard
	Pb	207	314172.5	2.5	**50.6283**	0.695	1.4	ug/L	155	Standard
	Pb	208	1397896.1	2.6	**50.3755**	0.709	1.4	ug/L	766	Standard
	U	238	644261.6	2.8	**49.7881**	0.742	1.5	ug/L	30	Standard
>	**Bi**	209	367952.3	1.6				ug/L	364780	Standard

Sample ID: QC Std 1
Report Date/Time: Friday, April 04, 2014 10:46:10
Page 1

Approved: April 07, 2014

	Na	23	18.3	41.7	**3.8697**	1.929	49.8	mg/L	0	Standard
	Mg	24	6491.4	2.3	**5.0781**	0.281	5.5	mg/L	58	Standard
	K	39	670.0	6.6	**5.3818**	0.035	0.6	mg/L	12	Standard
	Ca	43	181.7	30.7	**4.6096**	1.815	39.4	mg/L	53	Standard
	Fe	54	9034.3	4.6	**4.8418**	0.141	2.9	mg/L	190	Standard
	Fe	57	3187.0	4.7	**5.0328**	0.188	3.7	mg/L	638	Standard
>	**Sc-1**	45	41816.1	6.0				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	3.7	31.5				ug/L	2	Standard
	Br	81	1926.8	9.6				ug/L	2030	Standard
	P	31	270458.1	3.8				ug/L	256822	Standard
	S	34	38081.1	1.0				ug/L	33255	Standard
	Sr	88	151.7	5.0				ug/L	153	Standard
	C	12	603.3	8.2				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	2.9	173.2				mg/L	6	Standard
	Ho-1	165	20.0	50.0				mg/L	10	Standard
	Er	166	10.0	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		99.987	
	Be	9	96.818		
	Al	27	98.922		
	Sc	45			
	Ti	47	99.953		
	V	51	100.575		
	Cr	52	98.830		
	Cr	53			
	Mn	55	100.968		
	Co	59	100.414		
	Ni	60	99.401		
	Cu	65	101.740		
	Zn	66	100.420		
>	Ge	72		102.979	
	As	75	99.151		
	Se	82	100.563		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 1
Report Date/Time: Friday, April 04, 2014 10:46:10
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	99.078	
|	Ag	107	100.188	
|	Cd	111	100.552	
|	Cd	114		
|>	In	115		101.670
|	Sn	118	102.697	
|	Sb	123	101.497	
⌊	Ba	135	99.963	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	101.308	
|	Tl	205		
|	Pb	206	101.000	
|	Pb	207	101.257	
|	Pb	208	100.751	
|	U	238	99.576	
⌊>	Bi	209		100.870
⌈	Na	23	77.394	
|	Mg	24	101.562	
|	K	39	107.636	
|	Ca	43	92.193	
|	Fe	54	96.836	
|	Fe	57	100.656	
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 1	Na	23	
QC Std 1	Ca	43	

Sample ID: QC Std 1
Report Date/Time: Friday, April 04, 2014 10:46:10
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 2
Sample Date/Time: Friday, April 04, 2014 10:47:04
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	112576.9	2.8				ug/L	113180	Standard
	Be	9	36.7	20.8	**0.0122**	0.003	24.3	ug/L	17	Standard
	Al	27	1263.4	26.4	**-0.0164**	0.002	11.9	ug/L	633	Standard
	Sc	45	43044.4	1.9				ug/L	41381	Standard
	Ti	47	28.7	22.7	**0.0214**	0.017	80.9	ug/L	30	Standard
	V	51	1615.3	4.5	**-0.0373**	0.004	12.1	ug/L	1879	Standard
	Cr	52	7078.0	2.6	**-0.1240**	0.011	8.6	ug/L	8035	Standard
	Cr	53	398.3	5.9	**-0.0707**	0.022	31.2	ug/L	470	Standard
	Mn	55	1177.7	10.6	**-0.0152**	0.010	62.5	ug/L	1182	Standard
	Co	59	374.7	11.7	**-0.0032**	0.005	139.8	ug/L	333	Standard
	Ni	60	82.0	4.2	**-0.0053**	0.000	5.7	ug/L	71	Standard
	Cu	65	88.0	12.9	**-0.0004**	0.005	1361.0	ug/L	64	Standard
	Zn	66	173.0	28.0	**-0.0271**	0.034	123.9	ug/L	125	Standard
>	**Ge**	72	411646.1	3.2				ug/L	399053	Standard
	As	75	-41.8	70.3	**-0.0123**	0.016	132.6	ug/L	-28	Standard
	Se	82	19.8	12.8	**-0.0075**	0.012	159.0	ug/L	26	Standard
	Se-1	77	121.7	14.8	**0.1365**	0.149	109.2	ug/L	118	Standard
>	**Ga**	71	21.7	96.1				mg/L	8	Standard
	Rb	85	20.0	25.0				ug/L	25	Standard
	Y	89	378897.6	3.4				ug/L	368853	Standard
>	**Rh**	103	11.7	107.9				ug/L	10	Standard
	Mo	98	148.0	35.8	**0.0406**	0.022	54.4	ug/L	68	Standard
	Ag	107	108.3	12.0	**0.0003**	0.001	448.8	ug/L	84	Standard
	Cd	111	73.7	29.2	**-0.0045**	0.006	130.8	mg/L	72	Standard
	Cd	114	200.9	16.7	**-0.0024**	0.003	145.0	ug/L	187	Standard
>	**In**	115	475405.4	2.7				ug/L	464664	Standard
	Sn	118	835.0	36.1	**0.0469**	0.037	78.2	ug/L	438	Standard
	Sb	123	720.3	57.1	**0.1005**	0.070	69.3	ug/L	433	Standard
	Ba	135	22.0	34.3	**-0.0047**	0.002	51.6	ug/L	14	Standard
	Ce	140	36.7	28.4				ug/L	20	Standard
>	**Tb**	159	659460.4	1.9				ug/L	663064	Standard
	Ho	165	16.7	34.6				ug/L	10	Standard
	Tl	203	71.0	20.5	**0.0007**	0.001	165.8	ug/L	32	Standard
	Tl	205	56.7	74.0	**0.0012**	0.004	327.5	ug/L	28	Standard
	Pb	206	228.7	6.6	**-0.0040**	0.001	31.4	ug/L	190	Standard
	Pb	207	191.7	7.1	**-0.0014**	0.001	91.1	ug/L	155	Standard
	Pb	208	889.7	5.2	**-0.0010**	0.001	85.1	ug/L	766	Standard
	U	238	64.3	34.2	**0.0017**	0.002	93.4	ug/L	30	Standard
>	**Bi**	209	370405.9	2.8				ug/L	364780	Standard

Sample ID: QC Std 2
Report Date/Time: Friday, April 04, 2014 10:49:14
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	56.7	39.8	**0.0029**	0.017	575.0	mg/L	58	Standard
	K	39	6.7	86.6	**-0.0213**	0.045	212.6	mg/L	12	Standard
	Ca	43	51.7	31.1	**-0.0138**	0.546	3967.6	mg/L	53	Standard
	Fe	54	162.7	20.1	**-0.0048**	0.018	372.2	mg/L	190	Standard
	Fe	57	615.0	11.3	**-0.1790**	0.119	66.4	mg/L	638	Standard
>	**Sc-1**	45	43044.4	1.9				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	2.0	50.0				ug/L	2	Standard
	Br	81	2030.1	7.7				ug/L	2030	Standard
	P	31	227545.5	18.5				ug/L	256822	Standard
	S	34	35038.8	2.1				ug/L	33255	Standard
	Sr	88	128.3	9.8				ug/L	153	Standard
	C	12	540.0	18.5				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.5	102.6				mg/L	6	Standard
	Ho-1	165	16.7	34.6				mg/L	10	Standard
	Er	166	10.0	100.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		99.467	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.156	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 2
Report Date/Time: Friday, April 04, 2014 10:49:14
Page 2

Approved: April 07, 2014

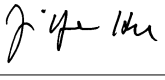
	Y	89	
>	Rh	103	
	Mo	98	
	Ag	107	
	Cd	111	
	Cd	114	
>	In	115	102.312
	Sn	118	
	Sb	123	
	Ba	135	
	Ce	140	
>	Tb	159	
	Ho	165	
	Tl	203	
	Tl	205	
	Pb	206	
	Pb	207	
	Pb	208	
	U	238	
>	Bi	209	101.542
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 2	Na	23	
QC Std 2	Fe	57	

Sample ID: QC Std 2
Report Date/Time: Friday, April 04, 2014 10:49:14
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: QC Std 3
Sample Date/Time: Friday, April 04, 2014 10:50:07
Number of Replicates: 3
Autosampler Position: 202
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	116629.0	2.5				ug/L	113180	Standard
	Be	9	501.7	5.5	**0.2031**	0.011	5.6	ug/L	17	Standard
	Al	27	721.7	4.7	**-0.0199**	0.000	0.9	ug/L	633	Standard
	Sc	45	43310.2	2.9				ug/L	41381	Standard
	Ti	47	24.0	35.6	**0.0067**	0.026	387.1	ug/L	30	Standard
	V	51	5335.1	2.2	**0.3659**	0.010	2.8	ug/L	1879	Standard
	Cr	52	15318.7	1.5	**0.7162**	0.018	2.5	ug/L	8035	Standard
	Cr	53	1486.7	5.5	**0.6853**	0.069	10.1	ug/L	470	Standard
	Mn	55	6902.2	1.5	**0.4891**	0.013	2.6	ug/L	1182	Standard
	Co	59	3686.4	2.3	**0.4000**	0.002	0.5	ug/L	333	Standard
	Ni	60	4642.7	3.6	**1.5973**	0.019	1.2	ug/L	71	Standard
	Cu	65	2322.2	3.4	**0.8208**	0.008	1.0	ug/L	64	Standard
	Zn	66	9905.2	2.9	**6.2323**	0.069	1.1	ug/L	125	Standard
>	Ge	72	417736.4	2.6				ug/L	399053	Standard
	As	75	638.8	3.0	**0.3708**	0.015	3.9	ug/L	-28	Standard
	Se	82	92.1	2.7	**0.3656**	0.025	6.7	ug/L	26	Standard
	Se-1	77	153.3	1.4	**0.4044**	0.053	13.0	ug/L	118	Standard
>	Ga	71	15.0	0.0				mg/L	8	Standard
	Rb	85	16.7	45.8				ug/L	25	Standard
	Y	89	384543.9	0.7				ug/L	368853	Standard
>	Rh	103	11.7	49.5				ug/L	10	Standard
	Mo	98	57.1	4.5	**-0.0001**	0.002	1348.9	ug/L	68	Standard
	Ag	107	2887.6	2.2	**0.3854**	0.003	0.7	ug/L	84	Standard
	Cd	111	829.9	4.2	**0.2249**	0.005	2.1	mg/L	72	Standard
	Cd	114	2118.9	6.6	**0.2349**	0.022	9.5	ug/L	187	Standard
>	In	115	476600.9	2.9				ug/L	464664	Standard
	Sn	118	543.3	8.6	**0.0131**	0.006	46.0	ug/L	438	Standard
	Sb	123	2560.6	4.6	**0.4289**	0.011	2.5	ug/L	433	Standard
	Ba	135	2107.1	4.6	**0.7185**	0.027	3.7	ug/L	14	Standard
	Ce	140	23.3	32.7				ug/L	20	Standard
>	Tb	159	666510.2	1.7				ug/L	663064	Standard
	Ho	165	10.0	100.0				ug/L	10	Standard
	Tl	203	898.0	2.1	**0.0760**	0.003	4.4	ug/L	32	Standard
	Tl	205	806.7	7.6	**0.0773**	0.005	7.0	ug/L	28	Standard
	Pb	206	1621.4	2.1	**0.2002**	0.004	1.8	ug/L	190	Standard
	Pb	207	1365.1	1.3	**0.1885**	0.006	3.2	ug/L	155	Standard
	Pb	208	6327.5	1.4	**0.1958**	0.003	1.6	ug/L	766	Standard
	U	238	5077.5	2.9	**0.3900**	0.004	1.0	ug/L	30	Standard
>	Bi	209	367216.5	2.0				ug/L	364780	Standard

Sample ID: QC Std 3
Report Date/Time: Friday, April 04, 2014 10:52:18
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	38.3	32.8	**-0.0113**	0.009	79.6	mg/L	58	Standard
	K	39	11.7	24.7	**0.0179**	0.020	110.6	mg/L	12	Standard
	Ca	43	46.7	12.4	**-0.1968**	0.170	86.4	mg/L	53	Standard
	Fe	54	172.1	14.7	**-0.0003**	0.015	5674.6	mg/L	190	Standard
	Fe	57	673.3	11.2	**-0.0687**	0.182	265.4	mg/L	638	Standard
>	**Sc-1**	45	43310.2	2.9				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	3.3	62.4				ug/L	2	Standard
	Br	81	1866.8	7.5				ug/L	2030	Standard
	P	31	253454.3	1.6				ug/L	256822	Standard
	S	34	33031.0	0.6				ug/L	33255	Standard
	Sr	88	145.0	6.0				ug/L	153	Standard
	C	12	646.7	29.9				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	13.0	119.4				mg/L	6	Standard
	Ho-1	165	10.0	100.0				mg/L	10	Standard
	Er	166	6.7	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		103.048	
	Be	9	101.574		
	Al	27	-1.992		
	Sc	45			
	Ti	47			
	V	51	91.483		
	Cr	52	89.530		
	Cr	53			
	Mn	55	97.825		
	Co	59	100.005		
	Ni	60	99.831		
	Cu	65	102.596		
	Zn	66	99.716		
>	Ge	72		104.682	
	As	75	92.711		
	Se	82	91.396		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 3
Report Date/Time: Friday, April 04, 2014 10:52:18
Page 2

Approved: April 07, 2014

Y	89			
Rh	103			
Mo	98			
Ag	107	96.342		
Cd	111	93.726		
Cd	114			
In	115			102.569
Sn	118			
Sb	123	107.231		
Ba	135	95.794		
Ce	140			
Tb	159			
Ho	165			
Tl	203	95.024		
Tl	205			
Pb	206			
Pb	207			
Pb	208	97.883		
U	238	97.494		
Bi	209			100.668
Na	23			
Mg	24			
K	39			
Ca	43			
Fe	54			
Fe	57			
Sc-1	45			
Cl	35			
Kr	83			
Br	81			
P	31			
S	34			
Sr	88			
C	12			
N	14			
Hg	202			
Dy	164			
Ho-1	165			
Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 3	Al	27	

Sample ID: QC Std 3
Report Date/Time: Friday, April 04, 2014 10:52:18
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, April 04, 2014 10:53:09
Number of Replicates: 3
Autosampler Position: 203
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	103777.6	1.9				ug/L	113180	Standard
	Be	9	25.0	20.0	**0.0082**	0.003	30.5	ug/L	17	Standard
	Al	27	6272816.3	0.9	**42.5328**	1.157	2.7	ug/L	633	Standard
	Sc	45	38430.4	4.6				ug/L	41381	Standard
	Ti	47	42947.8	1.5	**139.4577**	1.209	0.9	ug/L	30	Standard
	V	51	1410.7	3.6	**-0.0468**	0.005	10.5	ug/L	1879	Standard
	Cr	52	6187.9	2.4	**-0.1629**	0.013	7.9	ug/L	8035	Standard
	Cr	53	1681.8	13.5	**0.9374**	0.164	17.4	ug/L	470	Standard
	Mn	55	2456.2	7.0	**0.1181**	0.019	15.8	ug/L	1182	Standard
	Co	59	407.7	4.4	**0.0051**	0.002	38.2	ug/L	333	Standard
	Ni	60	760.7	1.1	**0.2597**	0.004	1.5	ug/L	71	Standard
	Cu	65	478.0	4.8	**0.1601**	0.008	4.8	ug/L	64	Standard
	Zn	66	1018.0	1.6	**0.5803**	0.015	2.6	ug/L	125	Standard
>	**Ge**	72	379688.4	0.9				ug/L	399053	Standard
	As	75	-69.8	31.0	**-0.0319**	0.013	41.2	ug/L	-28	Standard
	Se	82	19.2	12.4	**-0.0023**	0.014	619.6	ug/L	26	Standard
	Se-1	77	357.7	3.8	**2.5421**	0.113	4.5	ug/L	118	Standard
>	**Ga**	71	120.0	15.0				mg/L	8	Standard
	Rb	85	3727.1	3.5				ug/L	25	Standard
	Y	89	345583.7	1.1				ug/L	368853	Standard
>	**Rh**	103	11.7	24.7				ug/L	10	Standard
	Mo	98	223456.9	1.6	**109.8837**	1.262	1.1	ug/L	68	Standard
	Ag	107	102.0	8.5	**0.0007**	0.001	208.0	ug/L	84	Standard
	Cd	111	-93.1	27.7	**-0.0575**	0.008	14.2	mg/L	72	Standard
	Cd	114	873.6	6.2	**0.0906**	0.009	10.0	ug/L	187	Standard
>	**In**	115	437079.9	1.6				ug/L	464664	Standard
	Sn	118	425.0	16.5	**0.0040**	0.009	218.7	ug/L	438	Standard
	Sb	123	266.9	1.3	**0.0250**	0.001	3.6	ug/L	433	Standard
	Ba	135	101.7	4.0	**0.0262**	0.002	7.2	ug/L	14	Standard
	Ce	140	1260.1	6.1				ug/L	20	Standard
>	**Tb**	159	625905.0	0.6				ug/L	663064	Standard
	Ho	165	30.0	33.3				ug/L	10	Standard
	Tl	203	603.7	1.3	**0.0526**	0.003	6.1	ug/L	32	Standard
	Tl	205	481.7	6.7	**0.0474**	0.005	11.3	ug/L	28	Standard
	Pb	206	520.3	7.2	**0.0436**	0.006	14.6	ug/L	190	Standard
	Pb	207	441.3	5.6	**0.0436**	0.007	15.1	ug/L	155	Standard
	Pb	208	2021.1	1.9	**0.0445**	0.004	8.6	ug/L	766	Standard
	U	238	18.0	33.8	**-0.0018**	0.000	25.5	ug/L	30	Standard
>	**Bi**	209	346688.6	4.2				ug/L	364780	Standard

Sample ID: QC Std 4
Report Date/Time: Friday, April 04, 2014 10:55:19
Page 1

Approved: April 07, 2014

	Na	23	53.3	28.6	**14.0497**	4.074	29.0	mg/L	0	Standard
	Mg	24	12880.5	3.8	**10.9911**	0.153	1.4	mg/L	58	Standard
	K	39	500.0	14.7	**4.3841**	0.879	20.1	mg/L	12	Standard
	Ca	43	371.7	4.1	**12.5045**	0.223	1.8	mg/L	53	Standard
	Fe	54	17569.5	0.3	**10.3532**	0.464	4.5	mg/L	190	Standard
	Fe	57	5355.9	2.5	**10.3449**	0.287	2.8	mg/L	638	Standard
>	**Sc-1**	45	38430.4	4.6				mg/L	41381	Standard
	Cl	35	2.7	86.6				ug/L	4	Standard
	Kr	83	2.0	50.0				ug/L	2	Standard
	Br	81	1843.4	2.8				ug/L	2030	Standard
	P	31	78224.8	2.8				ug/L	256822	Standard
	S	34	29553.8	2.4				ug/L	33255	Standard
	Sr	88	155.0	3.2				ug/L	153	Standard
	C	12	810.0	3.7				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.4	112.1				mg/L	6	Standard
	Ho-1	165	30.0	33.3				mg/L	10	Standard
	Er	166	13.3	114.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		91.693	
	Be	9			
	Al	27	0.851		
	Sc	45			
	Ti	47	139.458		
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.147	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 4
Report Date/Time: Friday, April 04, 2014 10:55:19
Page 2

Approved: April 07, 2014

⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	109.884		
|	Ag	107			
|	Cd	111			
|	Cd	114			
|>	In	115			94.064
|	Sn	118			
|	Sb	123			
⌊	Ba	135			
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203			
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208			
|	U	238			
⌊>	Bi	209			95.040
⌈	Na	23	112.398		
|	Mg	24	219.821		
|	K	39	87.683		
|	Ca	43	83.363		
|	Fe	54	82.825		
|	Fe	57	82.759		
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Al	27	
QC Std 4	Ti	47	
QC Std 4	Tl	203	
QC Std 4	Mg	24	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, April 04, 2014 10:56:11
Number of Replicates: 3
Autosampler Position: 204
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	125464.4	3.3				ug/L	113180	Standard
	Be	9	253254.6	2.1	**97.0038**	5.186	5.3	ug/L	17	Standard
	Al	27	6968367.9	1.3	**39.1002**	1.595	4.1	ug/L	633	Standard
	Sc	45	43958.7	2.9				ug/L	41381	Standard
	Ti	47	48532.6	1.6	**133.2715**	2.663	2.0	ug/L	30	Standard
	V	51	965158.1	0.5	**97.7189**	0.678	0.7	ug/L	1879	Standard
	Cr	52	1015471.3	0.6	**96.6890**	0.378	0.4	ug/L	8035	Standard
	Cr	53	153746.3	2.1	**99.4781**	1.546	1.6	ug/L	470	Standard
	Mn	55	1179784.7	1.4	**96.8275**	1.231	1.3	ug/L	1182	Standard
	Co	59	869443.8	0.9	**98.5896**	0.107	0.1	ug/L	333	Standard
	Ni	60	299884.5	1.6	**98.0514**	2.119	2.2	ug/L	71	Standard
	Cu	65	288266.3	1.8	**98.6168**	1.189	1.2	ug/L	64	Standard
	Zn	66	168805.5	0.9	**100.8984**	0.105	0.1	ug/L	125	Standard
>	Ge	72	449017.3	1.0				ug/L	399053	Standard
	As	75	188918.4	0.7	**98.9000**	0.568	0.6	ug/L	-28	Standard
	Se	82	20639.1	1.0	**99.2410**	0.273	0.3	ug/L	26	Standard
	Se-1	77	12326.3	1.5	**101.1668**	1.220	1.2	ug/L	118	Standard
>	Ga	71	208.3	21.5				mg/L	8	Standard
	Rb	85	4258.9	5.1				ug/L	25	Standard
	Y	89	399181.8	0.6				ug/L	368853	Standard
>	Rh	103	58.3	17.8				ug/L	10	Standard
	Mo	98	264504.2	1.6	**114.9472**	0.993	0.9	ug/L	68	Standard
	Ag	107	768061.3	0.4	**102.5391**	1.901	1.9	ug/L	84	Standard
	Cd	111	341751.5	1.3	**99.8947**	0.981	1.0	mg/L	72	Standard
	Cd	114	831170.3	0.8	**98.9693**	1.625	1.6	ug/L	187	Standard
>	In	115	494617.4	2.2				ug/L	464664	Standard
	Sn	118	1170.0	2.4	**0.0794**	0.004	5.5	ug/L	438	Standard
	Sb	123	593986.6	2.1	**101.8681**	0.642	0.6	ug/L	433	Standard
	Ba	135	292469.6	0.9	**97.7337**	1.306	1.3	ug/L	14	Standard
	Ce	140	1428.4	10.2				ug/L	20	Standard
>	Tb	159	693487.9	1.6				ug/L	663064	Standard
	Ho	165	20.0	50.0				ug/L	10	Standard
	Tl	203	1151334.3	0.8	**100.0509**	0.182	0.2	ug/L	32	Standard
	Tl	205	1039347.9	1.8	**100.5793**	1.259	1.3	ug/L	28	Standard
	Pb	206	710519.4	1.2	**99.3871**	0.601	0.6	ug/L	190	Standard
	Pb	207	638972.3	0.3	**98.6536**	0.514	0.5	ug/L	155	Standard
	Pb	208	2869970.2	0.8	**99.0891**	0.151	0.2	ug/L	766	Standard
	U	238	1382136.7	2.3	**102.3012**	1.793	1.8	ug/L	30	Standard
>	Bi	209	384198.2	0.6				ug/L	364780	Standard

Sample ID: QC Std 5
Report Date/Time: Friday, April 04, 2014 10:58:21
Page 1

Approved: April 07, 2014

	Na	23	51.7	14.8	**11.7506**	1.562	13.3	mg/L	0	Standard
	Mg	24	13656.2	0.3	**10.1880**	0.328	3.2	mg/L	58	Standard
	K	39	435.0	12.8	**3.2984**	0.436	13.2	mg/L	12	Standard
	Ca	43	393.3	6.0	**11.4316**	0.660	5.8	mg/L	53	Standard
	Fe	54	19627.9	2.9	**10.0956**	0.031	0.3	mg/L	190	Standard
	Fe	57	5816.1	6.8	**9.7351**	0.444	4.6	mg/L	638	Standard
>	**Sc-1**	45	43958.7	2.9				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	2.3	89.2				ug/L	2	Standard
	Br	81	2156.8	8.2				ug/L	2030	Standard
	P	31	244873.7	2.4				ug/L	256822	Standard
	S	34	28560.2	1.2				ug/L	33255	Standard
	Sr	88	141.7	30.0				ug/L	153	Standard
	C	12	1226.7	6.5				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	12.2	51.8				mg/L	6	Standard
	Ho-1	165	20.0	50.0				mg/L	10	Standard
	Er	166	23.3	49.5				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		110.854	
	Be	9	97.004		
	Al	27	0.782		
	Sc	45			
	Ti	47	133.272		
	V	51	97.719		
	Cr	52	96.689		
	Cr	53			
	Mn	55	96.828		
	Co	59	98.590		
	Ni	60	98.051		
	Cu	65	98.617		
	Zn	66	100.898		
>	Ge	72		112.521	
	As	75	98.900		
	Se	82	99.241		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 5
Report Date/Time: Friday, April 04, 2014 10:58:21
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	114.947	
|	Ag	107	102.539	
|	Cd	111	99.895	
|	Cd	114		
|>	In	115		106.446
|	Sn	118		
|	Sb	123	101.868	
⌊	Ba	135	97.734	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	100.051	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	99.089	
|	U	238	102.301	
⌊>	Bi	209		105.323
⌈	Na	23	94.005	
|	Mg	24	203.760	
|	K	39	65.969	
|	Ca	43	76.211	
|	Fe	54	80.765	
|	Fe	57	77.880	
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Al	27	
QC Std 5	Ti	47	
QC Std 5	Mg	24	
QC Std 5	K	39	
QC Std 5	Ca	43	

Approved: April 07, 2014

QC Std 5	Fe	57

Sample ID: QC Std 5
Report Date/Time: Friday, April 04, 2014 10:58:21
Page 4

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 10:59:15
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	126327.8	0.7				ug/L	113180	Standard
	Be	9	125045.6	1.0	**47.5146**	0.725	1.5	ug/L	17	Standard
	Al	27	8750431.4	1.9	**48.7257**	0.594	1.2	ug/L	633	Standard
	Sc	45	45551.7	1.7				ug/L	41381	Standard
	Ti	47	36676.0	0.5	**99.2841**	0.856	0.9	ug/L	30	Standard
	V	51	509125.1	0.4	**50.7247**	0.692	1.4	ug/L	1879	Standard
	Cr	52	530603.4	1.4	**49.4013**	1.154	2.3	ug/L	8035	Standard
	Cr	53	77993.6	1.0	**49.5835**	0.280	0.6	ug/L	470	Standard
	Mn	55	618095.4	0.7	**49.9645**	0.786	1.6	ug/L	1182	Standard
	Co	59	448764.6	0.3	**50.1531**	0.408	0.8	ug/L	333	Standard
	Ni	60	155650.4	0.5	**50.1626**	0.717	1.4	ug/L	71	Standard
	Cu	65	150991.6	0.7	**50.9213**	0.684	1.3	ug/L	64	Standard
	Zn	66	85661.5	1.0	**50.4212**	0.984	2.0	ug/L	125	Standard
>	Ge	72	455389.3	1.0				ug/L	399053	Standard
	As	75	95807.4	0.6	**49.4633**	0.764	1.5	ug/L	-28	Standard
	Se	82	10488.5	1.5	**49.6742**	0.836	1.7	ug/L	26	Standard
	Se-1	77	6157.3	1.3	**49.3469**	1.149	2.3	ug/L	118	Standard
>	Ga	71	43.3	43.7				mg/L	8	Standard
	Rb	85	1085.0	5.1				ug/L	25	Standard
	Y	89	405943.8	1.6				ug/L	368853	Standard
>	Rh	103	30.0	0.0				ug/L	10	Standard
	Mo	98	239877.3	0.4	**102.1476**	0.814	0.8	ug/L	68	Standard
	Ag	107	387435.4	0.6	**50.6677**	0.073	0.1	ug/L	84	Standard
	Cd	111	174965.8	0.8	**50.1024**	0.776	1.5	mg/L	72	Standard
	Cd	114	433100.4	1.0	**50.5120**	0.133	0.3	ug/L	187	Standard
>	In	115	504719.1	0.7				ug/L	464664	Standard
	Sn	118	474504.8	1.4	**50.8169**	0.500	1.0	ug/L	438	Standard
	Sb	123	301132.8	1.6	**50.5989**	1.047	2.1	ug/L	433	Standard
	Ba	135	149461.9	0.4	**48.9312**	0.371	0.8	ug/L	14	Standard
	Ce	140	195.0	21.0				ug/L	20	Standard
>	Tb	159	689993.3	1.4				ug/L	663064	Standard
	Ho	165	26.7	21.7				ug/L	10	Standard
	Tl	203	590091.7	0.7	**50.6911**	0.657	1.3	ug/L	32	Standard
	Tl	205	537060.8	1.6	**51.3801**	1.091	2.1	ug/L	28	Standard
	Pb	206	362537.8	0.7	**50.1141**	0.490	1.0	ug/L	190	Standard
	Pb	207	329522.6	0.8	**50.2780**	0.590	1.2	ug/L	155	Standard
	Pb	208	1470607.9	0.4	**50.1777**	0.418	0.8	ug/L	766	Standard
	U	238	704329.9	0.3	**51.5377**	0.390	0.8	ug/L	30	Standard
>	Bi	209	388659.6	0.8				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 11:01:25
Page 1

Approved: April 07, 2014

	Na	23	20.0	43.3	**3.8461**	1.947	50.6	mg/L	0	Standard
	Mg	24	6684.8	2.6	**4.7908**	0.208	4.3	mg/L	58	Standard
	K	39	548.3	6.8	**4.0290**	0.330	8.2	mg/L	12	Standard
	Ca	43	175.0	7.6	**3.8949**	0.521	13.4	mg/L	53	Standard
	Fe	54	9986.5	2.8	**4.9116**	0.169	3.4	mg/L	190	Standard
	Fe	57	3422.1	2.7	**4.9393**	0.278	5.6	mg/L	638	Standard
>	**Sc-1**	45	45551.7	1.7				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	4.0	25.0				ug/L	2	Standard
	Br	81	2333.5	10.0				ug/L	2030	Standard
	P	31	268661.8	2.3				ug/L	256822	Standard
	S	34	34743.2	4.4				ug/L	33255	Standard
	Sr	88	180.0	7.3				ug/L	153	Standard
	C	12	796.7	18.3				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	9.7	2.9				mg/L	6	Standard
	Ho-1	165	26.7	21.7				mg/L	10	Standard
	Er	166	6.7	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		111.617	
	Be	9	95.029		
	Al	27	97.451		
	Sc	45			
	Ti	47	99.284		
	V	51	101.449		
	Cr	52	98.803		
	Cr	53			
	Mn	55	99.929		
	Co	59	100.306		
	Ni	60	100.325		
	Cu	65	101.843		
	Zn	66	100.842		
>	Ge	72		114.118	
	As	75	98.927		
	Se	82	99.348		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 11:01:25
Page 2

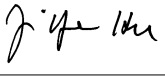
Approved: April 07, 2014

⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	102.148		
|	Ag	107	101.335		
|	Cd	111	100.205		
|	Cd	114			
|>	In	115			108.620
|	Sn	118	101.634		
|	Sb	123	101.198		
⌊	Ba	135	97.862		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	101.382		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	100.355		
|	U	238	103.075		
⌊>	Bi	209			106.546
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 11:02:17
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	124842.4	2.6				ug/L	113180	Standard
	Be	9	48.3	41.8	**0.0152**	0.008	50.7	ug/L	17	Standard
	Al	27	1643.4	33.4	**-0.0151**	0.003	18.9	ug/L	633	Standard
	Sc	45	46844.0	2.5				ug/L	41381	Standard
	Ti	47	33.7	19.8	**0.0270**	0.020	72.8	ug/L	30	Standard
	V	51	1989.6	2.3	**-0.0171**	0.006	35.9	ug/L	1879	Standard
	Cr	52	8397.3	2.1	**-0.0713**	0.007	9.1	ug/L	8035	Standard
	Cr	53	473.3	7.6	**-0.0503**	0.024	47.3	ug/L	470	Standard
	Mn	55	1250.7	0.8	**-0.0194**	0.003	13.8	ug/L	1182	Standard
	Co	59	499.0	6.6	**0.0062**	0.003	43.8	ug/L	333	Standard
	Ni	60	76.0	14.8	**-0.0100**	0.004	37.4	ug/L	71	Standard
	Cu	65	84.7	5.9	**-0.0048**	0.002	48.3	ug/L	64	Standard
	Zn	66	142.3	6.8	**-0.0564**	0.005	9.6	ug/L	125	Standard
>	Ge	72	455862.4	2.1				ug/L	399053	Standard
	As	75	-32.9	81.4	**-0.0059**	0.014	243.9	ug/L	-28	Standard
	Se	82	22.1	6.5	**-0.0067**	0.005	72.4	ug/L	26	Standard
	Se-1	77	126.0	8.4	**0.0662**	0.083	125.8	ug/L	118	Standard
>	Ga	71	11.7	107.9				mg/L	8	Standard
	Rb	85	20.0	75.0				ug/L	25	Standard
	Y	89	409552.2	1.5				ug/L	368853	Standard
>	Rh	103	1.7	173.2				ug/L	10	Standard
	Mo	98	181.5	40.3	**0.0512**	0.031	60.1	ug/L	68	Standard
	Ag	107	134.7	29.9	**0.0029**	0.005	180.4	ug/L	84	Standard
	Cd	111	84.6	5.0	**-0.0026**	0.001	43.3	mg/L	72	Standard
	Cd	114	196.0	15.1	**-0.0044**	0.003	76.6	ug/L	187	Standard
>	In	115	505281.8	0.4				ug/L	464664	Standard
	Sn	118	585.0	20.2	**0.0139**	0.012	88.8	ug/L	438	Standard
	Sb	123	934.8	28.4	**0.1300**	0.044	33.8	ug/L	433	Standard
	Ba	135	27.0	19.6	**-0.0034**	0.002	49.6	ug/L	14	Standard
	Ce	140	16.7	17.3				ug/L	20	Standard
>	Tb	159	685202.7	1.3				ug/L	663064	Standard
	Ho	165	10.0	100.0				ug/L	10	Standard
	Tl	203	95.0	37.5	**0.0025**	0.003	118.4	ug/L	32	Standard
	Tl	205	93.3	57.8	**0.0046**	0.005	111.3	ug/L	28	Standard
	Pb	206	229.3	11.7	**-0.0053**	0.003	64.6	ug/L	190	Standard
	Pb	207	195.3	19.8	**-0.0021**	0.006	266.4	ug/L	155	Standard
	Pb	208	903.0	12.3	**-0.0019**	0.004	187.9	ug/L	766	Standard
	U	238	109.0	47.6	**0.0048**	0.004	77.9	ug/L	30	Standard
>	Bi	209	385734.7	1.0				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 11:04:27
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.4754**	0.646	135.8	mg/L	0	Standard
	Mg	24	58.3	30.1	**0.0005**	0.011	2516.7	mg/L	58	Standard
	K	39	13.3	57.3	**0.0244**	0.058	236.0	mg/L	12	Standard
	Ca	43	56.7	18.4	**-0.0001**	0.320	291178.4	mg/L	53	Standard
	Fe	54	184.3	14.6	**-0.0012**	0.014	1115.5	mg/L	190	Standard
	Fe	57	638.3	16.0	**-0.2311**	0.206	89.3	mg/L	638	Standard
>	**Sc-1**	45	46844.0	2.5				mg/L	41381	Standard
	Cl	35	2.7	43.3				ug/L	4	Standard
	Kr	83	0.7	86.6				ug/L	2	Standard
	Br	81	2413.5	2.0				ug/L	2030	Standard
	P	31	268737.8	1.7				ug/L	256822	Standard
	S	34	34636.2	2.7				ug/L	33255	Standard
	Sr	88	165.0	5.2				ug/L	153	Standard
	C	12	706.7	12.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	9.2	3.0				mg/L	6	Standard
	Ho-1	165	10.0	100.0				mg/L	10	Standard
	Er	166	16.7	34.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		110.305	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		114.236	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 11:04:27
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	108.741
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	105.745
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 11:04:27
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: PBW 40 WG469188-03
Sample Date/Time: Friday, April 04, 2014 11:05:19
Number of Replicates: 3
Autosampler Position: 301
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	106308.4	1.3				ug/L	113180	Standard
	Be	9	45.0	40.1	**0.0170**	0.008	49.7	ug/L	17	Standard
	Al	27	855.0	51.6	**-0.0186**	0.003	16.2	ug/L	633	Standard
	Sc	45	38300.1	3.5				ug/L	41381	Standard
	Ti	47	22.0	23.6	**0.0063**	0.018	278.3	ug/L	30	Standard
	V	51	1702.2	2.9	**-0.0148**	0.007	45.8	ug/L	1879	Standard
	Cr	52	7138.3	1.8	**-0.0672**	0.002	2.4	ug/L	8035	Standard
	Cr	53	403.3	11.2	**-0.0479**	0.037	76.4	ug/L	470	Standard
	Mn	55	518.0	5.0	**-0.0711**	0.003	3.7	ug/L	1182	Standard
	Co	59	313.7	4.7	**-0.0081**	0.002	28.1	ug/L	333	Standard
	Ni	60	76.0	11.2	**-0.0055**	0.004	67.7	ug/L	71	Standard
	Cu	65	54.3	9.3	**-0.0117**	0.002	18.6	ug/L	64	Standard
	Zn	66	386.3	17.3	**0.1295**	0.050	38.9	ug/L	125	Standard
>	Ge	72	385549.0	1.7				ug/L	399053	Standard
	As	75	-13.0	221.6	**0.0032**	0.018	540.5	ug/L	-28	Standard
	Se	82	26.3	22.5	**0.0354**	0.031	88.0	ug/L	26	Standard
	Se-1	77	130.7	6.5	**0.2988**	0.080	26.8	ug/L	118	Standard
>	Ga	71	11.7	89.2				mg/L	8	Standard
	Rb	85	30.0	60.1				ug/L	25	Standard
	Y	89	348960.5	2.0				ug/L	368853	Standard
>	Rh	103	3.3	86.6				ug/L	10	Standard
	Mo	98	63.0	23.5	**0.0046**	0.007	154.2	ug/L	68	Standard
	Ag	107	84.3	16.1	**-0.0021**	0.002	100.8	ug/L	84	Standard
	Cd	111	34.9	20.1	**-0.0154**	0.002	15.3	mg/L	72	Standard
	Cd	114	66.2	38.8	**-0.0184**	0.004	19.1	ug/L	187	Standard
>	In	115	443635.7	1.4				ug/L	464664	Standard
	Sn	118	328.3	6.2	**-0.0086**	0.002	28.2	ug/L	438	Standard
	Sb	123	154.2	3.8	**0.0027**	0.002	56.1	ug/L	433	Standard
	Ba	135	17.3	38.4	**-0.0058**	0.003	44.4	ug/L	14	Standard
	Ce	140	10.0	100.0				ug/L	20	Standard
>	Tb	159	617609.8	0.6				ug/L	663064	Standard
	Ho	165	16.7	34.6				ug/L	10	Standard
	Tl	203	89.7	30.8	**0.0033**	0.003	92.5	ug/L	32	Standard
	Tl	205	55.0	24.1	**0.0017**	0.002	91.8	ug/L	28	Standard
	Pb	206	204.0	10.7	**-0.0046**	0.004	89.2	ug/L	190	Standard
	Pb	207	177.3	29.7	**-0.0007**	0.010	1451.0	ug/L	155	Standard
	Pb	208	809.7	10.7	**-0.0010**	0.004	454.5	ug/L	766	Standard
	U	238	43.7	64.5	**0.0005**	0.002	488.3	ug/L	30	Standard
>	Bi	209	337433.9	3.2				ug/L	364780	Standard

Sample ID: PBW 40 WG469188-03
Report Date/Time: Friday, April 04, 2014 11:07:30

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	55.0	48.1	**0.0066**	0.021	321.4	mg/L	58	Standard
	K	39	20.0	43.3	**0.1061**	0.084	79.2	mg/L	12	Standard
	Ca	43	53.3	32.9	**0.2796**	0.726	259.6	mg/L	53	Standard
	Fe	54	67.5	22.3	**-0.0509**	0.009	16.9	mg/L	190	Standard
	Fe	57	705.0	1.2	**0.1699**	0.071	41.8	mg/L	638	Standard
>	**Sc-1**	45	38300.1	3.5				mg/L	41381	Standard
	Cl	35	5.3	78.1				ug/L	4	Standard
	Kr	83	2.0	50.0				ug/L	2	Standard
	Br	81	1770.1	12.7				ug/L	2030	Standard
	P	31	64518.7	0.2				ug/L	256822	Standard
	S	34	31569.5	0.6				ug/L	33255	Standard
	Sr	88	125.0	17.4				ug/L	153	Standard
	C	12	626.7	11.5				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13.3	114.6				mg/L	0	Standard
	Dy	164	19.5	102.5				mg/L	6	Standard
	Ho-1	165	16.7	34.6				mg/L	10	Standard
	Er	166	10.0	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		93.929	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.616	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: PBW 40 WG469188-03
Report Date/Time: Friday, April 04, 2014 11:07:30
Page 2

Approved: April 07, 2014

Y	89	
Rh	103	
Mo	98	
Ag	107	
Cd	111	
Cd	114	
In	115	95.475
Sn	118	
Sb	123	
Ba	135	
Ce	140	
Tb	159	
Ho	165	
Tl	203	
Tl	205	
Pb	206	
Pb	207	
Pb	208	
U	238	
Bi	209	92.503
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	
C	12	
N	14	
Hg	202	
Dy	164	
Ho-1	165	
Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: PBW 40 WG469188-03
Report Date/Time: Friday, April 04, 2014 11:07:30
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

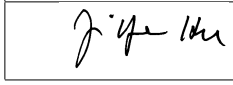
Sample ID: F BLANK WG469188-05
Sample Date/Time: Friday, April 04, 2014 11:08:21
Number of Replicates: 3
Autosampler Position: 302
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	104131.7	1.4				ug/L	113180	Standard
	Be	9	30.0	44.1	**0.0104**	0.006	57.4	ug/L	17	Standard
	Al	27	253.3	11.2	**-0.0226**	0.000	0.8	ug/L	633	Standard
	Sc	45	38645.9	4.1				ug/L	41381	Standard
	Ti	47	25.0	10.6	**0.0160**	0.008	52.1	ug/L	30	Standard
	V	51	1689.6	3.5	**-0.0158**	0.005	33.7	ug/L	1879	Standard
	Cr	52	7099.0	3.7	**-0.0693**	0.020	28.9	ug/L	8035	Standard
	Cr	53	413.3	3.5	**-0.0396**	0.007	16.8	ug/L	470	Standard
	Mn	55	435.7	5.3	**-0.0788**	0.003	3.7	ug/L	1182	Standard
	Co	59	320.0	5.0	**-0.0071**	0.003	35.9	ug/L	333	Standard
	Ni	60	62.3	16.2	**-0.0107**	0.004	36.4	ug/L	71	Standard
	Cu	65	43.3	29.2	**-0.0160**	0.005	33.3	ug/L	64	Standard
	Zn	66	447.0	19.6	**0.1721**	0.060	35.0	ug/L	125	Standard
>	**Ge**	72	384389.9	1.8				ug/L	399053	Standard
	As	75	-45.7	23.9	**-0.0166**	0.006	38.2	ug/L	-28	Standard
	Se	82	16.8	34.2	**-0.0168**	0.034	200.4	ug/L	26	Standard
	Se-1	77	110.0	18.7	**0.1004**	0.179	178.4	ug/L	118	Standard
>	**Ga**	71	15.0	33.3				mg/L	8	Standard
	Rb	85	10.0	132.3				ug/L	25	Standard
	Y	89	350837.9	1.8				ug/L	368853	Standard
>	**Rh**	103	18.3	15.7				ug/L	10	Standard
	Mo	98	35.2	10.0	**-0.0087**	0.001	15.9	ug/L	68	Standard
	Ag	107	68.0	13.5	**-0.0045**	0.002	33.7	ug/L	84	Standard
	Cd	111	18.3	3.1	**-0.0208**	0.000	1.5	mg/L	72	Standard
	Cd	114	51.0	24.8	**-0.0204**	0.002	8.4	ug/L	187	Standard
>	**In**	115	440892.4	2.0				ug/L	464664	Standard
	Sn	118	273.3	1.1	**-0.0151**	0.001	5.8	ug/L	438	Standard
	Sb	123	95.2	20.5	**-0.0085**	0.004	42.6	ug/L	433	Standard
	Ba	135	9.7	29.9	**-0.0086**	0.001	13.6	ug/L	14	Standard
	Ce	140	18.3	68.6				ug/L	20	Standard
>	**Tb**	159	615112.0	1.2				ug/L	663064	Standard
	Ho	165	10.0					ug/L	10	Standard
	Tl	203	34.3	21.5	**-0.0023**	0.001	33.0	ug/L	32	Standard
	Tl	205	28.3	44.4	**-0.0013**	0.001	117.0	ug/L	28	Standard
	Pb	206	161.3	4.6	**-0.0116**	0.002	14.1	ug/L	190	Standard
	Pb	207	141.3	10.0	**-0.0074**	0.003	41.4	ug/L	155	Standard
	Pb	208	689.3	1.3	**-0.0059**	0.001	11.8	ug/L	766	Standard
	U	238	7.7	19.9	**-0.0026**	0.000	4.3	ug/L	30	Standard
>	**Bi**	209	339310.5	3.4				ug/L	364780	Standard

Sample ID: F BLANK WG469188-05
Report Date/Time: Friday, April 04, 2014 11:10:32

Approved: April 07, 2014



	Na	23	3.3	173.2	**0.1212**	1.679	1384.8	mg/L	0	Standard
	Mg	24	58.3	40.5	**0.0089**	0.018	204.1	mg/L	58	Standard
	K	39	10.0	50.0	**0.0151**	0.044	292.9	mg/L	12	Standard
	Ca	43	30.0	16.7	**-0.6351**	0.230	36.2	mg/L	53	Standard
	Fe	54	55.5	42.2	**-0.0583**	0.014	23.5	mg/L	190	Standard
	Fe	57	725.0	5.5	**0.1997**	0.109	54.7	mg/L	638	Standard
>	**Sc-1**	45	38645.9	4.1				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	2.3	65.5				ug/L	2	Standard
	Br	81	1950.1	6.7				ug/L	2030	Standard
	P	31	63081.1	2.0				ug/L	256822	Standard
	S	34	29717.5	1.3				ug/L	33255	Standard
	Sr	88	140.0	25.8				ug/L	153	Standard
	C	12	580.0	18.6				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.5	93.0				mg/L	6	Standard
	Ho-1	165	10.0					mg/L	10	Standard
	Er	166	3.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		92.006	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.326	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: F BLANK WG469188-05
Report Date/Time: Friday, April 04, 2014 11:10:32
Page 2

Approved: April 07, 2014

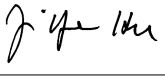
	Y	89	
>	Rh	103	
	Mo	98	
	Ag	107	
	Cd	111	
	Cd	114	
>	In	115	94.884
	Sn	118	
	Sb	123	
	Ba	135	
	Ce	140	
>	Tb	159	
	Ho	165	
	Tl	203	
	Tl	205	
	Pb	206	
	Pb	207	
	Pb	208	
	U	238	
>	Bi	209	93.018
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: F BLANK WG469188-05
Report Date/Time: Friday, April 04, 2014 11:10:32
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: LCSW 40 WG469188-04
Sample Date/Time: Friday, April 04, 2014 11:11:23
Number of Replicates: 3
Autosampler Position: 303
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	130257.5	0.6				ug/L	113180	Standard
	Be	9	64764.8	1.8	**23.8645**	0.469	2.0	ug/L	17	Standard
	Al	27	3545.4	12.0	**-0.0051**	0.002	42.7	ug/L	633	Standard
	Sc	45	46919.2	1.8				ug/L	41381	Standard
	Ti	47	38.0	27.7	**0.0365**	0.027	74.5	ug/L	30	Standard
	V	51	258663.8	0.9	**25.1591**	0.091	0.4	ug/L	1879	Standard
	Cr	52	276540.6	2.2	**24.8173**	0.359	1.4	ug/L	8035	Standard
	Cr	53	40343.7	3.5	**24.9715**	0.689	2.8	ug/L	470	Standard
	Mn	55	309652.5	3.1	**24.4774**	0.557	2.3	ug/L	1182	Standard
	Co	59	223211.2	2.6	**24.4322**	0.491	2.0	ug/L	333	Standard
	Ni	60	81012.8	2.8	**25.5789**	0.511	2.0	ug/L	71	Standard
	Cu	65	79033.0	1.7	**26.1155**	0.241	0.9	ug/L	64	Standard
	Zn	66	46030.5	1.8	**26.4963**	0.346	1.3	ug/L	125	Standard
>	Ge	72	464422.6	0.8				ug/L	399053	Standard
	As	75	47927.3	1.8	**24.2649**	0.294	1.2	ug/L	-28	Standard
	Se	82	5262.5	2.7	**24.3802**	0.585	2.4	ug/L	26	Standard
	Se-1	77	3245.7	3.0	**25.0347**	0.586	2.3	ug/L	118	Standard
>	Ga	71	33.3	22.9				mg/L	8	Standard
	Rb	85	43.3	33.3				ug/L	25	Standard
	Y	89	419651.6	1.7				ug/L	368853	Standard
>	Rh	103	25.0	52.9				ug/L	10	Standard
	Mo	98	69.4	15.9	**0.0027**	0.005	169.6	ug/L	68	Standard
	Ag	107	191961.9	1.4	**24.2750**	0.490	2.0	ug/L	84	Standard
	Cd	111	86986.9	1.7	**24.0771**	0.440	1.8	mg/L	72	Standard
	Cd	114	215866.0	0.1	**24.3372**	0.170	0.7	ug/L	187	Standard
>	In	115	521841.2	0.8				ug/L	464664	Standard
	Sn	118	851.7	9.3	**0.0396**	0.008	20.9	ug/L	438	Standard
	Sb	123	149015.1	0.9	**24.2031**	0.373	1.5	ug/L	433	Standard
	Ba	135	74226.4	0.7	**23.4967**	0.212	0.9	ug/L	14	Standard
	Ce	140	173.3	26.8				ug/L	20	Standard
>	Tb	159	704685.6	0.9				ug/L	663064	Standard
	Ho	165	13.3	114.6				ug/L	10	Standard
	Tl	203	294111.9	0.8	**25.0895**	0.106	0.4	ug/L	32	Standard
	Tl	205	270815.5	0.5	**25.7299**	0.304	1.2	ug/L	28	Standard
	Pb	206	183331.9	1.1	**25.1504**	0.128	0.5	ug/L	190	Standard
	Pb	207	158546.9	1.0	**24.0085**	0.074	0.3	ug/L	155	Standard
	Pb	208	724879.9	0.8	**24.5475**	0.022	0.1	ug/L	766	Standard
	U	238	336116.2	1.1	**24.4250**	0.201	0.8	ug/L	30	Standard
>	Bi	209	391314.2	0.7				ug/L	364780	Standard

Sample ID: LCSW 40 WG469188-04
Report Date/Time: Friday, April 04, 2014 11:13:33
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.4587**	0.674	147.0	mg/L	0	Standard
	Mg	24	55.0	24.1	**-0.0017**	0.010	558.9	mg/L	58	Standard
	K	39	13.3	21.7	**0.0231**	0.019	84.2	mg/L	12	Standard
	Ca	43	61.7	18.7	**0.1537**	0.350	227.8	mg/L	53	Standard
	Fe	54	202.7	13.4	**0.0074**	0.012	164.3	mg/L	190	Standard
	Fe	57	603.3	6.1	**-0.2983**	0.060	20.0	mg/L	638	Standard
>	**Sc-1**	45	46919.2	1.8				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	3.0	33.3				ug/L	2	Standard
	Br	81	2300.2	4.5				ug/L	2030	Standard
	P	31	278135.5	3.9				ug/L	256822	Standard
	S	34	29278.3	2.1				ug/L	33255	Standard
	Sr	88	146.7	19.7				ug/L	153	Standard
	C	12	806.7	5.2				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	12.5	129.0				mg/L	6	Standard
	Ho-1	165	13.3	114.6				mg/L	10	Standard
	Er	166	16.7	124.9				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		115.089	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		116.381	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: LCSW 40 WG469188-04
Report Date/Time: Friday, April 04, 2014 11:13:33
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	112.305
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	107.274
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: LCSW 40 WG469188-04
Report Date/Time: Friday, April 04, 2014 11:13:33
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403003269
Sample Date/Time: Friday, April 04, 2014 11:14:25
Number of Replicates: 3
Autosampler Position: 304
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	125495.5	9.2				ug/L	113180	Standard
	Be	9	62139.0	4.9	**23.8323**	1.228	5.2	ug/L	17	Standard
	Al	27	4098.9	3.4	**-0.0012**	0.002	181.6	ug/L	633	Standard
	Sc	45	44289.9	8.3				ug/L	41381	Standard
	Ti	47	33.7	6.9	**0.0273**	0.006	23.0	ug/L	30	Standard
	V	51	252833.3	10.0	**25.1090**	0.676	2.7	ug/L	1879	Standard
	Cr	52	267578.2	8.4	**24.5294**	0.293	1.2	ug/L	8035	Standard
	Cr	53	38990.3	7.7	**24.6686**	0.342	1.4	ug/L	470	Standard
	Mn	55	304767.8	7.3	**24.6344**	0.203	0.8	ug/L	1182	Standard
	Co	59	220427.7	8.1	**24.6615**	0.424	1.7	ug/L	333	Standard
	Ni	60	77816.0	7.3	**25.1208**	0.119	0.5	ug/L	71	Standard
	Cu	65	77138.7	6.3	**26.0741**	0.379	1.5	ug/L	64	Standard
	Zn	66	44230.0	7.3	**26.0320**	0.604	2.3	ug/L	125	Standard
>	**Ge**	72	454374.0	7.8				ug/L	399053	Standard
	As	75	46864.0	5.4	**24.2809**	0.562	2.3	ug/L	-28	Standard
	Se	82	5159.3	5.2	**24.4636**	0.633	2.6	ug/L	26	Standard
	Se-1	77	3133.0	7.4	**24.6984**	0.573	2.3	ug/L	118	Standard
>	**Ga**	71	10.0	86.6				mg/L	8	Standard
	Rb	85	76.7	13.6				ug/L	25	Standard
	Y	89	413480.9	7.1				ug/L	368853	Standard
>	**Rh**	103	33.3	31.2				ug/L	10	Standard
	Mo	98	82.7	12.4	**0.0095**	0.005	51.3	ug/L	68	Standard
	Ag	107	186461.7	6.3	**24.4521**	0.281	1.1	ug/L	84	Standard
	Cd	111	84600.5	5.8	**24.2900**	0.375	1.5	mg/L	72	Standard
	Cd	114	209433.7	6.8	**24.4829**	0.342	1.4	ug/L	187	Standard
>	**In**	115	503056.2	5.6				ug/L	464664	Standard
	Sn	118	875.0	9.2	**0.0453**	0.004	9.1	ug/L	438	Standard
	Sb	123	145809.3	5.0	**24.5708**	0.143	0.6	ug/L	433	Standard
	Ba	135	71979.0	5.9	**23.6329**	0.119	0.5	ug/L	14	Standard
	Ce	140	311.7	5.6				ug/L	20	Standard
>	**Tb**	159	691512.2	5.4				ug/L	663064	Standard
	Ho	165	13.3	114.6				ug/L	10	Standard
	Tl	203	286204.8	4.9	**24.9271**	0.089	0.4	ug/L	32	Standard
	Tl	205	258510.8	5.4	**25.0731**	0.414	1.6	ug/L	28	Standard
	Pb	206	179619.4	4.8	**25.1593**	0.078	0.3	ug/L	190	Standard
	Pb	207	155796.9	4.4	**24.0917**	0.122	0.5	ug/L	155	Standard
	Pb	208	711521.2	4.8	**24.6018**	0.045	0.2	ug/L	766	Standard
	U	238	328950.5	5.6	**24.4006**	0.208	0.9	ug/L	30	Standard
>	**Bi**	209	383263.9	4.9				ug/L	364780	Standard

Sample ID: L1403003269
Report Date/Time: Friday, April 04, 2014 11:16:35
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.4793**	0.639	133.3	mg/L	0	Standard
	Mg	24	48.3	23.9	**-0.0045**	0.008	173.8	mg/L	58	Standard
	K	39	8.3	91.7	**-0.0115**	0.055	478.5	mg/L	12	Standard
	Ca	43	58.3	17.8	**0.1732**	0.432	249.7	mg/L	53	Standard
	Fe	54	175.9	34.7	**-0.0015**	0.025	1628.1	mg/L	190	Standard
	Fe	57	583.3	5.6	**-0.2642**	0.144	54.6	mg/L	638	Standard
>	**Sc-1**	45	44289.9	8.3				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	2.0	50.0				ug/L	2	Standard
	Br	81	2846.9	14.8				ug/L	2030	Standard
	P	31	264759.3	4.3				ug/L	256822	Standard
	S	34	26902.2	5.2				ug/L	33255	Standard
	Sr	88	120.0	23.2				ug/L	153	Standard
	C	12	750.0	6.1				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	-0.5	100.0				mg/L	6	Standard
	Ho-1	165	13.3	114.6				mg/L	10	Standard
	Er	166	10.0	100.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		110.882	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		113.863	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403003269
Report Date/Time: Friday, April 04, 2014 11:16:35
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	108.262
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	105.067
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1403003269
Report Date/Time: Friday, April 04, 2014 11:16:35
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403003270
Sample Date/Time: Friday, April 04, 2014 11:17:27
Number of Replicates: 3
Autosampler Position: 305
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	133923.0	3.0				ug/L	113180	Standard
	Be	9	66311.5	2.1	**23.7742**	0.635	2.7	ug/L	17	Standard
	Al	27	3675.5	28.3	**-0.0048**	0.006	127.3	ug/L	633	Standard
	Sc	45	46319.1	2.5				ug/L	41381	Standard
	Ti	47	33.7	30.3	**0.0246**	0.027	109.7	ug/L	30	Standard
	V	51	270774.0	0.4	**26.1870**	0.335	1.3	ug/L	1879	Standard
	Cr	52	284763.2	1.6	**25.4202**	0.162	0.6	ug/L	8035	Standard
	Cr	53	41533.5	2.3	**25.5608**	0.413	1.6	ug/L	470	Standard
	Mn	55	328022.1	0.3	**25.7825**	0.298	1.2	ug/L	1182	Standard
	Co	59	237629.0	1.8	**25.8548**	0.243	0.9	ug/L	333	Standard
	Ni	60	84495.3	1.0	**26.5195**	0.053	0.2	ug/L	71	Standard
	Cu	65	81839.5	1.9	**26.8785**	0.245	0.9	ug/L	64	Standard
	Zn	66	48532.6	1.2	**27.7733**	0.089	0.3	ug/L	125	Standard
>	**Ge**	72	467277.2	1.0				ug/L	399053	Standard
	As	75	49846.1	2.1	**25.0811**	0.290	1.2	ug/L	-28	Standard
	Se	82	5465.2	1.2	**25.1686**	0.108	0.4	ug/L	26	Standard
	Se-1	77	3288.4	1.9	**25.2181**	0.366	1.5	ug/L	118	Standard
>	**Ga**	71	20.0	25.0				mg/L	8	Standard
	Rb	85	68.3	40.3				ug/L	25	Standard
	Y	89	416603.4	0.9				ug/L	368853	Standard
>	**Rh**	103	21.7	48.0				ug/L	10	Standard
	Mo	98	52.4	57.2	**-0.0044**	0.012	283.2	ug/L	68	Standard
	Ag	107	198659.4	1.3	**25.0178**	0.379	1.5	ug/L	84	Standard
	Cd	111	90643.9	0.7	**24.9865**	0.100	0.4	mg/L	72	Standard
	Cd	114	219651.4	0.8	**24.6622**	0.208	0.8	ug/L	187	Standard
>	**In**	115	523986.4	0.4				ug/L	464664	Standard
	Sn	118	1363.4	5.9	**0.0921**	0.009	9.6	ug/L	438	Standard
	Sb	123	154540.5	0.8	**24.9967**	0.109	0.4	ug/L	433	Standard
	Ba	135	76815.6	1.0	**24.2164**	0.214	0.9	ug/L	14	Standard
	Ce	140	73.3	28.4				ug/L	20	Standard
>	**Tb**	159	704447.8	0.6				ug/L	663064	Standard
	Ho	165	20.0	0.0				ug/L	10	Standard
	Tl	203	305575.1	0.9	**25.9501**	0.152	0.6	ug/L	32	Standard
	Tl	205	278201.2	1.5	**26.3126**	0.496	1.9	ug/L	28	Standard
	Pb	206	189744.2	1.3	**25.9135**	0.113	0.4	ug/L	190	Standard
	Pb	207	165192.4	0.9	**24.9043**	0.260	1.0	ug/L	155	Standard
	Pb	208	753755.5	0.9	**25.4115**	0.127	0.5	ug/L	766	Standard
	U	238	352060.0	0.7	**25.4697**	0.304	1.2	ug/L	30	Standard
>	**Bi**	209	393104.5	1.4				ug/L	364780	Standard

Sample ID: L1403003270
Report Date/Time: Friday, April 04, 2014 11:19:37
Page 1

Approved: April 07, 2014

	Na	23	6.7	114.6	**0.6819**	1.760	258.2	mg/L	0	Standard
	Mg	24	53.3	30.1	**-0.0023**	0.012	512.0	mg/L	58	Standard
	K	39	8.3	34.6	**-0.0121**	0.022	179.0	mg/L	12	Standard
	Ca	43	36.7	41.7	**-0.6132**	0.494	80.6	mg/L	53	Standard
	Fe	54	207.0	13.5	**0.0110**	0.015	132.9	mg/L	190	Standard
	Fe	57	575.0	6.0	**-0.3349**	0.074	22.1	mg/L	638	Standard
>	**Sc-1**	45	46319.1	2.5				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	1.7	91.7				ug/L	2	Standard
	Br	81	2240.2	6.0				ug/L	2030	Standard
	P	31	277895.4	0.9				ug/L	256822	Standard
	S	34	26833.7	1.7				ug/L	33255	Standard
	Sr	88	153.3	13.6				ug/L	153	Standard
	C	12	796.7	13.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	6.3	86.6				mg/L	6	Standard
	Ho-1	165	20.0	0.0				mg/L	10	Standard
	Er	166	6.7	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		118.328	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		117.097	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	112.767
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	107.765
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403003271
Sample Date/Time: Friday, April 04, 2014 11:20:29
Number of Replicates: 3
Autosampler Position: 306
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	131780.6	0.9				ug/L	113180	Standard
	Be	9	66135.7	2.4	**24.0868**	0.512	2.1	ug/L	17	Standard
	Al	27	3792.1	2.3	**-0.0040**	0.001	12.5	ug/L	633	Standard
	Sc	45	45265.9	1.1				ug/L	41381	Standard
	Ti	47	35.0	4.9	**0.0287**	0.004	14.9	ug/L	30	Standard
	V	51	267249.2	2.8	**26.0136**	0.959	3.7	ug/L	1879	Standard
	Cr	52	289140.9	0.8	**25.9993**	0.480	1.8	ug/L	8035	Standard
	Cr	53	41077.3	1.5	**25.4409**	0.157	0.6	ug/L	470	Standard
	Mn	55	326270.6	1.8	**25.8069**	0.384	1.5	ug/L	1182	Standard
	Co	59	235564.3	2.1	**25.7944**	0.428	1.7	ug/L	333	Standard
	Ni	60	86125.4	0.8	**27.2055**	0.156	0.6	ug/L	71	Standard
	Cu	65	81800.9	1.2	**27.0390**	0.037	0.1	ug/L	64	Standard
	Zn	66	46903.5	1.5	**27.0084**	0.197	0.7	ug/L	125	Standard
>	**Ge**	72	464310.8	1.1				ug/L	399053	Standard
	As	75	49920.2	0.8	**25.2810**	0.120	0.5	ug/L	-28	Standard
	Se	82	5502.5	1.3	**25.5047**	0.306	1.2	ug/L	26	Standard
	Se-1	77	3350.0	1.4	**25.8810**	0.365	1.4	ug/L	118	Standard
>	**Ga**	71	28.3	10.2				mg/L	8	Standard
	Rb	85	56.7	58.8				ug/L	25	Standard
	Y	89	425007.5	1.4				ug/L	368853	Standard
>	**Rh**	103	23.3	61.9				ug/L	10	Standard
	Mo	98	47.8	11.5	**-0.0061**	0.002	38.6	ug/L	68	Standard
	Ag	107	201045.8	0.7	**25.5093**	0.420	1.6	ug/L	84	Standard
	Cd	111	90659.0	0.8	**25.1778**	0.181	0.7	mg/L	72	Standard
	Cd	114	218201.4	1.3	**24.6845**	0.502	2.0	ug/L	187	Standard
>	**In**	115	520126.4	1.3				ug/L	464664	Standard
	Sn	118	773.4	4.9	**0.0318**	0.005	15.6	ug/L	438	Standard
	Sb	123	153558.1	0.2	**25.0252**	0.327	1.3	ug/L	433	Standard
	Ba	135	77252.1	1.3	**24.5376**	0.441	1.8	ug/L	14	Standard
	Ce	140	188.3	21.6				ug/L	20	Standard
>	**Tb**	159	704355.2	1.4				ug/L	663064	Standard
	Ho	165	10.0	100.0				ug/L	10	Standard
	Tl	203	305534.9	0.4	**25.8524**	0.153	0.6	ug/L	32	Standard
	Tl	205	278073.8	1.2	**26.2031**	0.284	1.1	ug/L	28	Standard
	Pb	206	189959.1	1.1	**25.8492**	0.275	1.1	ug/L	190	Standard
	Pb	207	165137.4	0.4	**24.8046**	0.101	0.4	ug/L	155	Standard
	Pb	208	753458.0	0.7	**25.3089**	0.157	0.6	ug/L	766	Standard
	U	238	357067.5	0.7	**25.7366**	0.118	0.5	ug/L	30	Standard
>	**Bi**	209	394521.7	0.3				ug/L	364780	Standard

Sample ID: L1403003271
Report Date/Time: Friday, April 04, 2014 11:22:39
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	63.3	24.1	**0.0057**	0.011	190.4	mg/L	58	Standard
	K	39	11.7	49.5	**0.0144**	0.044	302.9	mg/L	12	Standard
	Ca	43	33.3	34.6	**-0.7015**	0.367	52.4	mg/L	53	Standard
	Fe	54	231.7	20.0	**0.0259**	0.025	94.8	mg/L	190	Standard
	Fe	57	635.0	15.2	**-0.2005**	0.173	86.3	mg/L	638	Standard
>	**Sc-1**	45	45265.9	1.1				mg/L	41381	Standard
	Cl	35	1.3	173.2				ug/L	4	Standard
	Kr	83	1.3	114.6				ug/L	2	Standard
	Br	81	2866.9	7.4				ug/L	2030	Standard
	P	31	275034.1	1.4				ug/L	256822	Standard
	S	34	25746.9	1.2				ug/L	33255	Standard
	Sr	88	121.7	6.3				ug/L	153	Standard
	C	12	850.0	9.2				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	6.5	86.7				mg/L	6	Standard
	Ho-1	165	10.0	100.0				mg/L	10	Standard
	Er	166	3.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		116.435	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		116.353	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	111.936
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	108.153
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403003272
Sample Date/Time: Friday, April 04, 2014 11:23:31
Number of Replicates: 3
Autosampler Position: 307
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	123241.1	2.9				ug/L	113180	Standard
	Be	9	60820.2	1.1	**23.6947**	0.449	1.9	ug/L	17	Standard
	Al	27	2650.2	4.8	**-0.0091**	0.001	6.5	ug/L	633	Standard
	Sc	45	43457.2	1.2				ug/L	41381	Standard
	Ti	47	38.7	19.1	**0.0442**	0.022	49.0	ug/L	30	Standard
	V	51	243819.3	1.4	**25.0083**	0.475	1.9	ug/L	1879	Standard
	Cr	52	259352.8	3.7	**24.5259**	0.320	1.3	ug/L	8035	Standard
	Cr	53	37372.7	2.2	**24.3951**	0.852	3.5	ug/L	470	Standard
	Mn	55	297324.5	2.3	**24.7859**	0.286	1.2	ug/L	1182	Standard
	Co	59	214740.9	2.9	**24.7830**	0.229	0.9	ug/L	333	Standard
	Ni	60	76649.5	2.4	**25.5190**	0.239	0.9	ug/L	71	Standard
	Cu	65	75379.1	1.5	**26.2693**	0.513	2.0	ug/L	64	Standard
	Zn	66	42990.3	2.7	**26.0880**	0.127	0.5	ug/L	125	Standard
>	**Ge**	72	440556.0	3.2				ug/L	399053	Standard
	As	75	45910.7	2.4	**24.5078**	0.189	0.8	ug/L	-28	Standard
	Se	82	4992.8	2.3	**24.3893**	0.289	1.2	ug/L	26	Standard
	Se-1	77	3057.0	3.6	**24.8506**	0.235	0.9	ug/L	118	Standard
>	**Ga**	71	30.0	16.7				mg/L	8	Standard
	Rb	85	60.0	28.9				ug/L	25	Standard
	Y	89	395332.1	2.8				ug/L	368853	Standard
>	**Rh**	103	16.7	69.3				ug/L	10	Standard
	Mo	98	35.1	31.4	**-0.0105**	0.005	43.6	ug/L	68	Standard
	Ag	107	184540.6	3.5	**24.9491**	0.494	2.0	ug/L	84	Standard
	Cd	111	83025.2	2.1	**24.5735**	0.157	0.6	mg/L	72	Standard
	Cd	114	203820.1	1.1	**24.5743**	0.125	0.5	ug/L	187	Standard
>	**In**	115	487981.6	1.7				ug/L	464664	Standard
	Sn	118	885.0	4.1	**0.0495**	0.004	7.3	ug/L	438	Standard
	Sb	123	143688.9	1.0	**24.9583**	0.184	0.7	ug/L	433	Standard
	Ba	135	70514.4	1.5	**23.8703**	0.038	0.2	ug/L	14	Standard
	Ce	140	2238.5	1.2				ug/L	20	Standard
>	**Tb**	159	662299.2	1.5				ug/L	663064	Standard
	Ho	165	6.7	86.6				ug/L	10	Standard
	Tl	203	280367.2	2.4	**25.0808**	0.277	1.1	ug/L	32	Standard
	Tl	205	256253.9	0.8	**25.5351**	0.402	1.6	ug/L	28	Standard
	Pb	206	175562.6	2.1	**25.2577**	0.146	0.6	ug/L	190	Standard
	Pb	207	151637.9	2.2	**24.0801**	0.146	0.6	ug/L	155	Standard
	Pb	208	696017.1	2.1	**24.7178**	0.169	0.7	ug/L	766	Standard
	U	238	325152.9	1.7	**24.7796**	0.059	0.2	ug/L	30	Standard
>	**Bi**	209	373131.7	1.6				ug/L	364780	Standard

Approved: April 07, 2014

	Na	23	3.3	86.6	**-0.0246**	0.713	2898.1	mg/L	0	Standard
	Mg	24	63.3	29.9	**0.0076**	0.014	188.8	mg/L	58	Standard
	K	39	3.3	86.6	**-0.0472**	0.023	48.3	mg/L	12	Standard
	Ca	43	48.3	33.3	**-0.1444**	0.542	375.1	mg/L	53	Standard
	Fe	54	232.5	19.9	**0.0308**	0.023	74.7	mg/L	190	Standard
	Fe	57	681.7	5.2	**-0.0607**	0.062	101.5	mg/L	638	Standard
>	**Sc-1**	45	43457.2	1.2				mg/L	41381	Standard
	Cl	35	1.3	173.2				ug/L	4	Standard
	Kr	83	2.7	43.3				ug/L	2	Standard
	Br	81	2373.5	3.4				ug/L	2030	Standard
	P	31	253536.0	4.2				ug/L	256822	Standard
	S	34	24740.2	2.2				ug/L	33255	Standard
	Sr	88	141.7	21.6				ug/L	153	Standard
	C	12	910.0	14.5				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	2.9	203.0				mg/L	6	Standard
	Ho-1	165	6.7	86.6				mg/L	10	Standard
	Er	166	10.0	100.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		108.890	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		110.400	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403003272
Report Date/Time: Friday, April 04, 2014 11:25:41
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	105.018
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	102.290
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 11:26:35
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	130093.6	4.6				ug/L	113180	Standard
	Be	9	131986.3	4.0	**48.7100**	0.730	1.5	ug/L	17	Standard
	Al	27	8731706.5	1.3	**47.2634**	1.561	3.3	ug/L	633	Standard
	Sc	45	47420.8	2.6				ug/L	41381	Standard
	Ti	47	36998.8	1.8	**99.0194**	1.146	1.2	ug/L	30	Standard
	V	51	522539.3	1.0	**51.4781**	0.965	1.9	ug/L	1879	Standard
	Cr	52	554671.9	1.9	**51.0786**	0.617	1.2	ug/L	8035	Standard
	Cr	53	80438.1	2.9	**50.5558**	0.501	1.0	ug/L	470	Standard
	Mn	55	639234.1	1.9	**51.0852**	0.527	1.0	ug/L	1182	Standard
	Co	59	465456.3	2.3	**51.4241**	0.424	0.8	ug/L	333	Standard
	Ni	60	163334.8	1.8	**52.0423**	0.851	1.6	ug/L	71	Standard
	Cu	65	155882.4	2.3	**51.9672**	0.306	0.6	ug/L	64	Standard
	Zn	66	87840.4	3.0	**51.1033**	0.547	1.1	ug/L	125	Standard
>	Ge	72	460700.6	2.9				ug/L	399053	Standard
	As	75	98580.2	2.4	**50.3075**	0.299	0.6	ug/L	-28	Standard
	Se	82	10829.6	2.6	**50.7008**	0.202	0.4	ug/L	26	Standard
	Se-1	77	6539.1	2.9	**51.8441**	0.496	1.0	ug/L	118	Standard
>	Ga	71	55.0	39.6				mg/L	8	Standard
	Rb	85	998.4	9.1				ug/L	25	Standard
	Y	89	411387.4	1.3				ug/L	368853	Standard
>	Rh	103	23.3	32.7				ug/L	10	Standard
	Mo	98	246485.3	0.0	**102.5200**	1.297	1.3	ug/L	68	Standard
	Ag	107	400963.8	1.4	**51.2140**	0.435	0.8	ug/L	84	Standard
	Cd	111	179777.7	1.4	**50.2755**	0.320	0.6	mg/L	72	Standard
	Cd	114	443922.4	1.0	**50.5718**	0.769	1.5	ug/L	187	Standard
>	In	115	516776.3	1.3				ug/L	464664	Standard
	Sn	118	488652.0	2.1	**51.1096**	0.618	1.2	ug/L	438	Standard
	Sb	123	303672.4	1.1	**49.8314**	0.068	0.1	ug/L	433	Standard
	Ba	135	153755.3	1.2	**49.1617**	0.291	0.6	ug/L	14	Standard
	Ce	140	223.3	9.0				ug/L	20	Standard
>	Tb	159	691598.5	1.8				ug/L	663064	Standard
	Ho	165	26.7	21.7				ug/L	10	Standard
	Tl	203	593349.1	1.0	**51.2742**	0.408	0.8	ug/L	32	Standard
	Tl	205	546653.5	2.4	**52.6048**	0.971	1.8	ug/L	28	Standard
	Pb	206	362622.5	1.4	**50.4244**	0.448	0.9	ug/L	190	Standard
	Pb	207	328753.1	1.3	**50.4596**	0.535	1.1	ug/L	155	Standard
	Pb	208	1473266.8	1.0	**50.5685**	0.286	0.6	ug/L	766	Standard
	U	238	708396.1	1.3	**52.1434**	0.359	0.7	ug/L	30	Standard
>	Bi	209	386336.9	0.7				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 11:28:45
Page 1

Approved: April 07, 2014

	Na	23	26.7	10.8	**5.2049**	0.818	15.7	mg/L	0	Standard
	Mg	24	6889.9	4.1	**4.7404**	0.147	3.1	mg/L	58	Standard
	K	39	541.7	5.6	**3.8168**	0.198	5.2	mg/L	12	Standard
	Ca	43	188.3	16.0	**4.0993**	1.097	26.8	mg/L	53	Standard
	Fe	54	10258.7	1.5	**4.8479**	0.202	4.2	mg/L	190	Standard
	Fe	57	3433.7	3.3	**4.7071**	0.047	1.0	mg/L	638	Standard
>	**Sc-1**	45	47420.8	2.6				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	3.3	86.6				ug/L	2	Standard
	Br	81	2346.8	8.5				ug/L	2030	Standard
	P	31	303597.0	3.3				ug/L	256822	Standard
	S	34	39053.6	2.6				ug/L	33255	Standard
	Sr	88	128.3	29.8				ug/L	153	Standard
	C	12	866.7	26.7				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	5.9	93.7				mg/L	6	Standard
	Ho-1	165	26.7	21.7				mg/L	10	Standard
	Er	166	16.7	34.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		114.944	
	Be	9	97.420		
	Al	27	94.527		
	Sc	45			
	Ti	47	99.019		
	V	51	102.956		
	Cr	52	102.157		
	Cr	53			
	Mn	55	102.170		
	Co	59	102.848		
	Ni	60	104.085		
	Cu	65	103.934		
	Zn	66	102.207		
>	Ge	72		115.449	
	As	75	100.615		
	Se	82	101.402		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 11:28:45
Page 2

Approved: April 07, 2014

⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	102.520		
|	Ag	107	102.428		
|	Cd	111	100.551		
|	Cd	114			
|>	In	115			111.215
|	Sn	118	102.219		
|	Sb	123	99.663		
⌊	Ba	135	98.323		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	102.548		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	101.137		
|	U	238	104.287		
⌊>	Bi	209			105.910
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 11:28:45
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 11:29:37
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	119606.1	5.2				ug/L	113180	Standard
	Be	9	56.7	13.5	**0.0194**	0.003	16.0	ug/L	17	Standard
	Al	27	1673.5	69.6	**-0.0145**	0.007	45.1	ug/L	633	Standard
	Sc	45	43076.2	4.4				ug/L	41381	Standard
	Ti	47	29.0	40.7	**0.0180**	0.031	171.4	ug/L	30	Standard
	V	51	1715.2	7.2	**-0.0351**	0.010	27.7	ug/L	1879	Standard
	Cr	52	7558.2	3.2	**-0.1106**	0.018	16.2	ug/L	8035	Standard
	Cr	53	413.3	19.4	**-0.0748**	0.047	62.3	ug/L	470	Standard
	Mn	55	1247.7	9.8	**-0.0142**	0.008	57.1	ug/L	1182	Standard
	Co	59	498.3	17.5	**0.0091**	0.008	92.5	ug/L	333	Standard
	Ni	60	98.0	14.7	**-0.0012**	0.004	314.1	ug/L	71	Standard
	Cu	65	96.7	23.6	**0.0009**	0.007	753.0	ug/L	64	Standard
	Zn	66	167.7	22.6	**-0.0364**	0.020	55.6	ug/L	125	Standard
>	**Ge**	72	431745.4	3.1				ug/L	399053	Standard
	As	75	-14.8	338.0	**0.0029**	0.027	955.8	ug/L	-28	Standard
	Se	82	23.3	28.5	**0.0046**	0.031	669.8	ug/L	26	Standard
	Se-1	77	124.0	7.7	**0.1061**	0.069	65.2	ug/L	118	Standard
>	**Ga**	71	10.0	132.3				mg/L	8	Standard
	Rb	85	21.7	48.0				ug/L	25	Standard
	Y	89	381257.6	3.5				ug/L	368853	Standard
>	**Rh**	103	10.0	50.0				ug/L	10	Standard
	Mo	98	117.2	37.0	**0.0266**	0.017	63.7	ug/L	68	Standard
	Ag	107	140.7	47.3	**0.0046**	0.008	180.2	ug/L	84	Standard
	Cd	111	83.4	31.2	**-0.0016**	0.007	408.6	mg/L	72	Standard
	Cd	114	221.4	36.2	**0.0000**	0.009	127643.6	ug/L	187	Standard
>	**In**	115	475076.2	5.1				ug/L	464664	Standard
	Sn	118	568.3	7.9	**0.0160**	0.003	20.4	ug/L	438	Standard
	Sb	123	753.3	36.7	**0.1064**	0.043	40.0	ug/L	433	Standard
	Ba	135	38.0	36.8	**0.0008**	0.004	502.1	ug/L	14	Standard
	Ce	140	15.0	57.7				ug/L	20	Standard
>	**Tb**	159	641985.2	4.4				ug/L	663064	Standard
	Ho	165	20.0	100.0				ug/L	10	Standard
	Tl	203	108.3	81.1	**0.0043**	0.008	179.7	ug/L	32	Standard
	Tl	205	80.0	81.7	**0.0038**	0.006	168.3	ug/L	28	Standard
	Pb	206	225.0	25.3	**-0.0034**	0.007	207.3	ug/L	190	Standard
	Pb	207	194.0	22.9	**0.0001**	0.006	6372.0	ug/L	155	Standard
	Pb	208	904.0	23.1	**0.0006**	0.006	980.2	ug/L	766	Standard
	U	238	110.7	97.8	**0.0054**	0.008	150.5	ug/L	30	Standard
>	**Bi**	209	355806.1	4.4				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 11:31:47
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	50.0	17.3	**-0.0020**	0.008	393.3	mg/L	58	Standard
	K	39	1.7	173.2	**-0.0605**	0.022	37.1	mg/L	12	Standard
	Ca	43	28.3	10.2	**-0.8167**	0.059	7.3	mg/L	53	Standard
	Fe	54	206.0	2.7	**0.0181**	0.002	10.5	mg/L	190	Standard
	Fe	57	628.3	2.8	**-0.1511**	0.071	46.8	mg/L	638	Standard
>	**Sc-1**	45	43076.2	4.4				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	2.0	50.0				ug/L	2	Standard
	Br	81	2306.8	7.2				ug/L	2030	Standard
	P	31	272925.4	4.0				ug/L	256822	Standard
	S	34	36612.6	4.4				ug/L	33255	Standard
	Sr	88	131.7	19.1				ug/L	153	Standard
	C	12	653.3	10.2				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.4	104.5				mg/L	6	Standard
	Ho-1	165	20.0	100.0				mg/L	10	Standard
	Er	166	13.3	114.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		105.678	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.193	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 11:31:47
Page 2

Approved: April 07, 2014

	Y	89	
>	Rh	103	
	Mo	98	
	Ag	107	
	Cd	111	
	Cd	114	
>	In	115	102.241
	Sn	118	
	Sb	123	
	Ba	135	
	Ce	140	
>	Tb	159	
	Ho	165	
	Tl	203	
	Tl	205	
	Pb	206	
	Pb	207	
	Pb	208	
	U	238	
>	Bi	209	97.540
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 11:31:47
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

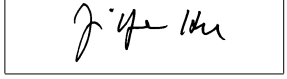
Sample ID: L1403162107 WG469188-01
Sample Date/Time: Friday, April 04, 2014 11:32:40
Number of Replicates: 3
Autosampler Position: 308
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	132847.6	8.5				ug/L	113180	Standard
	Be	9	53.3	48.1	**0.0157**	0.009	54.6	ug/L	17	Standard
	Al	27	21543070.2	5.8	**114.2833**	3.055	2.7	ug/L	633	Standard
	Sc	45	45445.0	7.8				ug/L	41381	Standard
	Ti	47	719.7	11.8	**1.9469**	0.086	4.4	ug/L	30	Standard
	V	51	5401.6	5.2	**0.3435**	0.025	7.3	ug/L	1879	Standard
	Cr	52	15631.4	7.5	**0.6649**	0.025	3.7	ug/L	8035	Standard
	Cr	53	1323.4	4.9	**0.5270**	0.094	17.8	ug/L	470	Standard
	Mn	55	14563.7	7.9	**1.0990**	0.017	1.5	ug/L	1182	Standard
	Co	59	1067.4	5.4	**0.0741**	0.005	6.2	ug/L	333	Standard
	Ni	60	3518.7	9.3	**1.1376**	0.028	2.4	ug/L	71	Standard
	Cu	65	988.0	11.5	**0.3107**	0.014	4.6	ug/L	64	Standard
	Zn	66	3241.0	10.0	**1.8347**	0.049	2.7	ug/L	125	Standard
>	**Ge**	72	440485.0	7.4				ug/L	399053	Standard
	As	75	237.8	8.7	**0.1384**	0.010	7.6	ug/L	-28	Standard
	Se	82	144.1	9.2	**0.5949**	0.013	2.1	ug/L	26	Standard
	Se-1	77	171.0	3.8	**0.4847**	0.051	10.5	ug/L	118	Standard
>	**Ga**	71	178.3	6.5				mg/L	8	Standard
	Rb	85	24554.9	5.1				ug/L	25	Standard
	Y	89	393430.0	8.0				ug/L	368853	Standard
>	**Rh**	103	40.0	21.7				ug/L	10	Standard
	Mo	98	233.2	11.7	**0.0782**	0.007	8.9	ug/L	68	Standard
	Ag	107	98.7	13.8	**-0.0012**	0.002	141.3	ug/L	84	Standard
	Cd	111	84.2	18.0	**-0.0015**	0.004	235.6	mg/L	72	Standard
	Cd	114	244.9	30.5	**0.0025**	0.007	294.1	ug/L	187	Standard
>	**In**	115	480710.2	5.7				ug/L	464664	Standard
	Sn	118	563.3	12.6	**0.0149**	0.009	58.7	ug/L	438	Standard
	Sb	123	349.5	11.5	**0.0347**	0.004	10.3	ug/L	433	Standard
	Ba	135	81230.5	5.0	**27.9241**	0.385	1.4	ug/L	14	Standard
	Ce	140	5497.7	1.4				ug/L	20	Standard
>	**Tb**	159	654038.3	3.9				ug/L	663064	Standard
	Ho	165	336.7	27.6				ug/L	10	Standard
	Tl	203	262.7	10.1	**0.0187**	0.002	10.3	ug/L	32	Standard
	Tl	205	313.3	10.4	**0.0279**	0.002	6.9	ug/L	28	Standard
	Pb	206	588.7	5.4	**0.0508**	0.005	10.0	ug/L	190	Standard
	Pb	207	503.7	3.8	**0.0510**	0.002	3.6	ug/L	155	Standard
	Pb	208	2317.7	4.2	**0.0526**	0.001	2.1	ug/L	766	Standard
	U	238	2353.5	3.4	**0.1829**	0.002	1.3	ug/L	30	Standard
>	**Bi**	209	359848.8	4.7				ug/L	364780	Standard

Sample ID: L1403162107 WG469188-01
Report Date/Time: Friday, April 04, 2014 11:34:51

Approved: April 07, 2014



	Na	23	145.0	19.2	**33.2205**	3.905	11.8	mg/L	0	Standard
	Mg	24	2821.9	3.9	**2.0099**	0.157	7.8	mg/L	58	Standard
	K	39	68.3	40.3	**0.4498**	0.251	55.8	mg/L	12	Standard
	Ca	43	916.7	5.4	**28.0651**	1.318	4.7	mg/L	53	Standard
	Fe	54	369.9	2.9	**0.0952**	0.011	11.4	mg/L	190	Standard
	Fe	57	890.0	6.9	**0.2691**	0.079	29.3	mg/L	638	Standard
>	**Sc-1**	45	45445.0	7.8				mg/L	41381	Standard
	Cl	35	2.0	0.0				ug/L	4	Standard
	Kr	83	2.3	65.5				ug/L	2	Standard
	Br	81	28346.5	3.2				ug/L	2030	Standard
	P	31	333584.5	6.2				ug/L	256822	Standard
	S	34	35411.3	2.4				ug/L	33255	Standard
	Sr	88	208.3	7.3				ug/L	153	Standard
	C	12	1596.8	11.6				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	158.4	17.6				mg/L	6	Standard
	Ho-1	165	336.7	27.6				mg/L	10	Standard
	Er	166	173.3	39.3				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		117.378	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		110.383	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403162107 WG469188-01
Report Date/Time: Friday, April 04, 2014 11:34:51
Page 2

Approved: April 07, 2014

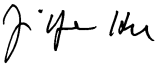
⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		103.453
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		98.648
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	

Sample ID: L1403162107 WG469188-01
Report Date/Time: Friday, April 04, 2014 11:34:51
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1403162108S WG469188-06
Sample Date/Time: Friday, April 04, 2014 11:35:42
Number of Replicates: 3
Autosampler Position: 309
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	132821.1	6.1				ug/L	113180	Standard
	Be	9	63390.7	1.5	**22.9517**	1.105	4.8	ug/L	17	Standard
	Al	27	21434311.4	1.8	**113.7686**	5.188	4.6	ug/L	633	Standard
	Sc	45	45835.9	2.1				ug/L	41381	Standard
	Ti	47	2320.5	3.5	**6.5811**	0.246	3.7	ug/L	30	Standard
	V	51	253096.1	2.6	**26.5480**	0.031	0.1	ug/L	1879	Standard
	Cr	52	264206.1	2.2	**25.5878**	0.167	0.7	ug/L	8035	Standard
	Cr	53	38475.5	2.1	**25.6865**	0.127	0.5	ug/L	470	Standard
	Mn	55	320453.4	1.8	**27.3306**	0.642	2.3	ug/L	1182	Standard
	Co	59	210245.8	3.4	**24.8083**	0.510	2.1	ug/L	333	Standard
	Ni	60	76396.2	1.9	**26.0077**	0.206	0.8	ug/L	71	Standard
	Cu	65	71797.8	2.0	**25.5771**	0.191	0.7	ug/L	64	Standard
	Zn	66	44835.3	2.0	**27.8330**	0.482	1.7	ug/L	125	Standard
>	**Ge**	72	430847.6	2.6				ug/L	399053	Standard
	As	75	45229.8	2.5	**24.6858**	0.274	1.1	ug/L	-28	Standard
	Se	82	4885.1	2.0	**24.3986**	0.210	0.9	ug/L	26	Standard
	Se-1	77	2995.3	3.3	**24.8987**	0.178	0.7	ug/L	118	Standard
>	**Ga**	71	688.3	7.0				mg/L	8	Standard
	Rb	85	31372.5	1.6				ug/L	25	Standard
	Y	89	394152.7	4.5				ug/L	368853	Standard
>	**Rh**	103	41.7	25.0				ug/L	10	Standard
	Mo	98	195.5	13.5	**0.0624**	0.009	15.0	ug/L	68	Standard
	Ag	107	176616.9	2.7	**24.5283**	0.071	0.3	ug/L	84	Standard
	Cd	111	80476.8	2.1	**24.4682**	0.279	1.1	mg/L	72	Standard
	Cd	114	198916.1	3.4	**24.6327**	0.644	2.6	ug/L	187	Standard
>	**In**	115	475138.8	2.8				ug/L	464664	Standard
	Sn	118	833.4	9.3	**0.0461**	0.007	14.1	ug/L	438	Standard
	Sb	123	139270.2	1.6	**24.8488**	0.351	1.4	ug/L	433	Standard
	Ba	135	142339.6	2.0	**49.5091**	0.689	1.4	ug/L	14	Standard
	Ce	140	29625.6	0.9				ug/L	20	Standard
>	**Tb**	159	648787.1	2.3				ug/L	663064	Standard
	Ho	165	1316.7	7.0				ug/L	10	Standard
	Tl	203	269527.2	1.5	**25.4622**	0.081	0.3	ug/L	32	Standard
	Tl	205	245315.2	1.4	**25.8097**	0.036	0.1	ug/L	28	Standard
	Pb	206	168885.7	0.4	**25.6611**	0.238	0.9	ug/L	190	Standard
	Pb	207	146572.2	0.5	**24.5830**	0.246	1.0	ug/L	155	Standard
	Pb	208	669503.8	0.6	**25.1106**	0.188	0.7	ug/L	766	Standard
	U	238	318729.9	1.8	**25.6494**	0.195	0.8	ug/L	30	Standard
>	**Bi**	209	353349.5	1.3				ug/L	364780	Standard

Sample ID: L1403162108S WG469188-06
Report Date/Time: Friday, April 04, 2014 11:37:52
Page 1

Approved: April 07, 2014

	Na	23	158.3	6.6	**36.2344**	1.905	5.3	mg/L	0	Standard
	Mg	24	2870.3	0.6	**2.0206**	0.031	1.5	mg/L	58	Standard
	K	39	81.7	35.3	**0.5317**	0.206	38.7	mg/L	12	Standard
	Ca	43	911.7	12.6	**27.5982**	3.595	13.0	mg/L	53	Standard
	Fe	54	719.2	11.6	**0.2665**	0.035	13.1	mg/L	190	Standard
	Fe	57	981.7	2.6	**0.4213**	0.028	6.6	mg/L	638	Standard
>	**Sc-1**	45	45835.9	2.1				mg/L	41381	Standard
	Cl	35	2.7	43.3				ug/L	4	Standard
	Kr	83	2.0	86.6				ug/L	2	Standard
	Br	81	12468.5	3.2				ug/L	2030	Standard
	P	31	326444.3	0.7				ug/L	256822	Standard
	S	34	34820.0	1.4				ug/L	33255	Standard
	Sr	88	205.0	12.9				ug/L	153	Standard
	C	12	2240.2	10.2				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0					mg/L	0	Standard
	Dy	164	871.1	11.2				mg/L	6	Standard
	Ho-1	165	1316.7	7.0				mg/L	10	Standard
	Er	166	673.3	3.7				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		117.354	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.968	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403162108S WG469188-06
Report Date/Time: Friday, April 04, 2014 11:37:52
Page 2

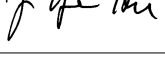
Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		102.254
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		96.867
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1403162109SD WG469188-07
Sample Date/Time: Friday, April 04, 2014 11:38:44
Number of Replicates: 3
Autosampler Position: 310
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	136988.9	4.3				ug/L	113180	Standard
	Be	9	65498.1	4.2	**22.9486**	0.068	0.3	ug/L	17	Standard
	Al	27	21794251.9	4.7	**111.9372**	0.491	0.4	ug/L	633	Standard
	Sc	45	47661.6	3.9				ug/L	41381	Standard
	Ti	47	2502.5	12.9	**6.8794**	0.460	6.7	ug/L	30	Standard
	V	51	263883.7	4.3	**26.9357**	1.160	4.3	ug/L	1879	Standard
	Cr	52	277615.5	6.0	**26.1539**	0.793	3.0	ug/L	8035	Standard
	Cr	53	39976.2	8.4	**25.9140**	0.563	2.2	ug/L	470	Standard
	Mn	55	323756.0	5.4	**26.8399**	0.862	3.2	ug/L	1182	Standard
	Co	59	216886.3	3.1	**24.9022**	0.757	3.0	ug/L	333	Standard
	Ni	60	80558.7	5.5	**26.6618**	0.696	2.6	ug/L	71	Standard
	Cu	65	75022.2	5.0	**25.9836**	0.401	1.5	ug/L	64	Standard
	Zn	66	46284.7	4.8	**27.9336**	0.399	1.4	ug/L	125	Standard
>	Ge	72	443346.4	6.2				ug/L	399053	Standard
	As	75	47417.9	4.7	**25.1657**	0.499	2.0	ug/L	-28	Standard
	Se	82	5163.6	3.8	**25.0936**	0.893	3.6	ug/L	26	Standard
	Se-1	77	3165.7	4.1	**25.6356**	1.069	4.2	ug/L	118	Standard
>	Ga	71	726.7	5.9				mg/L	8	Standard
	Rb	85	31170.4	4.0				ug/L	25	Standard
	Y	89	406486.8	4.8				ug/L	368853	Standard
>	Rh	103	60.0	33.3				ug/L	10	Standard
	Mo	98	294.1	32.8	**0.1027**	0.040	38.7	ug/L	68	Standard
	Ag	107	180335.4	3.6	**24.2743**	0.273	1.1	ug/L	84	Standard
	Cd	111	83207.6	4.5	**24.5097**	0.127	0.5	mg/L	72	Standard
	Cd	114	203576.8	1.6	**24.4481**	0.790	3.2	ug/L	187	Standard
>	In	115	490370.7	4.6				ug/L	464664	Standard
	Sn	118	766.7	10.2	**0.0360**	0.009	24.1	ug/L	438	Standard
	Sb	123	144289.7	2.8	**24.9544**	0.549	2.2	ug/L	433	Standard
	Ba	135	147224.6	3.0	**49.6342**	0.869	1.8	ug/L	14	Standard
	Ce	140	23126.0	3.1				ug/L	20	Standard
>	Tb	159	665108.9	2.5				ug/L	663064	Standard
	Ho	165	1146.7	1.8				ug/L	10	Standard
	Tl	203	281099.5	3.0	**25.5861**	0.172	0.7	ug/L	32	Standard
	Tl	205	253996.3	4.9	**25.7362**	0.401	1.6	ug/L	28	Standard
	Pb	206	174381.8	2.5	**25.5312**	0.444	1.7	ug/L	190	Standard
	Pb	207	151343.7	2.5	**24.4578**	0.308	1.3	ug/L	155	Standard
	Pb	208	692269.4	2.0	**25.0213**	0.448	1.8	ug/L	766	Standard
	U	238	332479.0	2.4	**25.7837**	0.330	1.3	ug/L	30	Standard
>	Bi	209	366798.9	3.7				ug/L	364780	Standard

Approved: April 07, 2014

	Na	23	140.0	6.2	**30.6866**	1.162	3.8	mg/L	0	Standard
	Mg	24	2952.0	8.0	**1.9964**	0.119	5.9	mg/L	58	Standard
	K	39	96.7	35.2	**0.6118**	0.214	35.0	mg/L	12	Standard
	Ca	43	1056.7	4.8	**30.9684**	0.916	3.0	mg/L	53	Standard
	Fe	54	631.1	6.4	**0.2116**	0.028	13.0	mg/L	190	Standard
	Fe	57	975.0	7.7	**0.3389**	0.069	20.3	mg/L	638	Standard
>	**Sc-1**	45	47661.6	3.9				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	3.7	83.3				ug/L	2	Standard
	Br	81	8922.6	5.0				ug/L	2030	Standard
	P	31	337344.5	5.4				ug/L	256822	Standard
	S	34	35705.4	1.4				ug/L	33255	Standard
	Sr	88	198.3	13.9				ug/L	153	Standard
	C	12	1613.4	6.5				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13.3	114.6				mg/L	0	Standard
	Dy	164	743.5	9.2				mg/L	6	Standard
	Ho-1	165	1146.7	1.8				mg/L	10	Standard
	Er	166	623.3	7.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		121.037	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		111.100	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403162109SD WG469188-07
Report Date/Time: Friday, April 04, 2014 11:40:54
Page 2

Approved: April 07, 2014

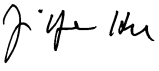
⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		105.532
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		100.553
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	

Sample ID: L1403162109SD WG469188-07
Report Date/Time: Friday, April 04, 2014 11:40:54
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1403162101
Sample Date/Time: Friday, April 04, 2014 11:41:46
Number of Replicates: 3
Autosampler Position: 311
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	139080.5	1.6				ug/L	113180	Standard
	Be	9	60.0	8.3	**0.0173**	0.002	11.8	ug/L	17	Standard
	Al	27	22252967.1	2.8	**112.5740**	1.407	1.3	ug/L	633	Standard
	Sc	45	46685.2	3.0				ug/L	41381	Standard
	Ti	47	610.0	24.1	**1.5694**	0.346	22.0	ug/L	30	Standard
	V	51	4972.8	6.0	**0.2773**	0.013	4.7	ug/L	1879	Standard
	Cr	52	16690.2	3.3	**0.7029**	0.012	1.7	ug/L	8035	Standard
	Cr	53	1520.1	5.3	**0.6121**	0.018	2.9	ug/L	470	Standard
	Mn	55	10864.9	0.1	**0.7534**	0.029	3.9	ug/L	1182	Standard
	Co	59	1050.0	1.9	**0.0670**	0.002	3.7	ug/L	333	Standard
	Ni	60	3387.4	5.8	**1.0490**	0.041	3.9	ug/L	71	Standard
	Cu	65	956.7	6.9	**0.2867**	0.011	3.9	ug/L	64	Standard
	Zn	66	3089.0	3.1	**1.6688**	0.024	1.5	ug/L	125	Standard
>	Ge	72	458956.4	3.4				ug/L	399053	Standard
	As	75	97.2	9.0	**0.0610**	0.004	6.0	ug/L	-28	Standard
	Se	82	60.1	5.2	**0.1719**	0.019	11.3	ug/L	26	Standard
	Se-1	77	146.0	4.2	**0.2214**	0.027	12.0	ug/L	118	Standard
>	Ga	71	55.0	9.1				mg/L	8	Standard
	Rb	85	20934.5	4.7				ug/L	25	Standard
	Y	89	406408.0	4.8				ug/L	368853	Standard
>	Rh	103	36.7	43.8				ug/L	10	Standard
	Mo	98	134.4	14.6	**0.0326**	0.008	23.1	ug/L	68	Standard
	Ag	107	99.7	26.8	**-0.0014**	0.003	233.1	ug/L	84	Standard
	Cd	111	102.4	18.1	**0.0032**	0.005	161.5	mg/L	72	Standard
	Cd	114	215.6	9.5	**-0.0015**	0.002	128.4	ug/L	187	Standard
>	In	115	492855.8	2.6				ug/L	464664	Standard
	Sn	118	1035.0	2.7	**0.0650**	0.003	5.0	ug/L	438	Standard
	Sb	123	154.2	20.8	**-0.0003**	0.005	1392.3	ug/L	433	Standard
	Ba	135	140386.4	2.9	**47.0630**	0.275	0.6	ug/L	14	Standard
	Ce	140	4730.7	3.5				ug/L	20	Standard
>	Tb	159	670991.2	3.6				ug/L	663064	Standard
	Ho	165	113.3	5.1				ug/L	10	Standard
	Tl	203	237.7	14.5	**0.0159**	0.003	17.3	ug/L	32	Standard
	Tl	205	188.3	13.4	**0.0146**	0.002	15.0	ug/L	28	Standard
	Pb	206	598.7	6.3	**0.0503**	0.004	8.4	ug/L	190	Standard
	Pb	207	513.7	8.8	**0.0508**	0.007	13.9	ug/L	155	Standard
	Pb	208	2348.1	6.5	**0.0518**	0.005	9.0	ug/L	766	Standard
	U	238	2491.2	3.6	**0.1894**	0.005	2.7	ug/L	30	Standard
>	Bi	209	367722.8	1.9				ug/L	364780	Standard

Sample ID: L1403162101
Report Date/Time: Friday, April 04, 2014 11:43:56
Page 1

Approved: April 07, 2014

	Na	23	140.0	15.6	**31.3744**	5.077	16.2	mg/L	0	Standard
	Mg	24	2151.8	4.0	**1.4771**	0.072	4.9	mg/L	58	Standard
	K	39	81.7	46.8	**0.5171**	0.263	50.9	mg/L	12	Standard
	Ca	43	958.4	11.4	**28.5149**	2.886	10.1	mg/L	53	Standard
	Fe	54	321.5	7.2	**0.0660**	0.009	13.0	mg/L	190	Standard
	Fe	57	866.7	12.3	**0.1859**	0.239	128.5	mg/L	638	Standard
>	**Sc-1**	45	46685.2	3.0				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	2.7	57.3				ug/L	2	Standard
	Br	81	6391.3	3.9				ug/L	2030	Standard
	P	31	340008.1	1.4				ug/L	256822	Standard
	S	34	37539.8	0.8				ug/L	33255	Standard
	Sr	88	176.7	9.9				ug/L	153	Standard
	C	12	2323.5	5.7				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	87.6	20.3				mg/L	6	Standard
	Ho-1	165	113.3	5.1				mg/L	10	Standard
	Er	166	50.0	52.9				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		122.885	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		115.011	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403162101
Report Date/Time: Friday, April 04, 2014 11:43:56
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		106.067
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		100.807
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403162102
Sample Date/Time: Friday, April 04, 2014 11:44:48
Number of Replicates: 3
Autosampler Position: 312
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	136329.1	2.2				ug/L	113180	Standard
	Be	9	46.7	48.3	**0.0131**	0.008	61.8	ug/L	17	Standard
	Al	27	24610.0	3.8	**0.1028**	0.002	2.4	ug/L	633	Standard
	Sc	45	47228.5	3.4				ug/L	41381	Standard
	Ti	47	77.3	15.3	**0.1372**	0.026	19.3	ug/L	30	Standard
	V	51	3140.7	3.5	**0.0867**	0.007	8.5	ug/L	1879	Standard
	Cr	52	13494.3	3.4	**0.3657**	0.038	10.4	ug/L	8035	Standard
	Cr	53	1083.4	9.0	**0.3145**	0.045	14.4	ug/L	470	Standard
	Mn	55	10074.0	3.6	**0.6656**	0.016	2.4	ug/L	1182	Standard
	Co	59	521.3	6.5	**0.0066**	0.002	36.9	ug/L	333	Standard
	Ni	60	203.0	7.6	**0.0285**	0.003	11.8	ug/L	71	Standard
	Cu	65	1215.4	4.1	**0.3617**	0.008	2.1	ug/L	64	Standard
	Zn	66	4469.7	5.0	**2.4004**	0.085	3.5	ug/L	125	Standard
>	**Ge**	72	472667.7	2.2				ug/L	399053	Standard
	As	75	12.3	250.5	**0.0172**	0.015	88.2	ug/L	-28	Standard
	Se	82	55.6	1.7	**0.1426**	0.001	1.0	ug/L	26	Standard
	Se-1	77	164.7	8.1	**0.3356**	0.127	37.7	ug/L	118	Standard
>	**Ga**	71	30.0	44.1				mg/L	8	Standard
	Rb	85	183.3	26.9				ug/L	25	Standard
	Y	89	413258.7	4.4				ug/L	368853	Standard
>	**Rh**	103	5.0	100.0				ug/L	10	Standard
	Mo	98	1378.2	2.7	**0.5505**	0.006	1.1	ug/L	68	Standard
	Ag	107	84.7	3.4	**-0.0038**	0.000	11.3	ug/L	84	Standard
	Cd	111	81.9	12.4	**-0.0037**	0.003	80.5	mg/L	72	Standard
	Cd	114	219.2	28.2	**-0.0021**	0.007	333.3	ug/L	187	Standard
>	**In**	115	513978.8	1.7				ug/L	464664	Standard
	Sn	118	1086.7	6.1	**0.0658**	0.009	13.2	ug/L	438	Standard
	Sb	123	131.6	9.9	**-0.0051**	0.002	49.0	ug/L	433	Standard
	Ba	135	484.0	2.9	**0.1434**	0.006	3.9	ug/L	14	Standard
	Ce	140	188.3	28.4				ug/L	20	Standard
>	**Tb**	159	675843.6	1.0				ug/L	663064	Standard
	Ho	165	23.3	49.5				ug/L	10	Standard
	Tl	203	130.0	10.1	**0.0056**	0.001	20.2	ug/L	32	Standard
	Tl	205	108.3	5.3	**0.0061**	0.001	8.6	ug/L	28	Standard
	Pb	206	532.7	2.7	**0.0375**	0.003	7.5	ug/L	190	Standard
	Pb	207	464.3	4.9	**0.0398**	0.004	10.6	ug/L	155	Standard
	Pb	208	2104.4	1.3	**0.0399**	0.000	0.3	ug/L	766	Standard
	U	238	37.7	6.1	**-0.0004**	0.000	45.1	ug/L	30	Standard
>	**Bi**	209	383351.8	1.1				ug/L	364780	Standard

Sample ID: L1403162102
Report Date/Time: Friday, April 04, 2014 11:46:58
Page 1

Approved: April 07, 2014

	Na	23	3.3	173.2	**-0.0727**	1.343	1848.1	mg/L	0	Standard
	Mg	24	101.7	44.6	**0.0302**	0.031	103.1	mg/L	58	Standard
	K	39	5.0	100.0	**-0.0380**	0.035	91.4	mg/L	12	Standard
	Ca	43	50.0	10.0	**-0.2247**	0.111	49.3	mg/L	53	Standard
	Fe	54	217.2	16.7	**0.0135**	0.014	103.1	mg/L	190	Standard
	Fe	57	620.0	2.1	**-0.2753**	0.016	5.8	mg/L	638	Standard
>	**Sc-1**	45	47228.5	3.4				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	2.7	108.3				ug/L	2	Standard
	Br	81	9469.6	9.0				ug/L	2030	Standard
	P	31	293179.5	1.1				ug/L	256822	Standard
	S	34	38171.4	1.6				ug/L	33255	Standard
	Sr	88	148.3	7.0				ug/L	153	Standard
	C	12	853.4	8.9				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	23.3	49.5				mg/L	6	Standard
	Ho-1	165	23.3	49.5				mg/L	10	Standard
	Er	166	0.0					mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		120.454	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		118.447	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403162102
Report Date/Time: Friday, April 04, 2014 11:46:58
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	110.613
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	105.091
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403162102PS WG469378-01
Sample Date/Time: Friday, April 04, 2014 11:47:50
Number of Replicates: 3
Autosampler Position: 313
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	141977.1	1.0				ug/L	113180	Standard
	Be	9	140431.3	1.8	**47.4790**	0.946	2.0	ug/L	17	Standard
	Al	27	24279.4	1.2	**0.0961**	0.001	0.9	ug/L	633	Standard
	Sc	45	48987.4	2.0				ug/L	41381	Standard
	Ti	47	54.7	11.2	**0.0745**	0.019	25.8	ug/L	30	Standard
	V	51	572938.9	3.7	**53.3325**	0.590	1.1	ug/L	1879	Standard
	Cr	52	606579.5	3.3	**52.8309**	1.711	3.2	ug/L	8035	Standard
	Cr	53	86577.1	5.2	**51.4265**	1.770	3.4	ug/L	470	Standard
	Mn	55	701074.5	1.9	**52.9673**	1.017	1.9	ug/L	1182	Standard
	Co	59	509698.6	3.7	**53.2184**	0.896	1.7	ug/L	333	Standard
	Ni	60	175466.3	3.4	**52.8268**	0.279	0.5	ug/L	71	Standard
	Cu	65	172537.9	2.6	**54.3680**	0.405	0.7	ug/L	64	Standard
	Zn	66	93396.1	2.4	**51.3651**	0.448	0.9	ug/L	125	Standard
>	**Ge**	72	487423.4	3.2				ug/L	399053	Standard
	As	75	101143.1	2.7	**48.7906**	0.879	1.8	ug/L	-28	Standard
	Se	82	10834.7	3.3	**47.9468**	1.431	3.0	ug/L	26	Standard
	Se-1	77	6572.1	2.8	**49.2068**	0.717	1.5	ug/L	118	Standard
>	**Ga**	71	46.7	22.3				mg/L	8	Standard
	Rb	85	175.0	14.8				ug/L	25	Standard
	Y	89	423382.8	3.2				ug/L	368853	Standard
>	**Rh**	103	36.7	7.9				ug/L	10	Standard
	Mo	98	118.8	12.3	**0.0232**	0.007	28.3	ug/L	68	Standard
	Ag	107	434312.0	2.4	**55.0934**	0.966	1.8	ug/L	84	Standard
	Cd	111	179809.8	2.5	**49.9345**	0.404	0.8	mg/L	72	Standard
	Cd	114	446929.1	2.3	**50.5562**	0.336	0.7	ug/L	187	Standard
>	**In**	115	520348.7	1.7				ug/L	464664	Standard
	Sn	118	1050.0	1.7	**0.0605**	0.001	0.9	ug/L	438	Standard
	Sb	123	304398.6	1.6	**49.6074**	0.134	0.3	ug/L	433	Standard
	Ba	135	157154.5	2.6	**49.8979**	0.450	0.9	ug/L	14	Standard
	Ce	140	195.0	9.2				ug/L	20	Standard
>	**Tb**	159	693346.8	1.0				ug/L	663064	Standard
	Ho	165	26.7	21.7				ug/L	10	Standard
	Tl	203	604972.9	1.3	**52.6083**	0.223	0.4	ug/L	32	Standard
	Tl	205	565147.5	0.9	**54.7415**	1.268	2.3	ug/L	28	Standard
	Pb	206	367917.2	1.7	**51.4824**	0.090	0.2	ug/L	190	Standard
	Pb	207	331357.1	1.6	**51.1787**	0.097	0.2	ug/L	155	Standard
	Pb	208	1488606.9	1.6	**51.4164**	0.198	0.4	ug/L	766	Standard
	U	238	735073.2	0.9	**54.4524**	0.496	0.9	ug/L	30	Standard
>	**Bi**	209	383930.2	1.6				ug/L	364780	Standard

Sample ID: L1403162102PS WG469378-01
Report Date/Time: Friday, April 04, 2014 11:50:00
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	118.3	21.3	**0.0391**	0.016	42.0	mg/L	58	Standard
	K	39	10.0		**-0.0039**	0.001	36.0	mg/L	12	Standard
	Ca	43	40.0	33.1	**-0.5853**	0.380	65.0	mg/L	53	Standard
	Fe	54	264.0	15.8	**0.0320**	0.021	65.6	mg/L	190	Standard
	Fe	57	590.0	6.4	**-0.3657**	0.084	22.9	mg/L	638	Standard
>	**Sc-1**	45	48987.4	2.0				mg/L	41381	Standard
	Cl	35	3.3	69.3				ug/L	4	Standard
	Kr	83	1.7	91.7				ug/L	2	Standard
	Br	81	9623.1	2.1				ug/L	2030	Standard
	P	31	392630.6	2.3				ug/L	256822	Standard
	S	34	36453.8	2.5				ug/L	33255	Standard
	Sr	88	146.7	47.0				ug/L	153	Standard
	C	12	950.0	6.6				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	19.5	51.2				mg/L	6	Standard
	Ho-1	165	26.7	21.7				mg/L	10	Standard
	Er	166	10.0					mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		125.444	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		122.145	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403162102PS WG469378-01
Report Date/Time: Friday, April 04, 2014 11:50:00
Page 2

Approved: April 07, 2014

Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		111.984
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		105.250
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Ge 72 Int Std for sample	Ge	72	Rerun sample

Sample ID: L1403162102PS WG469378-01
Report Date/Time: Friday, April 04, 2014 11:50:00
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403162102SDL WG469378-02
Sample Date/Time: Friday, April 04, 2014 11:50:51
Number of Replicates: 3
Autosampler Position: 314
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	117809.7	1.8				ug/L	113180	Standard
	Be	9	40.0	57.3	**0.0128**	0.009	70.1	ug/L	17	Standard
	Al	27	5290.9	11.3	**0.0074**	0.004	55.3	ug/L	633	Standard
	Sc	45	41170.9	4.1				ug/L	41381	Standard
	Ti	47	27.0	7.4	**0.0157**	0.006	38.7	ug/L	30	Standard
	V	51	2627.1	1.2	**0.0714**	0.007	10.1	ug/L	1879	Standard
	Cr	52	10445.9	0.9	**0.2161**	0.014	6.4	ug/L	8035	Standard
	Cr	53	656.7	7.4	**0.1064**	0.028	26.6	ug/L	470	Standard
	Mn	55	1788.1	4.3	**0.0378**	0.010	25.2	ug/L	1182	Standard
	Co	59	379.7	3.9	**-0.0031**	0.003	82.8	ug/L	333	Standard
	Ni	60	112.3	14.3	**0.0050**	0.005	98.8	ug/L	71	Standard
	Cu	65	257.7	6.8	**0.0617**	0.005	8.0	ug/L	64	Standard
	Zn	66	2529.9	2.3	**1.4925**	0.049	3.3	ug/L	125	Standard
>	Ge	72	416511.9	1.9				ug/L	399053	Standard
	As	75	-18.8	128.1	**0.0008**	0.013	1714.0	ug/L	-28	Standard
	Se	82	24.5	5.4	**0.0154**	0.006	36.0	ug/L	26	Standard
	Se-1	77	128.0	11.7	**0.1832**	0.156	85.3	ug/L	118	Standard
>	Ga	71	21.7	35.3				mg/L	8	Standard
	Rb	85	41.7	18.3				ug/L	25	Standard
	Y	89	369762.5	2.4				ug/L	368853	Standard
>	Rh	103	11.7	49.5				ug/L	10	Standard
	Mo	98	15.6	4.5	**-0.0187**	0.000	2.0	ug/L	68	Standard
	Ag	107	113.0	10.7	**0.0013**	0.002	135.2	ug/L	84	Standard
	Cd	111	46.6	18.5	**-0.0123**	0.003	21.3	mg/L	72	Standard
	Cd	114	86.9	29.5	**-0.0163**	0.003	19.6	ug/L	187	Standard
>	In	115	465294.7	1.1				ug/L	464664	Standard
	Sn	118	365.0	3.6	**-0.0062**	0.001	17.7	ug/L	438	Standard
	Sb	123	344.5	9.7	**0.0360**	0.007	18.4	ug/L	433	Standard
	Ba	135	122.7	20.8	**0.0313**	0.009	27.9	ug/L	14	Standard
	Ce	140	43.3	17.6				ug/L	20	Standard
>	Tb	159	627289.3	1.0				ug/L	663064	Standard
	Ho	165	20.0	50.0				ug/L	10	Standard
	Tl	203	118.7	21.2	**0.0055**	0.002	43.5	ug/L	32	Standard
	Tl	205	113.3	21.8	**0.0074**	0.002	32.4	ug/L	28	Standard
	Pb	206	268.0	9.8	**0.0033**	0.003	106.2	ug/L	190	Standard
	Pb	207	229.0	15.0	**0.0060**	0.005	87.6	ug/L	155	Standard
	Pb	208	1051.7	7.1	**0.0063**	0.002	37.5	ug/L	766	Standard
	U	238	71.0	27.5	**0.0025**	0.002	63.9	ug/L	30	Standard
>	Bi	209	355616.6	1.7				ug/L	364780	Standard

Sample ID: L1403162102SDL WG469378-02
Report Date/Time: Friday, April 04, 2014 11:53:01

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.3920**	0.790	201.5	mg/L	0	Standard
	Mg	24	51.7	14.8	**0.0012**	0.008	676.0	mg/L	58	Standard
	K	39	6.7	114.6	**-0.0184**	0.062	335.2	mg/L	12	Standard
	Ca	43	31.7	32.9	**-0.6453**	0.386	59.9	mg/L	53	Standard
	Fe	54	81.9	25.4	**-0.0459**	0.010	21.8	mg/L	190	Standard
	Fe	57	610.0	6.7	**-0.1341**	0.051	38.0	mg/L	638	Standard
>	**Sc-1**	45	41170.9	4.1				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	1.7	34.6				ug/L	2	Standard
	Br	81	3470.4	6.8				ug/L	2030	Standard
	P	31	110528.6	3.3				ug/L	256822	Standard
	S	34	37922.4	2.8				ug/L	33255	Standard
	Sr	88	158.3	22.8				ug/L	153	Standard
	C	12	696.7	5.0				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	16.3	94.7				mg/L	6	Standard
	Ho-1	165	20.0	50.0				mg/L	10	Standard
	Er	166	6.7	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		104.091	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.375	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403162102SDL WG469378-02
Report Date/Time: Friday, April 04, 2014 11:53:01
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.136
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	97.488
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1403162102SDL WG469378-02
Report Date/Time: Friday, April 04, 2014 11:53:01
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403162102SDL WG469378-02
Sample Date/Time: Friday, April 04, 2014 11:53:53
Number of Replicates: 3
Autosampler Position: 315
Sample Description: 25
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	112953.0	2.7				ug/L	113180	Standard
	Be	9	26.7	47.2	**0.0079**	0.005	64.0	ug/L	17	Standard
	Al	27	1896.8	52.0	**-0.0124**	0.006	52.6	ug/L	633	Standard
	Sc	45	40644.5	2.3				ug/L	41381	Standard
	Ti	47	20.0	27.8	**-0.0034**	0.017	502.9	ug/L	30	Standard
	V	51	2567.5	2.1	**0.0723**	0.004	5.8	ug/L	1879	Standard
	Cr	52	10225.1	0.5	**0.2215**	0.007	3.0	ug/L	8035	Standard
	Cr	53	548.3	10.0	**0.0412**	0.041	100.8	ug/L	470	Standard
	Mn	55	730.7	3.0	**-0.0542**	0.003	4.7	ug/L	1182	Standard
	Co	59	339.7	18.0	**-0.0068**	0.008	117.4	ug/L	333	Standard
	Ni	60	75.0	18.5	**-0.0073**	0.005	71.9	ug/L	71	Standard
	Cu	65	107.0	6.5	**0.0072**	0.003	40.9	ug/L	64	Standard
	Zn	66	2365.9	2.0	**1.4270**	0.018	1.2	ug/L	125	Standard
>	Ge	72	405641.9	0.9				ug/L	399053	Standard
	As	75	-18.9	71.9	**0.0004**	0.008	1975.5	ug/L	-28	Standard
	Se	82	25.6	2.5	**0.0249**	0.004	14.3	ug/L	26	Standard
	Se-1	77	125.3	11.2	**0.1870**	0.122	65.1	ug/L	118	Standard
>	Ga	71	13.3	57.3				mg/L	8	Standard
	Rb	85	21.7	26.6				ug/L	25	Standard
	Y	89	355871.0	3.7				ug/L	368853	Standard
>	Rh	103	8.3	173.2				ug/L	10	Standard
	Mo	98	13.0	24.9	**-0.0197**	0.002	8.3	ug/L	68	Standard
	Ag	107	85.0	31.6	**-0.0023**	0.004	177.6	ug/L	84	Standard
	Cd	111	31.6	22.2	**-0.0167**	0.002	14.0	mg/L	72	Standard
	Cd	114	89.5	75.0	**-0.0156**	0.009	57.4	ug/L	187	Standard
>	In	115	453638.6	1.7				ug/L	464664	Standard
	Sn	118	330.0	17.1	**-0.0093**	0.007	74.5	ug/L	438	Standard
	Sb	123	126.4	4.6	**-0.0032**	0.001	34.1	ug/L	433	Standard
	Ba	135	46.0	38.6	**0.0045**	0.007	147.6	ug/L	14	Standard
	Ce	140	18.3	15.7				ug/L	20	Standard
>	Tb	159	612989.1	1.5				ug/L	663064	Standard
	Ho	165	10.0					ug/L	10	Standard
	Tl	203	74.7	67.1	**0.0021**	0.006	264.8	ug/L	32	Standard
	Tl	205	80.0	55.6	**0.0049**	0.006	114.9	ug/L	28	Standard
	Pb	206	203.7	12.8	**-0.0036**	0.006	165.4	ug/L	190	Standard
	Pb	207	175.7	11.2	**-0.0002**	0.004	2580.8	ug/L	155	Standard
	Pb	208	817.0	12.0	**0.0004**	0.006	1458.6	ug/L	766	Standard
	U	238	43.7	100.1	**0.0007**	0.004	586.5	ug/L	30	Standard
>	Bi	209	327309.4	4.4				ug/L	364780	Standard

Approved: April 07, 2014

	Na	23	3.3	173.2	**0.0288**	1.519	5280.8	mg/L	0	Standard
	Mg	24	41.7	42.1	**-0.0064**	0.015	236.4	mg/L	58	Standard
	K	39	13.3	21.7	**0.0384**	0.025	64.5	mg/L	12	Standard
	Ca	43	45.0	19.2	**-0.1551**	0.284	182.8	mg/L	53	Standard
	Fe	54	70.6	24.5	**-0.0514**	0.010	19.2	mg/L	190	Standard
	Fe	57	636.7	2.0	**-0.0616**	0.053	86.0	mg/L	638	Standard
>	**Sc-1**	45	40644.5	2.3				mg/L	41381	Standard
	Cl	35	2.0	0.0				ug/L	4	Standard
	Kr	83	2.3	107.9				ug/L	2	Standard
	Br	81	2283.5	4.8				ug/L	2030	Standard
	P	31	74792.7	3.8				ug/L	256822	Standard
	S	34	38973.4	2.0				ug/L	33255	Standard
	Sr	88	145.0	21.0				ug/L	153	Standard
	C	12	633.3	10.3				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.5	186.3				mg/L	6	Standard
	Ho-1	165	10.0					mg/L	10	Standard
	Er	166	10.0	100.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		99.800	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.651	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403162102SDL WG469378-02
Report Date/Time: Friday, April 04, 2014 11:56:03
Page 2

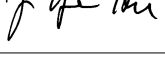
Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		97.627
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		89.728
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 11:56:57
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	132520.4	0.9				ug/L	113180	Standard
	Be	9	132976.2	2.3	**48.1616**	0.787	1.6	ug/L	17	Standard
	Al	27	8848649.3	3.6	**46.9649**	1.342	2.9	ug/L	633	Standard
	Sc	45	47474.5	7.5				ug/L	41381	Standard
	Ti	47	38482.5	2.1	**100.3348**	0.596	0.6	ug/L	30	Standard
	V	51	539681.3	1.1	**51.7982**	0.800	1.5	ug/L	1879	Standard
	Cr	52	559561.9	2.5	**50.1821**	0.197	0.4	ug/L	8035	Standard
	Cr	53	83150.9	1.2	**50.9345**	0.910	1.8	ug/L	470	Standard
	Mn	55	657138.8	1.9	**51.1656**	0.601	1.2	ug/L	1182	Standard
	Co	59	473286.5	3.4	**50.9331**	0.509	1.0	ug/L	333	Standard
	Ni	60	167598.7	3.8	**52.0065**	0.682	1.3	ug/L	71	Standard
	Cu	65	159826.4	1.6	**51.9185**	0.693	1.3	ug/L	64	Standard
	Zn	66	90707.2	2.8	**51.4191**	0.773	1.5	ug/L	125	Standard
>	**Ge**	72	472844.5	2.7				ug/L	399053	Standard
	As	75	99644.6	2.3	**49.5439**	0.349	0.7	ug/L	-28	Standard
	Se	82	11015.0	2.5	**50.2418**	0.121	0.2	ug/L	26	Standard
	Se-1	77	6563.4	3.1	**50.6754**	0.456	0.9	ug/L	118	Standard
>	**Ga**	71	53.3	19.5				mg/L	8	Standard
	Rb	85	1020.0	5.9				ug/L	25	Standard
	Y	89	411738.4	3.3				ug/L	368853	Standard
>	**Rh**	103	41.7	13.9				ug/L	10	Standard
	Mo	98	246729.7	1.1	**103.4343**	0.630	0.6	ug/L	68	Standard
	Ag	107	400425.9	2.0	**51.5501**	0.178	0.3	ug/L	84	Standard
	Cd	111	178677.0	1.7	**50.3656**	0.147	0.3	mg/L	72	Standard
	Cd	114	442980.1	0.9	**50.8678**	0.679	1.3	ug/L	187	Standard
>	**In**	115	512694.2	1.7				ug/L	464664	Standard
	Sn	118	490740.8	0.6	**51.7492**	0.903	1.7	ug/L	438	Standard
	Sb	123	300982.9	0.8	**49.7876**	0.431	0.9	ug/L	433	Standard
	Ba	135	153961.7	1.3	**49.6220**	0.442	0.9	ug/L	14	Standard
	Ce	140	213.3	14.1				ug/L	20	Standard
>	**Tb**	159	688354.8	3.0				ug/L	663064	Standard
	Ho	165	3.3	173.2				ug/L	10	Standard
	Tl	203	589415.9	1.8	**51.1604**	0.261	0.5	ug/L	32	Standard
	Tl	205	537411.8	0.9	**51.9528**	0.347	0.7	ug/L	28	Standard
	Pb	206	357315.5	1.1	**49.9111**	0.153	0.3	ug/L	190	Standard
	Pb	207	323601.8	1.1	**49.8927**	0.118	0.2	ug/L	155	Standard
	Pb	208	1442560.5	0.7	**49.7391**	0.326	0.7	ug/L	766	Standard
	U	238	706132.1	0.7	**52.2189**	0.925	1.8	ug/L	30	Standard
>	**Bi**	209	384612.6	1.3				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 11:59:07
Page 1

Approved: April 07, 2014

	Na	23	23.3	32.7	**4.4467**	1.714	38.6	mg/L	0	Standard
	Mg	24	6913.2	3.9	**4.7630**	0.268	5.6	mg/L	58	Standard
	K	39	598.3	6.4	**4.2494**	0.616	14.5	mg/L	12	Standard
	Ca	43	176.7	11.8	**3.7621**	1.077	28.6	mg/L	53	Standard
	Fe	54	10525.7	1.0	**4.9854**	0.368	7.4	mg/L	190	Standard
	Fe	57	3572.1	6.6	**4.9589**	0.428	8.6	mg/L	638	Standard
>	**Sc-1**	45	47474.5	7.5				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	2.3	49.5				ug/L	2	Standard
	Br	81	2573.6	9.2				ug/L	2030	Standard
	P	31	347473.7	2.1				ug/L	256822	Standard
	S	34	49810.1	0.9				ug/L	33255	Standard
	Sr	88	175.0	17.4				ug/L	153	Standard
	C	12	800.0	5.4				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	16.3	36.2				mg/L	6	Standard
	Ho-1	165	3.3	173.2				mg/L	10	Standard
	Er	166	6.7	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		117.088	
	Be	9	96.323		
	Al	27	93.930		
	Sc	45			
	Ti	47	100.335		
	V	51	103.596		
	Cr	52	100.364		
	Cr	53			
	Mn	55	102.331		
	Co	59	101.866		
	Ni	60	104.013		
	Cu	65	103.837		
	Zn	66	102.838		
>	Ge	72		118.492	
	As	75	99.088		
	Se	82	100.484		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 11:59:07
Page 2

Approved: April 07, 2014

⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	103.434		
|	Ag	107	103.100		
|	Cd	111	100.731		
|	Cd	114			
|>	In	115			110.337
|	Sn	118	103.498		
|	Sb	123	99.575		
⌊	Ba	135	99.244		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	102.321		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	99.478		
|	U	238	104.438		
⌊>	Bi	209			105.437
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 11:59:07
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 11:59:58
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	130378.9	2.9				ug/L	113180	Standard
	Be	9	46.7	22.3	**0.0138**	0.004	25.8	ug/L	17	Standard
	Al	27	1771.8	58.4	**-0.0148**	0.005	35.6	ug/L	633	Standard
	Sc	45	46695.2	1.7				ug/L	41381	Standard
	Ti	47	26.0	23.4	**0.0036**	0.016	449.8	ug/L	30	Standard
	V	51	1817.5	2.3	**-0.0409**	0.003	7.9	ug/L	1879	Standard
	Cr	52	7796.3	2.9	**-0.1548**	0.017	11.1	ug/L	8035	Standard
	Cr	53	396.7	8.6	**-0.1085**	0.021	19.4	ug/L	470	Standard
	Mn	55	1163.7	5.4	**-0.0299**	0.005	15.9	ug/L	1182	Standard
	Co	59	392.0	5.2	**-0.0073**	0.002	29.2	ug/L	333	Standard
	Ni	60	86.3	12.4	**-0.0077**	0.003	43.5	ug/L	71	Standard
	Cu	65	95.3	33.9	**-0.0024**	0.010	440.6	ug/L	64	Standard
	Zn	66	156.3	15.3	**-0.0515**	0.013	26.0	ug/L	125	Standard
>	**Ge**	72	472902.0	0.5				ug/L	399053	Standard
	As	75	-35.3	63.9	**-0.0063**	0.011	179.9	ug/L	-28	Standard
	Se	82	27.9	30.6	**0.0163**	0.040	243.6	ug/L	26	Standard
	Se-1	77	111.3	3.6	**-0.0863**	0.028	32.9	ug/L	118	Standard
>	**Ga**	71	16.7	62.4				mg/L	8	Standard
	Rb	85	38.3	32.8				ug/L	25	Standard
	Y	89	412085.8	1.1				ug/L	368853	Standard
>	**Rh**	103	8.3	34.6				ug/L	10	Standard
	Mo	98	128.4	31.7	**0.0280**	0.017	60.6	ug/L	68	Standard
	Ag	107	99.0	18.3	**-0.0019**	0.002	118.1	ug/L	84	Standard
	Cd	111	106.0	12.6	**0.0032**	0.004	113.3	mg/L	72	Standard
	Cd	114	229.8	37.1	**-0.0008**	0.010	1170.6	ug/L	187	Standard
>	**In**	115	511728.6	0.8				ug/L	464664	Standard
	Sn	118	628.3	9.9	**0.0178**	0.006	35.4	ug/L	438	Standard
	Sb	123	757.1	28.3	**0.0986**	0.035	35.4	ug/L	433	Standard
	Ba	135	29.3	46.3	**-0.0028**	0.004	154.1	ug/L	14	Standard
	Ce	140	11.7	49.5				ug/L	20	Standard
>	**Tb**	159	672603.3	1.4				ug/L	663064	Standard
	Ho	165	16.7	69.3				ug/L	10	Standard
	Tl	203	71.7	62.3	**0.0005**	0.004	728.7	ug/L	32	Standard
	Tl	205	51.7	39.1	**0.0006**	0.002	326.9	ug/L	28	Standard
	Pb	206	228.3	19.1	**-0.0053**	0.006	108.0	ug/L	190	Standard
	Pb	207	188.7	17.9	**-0.0030**	0.005	161.6	ug/L	155	Standard
	Pb	208	883.3	18.5	**-0.0024**	0.005	216.3	ug/L	766	Standard
	U	238	65.7	62.5	**0.0016**	0.003	182.6	ug/L	30	Standard
>	**Bi**	209	384123.3	1.5				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 12:02:09
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	68.3	22.4	**0.0078**	0.011	135.5	mg/L	58	Standard
	K	39	6.7	43.3	**-0.0249**	0.021	82.6	mg/L	12	Standard
	Ca	43	41.7	42.1	**-0.4733**	0.540	114.1	mg/L	53	Standard
	Fe	54	197.4	3.7	**0.0054**	0.004	76.1	mg/L	190	Standard
	Fe	57	583.3	14.4	**-0.3271**	0.170	52.0	mg/L	638	Standard
>	**Sc-1**	45	46695.2	1.7				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	3.0	57.7				ug/L	2	Standard
	Br	81	2363.5	14.6				ug/L	2030	Standard
	P	31	330868.4	3.7				ug/L	256822	Standard
	S	34	47977.5	2.1				ug/L	33255	Standard
	Sr	88	141.7	14.3				ug/L	153	Standard
	C	12	646.7	4.7				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.2	93.3				mg/L	6	Standard
	Ho-1	165	16.7	69.3				mg/L	10	Standard
	Er	166	10.0					mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		115.196	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		118.506	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 12:02:09
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	110.129
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	105.303
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 12:02:09
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403161201
Sample Date/Time: Friday, April 04, 2014 12:03:01
Number of Replicates: 3
Autosampler Position: 316
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	196857.0	4.1				ug/L	113180	Standard
	Be	9	43.3	76.8	**0.0071**	0.008	112.8	ug/L	17	Standard
	Al	27	148232459.8	4.8	**530.1327**	21.043	4.0	ug/L	633	Standard
	Sc	45	37784.0	10.0				ug/L	41381	Standard
	Ti	47	329.7	40.7	**0.9573**	0.358	37.3	ug/L	30	Standard
	V	51	5489.6	6.8	**0.4197**	0.027	6.3	ug/L	1879	Standard
	Cr	52	13315.8	1.5	**0.5968**	0.074	12.4	ug/L	8035	Standard
	Cr	53	2371.9	9.3	**1.4027**	0.076	5.4	ug/L	470	Standard
	Mn	55	40841.8	7.6	**3.7072**	0.080	2.2	ug/L	1182	Standard
	Co	59	3157.3	7.8	**0.3591**	0.018	4.9	ug/L	333	Standard
	Ni	60	16935.1	3.6	**6.2917**	0.130	2.1	ug/L	71	Standard
	Cu	65	9069.1	5.6	**3.5095**	0.056	1.6	ug/L	64	Standard
	Zn	66	12514.5	2.1	**8.4221**	0.375	4.5	ug/L	125	Standard
>	**Ge**	72	393376.4	5.4				ug/L	399053	Standard
	As	75	3263.3	6.1	**1.9650**	0.165	8.4	ug/L	-28	Standard
	Se	82	2362.7	3.0	**12.8822**	0.318	2.5	ug/L	26	Standard
	Se-1	77	1231.1	3.0	**10.6941**	0.461	4.3	ug/L	118	Standard
>	**Ga**	71	71.7	45.4				mg/L	8	Standard
	Rb	85	30312.0	5.5				ug/L	25	Standard
	Y	89	342950.9	7.2				ug/L	368853	Standard
>	**Rh**	103	1046.7	19.2				ug/L	10	Standard
	Mo	98	2606.9	3.4	**1.3607**	0.058	4.3	ug/L	68	Standard
	Ag	107	153.7	84.3	**0.0108**	0.022	204.6	ug/L	84	Standard
	Cd	111	198.6	50.0	**0.0448**	0.038	84.4	mg/L	72	Standard
	Cd	114	513.7	59.4	**0.0481**	0.047	97.3	ug/L	187	Standard
>	**In**	115	404828.7	6.6				ug/L	464664	Standard
	Sn	118	918.4	11.0	**0.0748**	0.020	26.2	ug/L	438	Standard
	Sb	123	454.1	23.3	**0.0687**	0.024	35.4	ug/L	433	Standard
	Ba	135	18473.3	5.9	**7.5318**	0.072	1.0	ug/L	14	Standard
	Ce	140	758.4	13.1				ug/L	20	Standard
>	**Tb**	159	589464.9	4.6				ug/L	663064	Standard
	Ho	165	273.3	18.8				ug/L	10	Standard
	Tl	203	978.0	26.3	**0.0997**	0.029	29.1	ug/L	32	Standard
	Tl	205	830.0	7.8	**0.0951**	0.009	9.8	ug/L	28	Standard
	Pb	206	482.7	38.0	**0.0466**	0.033	70.4	ug/L	190	Standard
	Pb	207	417.0	43.4	**0.0478**	0.036	74.5	ug/L	155	Standard
	Pb	208	1863.7	35.9	**0.0469**	0.030	63.1	ug/L	766	Standard
	U	238	483632.2	4.4	**44.2659**	0.583	1.3	ug/L	30	Standard
>	**Bi**	209	310650.9	3.6				ug/L	364780	Standard

Sample ID: L1403161201
Report Date/Time: Friday, April 04, 2014 12:05:11
Page 1

Approved: April 07, 2014

	Na	23	628.3	16.9	**176.9912**	12.161	6.9	mg/L	0	Standard
	Mg	24	545226.2	3.6	**476.9886**	35.110	7.4	mg/L	58	Standard
	K	39	133.3	27.1	**1.1156**	0.199	17.9	mg/L	12	Standard
	Ca	43	3145.3	7.9	**121.4060**	4.802	4.0	mg/L	53	Standard
	Fe	54	173.5	2.9	**0.0142**	0.008	58.1	mg/L	190	Standard
	Fe	57	1720.1	5.9	**2.4805**	0.518	20.9	mg/L	638	Standard
>	**Sc-1**	45	37784.0	10.0				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	2.3	49.5				ug/L	2	Standard
	Br	81	81059.8	4.0				ug/L	2030	Standard
	P	31	256849.0	7.0				ug/L	256822	Standard
	S	34	26478.1	4.2				ug/L	33255	Standard
	Sr	88	3965.5	1.3				ug/L	153	Standard
	C	12	3443.7	4.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0	100.0				mg/L	0	Standard
	Dy	164	206.1	31.0				mg/L	6	Standard
	Ho-1	165	273.3	18.8				mg/L	10	Standard
	Er	166	150.0	46.7				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		173.933	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.578	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161201
Report Date/Time: Friday, April 04, 2014 12:05:11
Page 2

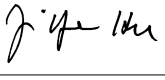
Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		87.123
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		85.161
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1403161202
Sample Date/Time: Friday, April 04, 2014 12:06:03
Number of Replicates: 3
Autosampler Position: 317
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	215720.4	2.5				ug/L	113180	Standard
	Be	9	71.7	113.6	**0.0124**	0.018	142.6	ug/L	17	Standard
	Al	27	155983870.9	2.2	**508.9343**	2.850	0.6	ug/L	633	Standard
	Sc	45	36260.0	1.3				ug/L	41381	Standard
	Ti	47	553.7	5.4	**1.7264**	0.096	5.5	ug/L	30	Standard
	V	51	6652.6	5.7	**0.5785**	0.042	7.2	ug/L	1879	Standard
	Cr	52	14139.3	4.2	**0.7331**	0.062	8.4	ug/L	8035	Standard
	Cr	53	3013.6	6.9	**1.9502**	0.148	7.6	ug/L	470	Standard
	Mn	55	42058.3	0.3	**3.9482**	0.033	0.8	ug/L	1182	Standard
	Co	59	3446.7	6.0	**0.4107**	0.026	6.3	ug/L	333	Standard
	Ni	60	19050.0	0.9	**7.3001**	0.035	0.5	ug/L	71	Standard
	Cu	65	8893.6	1.5	**3.5500**	0.063	1.8	ug/L	64	Standard
	Zn	66	12949.2	1.3	**8.9842**	0.083	0.9	ug/L	125	Standard
>	**Ge**	72	381403.6	0.5				ug/L	399053	Standard
	As	75	3247.2	3.3	**2.0121**	0.056	2.8	ug/L	-28	Standard
	Se	82	2344.1	2.1	**13.1724**	0.213	1.6	ug/L	26	Standard
	Se-1	77	1308.1	0.7	**11.7971**	0.091	0.8	ug/L	118	Standard
>	**Ga**	71	81.7	39.8				mg/L	8	Standard
	Rb	85	31684.8	1.2				ug/L	25	Standard
	Y	89	324861.3	1.6				ug/L	368853	Standard
>	**Rh**	103	986.7	6.5				ug/L	10	Standard
	Mo	98	3058.2	6.3	**1.7084**	0.101	5.9	ug/L	68	Standard
	Ag	107	390.0	70.2	**0.0531**	0.047	89.0	ug/L	84	Standard
	Cd	111	225.2	56.0	**0.0590**	0.048	80.8	mg/L	72	Standard
	Cd	114	581.5	51.5	**0.0630**	0.046	73.1	ug/L	187	Standard
>	**In**	115	379004.0	0.5				ug/L	464664	Standard
	Sn	118	1683.4	2.0	**0.1917**	0.005	2.4	ug/L	438	Standard
	Sb	123	824.9	21.7	**0.1577**	0.039	24.9	ug/L	433	Standard
	Ba	135	20911.8	1.4	**9.1066**	0.103	1.1	ug/L	14	Standard
	Ce	140	910.0	8.5				ug/L	20	Standard
>	**Tb**	159	570824.6	1.0				ug/L	663064	Standard
	Ho	165	266.7	17.7				ug/L	10	Standard
	Tl	203	1486.1	32.2	**0.1547**	0.050	32.6	ug/L	32	Standard
	Tl	205	1271.7	18.1	**0.1486**	0.027	18.0	ug/L	28	Standard
	Pb	206	800.0	35.5	**0.1018**	0.048	47.5	ug/L	190	Standard
	Pb	207	704.0	35.0	**0.1029**	0.046	45.0	ug/L	155	Standard
	Pb	208	3177.8	36.4	**0.1034**	0.049	47.0	ug/L	766	Standard
	U	238	522084.9	0.3	**48.0596**	0.225	0.5	ug/L	30	Standard
>	**Bi**	209	308935.9	0.6				ug/L	364780	Standard

Sample ID: L1403161202
Report Date/Time: Friday, April 04, 2014 12:08:13
Page 1

Approved: April 07, 2014

	Na	23	605.0	5.4	**178.3841**	10.490	5.9	mg/L	0	Standard
	Mg	24	580697.5	0.8	**526.9473**	4.382	0.8	mg/L	58	Standard
	K	39	145.0	6.0	**1.2888**	0.089	6.9	mg/L	12	Standard
	Ca	43	3100.3	0.9	**124.5537**	2.545	2.0	mg/L	53	Standard
	Fe	54	171.4	15.1	**0.0169**	0.018	104.5	mg/L	190	Standard
	Fe	57	1750.1	8.1	**2.6811**	0.374	14.0	mg/L	638	Standard
>	**Sc-1**	45	36260.0	1.3				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	2.3	107.9				ug/L	2	Standard
	Br	81	103666.9	2.0				ug/L	2030	Standard
	P	31	260324.3	1.4				ug/L	256822	Standard
	S	34	27661.9	2.2				ug/L	33255	Standard
	Sr	88	4929.1	5.3				ug/L	153	Standard
	C	12	2683.6	1.6				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	10.0	100.0				mg/L	0	Standard
	Dy	164	215.4	7.1				mg/L	6	Standard
	Ho-1	165	266.7	17.7				mg/L	10	Standard
	Er	166	166.7	9.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		190.600	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.577	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161202
Report Date/Time: Friday, April 04, 2014 12:08:13
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	81.565
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	84.691
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403164801 WG469188-02
Sample Date/Time: Friday, April 04, 2014 12:09:05
Number of Replicates: 3
Autosampler Position: 318
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	164562.7	2.9				ug/L	113180	Standard
	Be	9	98.3	20.5	**0.0252**	0.005	20.0	ug/L	17	Standard
	Al	27	12412089.6	4.6	**53.0469**	1.145	2.2	ug/L	633	Standard
	Sc	45	42583.2	4.1				ug/L	41381	Standard
	Ti	47	1422.1	6.5	**3.7755**	0.057	1.5	ug/L	30	Standard
	V	51	8278.5	3.0	**0.6105**	0.016	2.7	ug/L	1879	Standard
	Cr	52	15725.8	1.5	**0.6221**	0.075	12.0	ug/L	8035	Standard
	Cr	53	3132.0	4.4	**1.6493**	0.116	7.0	ug/L	470	Standard
	Mn	55	246819.5	4.2	**19.8288**	0.141	0.7	ug/L	1182	Standard
	Co	59	2195.2	6.6	**0.1952**	0.005	2.3	ug/L	333	Standard
	Ni	60	10025.0	5.3	**3.1895**	0.051	1.6	ug/L	71	Standard
	Cu	65	5269.6	2.2	**1.7435**	0.108	6.2	ug/L	64	Standard
	Zn	66	8603.8	1.2	**4.9301**	0.193	3.9	ug/L	125	Standard
>	**Ge**	72	456605.4	4.9				ug/L	399053	Standard
	As	75	983.7	15.2	**0.5207**	0.099	18.9	ug/L	-28	Standard
	Se	82	352.2	8.5	**1.5627**	0.215	13.8	ug/L	26	Standard
	Se-1	77	407.7	6.0	**2.3605**	0.155	6.6	ug/L	118	Standard
>	**Ga**	71	506.7	18.6				mg/L	8	Standard
	Rb	85	21233.2	3.2				ug/L	25	Standard
	Y	89	391306.2	1.7				ug/L	368853	Standard
>	**Rh**	103	56.7	5.1				ug/L	10	Standard
	Mo	98	4406.9	1.9	**1.9879**	0.021	1.1	ug/L	68	Standard
	Ag	107	94.3	11.3	**-0.0015**	0.001	90.5	ug/L	84	Standard
	Cd	111	211.2	11.1	**0.0380**	0.005	13.7	mg/L	72	Standard
	Cd	114	532.6	12.9	**0.0395**	0.009	23.9	ug/L	187	Standard
>	**In**	115	470527.5	2.9				ug/L	464664	Standard
	Sn	118	775.0	11.0	**0.0404**	0.008	20.1	ug/L	438	Standard
	Sb	123	457.6	4.0	**0.0557**	0.002	4.0	ug/L	433	Standard
	Ba	135	46217.8	3.4	**16.2209**	0.205	1.3	ug/L	14	Standard
	Ce	140	12583.6	3.6				ug/L	20	Standard
>	**Tb**	159	659856.0	3.7				ug/L	663064	Standard
	Ho	165	666.7	15.0				ug/L	10	Standard
	Tl	203	758.0	4.1	**0.0597**	0.003	4.8	ug/L	32	Standard
	Tl	205	721.7	12.2	**0.0649**	0.008	11.9	ug/L	28	Standard
	Pb	206	4147.6	2.0	**0.5389**	0.006	1.0	ug/L	190	Standard
	Pb	207	3473.7	2.1	**0.5004**	0.007	1.3	ug/L	155	Standard
	Pb	208	16100.3	2.0	**0.5190**	0.004	0.8	ug/L	766	Standard
	U	238	6404.4	4.5	**0.4671**	0.009	1.9	ug/L	30	Standard
>	**Bi**	209	387132.5	2.8				ug/L	364780	Standard

Approved: April 07, 2014

	Na	23	80.0	12.5	**19.3826**	3.059	15.8	mg/L	0	Standard
	Mg	24	13939.7	3.1	**10.7376**	0.352	3.3	mg/L	58	Standard
	K	39	96.7	24.4	**0.6956**	0.162	23.3	mg/L	12	Standard
	Ca	43	465.0	6.7	**14.3928**	1.739	12.1	mg/L	53	Standard
	Fe	54	737.1	6.5	**0.3040**	0.026	8.5	mg/L	190	Standard
	Fe	57	865.0	6.0	**0.3306**	0.130	39.2	mg/L	638	Standard
>	**Sc-1**	45	42583.2	4.1				mg/L	41381	Standard
	Cl	35	2.7	114.6				ug/L	4	Standard
	Kr	83	2.0	86.6				ug/L	2	Standard
	Br	81	13489.3	3.6				ug/L	2030	Standard
	P	31	306667.0	2.5				ug/L	256822	Standard
	S	34	31945.3	2.3				ug/L	33255	Standard
	Sr	88	393.3	7.8				ug/L	153	Standard
	C	12	1730.1	9.5				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	552.9	7.1				mg/L	6	Standard
	Ho-1	165	666.7	15.0				mg/L	10	Standard
	Er	166	286.7	8.8				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		145.399	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		114.422	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403164801 WG469188-02
Report Date/Time: Friday, April 04, 2014 12:11:15
Page 2

Approved: April 07, 2014

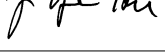
Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		101.262
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		106.128
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: L1403164801 WG469188-02
Report Date/Time: Friday, April 04, 2014 12:11:15
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1403164801S WG469188-08
Sample Date/Time: Friday, April 04, 2014 12:12:07
Number of Replicates: 3
Autosampler Position: 319
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	163084.7	0.3				ug/L	113180	Standard
	Be	9	105.0	25.2	**0.0275**	0.008	27.9	ug/L	17	Standard
	Al	27	12208045.1	2.7	**52.6644**	1.547	2.9	ug/L	633	Standard
	Sc	45	42701.8	1.4				ug/L	41381	Standard
	Ti	47	1733.4	4.6	**4.6056**	0.234	5.1	ug/L	30	Standard
	V	51	9330.5	1.9	**0.7122**	0.015	2.1	ug/L	1879	Standard
	Cr	52	15424.8	2.0	**0.5872**	0.033	5.5	ug/L	8035	Standard
	Cr	53	3758.8	4.2	**2.0394**	0.070	3.4	ug/L	470	Standard
	Mn	55	251189.7	1.4	**20.1182**	0.233	1.2	ug/L	1182	Standard
	Co	59	2229.5	4.7	**0.1984**	0.009	4.4	ug/L	333	Standard
	Ni	60	9792.8	0.7	**3.1060**	0.037	1.2	ug/L	71	Standard
	Cu	65	4999.2	2.2	**1.6441**	0.030	1.8	ug/L	64	Standard
	Zn	66	8189.9	1.8	**4.6661**	0.067	1.4	ug/L	125	Standard
>	**Ge**	72	457958.4	1.3				ug/L	399053	Standard
	As	75	891.7	5.6	**0.4690**	0.027	5.8	ug/L	-28	Standard
	Se	82	311.2	5.5	**1.3574**	0.088	6.5	ug/L	26	Standard
	Se-1	77	409.0	2.2	**2.3603**	0.037	1.6	ug/L	118	Standard
>	**Ga**	71	655.0	3.8				mg/L	8	Standard
	Rb	85	23369.7	2.0				ug/L	25	Standard
	Y	89	402966.0	1.7				ug/L	368853	Standard
>	**Rh**	103	75.0	17.6				ug/L	10	Standard
	Mo	98	4409.3	2.1	**1.9617**	0.037	1.9	ug/L	68	Standard
	Ag	107	78.7	11.8	**-0.0038**	0.001	37.7	ug/L	84	Standard
	Cd	111	220.4	7.1	**0.0400**	0.005	11.6	mg/L	72	Standard
	Cd	114	518.4	15.0	**0.0367**	0.009	23.9	ug/L	187	Standard
>	**In**	115	476908.8	1.5				ug/L	464664	Standard
	Sn	118	805.0	1.1	**0.0427**	0.001	1.5	ug/L	438	Standard
	Sb	123	414.3	5.8	**0.0469**	0.004	7.6	ug/L	433	Standard
	Ba	135	46796.8	1.5	**16.2055**	0.112	0.7	ug/L	14	Standard
	Ce	140	13446.0	4.4				ug/L	20	Standard
>	**Tb**	159	653443.5	0.6				ug/L	663064	Standard
	Ho	165	713.4	8.5				ug/L	10	Standard
	Tl	203	728.4	2.5	**0.0570**	0.001	2.5	ug/L	32	Standard
	Tl	205	648.3	5.9	**0.0578**	0.004	6.8	ug/L	28	Standard
	Pb	206	4188.9	0.4	**0.5437**	0.001	0.2	ug/L	190	Standard
	Pb	207	3414.1	1.5	**0.4904**	0.009	1.8	ug/L	155	Standard
	Pb	208	16190.1	0.4	**0.5212**	0.004	0.8	ug/L	766	Standard
	U	238	6375.7	0.6	**0.4645**	0.005	1.0	ug/L	30	Standard
>	**Bi**	209	387690.4	0.5				ug/L	364780	Standard

Sample ID: L1403164801S WG469188-08
Report Date/Time: Friday, April 04, 2014 12:14:17
Page 1

Approved: April 07, 2014

	Na	23	76.7	30.8	**18.4348**	5.918	32.1	mg/L	0	Standard
	Mg	24	13581.1	0.6	**10.4256**	0.103	1.0	mg/L	58	Standard
	K	39	76.7	10.0	**0.5378**	0.057	10.6	mg/L	12	Standard
	Ca	43	525.0	10.5	**16.3972**	2.159	13.2	mg/L	53	Standard
	Fe	54	793.3	3.5	**0.3329**	0.017	5.0	mg/L	190	Standard
	Fe	57	825.0	0.6	**0.2451**	0.018	7.3	mg/L	638	Standard
>	**Sc-1**	45	42701.8	1.4				mg/L	41381	Standard
	Cl	35	1.3	173.2				ug/L	4	Standard
	Kr	83	3.0	100.0				ug/L	2	Standard
	Br	81	13576.1	8.6				ug/L	2030	Standard
	P	31	314579.2	1.3				ug/L	256822	Standard
	S	34	32570.0	1.6				ug/L	33255	Standard
	Sr	88	376.7	12.0				ug/L	153	Standard
	C	12	1580.1	11.9				mg/L	573	Standard
	N	14	6.7	86.6				mg/L	0	Standard
	Hg	202	13.3	43.3				mg/L	0	Standard
	Dy	164	597.7	6.3				mg/L	6	Standard
	Ho-1	165	713.4	8.5				mg/L	10	Standard
	Er	166	326.7	20.4				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		144.094	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		114.761	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403164801S WG469188-08
Report Date/Time: Friday, April 04, 2014 12:14:17
Page 2

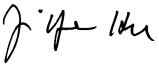
Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	102.635
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	106.281
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1403164802
Sample Date/Time: Friday, April 04, 2014 12:15:08
Number of Replicates: 3
Autosampler Position: 320
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	292906.5	8.8				ug/L	113180	Standard
	Be	9	3873.8	6.0	**0.6329**	0.033	5.3	ug/L	17	Standard
	Al	27	471586445.3	9.7	**1132.5667**	15.378	1.4	ug/L	633	Standard
	Sc	45	72391.3	6.0				ug/L	41381	Standard
	Ti	47	98225.1	7.2	**296.5586**	4.850	1.6	ug/L	30	Standard
	V	51	2631163.2	8.1	**293.1585**	6.900	2.4	ug/L	1879	Standard
	Cr	52	3702155.1	6.1	**390.2277**	1.588	0.4	ug/L	8035	Standard
	Cr	53	565249.7	7.2	**403.1543**	8.950	2.2	ug/L	470	Standard
	Mn	55	34055321.3	6.3	**3077.0842**	36.214	1.2	ug/L	1182	Standard
	Co	59	290833.1	6.2	**36.2360**	0.644	1.8	ug/L	333	Standard
	Ni	60	2618754.7	6.8	**941.5219**	8.883	0.9	ug/L	71	Standard
	Cu	65	255422.5	6.3	**96.0843**	0.409	0.4	ug/L	64	Standard
	Zn	66	1508565.6	6.2	**992.7817**	4.581	0.5	ug/L	125	Standard
>	Ge	72	408287.1	5.9				ug/L	399053	Standard
	As	75	124916.5	5.2	**71.9384**	0.682	0.9	ug/L	-28	Standard
	Se	82	50380.5	6.4	**266.5712**	3.741	1.4	ug/L	26	Standard
	Se-1	77	33864.6	7.0	**307.4909**	4.113	1.3	ug/L	118	Standard
>	Ga	71	61613.9	7.9				mg/L	8	Standard
	Rb	85	809437.7	6.1				ug/L	25	Standard
	Y	89	3053372.6	4.5				ug/L	368853	Standard
>	Rh	103	3285.4	17.5				ug/L	10	Standard
	Mo	98	718497.6	6.3	**417.8799**	3.289	0.8	ug/L	68	Standard
	Ag	107	2468.2	6.8	**0.4261**	0.003	0.8	ug/L	84	Standard
	Cd	111	52453.1	6.2	**20.4946**	0.152	0.7	mg/L	72	Standard
	Cd	114	131876.8	5.8	**20.9953**	0.520	2.5	ug/L	187	Standard
>	In	115	369582.4	6.2				ug/L	464664	Standard
	Sn	118	16453.9	3.8	**2.3630**	0.087	3.7	ug/L	438	Standard
	Sb	123	38982.0	3.7	**8.9317**	0.249	2.8	ug/L	433	Standard
	Ba	135	1172201.7	5.2	**524.3813**	4.884	0.9	ug/L	14	Standard
	Ce	140	1300633.4	5.1				ug/L	20	Standard
>	Tb	159	632397.4	4.9				ug/L	663064	Standard
	Ho	165	177043.8	5.6				ug/L	10	Standard
	Tl	203	27902.4	4.7	**2.8349**	0.031	1.1	ug/L	32	Standard
	Tl	205	25364.6	4.7	**2.8712**	0.019	0.7	ug/L	28	Standard
	Pb	206	417633.1	4.7	**68.4220**	0.322	0.5	ug/L	190	Standard
	Pb	207	205111.7	3.9	**37.0840**	0.197	0.5	ug/L	155	Standard
	Pb	208	1107345.2	4.4	**44.7725**	0.078	0.2	ug/L	766	Standard
	U	238	2832324.2	4.7	**245.5956**	0.906	0.4	ug/L	30	Standard
>	Bi	209	327944.4	4.4				ug/L	364780	Standard

Sample ID: L1403164802
Report Date/Time: Friday, April 04, 2014 12:17:18
Page 1

Approved: April 07, 2014

	Na	23	1711.8	16.8	**253.2579**	41.637	16.4	mg/L	0	Standard
	Mg	24	34048.3	4.5	**15.4466**	0.337	2.2	mg/L	58	Standard
	K	39	716.7	14.3	**3.2920**	0.348	10.6	mg/L	12	Standard
	Ca	43	8549.1	5.5	**172.8517**	8.358	4.8	mg/L	53	Standard
	Fe	54	67389.6	4.7	**21.1613**	0.520	2.5	mg/L	190	Standard
	Fe	57	21643.8	1.7	**23.7991**	1.102	4.6	mg/L	638	Standard
>	**Sc-1**	45	72391.3	6.0				mg/L	41381	Standard
	Cl	35	4.7	65.5				ug/L	4	Standard
	Kr	83	1.3	43.3				ug/L	2	Standard
	Br	81	156046.6	3.0				ug/L	2030	Standard
	P	31	1242410.9	4.0				ug/L	256822	Standard
	S	34	27094.2	3.8				ug/L	33255	Standard
	Sr	88	23788.7	5.2				ug/L	153	Standard
	C	12	2103.5	7.1				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	27668.6	4.9				mg/L	0	Standard
	Dy	164	111446.6	4.0				mg/L	6	Standard
	Ho-1	165	177043.8	5.6				mg/L	10	Standard
	Er	166	90067.6	6.3				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		258.798	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.314	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403164802
Report Date/Time: Friday, April 04, 2014 12:17:18
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	79.538
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	89.902
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

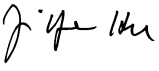
QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Cr 52 Upper, S, EEE	Cr	52	

Approved: April 07, 2014

Cr 53 Upper, S, EEE	Cr	53
Mn 55 Upper, S, EEE	Mn	55
Ni 60 Upper, S, EEE	Ni	60
Zn 66 Upper, S, EEE	Zn	66
Se 82 Upper, S, EEE	Se	82
Se-1 77 Upper, S, EEE	Se-1	77
Mo 98 Upper, S, EEE	Mo	98
Ba 135 Upper, S, EEE	Ba	135
U 238 Upper, S, EEE	U	238

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1403162103
Sample Date/Time: Friday, April 04, 2014 12:18:10
Number of Replicates: 3
Autosampler Position: 321
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	155199.4	2.3				ug/L	113180	Standard
	Be	9	63.3	12.1	**0.0162**	0.003	16.5	ug/L	17	Standard
	Al	27	33376.4	43.9	**0.1281**	0.070	54.8	ug/L	633	Standard
	Sc	45	38786.4	7.8				ug/L	41381	Standard
	Ti	47	131.0	5.0	**0.3058**	0.032	10.6	ug/L	30	Standard
	V	51	2550.3	3.2	**0.0496**	0.010	20.2	ug/L	1879	Standard
	Cr	52	10536.3	0.8	**0.1737**	0.044	25.5	ug/L	8035	Standard
	Cr	53	1471.7	11.1	**0.6305**	0.139	22.1	ug/L	470	Standard
	Mn	55	3859.8	19.4	**0.2066**	0.076	36.8	ug/L	1182	Standard
	Co	59	336.7	8.8	**-0.0102**	0.005	47.5	ug/L	333	Standard
	Ni	60	288.0	20.6	**0.0627**	0.024	37.8	ug/L	71	Standard
	Cu	65	395.3	21.8	**0.1063**	0.036	33.7	ug/L	64	Standard
	Zn	66	2553.5	0.8	**1.4293**	0.064	4.4	ug/L	125	Standard
>	**Ge**	72	437637.8	3.6				ug/L	399053	Standard
	As	75	-16.7	140.0	**0.0025**	0.013	500.6	ug/L	-28	Standard
	Se	82	29.7	15.4	**0.0358**	0.027	74.6	ug/L	26	Standard
	Se-1	77	151.3	11.9	**0.3241**	0.139	43.0	ug/L	118	Standard
>	**Ga**	71	28.3	71.3				mg/L	8	Standard
	Rb	85	153.3	26.4				ug/L	25	Standard
	Y	89	364703.4	4.1				ug/L	368853	Standard
>	**Rh**	103	6.7	43.3				ug/L	10	Standard
	Mo	98	304.4	37.4	**0.1219**	0.060	48.8	ug/L	68	Standard
	Ag	107	74.0	15.9	**-0.0038**	0.002	43.8	ug/L	84	Standard
	Cd	111	78.0	21.9	**-0.0015**	0.006	401.8	mg/L	72	Standard
	Cd	114	151.3	7.5	**-0.0072**	0.002	27.0	ug/L	187	Standard
>	**In**	115	446258.9	3.0				ug/L	464664	Standard
	Sn	118	571.7	7.9	**0.0207**	0.005	26.4	ug/L	438	Standard
	Sb	123	79.9	16.3	**-0.0116**	0.002	20.6	ug/L	433	Standard
	Ba	135	185.0	9.9	**0.0564**	0.008	15.0	ug/L	14	Standard
	Ce	140	303.3	2.5				ug/L	20	Standard
>	**Tb**	159	623263.3	2.3				ug/L	663064	Standard
	Ho	165	16.7	91.7				ug/L	10	Standard
	Tl	203	211.0	58.8	**0.0132**	0.011	87.1	ug/L	32	Standard
	Tl	205	200.0	50.2	**0.0155**	0.010	66.9	ug/L	28	Standard
	Pb	206	273.3	4.0	**0.0018**	0.002	134.8	ug/L	190	Standard
	Pb	207	216.7	3.7	**0.0020**	0.002	102.0	ug/L	155	Standard
	Pb	208	1013.7	2.7	**0.0028**	0.002	54.6	ug/L	766	Standard
	U	238	159.3	43.5	**0.0089**	0.006	62.3	ug/L	30	Standard
>	**Bi**	209	376905.7	2.8				ug/L	364780	Standard

Sample ID: L1403162103
Report Date/Time: Friday, April 04, 2014 12:20:21
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	86.7	8.8	**0.0336**	0.010	29.2	mg/L	58	Standard
	K	39	15.0	66.7	**0.0633**	0.098	155.3	mg/L	12	Standard
	Ca	43	40.0	33.1	**-0.2326**	0.631	271.2	mg/L	53	Standard
	Fe	54	214.0	0.3	**0.0353**	0.010	28.5	mg/L	190	Standard
	Fe	57	615.0	8.8	**-0.0449**	0.094	208.8	mg/L	638	Standard
>	**Sc-1**	45	38786.4	7.8				mg/L	41381	Standard
	Cl	35	2.7	114.6				ug/L	4	Standard
	Kr	83	1.3	43.3				ug/L	2	Standard
	Br	81	3467.1	11.7				ug/L	2030	Standard
	P	31	275455.4	2.2				ug/L	256822	Standard
	S	34	33236.4	1.8				ug/L	33255	Standard
	Sr	88	151.7	3.8				ug/L	153	Standard
	C	12	1463.4	14.7				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	100.0	26.5				mg/L	0	Standard
	Dy	164	25.7	58.8				mg/L	6	Standard
	Ho-1	165	16.7	91.7				mg/L	10	Standard
	Er	166	20.0	50.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		137.127	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		109.669	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403162103
Report Date/Time: Friday, April 04, 2014 12:20:21
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	96.039
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	103.324
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403162104
Sample Date/Time: Friday, April 04, 2014 12:21:13
Number of Replicates: 3
Autosampler Position: 322
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	180779.0	1.8				ug/L	113180	Standard
	Be	9	43.3	24.0	**0.0081**	0.003	32.2	ug/L	17	Standard
	Al	27	14620995.0	0.7	**56.9101**	0.945	1.7	ug/L	633	Standard
	Sc	45	44211.1	2.8				ug/L	41381	Standard
	Ti	47	662.7	10.2	**1.6177**	0.133	8.2	ug/L	30	Standard
	V	51	4487.4	0.2	**0.2053**	0.010	4.7	ug/L	1879	Standard
	Cr	52	13310.2	2.5	**0.3169**	0.006	2.0	ug/L	8035	Standard
	Cr	53	2083.5	9.5	**0.8987**	0.122	13.6	ug/L	470	Standard
	Mn	55	6387.0	6.3	**0.3645**	0.019	5.1	ug/L	1182	Standard
	Co	59	771.0	6.1	**0.0313**	0.003	9.6	ug/L	333	Standard
	Ni	60	2754.9	3.0	**0.7989**	0.007	0.9	ug/L	71	Standard
	Cu	65	861.4	3.3	**0.2394**	0.009	3.9	ug/L	64	Standard
	Zn	66	3175.0	3.3	**1.6177**	0.048	3.0	ug/L	125	Standard
>	**Ge**	72	485404.2	2.4				ug/L	399053	Standard
	As	75	62.5	52.7	**0.0413**	0.015	37.1	ug/L	-28	Standard
	Se	82	59.2	13.3	**0.1523**	0.036	23.9	ug/L	26	Standard
	Se-1	77	219.7	2.8	**0.7229**	0.086	11.8	ug/L	118	Standard
>	**Ga**	71	240.0	7.5				mg/L	8	Standard
	Rb	85	15671.4	2.9				ug/L	25	Standard
	Y	89	407560.3	3.0				ug/L	368853	Standard
>	**Rh**	103	25.0	40.0				ug/L	10	Standard
	Mo	98	317.1	19.2	**0.1129**	0.024	20.9	ug/L	68	Standard
	Ag	107	90.3	6.8	**-0.0025**	0.001	20.9	ug/L	84	Standard
	Cd	111	92.4	14.6	**0.0004**	0.003	806.9	mg/L	72	Standard
	Cd	114	191.8	8.7	**-0.0042**	0.002	39.1	ug/L	187	Standard
>	**In**	115	490041.2	2.4				ug/L	464664	Standard
	Sn	118	988.4	15.0	**0.0607**	0.018	30.2	ug/L	438	Standard
	Sb	123	225.8	2.7	**0.0123**	0.001	11.5	ug/L	433	Standard
	Ba	135	40503.1	2.6	**13.6473**	0.039	0.3	ug/L	14	Standard
	Ce	140	3602.1	4.0				ug/L	20	Standard
>	**Tb**	159	685838.9	2.6				ug/L	663064	Standard
	Ho	165	153.3	24.7				ug/L	10	Standard
	Tl	203	478.3	7.2	**0.0338**	0.002	6.2	ug/L	32	Standard
	Tl	205	521.7	4.7	**0.0436**	0.003	6.1	ug/L	28	Standard
	Pb	206	646.0	1.2	**0.0488**	0.003	5.5	ug/L	190	Standard
	Pb	207	513.7	1.1	**0.0433**	0.002	4.5	ug/L	155	Standard
	Pb	208	2443.4	0.2	**0.0473**	0.002	3.4	ug/L	766	Standard
	U	238	1678.1	0.5	**0.1149**	0.002	2.0	ug/L	30	Standard
>	**Bi**	209	404172.0	2.2				ug/L	364780	Standard

Sample ID: L1403162104
Report Date/Time: Friday, April 04, 2014 12:23:23
Page 1

Approved: April 07, 2014

	Na	23	100.0	40.9	**23.3295**	9.522	40.8	mg/L	0	Standard
	Mg	24	3103.7	0.8	**2.2710**	0.077	3.4	mg/L	58	Standard
	K	39	31.7	24.1	**0.1698**	0.054	32.1	mg/L	12	Standard
	Ca	43	603.3	3.3	**18.3748**	0.352	1.9	mg/L	53	Standard
	Fe	54	282.0	20.6	**0.0549**	0.033	60.4	mg/L	190	Standard
	Fe	57	666.7	4.1	**-0.1119**	0.017	15.1	mg/L	638	Standard
>	**Sc-1**	45	44211.1	2.8				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	1.7	34.6				ug/L	2	Standard
	Br	81	6321.3	4.2				ug/L	2030	Standard
	P	31	353866.7	1.2				ug/L	256822	Standard
	S	34	37389.4	0.6				ug/L	33255	Standard
	Sr	88	211.7	23.2				ug/L	153	Standard
	C	12	2083.5	10.4				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	70.0	24.7				mg/L	0	Standard
	Dy	164	87.4	30.9				mg/L	6	Standard
	Ho-1	165	153.3	24.7				mg/L	10	Standard
	Er	166	53.3	21.7				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		159.727	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		121.639	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403162104
Report Date/Time: Friday, April 04, 2014 12:23:23
Page 2

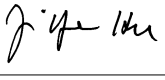
Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		105.461
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		110.799
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Ge 72 Int Std for sample	Ge	72	Rerun sample

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1403164802
Sample Date/Time: Friday, April 04, 2014 12:26:14
Number of Replicates: 3
Autosampler Position: 320
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	139886.7	3.8				ug/L	113180	Standard
	Be	9	108.3	10.7	**0.0339**	0.005	14.1	ug/L	17	Standard
	Al	27	10313817.4	0.9	**51.9073**	1.542	3.0	ug/L	633	Standard
	Sc	45	35845.8	5.3				ug/L	41381	Standard
	Ti	47	2094.1	0.8	**6.4160**	0.133	2.1	ug/L	30	Standard
	V	51	58790.2	2.8	**6.5009**	0.034	0.5	ug/L	1879	Standard
	Cr	52	86280.3	1.1	**8.4711**	0.225	2.7	ug/L	8035	Standard
	Cr	53	14076.5	1.2	**9.9421**	0.146	1.5	ug/L	470	Standard
	Mn	55	689242.8	3.8	**63.6439**	0.944	1.5	ug/L	1182	Standard
	Co	59	6419.7	2.2	**0.7706**	0.007	1.0	ug/L	333	Standard
	Ni	60	57904.2	4.1	**21.2853**	0.371	1.7	ug/L	71	Standard
	Cu	65	6088.9	2.2	**2.3133**	0.019	0.8	ug/L	64	Standard
	Zn	66	40893.5	2.8	**27.4235**	0.480	1.8	ug/L	125	Standard
>	Ge	72	398736.1	2.4				ug/L	399053	Standard
	As	75	2718.5	1.3	**1.6144**	0.049	3.0	ug/L	-28	Standard
	Se	82	1115.0	2.0	**5.9350**	0.186	3.1	ug/L	26	Standard
	Se-1	77	807.4	4.0	**6.5692**	0.154	2.3	ug/L	118	Standard
>	Ga	71	1283.4	5.7				mg/L	8	Standard
	Rb	85	17792.1	3.5				ug/L	25	Standard
	Y	89	383908.9	1.8				ug/L	368853	Standard
>	Rh	103	93.3	29.5				ug/L	10	Standard
	Mo	98	13879.3	3.5	**7.1636**	0.158	2.2	ug/L	68	Standard
	Ag	107	173.0	52.1	**0.0131**	0.015	117.8	ug/L	84	Standard
	Cd	111	1391.8	2.1	**0.4583**	0.013	2.8	mg/L	72	Standard
	Cd	114	3362.7	3.2	**0.4500**	0.009	2.1	ug/L	187	Standard
>	In	115	415043.1	3.2				ug/L	464664	Standard
	Sn	118	783.4	1.6	**0.0535**	0.004	7.9	ug/L	438	Standard
	Sb	123	923.4	6.8	**0.1623**	0.019	11.8	ug/L	433	Standard
	Ba	135	27127.3	1.4	**10.7942**	0.200	1.9	ug/L	14	Standard
	Ce	140	31120.3	1.8				ug/L	20	Standard
>	Tb	159	586871.2	2.6				ug/L	663064	Standard
	Ho	165	3980.5	5.8				ug/L	10	Standard
	Tl	203	998.4	19.4	**0.0908**	0.020	21.9	ug/L	32	Standard
	Tl	205	731.7	9.2	**0.0742**	0.007	9.6	ug/L	28	Standard
	Pb	206	9512.3	1.1	**1.4421**	0.083	5.7	ug/L	190	Standard
	Pb	207	4865.1	2.6	**0.8028**	0.047	5.9	ug/L	155	Standard
	Pb	208	25734.0	1.0	**0.9547**	0.051	5.4	ug/L	766	Standard
	U	238	49970.3	2.1	**4.1053**	0.173	4.2	ug/L	30	Standard
>	Bi	209	346343.5	5.0				ug/L	364780	Standard

Sample ID: L1403164802
Report Date/Time: Friday, April 04, 2014 12:28:24
Page 1

Approved: April 07, 2014

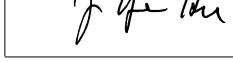
	Na	23	30.0	16.7	**8.1178**	1.217	15.0	mg/L	0	Standard
	Mg	24	746.7	8.3	**0.6469**	0.076	11.7	mg/L	58	Standard
	K	39	45.0	11.1	**0.3565**	0.071	19.9	mg/L	12	Standard
	Ca	43	265.0	30.4	**9.0542**	2.800	30.9	mg/L	53	Standard
	Fe	54	1698.1	5.9	**0.9940**	0.124	12.4	mg/L	190	Standard
	Fe	57	1068.4	13.6	**1.1280**	0.325	28.8	mg/L	638	Standard
>	**Sc-1**	45	35845.8	5.3				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	2.0	100.0				ug/L	2	Standard
	Br	81	4860.8	5.4				ug/L	2030	Standard
	P	31	90581.7	1.6				ug/L	256822	Standard
	S	34	31658.1	2.8				ug/L	33255	Standard
	Sr	88	455.0	6.7				ug/L	153	Standard
	C	12	1116.7	9.4				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	730.0	13.1				mg/L	0	Standard
	Dy	164	2439.7	3.6				mg/L	6	Standard
	Ho-1	165	3980.5	5.8				mg/L	10	Standard
	Er	166	1960.1	9.3				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		123.597	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.921	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403164802
Report Date/Time: Friday, April 04, 2014 12:28:24
Page 2

Approved: April 07, 2014



⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	89.321
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	94.946
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403162104
Sample Date/Time: Friday, April 04, 2014 12:31:51
Number of Replicates: 3
Autosampler Position: 322
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	145426.5	2.2				ug/L	113180	Standard
	Be	9	35.0	14.3	**0.0082**	0.001	17.1	ug/L	17	Standard
	Al	27	2683552.6	2.0	**12.9663**	0.305	2.4	ug/L	633	Standard
	Sc	45	39391.1	1.6				ug/L	41381	Standard
	Ti	47	132.7	7.6	**0.3116**	0.032	10.1	ug/L	30	Standard
	V	51	2527.2	8.5	**0.0483**	0.023	46.9	ug/L	1879	Standard
	Cr	52	9561.7	4.7	**0.0813**	0.051	62.3	ug/L	8035	Standard
	Cr	53	886.7	1.7	**0.2404**	0.008	3.4	ug/L	470	Standard
	Mn	55	1958.8	18.5	**0.0454**	0.032	71.3	ug/L	1182	Standard
	Co	59	286.3	3.2	**-0.0161**	0.001	5.5	ug/L	333	Standard
	Ni	60	584.7	10.9	**0.1628**	0.023	14.4	ug/L	71	Standard
	Cu	65	243.3	7.5	**0.0525**	0.007	13.2	ug/L	64	Standard
	Zn	66	1827.4	0.8	**0.9873**	0.011	1.1	ug/L	125	Standard
>	**Ge**	72	435565.5	1.4				ug/L	399053	Standard
	As	75	-13.9	91.2	**0.0038**	0.007	183.4	ug/L	-28	Standard
	Se	82	35.2	6.2	**0.0633**	0.013	21.0	ug/L	26	Standard
	Se-1	77	144.7	2.8	**0.2735**	0.021	7.7	ug/L	118	Standard
>	**Ga**	71	53.3	27.1				mg/L	8	Standard
	Rb	85	3013.6	4.6				ug/L	25	Standard
	Y	89	373681.7	2.2				ug/L	368853	Standard
>	**Rh**	103	11.7	65.5				ug/L	10	Standard
	Mo	98	77.5	9.7	**0.0100**	0.003	27.8	ug/L	68	Standard
	Ag	107	68.7	2.2	**-0.0049**	0.000	1.9	ug/L	84	Standard
	Cd	111	28.2	20.7	**-0.0180**	0.002	9.8	mg/L	72	Standard
	Cd	114	105.8	60.7	**-0.0137**	0.008	61.6	ug/L	187	Standard
>	**In**	115	463826.8	2.1				ug/L	464664	Standard
	Sn	118	776.7	8.2	**0.0419**	0.006	14.8	ug/L	438	Standard
	Sb	123	72.2	5.3	**-0.0136**	0.000	3.3	ug/L	433	Standard
	Ba	135	7771.7	3.5	**2.7574**	0.097	3.5	ug/L	14	Standard
	Ce	140	695.0	9.0				ug/L	20	Standard
>	**Tb**	159	635855.1	1.6				ug/L	663064	Standard
	Ho	165	33.3	75.5				ug/L	10	Standard
	Tl	203	149.0	7.0	**0.0077**	0.001	10.6	ug/L	32	Standard
	Tl	205	153.3	10.0	**0.0109**	0.001	13.5	ug/L	28	Standard
	Pb	206	288.3	6.2	**0.0046**	0.003	66.5	ug/L	190	Standard
	Pb	207	243.3	7.2	**0.0067**	0.002	30.9	ug/L	155	Standard
	Pb	208	1134.7	2.0	**0.0076**	0.000	1.7	ug/L	766	Standard
	U	238	329.0	1.9	**0.0220**	0.000	0.6	ug/L	30	Standard
>	**Bi**	209	371487.7	2.2				ug/L	364780	Standard

Sample ID: L1403162104
Report Date/Time: Friday, April 04, 2014 12:34:01
Page 1

Approved: April 07, 2014

	Na	23	21.7	74.2	**5.0859**	4.440	87.3	mg/L	0	Standard
	Mg	24	713.4	10.2	**0.5555**	0.059	10.7	mg/L	58	Standard
	K	39	13.3	114.6	**0.0423**	0.134	316.7	mg/L	12	Standard
	Ca	43	155.0	11.6	**4.0348**	0.764	18.9	mg/L	53	Standard
	Fe	54	74.1	18.0	**-0.0482**	0.008	15.6	mg/L	190	Standard
	Fe	57	643.3	0.9	**-0.0059**	0.031	527.7	mg/L	638	Standard
>	**Sc-1**	45	39391.1	1.6				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	3.0	33.3				ug/L	2	Standard
	Br	81	2583.6	0.4				ug/L	2030	Standard
	P	31	123141.2	5.8				ug/L	256822	Standard
	S	34	37556.5	1.5				ug/L	33255	Standard
	Sr	88	185.0	5.4				ug/L	153	Standard
	C	12	1243.4	6.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0	100.0				mg/L	0	Standard
	Dy	164	14.8	98.3				mg/L	6	Standard
	Ho-1	165	33.3	75.5				mg/L	10	Standard
	Er	166	40.0	43.3				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		128.492	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		109.150	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403162104
Report Date/Time: Friday, April 04, 2014 12:34:01
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.820
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	101.839
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 12:34:55
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	161949.7	2.8				ug/L	113180	Standard
	Be	9	152744.3	5.5	**45.2493**	1.282	2.8	ug/L	17	Standard
	Al	27	9373096.8	2.9	**40.7104**	0.021	0.1	ug/L	633	Standard
	Sc	45	43183.2	5.0				ug/L	41381	Standard
	Ti	47	35517.9	2.7	**89.1468**	0.952	1.1	ug/L	30	Standard
	V	51	509741.5	3.5	**47.0690**	0.831	1.8	ug/L	1879	Standard
	Cr	52	534902.0	3.8	**46.1105**	0.979	2.1	ug/L	8035	Standard
	Cr	53	78100.8	1.3	**46.0252**	0.598	1.3	ug/L	470	Standard
	Mn	55	624645.0	2.1	**46.8128**	0.172	0.4	ug/L	1182	Standard
	Co	59	461205.5	2.6	**47.7910**	0.372	0.8	ug/L	333	Standard
	Ni	60	164383.5	2.1	**49.1230**	0.295	0.6	ug/L	71	Standard
	Cu	65	157730.9	1.5	**49.3280**	0.156	0.3	ug/L	64	Standard
	Zn	66	92686.9	4.0	**50.5754**	1.079	2.1	ug/L	125	Standard
>	**Ge**	72	491050.7	1.8				ug/L	399053	Standard
	As	75	101467.3	1.9	**48.5761**	0.114	0.2	ug/L	-28	Standard
	Se	82	11078.6	1.7	**48.6545**	0.071	0.1	ug/L	26	Standard
	Se-1	77	6867.2	1.8	**51.0655**	0.268	0.5	ug/L	118	Standard
>	**Ga**	71	70.0	39.8				mg/L	8	Standard
	Rb	85	1100.0	15.1				ug/L	25	Standard
	Y	89	411979.5	0.9				ug/L	368853	Standard
>	**Rh**	103	26.7	28.6				ug/L	10	Standard
	Mo	98	268692.0	2.7	**114.7262**	2.955	2.6	ug/L	68	Standard
	Ag	107	410880.2	2.9	**53.8814**	1.596	3.0	ug/L	84	Standard
	Cd	111	172152.5	0.8	**49.4266**	0.399	0.8	mg/L	72	Standard
	Cd	114	421495.8	3.0	**49.2926**	1.494	3.0	ug/L	187	Standard
>	**In**	115	503354.9	0.4				ug/L	464664	Standard
	Sn	118	482917.5	1.1	**51.8600**	0.553	1.1	ug/L	438	Standard
	Sb	123	309164.4	1.7	**52.0872**	0.968	1.9	ug/L	433	Standard
	Ba	135	144263.6	1.1	**47.3547**	0.318	0.7	ug/L	14	Standard
	Ce	140	326.7	30.4				ug/L	20	Standard
>	**Tb**	159	682903.7	1.2				ug/L	663064	Standard
	Ho	165	20.0	50.0				ug/L	10	Standard
	Tl	203	610519.8	0.8	**50.8952**	0.279	0.5	ug/L	32	Standard
	Tl	205	577794.9	2.4	**53.6354**	0.761	1.4	ug/L	28	Standard
	Pb	206	381120.9	1.2	**51.1252**	0.087	0.2	ug/L	190	Standard
	Pb	207	344598.6	1.1	**51.0240**	0.309	0.6	ug/L	155	Standard
	Pb	208	1540494.8	1.1	**51.0084**	0.122	0.2	ug/L	766	Standard
	U	238	780329.8	1.5	**55.4090**	0.247	0.4	ug/L	30	Standard
>	**Bi**	209	400488.3	1.1				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 12:37:05
Page 1

Approved: April 07, 2014

	Na	23	15.0	66.7	**2.9272**	2.518	86.0	mg/L	0	Standard
	Mg	24	6736.5	3.6	**5.0984**	0.238	4.7	mg/L	58	Standard
	K	39	401.7	16.6	**3.1136**	0.648	20.8	mg/L	12	Standard
	Ca	43	130.0	20.4	**2.6964**	1.104	40.9	mg/L	53	Standard
	Fe	54	9194.9	4.0	**4.7689**	0.097	2.0	mg/L	190	Standard
	Fe	57	3210.3	5.6	**4.8828**	0.514	10.5	mg/L	638	Standard
>	**Sc-1**	45	43183.2	5.0				mg/L	41381	Standard
	Cl	35	2.7	86.6				ug/L	4	Standard
	Kr	83	1.7	91.7				ug/L	2	Standard
	Br	81	2770.3	2.7				ug/L	2030	Standard
	P	31	332168.9	1.6				ug/L	256822	Standard
	S	34	44298.0	2.4				ug/L	33255	Standard
	Sr	88	118.3	14.8				ug/L	153	Standard
	C	12	1196.7	7.7				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	23.3	24.7				mg/L	0	Standard
	Dy	164	35.9	84.2				mg/L	6	Standard
	Ho-1	165	20.0	50.0				mg/L	10	Standard
	Er	166	16.7	91.7				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		143.091	
	Be	9	90.499		
	Al	27	81.421		
	Sc	45			
	Ti	47	89.147		
	V	51	94.138		
	Cr	52	92.221		
	Cr	53			
	Mn	55	93.626		
	Co	59	95.582		
	Ni	60	98.246		
	Cu	65	98.656		
	Zn	66	101.151		
>	Ge	72		123.054	
	As	75	97.152		
	Se	82	97.309		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 12:37:05
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	114.726	
|	Ag	107	107.763	
|	Cd	111	98.853	
|	Cd	114		
|>	In	115		108.327
|	Sn	118	103.720	
|	Sb	123	104.174	
⌊	Ba	135	94.709	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	101.790	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	102.017	
|	U	238	110.818	
⌊>	Bi	209		109.789
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample
QC Std 6	Al	27	
QC Std 6	Ti	47	
Ge 72 Int Std for QC Std	Ge	72	Rerun sample
QC Std 6	Mo	98	

Approved: April 07, 2014

QC Std 6	U	238

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 12:37:05
Page 4

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 12:37:57
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	139820.7	2.2				ug/L	113180	Standard
	Be	9	60.0	22.0	**0.0173**	0.005	29.2	ug/L	17	Standard
	Al	27	2778.6	41.0	**-0.0103**	0.006	54.4	ug/L	633	Standard
	Sc	45	37740.3	1.7				ug/L	41381	Standard
	Ti	47	21.0	19.0	**-0.0026**	0.011	441.0	ug/L	30	Standard
	V	51	1473.2	6.6	**-0.0562**	0.008	13.4	ug/L	1879	Standard
	Cr	52	6438.7	1.2	**-0.2039**	0.014	6.7	ug/L	8035	Standard
	Cr	53	556.7	2.7	**0.0336**	0.002	5.2	ug/L	470	Standard
	Mn	55	1079.7	8.9	**-0.0259**	0.006	24.2	ug/L	1182	Standard
	Co	59	243.3	8.3	**-0.0200**	0.002	11.3	ug/L	333	Standard
	Ni	60	129.7	3.5	**0.0109**	0.003	25.5	ug/L	71	Standard
	Cu	65	121.7	22.6	**0.0113**	0.010	92.6	ug/L	64	Standard
	Zn	66	148.0	4.1	**-0.0456**	0.003	5.7	ug/L	125	Standard
>	Ge	72	419748.3	3.1				ug/L	399053	Standard
	As	75	-20.0	272.0	**-0.0001**	0.030	24423.2	ug/L	-28	Standard
	Se	82	27.4	45.1	**0.0296**	0.062	209.8	ug/L	26	Standard
	Se-1	77	128.7	13.7	**0.1787**	0.154	86.4	ug/L	118	Standard
>	Ga	71	11.7	65.5				mg/L	8	Standard
	Rb	85	25.0	52.9				ug/L	25	Standard
	Y	89	354245.9	1.8				ug/L	368853	Standard
>	Rh	103	13.3	43.3				ug/L	10	Standard
	Mo	98	122.8	41.3	**0.0336**	0.024	71.9	ug/L	68	Standard
	Ag	107	84.0	11.5	**-0.0022**	0.001	66.0	ug/L	84	Standard
	Cd	111	63.8	2.6	**-0.0060**	0.000	6.4	mg/L	72	Standard
	Cd	114	180.1	7.3	**-0.0033**	0.002	46.6	ug/L	187	Standard
>	In	115	442871.6	1.1				ug/L	464664	Standard
	Sn	118	495.0	9.7	**0.0118**	0.005	45.0	ug/L	438	Standard
	Sb	123	609.1	26.8	**0.0897**	0.030	33.7	ug/L	433	Standard
	Ba	135	20.7	20.1	**-0.0045**	0.002	35.0	ug/L	14	Standard
	Ce	140	16.7	34.6				ug/L	20	Standard
>	Tb	159	616642.5	1.3				ug/L	663064	Standard
	Ho	165	20.0	86.6				ug/L	10	Standard
	Tl	203	36.3	36.5	**-0.0023**	0.001	52.7	ug/L	32	Standard
	Tl	205	45.0	44.4	**0.0002**	0.002	1040.0	ug/L	28	Standard
	Pb	206	202.0	6.9	**-0.0074**	0.002	25.3	ug/L	190	Standard
	Pb	207	189.7	1.6	**-0.0012**	0.000	28.7	ug/L	155	Standard
	Pb	208	812.0	5.9	**-0.0033**	0.001	40.2	ug/L	766	Standard
	U	238	49.0	41.7	**0.0006**	0.002	260.6	ug/L	30	Standard
>	Bi	209	364278.9	1.4				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 12:40:07
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.3786**	0.813	214.8	mg/L	0	Standard
	Mg	24	53.3	23.6	**0.0062**	0.011	177.7	mg/L	58	Standard
	K	39	0.0		**-0.0735**	0.000	0.0	mg/L	12	Standard
	Ca	43	41.7	25.0	**-0.1521**	0.428	281.4	mg/L	53	Standard
	Fe	54	179.0	10.1	**0.0172**	0.011	66.4	mg/L	190	Standard
	Fe	57	586.7	3.4	**-0.0726**	0.025	35.0	mg/L	638	Standard
>	**Sc-1**	45	37740.3	1.7				mg/L	41381	Standard
	Cl	35	2.7	43.3				ug/L	4	Standard
	Kr	83	3.0	66.7				ug/L	2	Standard
	Br	81	2180.2	13.7				ug/L	2030	Standard
	P	31	293611.6	1.9				ug/L	256822	Standard
	S	34	41015.4	1.5				ug/L	33255	Standard
	Sr	88	141.7	10.8				ug/L	153	Standard
	C	12	976.7	8.2				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	10.0	100.0				mg/L	0	Standard
	Dy	164	5.7	101.1				mg/L	6	Standard
	Ho-1	165	20.0	86.6				mg/L	10	Standard
	Er	166	20.0	0.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		123.539	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.186	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 12:40:07
Page 2

Approved: April 07, 2014

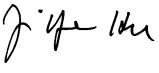
⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		95.310
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		99.863
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 12:40:07
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, April 04, 2014 12:41:22
Number of Replicates: 3
Autosampler Position: 202
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	148363.1	2.3				ug/L	113180	Standard
	Be	9	630.0	14.0	**0.2003**	0.027	13.3	ug/L	17	Standard
	Al	27	953.4	6.7	**-0.0198**	0.000	1.3	ug/L	633	Standard
	Sc	45	40875.1	0.8				ug/L	41381	Standard
	Ti	47	17.0	25.6	**-0.0177**	0.011	59.5	ug/L	30	Standard
	V	51	5373.4	0.6	**0.3298**	0.018	5.5	ug/L	1879	Standard
	Cr	52	15052.1	2.0	**0.5821**	0.067	11.6	ug/L	8035	Standard
	Cr	53	1676.8	5.5	**0.7376**	0.084	11.4	ug/L	470	Standard
	Mn	55	6942.9	2.4	**0.4502**	0.009	2.1	ug/L	1182	Standard
	Co	59	3601.4	2.4	**0.3595**	0.018	5.0	ug/L	333	Standard
	Ni	60	4899.8	3.3	**1.5686**	0.009	0.6	ug/L	71	Standard
	Cu	65	2454.2	1.6	**0.8072**	0.010	1.3	ug/L	64	Standard
	Zn	66	10724.5	2.8	**6.2822**	0.003	0.0	ug/L	125	Standard
>	**Ge**	72	448780.3	2.8				ug/L	399053	Standard
	As	75	686.2	5.1	**0.3710**	0.025	6.7	ug/L	-28	Standard
	Se	82	105.1	0.8	**0.3947**	0.012	3.1	ug/L	26	Standard
	Se-1	77	170.0	2.6	**0.4484**	0.068	15.1	ug/L	118	Standard
>	**Ga**	71	15.0	66.7				mg/L	8	Standard
	Rb	85	21.7	48.0				ug/L	25	Standard
	Y	89	384323.7	1.3				ug/L	368853	Standard
>	**Rh**	103	13.3	43.3				ug/L	10	Standard
	Mo	98	40.2	27.7	**-0.0078**	0.005	62.7	ug/L	68	Standard
	Ag	107	3135.3	1.6	**0.4206**	0.010	2.4	ug/L	84	Standard
	Cd	111	836.9	2.2	**0.2277**	0.006	2.7	mg/L	72	Standard
	Cd	114	1991.7	8.3	**0.2194**	0.021	9.4	ug/L	187	Standard
>	**In**	115	475612.3	0.8				ug/L	464664	Standard
	Sn	118	501.7	9.4	**0.0084**	0.006	68.0	ug/L	438	Standard
	Sb	123	2492.2	2.3	**0.4178**	0.011	2.6	ug/L	433	Standard
	Ba	135	2002.1	1.7	**0.6835**	0.014	2.1	ug/L	14	Standard
	Ce	140	10.0	50.0				ug/L	20	Standard
>	**Tb**	159	649985.8	0.2				ug/L	663064	Standard
	Ho	165	10.0	100.0				ug/L	10	Standard
	Tl	203	934.0	2.7	**0.0759**	0.002	2.7	ug/L	32	Standard
	Tl	205	881.7	3.2	**0.0813**	0.003	3.5	ug/L	28	Standard
	Pb	206	1710.1	2.7	**0.2032**	0.007	3.7	ug/L	190	Standard
	Pb	207	1398.7	2.1	**0.1849**	0.004	2.4	ug/L	155	Standard
	Pb	208	6593.9	1.3	**0.1959**	0.004	2.0	ug/L	766	Standard
	U	238	5909.5	1.6	**0.4362**	0.009	2.0	ug/L	30	Standard
>	**Bi**	209	382489.0	0.5				ug/L	364780	Standard

Sample ID: QC Std 8
Report Date/Time: Friday, April 04, 2014 12:43:32
Page 1

Approved: April 07, 2014

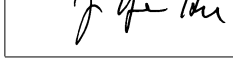
	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	73.3	27.6	**0.0187**	0.016	86.4	mg/L	58	Standard
	K	39	13.3	78.1	**0.0375**	0.086	229.7	mg/L	12	Standard
	Ca	43	40.0	12.5	**-0.3418**	0.172	50.3	mg/L	53	Standard
	Fe	54	201.6	28.6	**0.0214**	0.032	149.3	mg/L	190	Standard
	Fe	57	626.7	6.4	**-0.0907**	0.074	81.3	mg/L	638	Standard
>	**Sc-1**	45	40875.1	0.8				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	0.7	86.6				ug/L	2	Standard
	Br	81	2483.5	3.4				ug/L	2030	Standard
	P	31	292350.9	1.9				ug/L	256822	Standard
	S	34	41092.3	1.1				ug/L	33255	Standard
	Sr	88	153.3	19.1				ug/L	153	Standard
	C	12	1263.4	11.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	2.7	235.5				mg/L	6	Standard
	Ho-1	165	10.0	100.0				mg/L	10	Standard
	Er	166	13.3	114.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		131.086	
	Be	9	100.161		
	Al	27			
	Sc	45			
	Ti	47			
	V	51	82.455		
	Cr	52	72.767		
	Cr	53			
	Mn	55	90.043		
	Co	59	89.886		
	Ni	60	98.040		
	Cu	65	100.898		
	Zn	66	100.514		
>	Ge	72		112.461	
	As	75	92.752		
	Se	82	98.686		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 8
Report Date/Time: Friday, April 04, 2014 12:43:32
Page 2

Approved: April 07, 2014



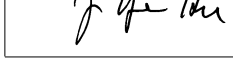
⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98			
|	Ag	107	105.147		
|	Cd	111	94.865		
|	Cd	114			
|>	In	115		102.356	
|	Sn	118			
|	Sb	123	104.451		
⌊	Ba	135	91.136		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	94.820		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	97.930		
|	U	238	109.052		
⌊>	Bi	209		104.855	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample

Sample ID: QC Std 8
Report Date/Time: Friday, April 04, 2014 12:43:32
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: PBW 68 WG469833-02
Sample Date/Time: Friday, April 04, 2014 12:50:46
Number of Replicates: 3
Autosampler Position: 331
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	132367.4	1.3				ug/L	113180	Standard
	Be	9	26.7	47.2	**0.0063**	0.005	74.4	ug/L	17	Standard
	Al	27	10808.9	3.9	**0.0332**	0.003	9.0	ug/L	633	Standard
	Sc	45	35511.6	1.9				ug/L	41381	Standard
	Ti	47	28.7	10.7	**0.0234**	0.010	41.4	ug/L	30	Standard
	V	51	1645.3	7.4	**-0.0301**	0.016	54.1	ug/L	1879	Standard
	Cr	52	7305.8	1.3	**-0.0849**	0.014	16.8	ug/L	8035	Standard
	Cr	53	528.3	10.8	**0.0287**	0.041	144.0	ug/L	470	Standard
	Mn	55	1176.4	3.3	**-0.0132**	0.001	9.5	ug/L	1182	Standard
	Co	59	218.3	8.2	**-0.0220**	0.002	7.5	ug/L	333	Standard
	Ni	60	185.0	4.3	**0.0328**	0.003	8.6	ug/L	71	Standard
	Cu	65	152.0	9.2	**0.0245**	0.005	20.5	ug/L	64	Standard
	Zn	66	1440.4	1.8	**0.8192**	0.030	3.6	ug/L	125	Standard
>	Ge	72	403602.7	2.3				ug/L	399053	Standard
	As	75	-37.2	23.3	**-0.0103**	0.005	45.9	ug/L	-28	Standard
	Se	82	27.0	10.8	**0.0335**	0.017	52.1	ug/L	26	Standard
	Se-1	77	111.3	8.5	**0.0659**	0.112	169.8	ug/L	118	Standard
>	Ga	71	8.3	91.7				mg/L	8	Standard
	Rb	85	65.0	30.8				ug/L	25	Standard
	Y	89	346956.4	1.5				ug/L	368853	Standard
>	Rh	103	8.3	34.6				ug/L	10	Standard
	Mo	98	21.0	6.0	**-0.0155**	0.001	4.5	ug/L	68	Standard
	Ag	107	59.3	10.2	**-0.0057**	0.001	14.3	ug/L	84	Standard
	Cd	111	53.6	2.8	**-0.0090**	0.000	3.4	mg/L	72	Standard
	Cd	114	109.1	25.1	**-0.0125**	0.004	31.1	ug/L	187	Standard
>	In	115	435842.6	1.1				ug/L	464664	Standard
	Sn	118	466.7	4.5	**0.0093**	0.003	27.7	ug/L	438	Standard
	Sb	123	88.1	9.6	**-0.0097**	0.002	18.7	ug/L	433	Standard
	Ba	135	79.0	17.6	**0.0177**	0.006	31.8	ug/L	14	Standard
	Ce	140	81.7	33.7				ug/L	20	Standard
>	Tb	159	600839.5	1.3				ug/L	663064	Standard
	Ho	165	13.3	43.3				ug/L	10	Standard
	Tl	203	30.7	27.7	**-0.0028**	0.001	30.5	ug/L	32	Standard
	Tl	205	38.3	78.6	**-0.0005**	0.003	665.1	ug/L	28	Standard
	Pb	206	216.7	6.0	**-0.0046**	0.002	38.7	ug/L	190	Standard
	Pb	207	171.3	7.6	**-0.0036**	0.002	64.2	ug/L	155	Standard
	Pb	208	855.3	6.5	**-0.0011**	0.002	173.3	ug/L	766	Standard
	U	238	6.7	56.8	**-0.0027**	0.000	11.9	ug/L	30	Standard
>	Bi	209	356947.1	2.6				ug/L	364780	Standard

Sample ID: PBW 68 WG469833-02
Report Date/Time: Friday, April 04, 2014 12:52:57
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	51.7	5.6	**0.0076**	0.003	41.3	mg/L	58	Standard
	K	39	5.0	173.2	**-0.0265**	0.081	306.1	mg/L	12	Standard
	Ca	43	28.3	40.8	**-0.6117**	0.470	76.8	mg/L	53	Standard
	Fe	54	116.1	23.9	**-0.0163**	0.019	117.2	mg/L	190	Standard
	Fe	57	618.3	5.7	**0.0852**	0.095	111.4	mg/L	638	Standard
>	**Sc-1**	45	35511.6	1.9				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	1.3	114.6				ug/L	2	Standard
	Br	81	2343.5	5.1				ug/L	2030	Standard
	P	31	218130.0	3.2				ug/L	256822	Standard
	S	34	38353.5	1.3				ug/L	33255	Standard
	Sr	88	153.3	6.8				ug/L	153	Standard
	C	12	1100.0	17.3				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	13.2	41.7				mg/L	6	Standard
	Ho-1	165	13.3	43.3				mg/L	10	Standard
	Er	166	3.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		116.953	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.140	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Approved: April 07, 2014

Y	89	
Rh	103	
Mo	98	
Ag	107	
Cd	111	
Cd	114	
In	115	93.797
Sn	118	
Sb	123	
Ba	135	
Ce	140	
Tb	159	
Ho	165	
Tl	203	
Tl	205	
Pb	206	
Pb	207	
Pb	208	
U	238	
Bi	209	97.853
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	
C	12	
N	14	
Hg	202	
Dy	164	
Ho-1	165	
Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: PBW 68 WG469833-02
Report Date/Time: Friday, April 04, 2014 12:52:57
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: LCSW 68 WG469833-03
Sample Date/Time: Friday, April 04, 2014 12:53:48
Number of Replicates: 3
Autosampler Position: 332
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	138823.7	3.8				ug/L	113180	Standard
	Be	9	66552.5	0.9	**23.0266**	0.710	3.1	ug/L	17	Standard
	Al	27	5426.0	32.1	**0.0031**	0.008	254.5	ug/L	633	Standard
	Sc	45	36672.7	2.4				ug/L	41381	Standard
	Ti	47	27.0	16.1	**0.0152**	0.013	87.0	ug/L	30	Standard
	V	51	213985.4	1.6	**23.0198**	0.215	0.9	ug/L	1879	Standard
	Cr	52	233536.5	1.1	**23.1439**	0.090	0.4	ug/L	8035	Standard
	Cr	53	34323.8	1.1	**23.4998**	0.196	0.8	ug/L	470	Standard
	Mn	55	264920.5	1.9	**23.1761**	0.294	1.3	ug/L	1182	Standard
	Co	59	194992.6	1.5	**23.6252**	0.251	1.1	ug/L	333	Standard
	Ni	60	70933.0	1.1	**24.7924**	0.177	0.7	ug/L	71	Standard
	Cu	65	69235.8	1.3	**25.3243**	0.183	0.7	ug/L	64	Standard
	Zn	66	41096.7	2.1	**26.1846**	0.484	1.8	ug/L	125	Standard
>	Ge	72	419558.8	0.7				ug/L	399053	Standard
	As	75	44104.9	0.7	**24.7194**	0.294	1.2	ug/L	-28	Standard
	Se	82	4902.1	0.3	**25.1437**	0.156	0.6	ug/L	26	Standard
	Se-1	77	2940.0	2.2	**25.1103**	0.753	3.0	ug/L	118	Standard
>	Ga	71	20.0	25.0				mg/L	8	Standard
	Rb	85	45.0	19.2				ug/L	25	Standard
	Y	89	357095.9	0.9				ug/L	368853	Standard
>	Rh	103	43.3	40.5				ug/L	10	Standard
	Mo	98	57.5	6.9	**0.0023**	0.002	95.0	ug/L	68	Standard
	Ag	107	181290.0	1.7	**27.2719**	0.590	2.2	ug/L	84	Standard
	Cd	111	74735.8	1.0	**24.6075**	0.334	1.4	mg/L	72	Standard
	Cd	114	181178.7	1.9	**24.2972**	0.435	1.8	ug/L	187	Standard
>	In	115	438702.0	1.0				ug/L	464664	Standard
	Sn	118	505.0	6.2	**0.0136**	0.004	28.0	ug/L	438	Standard
	Sb	123	139370.4	0.4	**26.9295**	0.293	1.1	ug/L	433	Standard
	Ba	135	63499.5	0.3	**23.9111**	0.186	0.8	ug/L	14	Standard
	Ce	140	83.3	15.1				ug/L	20	Standard
>	Tb	159	612309.9	1.8				ug/L	663064	Standard
	Ho	165	13.3	43.3				ug/L	10	Standard
	Tl	203	270904.2	1.8	**25.0648**	0.283	1.1	ug/L	32	Standard
	Tl	205	251934.4	1.9	**25.9602**	0.378	1.5	ug/L	28	Standard
	Pb	206	172778.6	1.1	**25.7100**	0.134	0.5	ug/L	190	Standard
	Pb	207	150298.2	1.1	**24.6870**	0.131	0.5	ug/L	155	Standard
	Pb	208	693377.7	1.1	**25.4695**	0.165	0.6	ug/L	766	Standard
	U	238	336923.9	0.1	**26.5598**	0.455	1.7	ug/L	30	Standard
>	Bi	209	360798.7	1.6				ug/L	364780	Standard

Sample ID: LCSW 68 WG469833-03
Report Date/Time: Friday, April 04, 2014 12:55:58
Page 1

Approved: April 07, 2014

	Na	23	3.3	86.6	**0.1256**	0.844	672.0	mg/L	0	Standard
	Mg	24	73.3	14.2	**0.0254**	0.008	31.3	mg/L	58	Standard
	K	39	8.3	34.6	**0.0039**	0.027	687.2	mg/L	12	Standard
	Ca	43	50.0	45.8	**0.2427**	0.964	397.1	mg/L	53	Standard
	Fe	54	171.7	36.3	**0.0164**	0.041	251.4	mg/L	190	Standard
	Fe	57	623.3	8.7	**0.0509**	0.138	272.0	mg/L	638	Standard
>	**Sc-1**	45	36672.7	2.4				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	3.0	33.3				ug/L	2	Standard
	Br	81	2723.6	14.4				ug/L	2030	Standard
	P	31	272829.6	0.9				ug/L	256822	Standard
	S	34	36784.6	1.2				ug/L	33255	Standard
	Sr	88	153.3	19.7				ug/L	153	Standard
	C	12	1196.7	1.3				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	23.2	89.0				mg/L	6	Standard
	Ho-1	165	13.3	43.3				mg/L	10	Standard
	Er	166	3.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		122.658	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.139	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: LCSW 68 WG469833-03
Report Date/Time: Friday, April 04, 2014 12:55:58
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	94.413
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	98.909
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: LCSW 68 WG469833-03
Report Date/Time: Friday, April 04, 2014 12:55:58
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404027401 WG469833-01
Sample Date/Time: Friday, April 04, 2014 12:56:50
Number of Replicates: 3
Autosampler Position: 333
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	146609.3	1.1				ug/L	113180	Standard
	Be	9	108.3	19.2	**0.0321**	0.007	21.2	ug/L	17	Standard
	Al	27	5530582.1	0.9	**26.5303**	0.528	2.0	ug/L	633	Standard
	Sc	45	40803.2	0.6				ug/L	41381	Standard
	Ti	47	1912.1	8.6	**5.2348**	0.308	5.9	ug/L	30	Standard
	V	51	9909.1	2.1	**0.7999**	0.032	4.0	ug/L	1879	Standard
	Cr	52	12589.2	3.1	**0.3566**	0.066	18.4	ug/L	8035	Standard
	Cr	53	4891.3	98.1	**2.8622**	3.159	110.4	ug/L	470	Standard
	Mn	55	880265.8	2.4	**72.9461**	1.343	1.8	ug/L	1182	Standard
	Co	59	5022.8	1.8	**0.5261**	0.007	1.3	ug/L	333	Standard
	Ni	60	6626.8	1.1	**2.1551**	0.045	2.1	ug/L	71	Standard
	Cu	65	3564.1	2.0	**1.1996**	0.058	4.8	ug/L	64	Standard
	Zn	66	8982.0	2.7	**5.2896**	0.063	1.2	ug/L	125	Standard
>	Ge	72	444614.6	3.0				ug/L	399053	Standard
	As	75	503.1	9.2	**0.2773**	0.024	8.5	ug/L	-28	Standard
	Se	82	85.5	15.0	**0.3037**	0.057	18.7	ug/L	26	Standard
	Se-1	77	218.7	6.7	**0.8670**	0.096	11.1	ug/L	118	Standard
>	Ga	71	416.7	3.7				mg/L	8	Standard
	Rb	85	21957.6	3.4				ug/L	25	Standard
	Y	89	387567.2	3.0				ug/L	368853	Standard
>	Rh	103	58.3	17.8				ug/L	10	Standard
	Mo	98	2093.6	3.5	**0.9460**	0.032	3.3	ug/L	68	Standard
	Ag	107	95.7	10.5	**-0.0011**	0.001	114.1	ug/L	84	Standard
	Cd	111	207.7	10.9	**0.0381**	0.008	19.8	mg/L	72	Standard
	Cd	114	512.8	8.5	**0.0380**	0.006	15.9	ug/L	187	Standard
>	In	115	463088.3	1.7				ug/L	464664	Standard
	Sn	118	1200.0	7.4	**0.0917**	0.012	13.4	ug/L	438	Standard
	Sb	123	321.1	4.2	**0.0320**	0.002	5.9	ug/L	433	Standard
	Ba	135	46708.9	1.7	**16.6580**	0.110	0.7	ug/L	14	Standard
	Ce	140	10735.5	2.4				ug/L	20	Standard
>	Tb	159	652742.3	2.0				ug/L	663064	Standard
	Ho	165	610.0	7.1				ug/L	10	Standard
	Tl	203	782.0	13.2	**0.0637**	0.008	13.3	ug/L	32	Standard
	Tl	205	740.0	15.1	**0.0687**	0.010	15.0	ug/L	28	Standard
	Pb	206	4241.9	1.4	**0.5692**	0.016	2.9	ug/L	190	Standard
	Pb	207	3513.7	0.7	**0.5222**	0.011	2.1	ug/L	155	Standard
	Pb	208	16345.1	0.6	**0.5438**	0.011	2.0	ug/L	766	Standard
	U	238	930.7	2.1	**0.0672**	0.002	3.5	ug/L	30	Standard
>	Bi	209	376152.1	1.3				ug/L	364780	Standard

Sample ID: L1404027401 WG469833-01
Report Date/Time: Friday, April 04, 2014 12:59:00

Approved: April 07, 2014

	Na	23	60.0	22.0	**14.9395**	3.453	23.1	mg/L	0	Standard
	Mg	24	16924.5	2.3	**13.6090**	0.378	2.8	mg/L	58	Standard
	K	39	56.7	25.5	**0.3998**	0.122	30.6	mg/L	12	Standard
	Ca	43	355.0	21.3	**11.0587**	2.688	24.3	mg/L	53	Standard
	Fe	54	1392.3	2.8	**0.6875**	0.024	3.5	mg/L	190	Standard
	Fe	57	911.7	5.9	**0.4995**	0.118	23.7	mg/L	638	Standard
>	**Sc-1**	45	40803.2	0.6				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	2.3	49.5				ug/L	2	Standard
	Br	81	12315.0	3.4				ug/L	2030	Standard
	P	31	304990.4	2.6				ug/L	256822	Standard
	S	34	33796.0	3.7				ug/L	33255	Standard
	Sr	88	236.7	15.0				ug/L	153	Standard
	C	12	1996.8	12.0				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	16.7	124.9				mg/L	0	Standard
	Dy	164	644.4	20.0				mg/L	6	Standard
	Ho-1	165	610.0	7.1				mg/L	10	Standard
	Er	166	326.7	15.4				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		129.537	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		111.417	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.661
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	103.118
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404027401DP WG469833-04
Sample Date/Time: Friday, April 04, 2014 12:59:52
Number of Replicates: 3
Autosampler Position: 334
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	145675.4	1.9				ug/L	113180	Standard
	Be	9	115.0	23.0	**0.0345**	0.009	25.0	ug/L	17	Standard
	Al	27	5632242.5	0.7	**27.1953**	0.622	2.3	ug/L	633	Standard
	Sc	45	40223.3	2.3				ug/L	41381	Standard
	Ti	47	2168.5	18.7	**6.0326**	1.239	20.5	ug/L	30	Standard
	V	51	10763.9	4.1	**0.8995**	0.051	5.7	ug/L	1879	Standard
	Cr	52	13159.4	2.0	**0.4250**	0.005	1.2	ug/L	8035	Standard
	Cr	53	3102.0	3.3	**1.7036**	0.056	3.3	ug/L	470	Standard
	Mn	55	876193.5	2.3	**73.3940**	0.139	0.2	ug/L	1182	Standard
	Co	59	5042.5	2.3	**0.5346**	0.003	0.5	ug/L	333	Standard
	Ni	60	6757.5	2.2	**2.2220**	0.003	0.1	ug/L	71	Standard
	Cu	65	3725.5	4.3	**1.2683**	0.040	3.1	ug/L	64	Standard
	Zn	66	9523.3	1.6	**5.6804**	0.050	0.9	ug/L	125	Standard
>	**Ge**	72	439752.5	2.1				ug/L	399053	Standard
	As	75	579.5	4.4	**0.3210**	0.010	3.1	ug/L	-28	Standard
	Se	82	130.6	3.6	**0.5308**	0.036	6.8	ug/L	26	Standard
	Se-1	77	246.0	8.5	**1.1207**	0.200	17.8	ug/L	118	Standard
>	**Ga**	71	523.3	7.7				mg/L	8	Standard
	Rb	85	24105.8	1.5				ug/L	25	Standard
	Y	89	376496.8	3.2				ug/L	368853	Standard
>	**Rh**	103	35.0	37.8				ug/L	10	Standard
	Mo	98	2170.3	3.0	**0.9916**	0.027	2.7	ug/L	68	Standard
	Ag	107	106.0	12.7	**0.0006**	0.002	353.8	ug/L	84	Standard
	Cd	111	192.7	3.7	**0.0340**	0.002	7.2	mg/L	72	Standard
	Cd	114	482.1	13.5	**0.0347**	0.009	24.7	ug/L	187	Standard
>	**In**	115	458524.3	0.4				ug/L	464664	Standard
	Sn	118	1226.7	2.1	**0.0961**	0.003	3.3	ug/L	438	Standard
	Sb	123	331.0	1.9	**0.0344**	0.001	3.1	ug/L	433	Standard
	Ba	135	47029.2	1.0	**16.9390**	0.141	0.8	ug/L	14	Standard
	Ce	140	12428.5	8.4				ug/L	20	Standard
>	**Tb**	159	638982.2	1.4				ug/L	663064	Standard
	Ho	165	810.0	3.3				ug/L	10	Standard
	Tl	203	625.7	2.4	**0.0508**	0.002	3.8	ug/L	32	Standard
	Tl	205	588.3	13.0	**0.0546**	0.007	13.1	ug/L	28	Standard
	Pb	206	4267.6	1.2	**0.5825**	0.005	0.8	ug/L	190	Standard
	Pb	207	3503.1	0.8	**0.5293**	0.006	1.1	ug/L	155	Standard
	Pb	208	16465.5	0.1	**0.5573**	0.007	1.2	ug/L	766	Standard
	U	238	964.4	4.6	**0.0708**	0.003	3.6	ug/L	30	Standard
>	**Bi**	209	370246.9	1.2				ug/L	364780	Standard

Sample ID: L1404027401DP WG469833-04
Report Date/Time: Friday, April 04, 2014 13:02:02
Page 1

Approved: April 07, 2014

	Na	23	65.0	20.4	**16.5270**	3.642	22.0	mg/L	0	Standard
	Mg	24	17071.3	1.1	**13.9306**	0.414	3.0	mg/L	58	Standard
	K	39	76.7	15.1	**0.5745**	0.084	14.5	mg/L	12	Standard
	Ca	43	326.7	15.5	**10.1898**	1.590	15.6	mg/L	53	Standard
	Fe	54	1325.9	7.1	**0.6607**	0.045	6.8	mg/L	190	Standard
	Fe	57	1025.0	10.3	**0.7659**	0.251	32.8	mg/L	638	Standard
>	**Sc-1**	45	40223.3	2.3				mg/L	41381	Standard
	Cl	35	3.3	91.7				ug/L	4	Standard
	Kr	83	1.3	43.3				ug/L	2	Standard
	Br	81	21051.3	3.8				ug/L	2030	Standard
	P	31	312215.8	0.8				ug/L	256822	Standard
	S	34	33770.9	0.7				ug/L	33255	Standard
	Sr	88	261.7	10.5				ug/L	153	Standard
	C	12	1873.5	13.3				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	16.7	124.9				mg/L	0	Standard
	Dy	164	625.2	9.6				mg/L	6	Standard
	Ho-1	165	810.0	3.3				mg/L	10	Standard
	Er	166	726.7	79.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		128.712	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		110.199	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404027401DP WG469833-04
Report Date/Time: Friday, April 04, 2014 13:02:02
Page 2

Approved: April 07, 2014

Y	89	
Rh	103	
Mo	98	
Ag	107	
Cd	111	
Cd	114	
In	115	98.679
Sn	118	
Sb	123	
Ba	135	
Ce	140	
Tb	159	
Ho	165	
Tl	203	
Tl	205	
Pb	206	
Pb	207	
Pb	208	
U	238	
Bi	209	101.499
Na	23	
Mg	24	
K	39	
Ca	43	
Fe	54	
Fe	57	
Sc-1	45	
Cl	35	
Kr	83	
Br	81	
P	31	
S	34	
Sr	88	
C	12	
N	14	
Hg	202	
Dy	164	
Ho-1	165	
Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: L1404027401DP WG469833-04
Report Date/Time: Friday, April 04, 2014 13:02:02
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404027401S WG469833-05
Sample Date/Time: Friday, April 04, 2014 13:02:54
Number of Replicates: 3
Autosampler Position: 335
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	141967.5	3.5				ug/L	113180	Standard
	Be	9	70383.4	5.0	**23.7878**	0.463	1.9	ug/L	17	Standard
	Al	27	5462901.3	3.1	**27.0630**	0.437	1.6	ug/L	633	Standard
	Sc	45	40091.4	4.8				ug/L	41381	Standard
	Ti	47	1776.4	6.4	**4.9340**	0.247	5.0	ug/L	30	Standard
	V	51	238274.7	2.4	**24.5546**	0.204	0.8	ug/L	1879	Standard
	Cr	52	247304.9	1.4	**23.4781**	0.153	0.6	ug/L	8035	Standard
	Cr	53	37855.6	3.8	**24.8277**	0.529	2.1	ug/L	470	Standard
	Mn	55	1149825.5	2.5	**96.6878**	1.495	1.5	ug/L	1182	Standard
	Co	59	208184.6	2.1	**24.1498**	0.093	0.4	ug/L	333	Standard
	Ni	60	79546.1	3.0	**26.6176**	0.322	1.2	ug/L	71	Standard
	Cu	65	74743.7	3.4	**26.1742**	0.671	2.6	ug/L	64	Standard
	Zn	66	50348.2	1.8	**30.7376**	0.011	0.0	ug/L	125	Standard
>	Ge	72	438224.9	1.8				ug/L	399053	Standard
	As	75	47693.0	2.1	**25.5890**	0.099	0.4	ug/L	-28	Standard
	Se	82	5117.6	3.3	**25.1268**	0.470	1.9	ug/L	26	Standard
	Se-1	77	3204.0	2.3	**26.2375**	0.336	1.3	ug/L	118	Standard
>	Ga	71	545.0	13.3				mg/L	8	Standard
	Rb	85	23464.8	1.7				ug/L	25	Standard
	Y	89	374706.0	3.0				ug/L	368853	Standard
>	Rh	103	70.0	7.1				ug/L	10	Standard
	Mo	98	2182.5	2.6	**1.0051**	0.013	1.3	ug/L	68	Standard
	Ag	107	184302.9	2.4	**26.7244**	0.103	0.4	ug/L	84	Standard
	Cd	111	77881.0	2.3	**24.7196**	0.207	0.8	mg/L	72	Standard
	Cd	114	190813.4	4.2	**24.6621**	0.547	2.2	ug/L	187	Standard
>	In	115	455072.8	2.3				ug/L	464664	Standard
	Sn	118	1271.7	1.8	**0.1026**	0.003	2.5	ug/L	438	Standard
	Sb	123	148002.6	1.9	**27.5725**	0.551	2.0	ug/L	433	Standard
	Ba	135	112785.0	2.3	**40.9487**	0.128	0.3	ug/L	14	Standard
	Ce	140	11993.1	2.2				ug/L	20	Standard
>	Tb	159	636770.4	3.7				ug/L	663064	Standard
	Ho	165	746.7	15.5				ug/L	10	Standard
	Tl	203	284949.7	0.9	**25.7711**	0.334	1.3	ug/L	32	Standard
	Tl	205	262655.9	1.8	**26.4545**	0.477	1.8	ug/L	28	Standard
	Pb	206	186450.3	1.4	**27.1195**	0.263	1.0	ug/L	190	Standard
	Pb	207	161151.2	0.8	**25.8746**	0.327	1.3	ug/L	155	Standard
	Pb	208	739922.4	1.2	**26.5665**	0.224	0.8	ug/L	766	Standard
	U	238	368446.8	1.2	**28.3855**	0.320	1.1	ug/L	30	Standard
>	Bi	209	369158.2	2.0				ug/L	364780	Standard

Sample ID: L1404027401S WG469833-05
Report Date/Time: Friday, April 04, 2014 13:05:04
Page 1

Approved: April 07, 2014

	Na	23	33.3	31.2	**8.0069**	2.318	29.0	mg/L	0	Standard
	Mg	24	16789.3	3.1	**13.7478**	0.312	2.3	mg/L	58	Standard
	K	39	71.7	17.6	**0.5337**	0.085	16.0	mg/L	12	Standard
	Ca	43	345.0	3.8	**10.9328**	0.328	3.0	mg/L	53	Standard
	Fe	54	1526.5	8.7	**0.7765**	0.033	4.3	mg/L	190	Standard
	Fe	57	991.7	10.4	**0.7083**	0.289	40.9	mg/L	638	Standard
>	**Sc-1**	45	40091.4	4.8				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	1.7	34.6				ug/L	2	Standard
	Br	81	13816.3	3.0				ug/L	2030	Standard
	P	31	298224.4	2.7				ug/L	256822	Standard
	S	34	33665.7	4.0				ug/L	33255	Standard
	Sr	88	268.3	31.2				ug/L	153	Standard
	C	12	2080.1	13.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13.3	114.6				mg/L	0	Standard
	Dy	164	598.8	3.2				mg/L	6	Standard
	Ho-1	165	746.7	15.5				mg/L	10	Standard
	Er	166	373.3	10.1				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		125.435	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		109.816	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404027401S WG469833-05
Report Date/Time: Friday, April 04, 2014 13:05:04
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	97.936
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	101.200
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404027401SD WG469833-06
Sample Date/Time: Friday, April 04, 2014 13:05:55
Number of Replicates: 3
Autosampler Position: 336
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	142263.2	1.8				ug/L	113180	Standard
	Be	9	69130.8	2.5	**23.3349**	1.009	4.3	ug/L	17	Standard
	Al	27	5317546.2	1.4	**26.2914**	0.723	2.8	ug/L	633	Standard
	Sc	45	40133.1	1.8				ug/L	41381	Standard
	Ti	47	1795.1	11.3	**5.0610**	0.545	10.8	ug/L	30	Standard
	V	51	233690.5	0.8	**24.4415**	0.340	1.4	ug/L	1879	Standard
	Cr	52	243689.6	2.1	**23.4791**	0.635	2.7	ug/L	8035	Standard
	Cr	53	36906.6	1.9	**24.5695**	0.656	2.7	ug/L	470	Standard
	Mn	55	1116538.6	0.6	**95.2837**	0.277	0.3	ug/L	1182	Standard
	Co	59	203022.7	1.5	**23.9027**	0.490	2.1	ug/L	333	Standard
	Ni	60	78080.7	0.4	**26.5197**	0.272	1.0	ug/L	71	Standard
	Cu	65	73456.0	0.6	**26.1081**	0.316	1.2	ug/L	64	Standard
	Zn	66	50173.3	0.7	**31.0883**	0.372	1.2	ug/L	125	Standard
>	Ge	72	431819.2	0.7				ug/L	399053	Standard
	As	75	46961.7	0.2	**25.5723**	0.159	0.6	ug/L	-28	Standard
	Se	82	5084.8	0.4	**25.3417**	0.276	1.1	ug/L	26	Standard
	Se-1	77	3204.3	1.7	**26.6432**	0.288	1.1	ug/L	118	Standard
>	Ga	71	621.7	0.5				mg/L	8	Standard
	Rb	85	24593.3	2.3				ug/L	25	Standard
	Y	89	376066.1	2.0				ug/L	368853	Standard
>	Rh	103	78.3	55.8				ug/L	10	Standard
	Mo	98	2144.2	2.7	**0.9945**	0.014	1.4	ug/L	68	Standard
	Ag	107	182353.5	0.8	**26.6488**	0.677	2.5	ug/L	84	Standard
	Cd	111	77254.5	1.1	**24.7076**	0.343	1.4	mg/L	72	Standard
	Cd	114	188562.4	2.3	**24.5597**	0.295	1.2	ug/L	187	Standard
>	In	115	451693.9	2.0				ug/L	464664	Standard
	Sn	118	1916.8	3.2	**0.1809**	0.006	3.1	ug/L	438	Standard
	Sb	123	145039.5	0.4	**27.2231**	0.440	1.6	ug/L	433	Standard
	Ba	135	112304.7	1.3	**41.0853**	0.607	1.5	ug/L	14	Standard
	Ce	140	13844.7	5.5				ug/L	20	Standard
>	Tb	159	636292.8	1.5				ug/L	663064	Standard
	Ho	165	680.0	14.7				ug/L	10	Standard
	Tl	203	281363.2	1.6	**25.5027**	0.085	0.3	ug/L	32	Standard
	Tl	205	259664.7	1.1	**26.2140**	0.342	1.3	ug/L	28	Standard
	Pb	206	184974.7	0.8	**26.9679**	0.289	1.1	ug/L	190	Standard
	Pb	207	160380.7	0.3	**25.8117**	0.427	1.7	ug/L	155	Standard
	Pb	208	734362.5	0.4	**26.4297**	0.370	1.4	ug/L	766	Standard
	U	238	359801.0	0.5	**27.7881**	0.638	2.3	ug/L	30	Standard
>	Bi	209	368298.4	1.8				ug/L	364780	Standard

Sample ID: L1404027401SD WG469833-06
Report Date/Time: Friday, April 04, 2014 13:08:05
Page 1

Approved: April 07, 2014

	Na	23	58.3	35.7	**14.7076**	5.351	36.4	mg/L	0	Standard
	Mg	24	16148.6	0.3	**13.2022**	0.213	1.6	mg/L	58	Standard
	K	39	73.3	10.4	**0.5496**	0.074	13.4	mg/L	12	Standard
	Ca	43	388.3	4.5	**12.5092**	0.616	4.9	mg/L	53	Standard
	Fe	54	1412.3	3.9	**0.7123**	0.045	6.4	mg/L	190	Standard
	Fe	57	996.7	7.4	**0.7106**	0.188	26.4	mg/L	638	Standard
>	**Sc-1**	45	40133.1	1.8				mg/L	41381	Standard
	Cl	35	2.7	43.3				ug/L	4	Standard
	Kr	83	2.0	100.0				ug/L	2	Standard
	Br	81	13632.8	6.1				ug/L	2030	Standard
	P	31	301303.3	1.1				ug/L	256822	Standard
	S	34	33637.3	1.9				ug/L	33255	Standard
	Sr	88	276.7	3.8				ug/L	153	Standard
	C	12	1630.1	5.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	16.7	91.7				mg/L	0	Standard
	Dy	164	709.0	14.3				mg/L	6	Standard
	Ho-1	165	680.0	14.7				mg/L	10	Standard
	Er	166	300.0	18.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		125.697	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.211	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404027401SD WG469833-06
Report Date/Time: Friday, April 04, 2014 13:08:05
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	97.209
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	100.965
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: L1404027401SD WG469833-06
Report Date/Time: Friday, April 04, 2014 13:08:05
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404024310
Sample Date/Time: Friday, April 04, 2014 13:08:57
Number of Replicates: 3
Autosampler Position: 337
Sample Description: 2
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	163707.6	4.7				ug/L	113180	Standard
	Be	9	115.0	19.0	**0.0302**	0.005	16.9	ug/L	17	Standard
	Al	27	3561454.6	4.3	**15.2916**	0.310	2.0	ug/L	633	Standard
	Sc	45	39962.7	3.3				ug/L	41381	Standard
	Ti	47	970.4	2.4	**2.5361**	0.043	1.7	ug/L	30	Standard
	V	51	20085.0	4.7	**1.7712**	0.051	2.9	ug/L	1879	Standard
	Cr	52	33961.4	2.2	**2.3167**	0.037	1.6	ug/L	8035	Standard
	Cr	53	5342.6	2.6	**3.0307**	0.012	0.4	ug/L	470	Standard
	Mn	55	156085.6	2.8	**12.3891**	0.061	0.5	ug/L	1182	Standard
	Co	59	3591.1	2.1	**0.3479**	0.003	0.8	ug/L	333	Standard
	Ni	60	5864.8	2.1	**1.8366**	0.025	1.4	ug/L	71	Standard
	Cu	65	3295.0	3.2	**1.0664**	0.005	0.5	ug/L	64	Standard
	Zn	66	5288.9	3.8	**2.9472**	0.075	2.5	ug/L	125	Standard
>	**Ge**	72	460361.1	2.7				ug/L	399053	Standard
	As	75	6128.4	2.5	**3.1403**	0.031	1.0	ug/L	-28	Standard
	Se	82	135.0	0.2	**0.5226**	0.016	3.1	ug/L	26	Standard
	Se-1	77	201.7	8.7	**0.6691**	0.161	24.1	ug/L	118	Standard
>	**Ga**	71	4082.2	1.4				mg/L	8	Standard
	Rb	85	22892.3	5.4				ug/L	25	Standard
	Y	89	384981.0	3.9				ug/L	368853	Standard
>	**Rh**	103	35.0	37.8				ug/L	10	Standard
	Mo	98	43379.2	3.8	**20.0026**	0.169	0.8	ug/L	68	Standard
	Ag	107	95.3	12.9	**-0.0012**	0.001	113.8	ug/L	84	Standard
	Cd	111	249.1	1.7	**0.0506**	0.003	5.4	mg/L	72	Standard
	Cd	114	822.4	3.7	**0.0768**	0.002	2.2	ug/L	187	Standard
>	**In**	115	465527.9	3.0				ug/L	464664	Standard
	Sn	118	1093.4	13.4	**0.0782**	0.014	17.6	ug/L	438	Standard
	Sb	123	4151.0	2.4	**0.7298**	0.007	1.0	ug/L	433	Standard
	Ba	135	75612.0	3.6	**26.8283**	0.176	0.7	ug/L	14	Standard
	Ce	140	3052.0	14.1				ug/L	20	Standard
>	**Tb**	159	641552.3	3.4				ug/L	663064	Standard
	Ho	165	176.7	32.2				ug/L	10	Standard
	Tl	203	7245.7	3.6	**0.6382**	0.009	1.5	ug/L	32	Standard
	Tl	205	6786.5	3.5	**0.6673**	0.018	2.8	ug/L	28	Standard
	Pb	206	911.4	4.4	**0.0932**	0.006	6.6	ug/L	190	Standard
	Pb	207	756.0	3.2	**0.0873**	0.002	2.0	ug/L	155	Standard
	Pb	208	3555.2	2.5	**0.0927**	0.001	1.0	ug/L	766	Standard
	U	238	5461.3	2.3	**0.4102**	0.005	1.3	ug/L	30	Standard
>	**Bi**	209	375685.3	2.2				ug/L	364780	Standard

Sample ID: L1404024310
Report Date/Time: Friday, April 04, 2014 13:11:07
Page 1

Approved: April 07, 2014

	Na	23	35.0	24.7	**8.6054**	2.617	30.4	mg/L	0	Standard
	Mg	24	6879.9	2.0	**5.6310**	0.297	5.3	mg/L	58	Standard
	K	39	65.0	23.1	**0.4825**	0.137	28.5	mg/L	12	Standard
	Ca	43	273.3	4.6	**8.3156**	0.167	2.0	mg/L	53	Standard
	Fe	54	310.5	9.2	**0.0860**	0.012	14.1	mg/L	190	Standard
	Fe	57	661.7	2.4	**0.0130**	0.016	119.3	mg/L	638	Standard
>	**Sc-1**	45	39962.7	3.3				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	4.3	53.3				ug/L	2	Standard
	Br	81	20907.8	3.1				ug/L	2030	Standard
	P	31	342992.6	5.4				ug/L	256822	Standard
	S	34	35030.5	2.3				ug/L	33255	Standard
	Sr	88	253.3	1.1				ug/L	153	Standard
	C	12	1396.7	12.6				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	83.3	13.9				mg/L	0	Standard
	Dy	164	136.3	26.6				mg/L	6	Standard
	Ho-1	165	176.7	32.2				mg/L	10	Standard
	Er	166	146.7	23.9				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		144.644	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		115.363	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404024310
Report Date/Time: Friday, April 04, 2014 13:11:07
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	100.186
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	102.990
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404024310PS WG469895-01
Sample Date/Time: Friday, April 04, 2014 13:11:59
Number of Replicates: 3
Autosampler Position: 338
Sample Description: 2
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	167769.4	6.2				ug/L	113180	Standard
	Be	9	147487.8	1.2	**42.2882**	2.263	5.4	ug/L	17	Standard
	Al	27	3659403.4	2.2	**15.3540**	0.651	4.2	ug/L	633	Standard
	Sc	45	41055.6	3.2				ug/L	41381	Standard
	Ti	47	922.4	29.1	**2.3623**	0.783	33.2	ug/L	30	Standard
	V	51	500937.4	2.1	**48.1727**	0.891	1.8	ug/L	1879	Standard
	Cr	52	538446.8	2.6	**48.3743**	0.917	1.9	ug/L	8035	Standard
	Cr	53	79200.0	3.5	**48.5902**	0.653	1.3	ug/L	470	Standard
	Mn	55	747246.4	2.2	**58.3332**	0.948	1.6	ug/L	1182	Standard
	Co	59	439445.5	1.5	**47.4152**	0.809	1.7	ug/L	333	Standard
	Ni	60	160152.3	2.6	**49.8246**	0.936	1.9	ug/L	71	Standard
	Cu	65	154300.0	2.5	**50.2301**	0.377	0.8	ug/L	64	Standard
	Zn	66	91492.5	2.3	**51.9862**	0.297	0.6	ug/L	125	Standard
>	Ge	72	471775.9	2.9				ug/L	399053	Standard
	As	75	103540.7	2.3	**51.6031**	0.837	1.6	ug/L	-28	Standard
	Se	82	10479.4	2.0	**47.9155**	1.053	2.2	ug/L	26	Standard
	Se-1	77	6490.1	1.5	**50.2458**	1.687	3.4	ug/L	118	Standard
>	Ga	71	4355.6	5.1				mg/L	8	Standard
	Rb	85	22985.8	1.3				ug/L	25	Standard
	Y	89	385107.8	0.3				ug/L	368853	Standard
>	Rh	103	63.3	35.6				ug/L	10	Standard
	Mo	98	44191.7	1.1	**20.2746**	0.212	1.0	ug/L	68	Standard
	Ag	107	398202.0	1.9	**56.1655**	0.962	1.7	ug/L	84	Standard
	Cd	111	164872.8	0.8	**50.9168**	0.446	0.9	mg/L	72	Standard
	Cd	114	394980.2	2.2	**49.6813**	0.847	1.7	ug/L	187	Standard
>	In	115	467969.2	0.5				ug/L	464664	Standard
	Sn	118	1406.7	32.0	**0.1141**	0.053	46.2	ug/L	438	Standard
	Sb	123	306337.2	1.0	**55.5148**	0.638	1.1	ug/L	433	Standard
	Ba	135	216349.8	1.2	**76.3974**	1.003	1.3	ug/L	14	Standard
	Ce	140	4215.7	53.2				ug/L	20	Standard
>	Tb	159	642981.4	0.5				ug/L	663064	Standard
	Ho	165	223.3	18.6				ug/L	10	Standard
	Tl	203	599016.3	1.4	**52.9434**	0.173	0.3	ug/L	32	Standard
	Tl	205	553883.2	1.2	**54.5198**	0.400	0.7	ug/L	28	Standard
	Pb	206	370599.4	1.3	**52.7107**	0.171	0.3	ug/L	190	Standard
	Pb	207	333479.4	1.3	**52.3537**	0.391	0.7	ug/L	155	Standard
	Pb	208	1503279.3	0.9	**52.7788**	0.431	0.8	ug/L	766	Standard
	U	238	774672.5	1.5	**58.3220**	0.154	0.3	ug/L	30	Standard
>	Bi	209	377741.5	1.6				ug/L	364780	Standard

Sample ID: L1404024310PS WG469895-01
Report Date/Time: Friday, April 04, 2014 13:14:09
Page 1

Approved: April 07, 2014

	Na	23	63.3	31.9	**15.6188**	4.715	30.2	mg/L	0	Standard
	Mg	24	7093.3	1.0	**5.6474**	0.127	2.2	mg/L	58	Standard
	K	39	73.3	10.4	**0.5341**	0.047	8.9	mg/L	12	Standard
	Ca	43	328.3	3.8	**10.0443**	0.782	7.8	mg/L	53	Standard
	Fe	54	359.6	12.0	**0.1094**	0.030	27.4	mg/L	190	Standard
	Fe	57	660.0	4.2	**-0.0261**	0.090	343.8	mg/L	638	Standard
>	**Sc-1**	45	41055.6	3.2				mg/L	41381	Standard
	Cl	35	1.3	173.2				ug/L	4	Standard
	Kr	83	1.7	91.7				ug/L	2	Standard
	Br	81	22283.1	5.1				ug/L	2030	Standard
	P	31	341050.2	2.2				ug/L	256822	Standard
	S	34	35845.7	0.4				ug/L	33255	Standard
	Sr	88	251.7	24.0				ug/L	153	Standard
	C	12	1566.7	11.2				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	76.7	39.8				mg/L	0	Standard
	Dy	164	148.1	10.1				mg/L	6	Standard
	Ho-1	165	223.3	18.6				mg/L	10	Standard
	Er	166	110.0	18.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		148.233	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		118.224	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404024310PS WG469895-01
Report Date/Time: Friday, April 04, 2014 13:14:09
Page 2

Approved: April 07, 2014

Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		100.711
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		103.553
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: L1404024310PS WG469895-01
Report Date/Time: Friday, April 04, 2014 13:14:09
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404024310SDL WG469895-02
Sample Date/Time: Friday, April 04, 2014 13:15:00
Number of Replicates: 3
Autosampler Position: 339
Sample Description: 10
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	129842.6	2.8				ug/L	113180	Standard
	Be	9	68.3	15.2	**0.0218**	0.003	14.5	ug/L	17	Standard
	Al	27	845368.2	1.8	**4.5594**	0.092	2.0	ug/L	633	Standard
	Sc	45	33807.7	2.6				ug/L	41381	Standard
	Ti	47	142.7	7.8	**0.3914**	0.032	8.2	ug/L	30	Standard
	V	51	5113.3	2.7	**0.3875**	0.020	5.3	ug/L	1879	Standard
	Cr	52	12862.1	1.0	**0.5714**	0.025	4.4	ug/L	8035	Standard
	Cr	53	1395.1	9.9	**0.7013**	0.115	16.4	ug/L	470	Standard
	Mn	55	26179.3	2.1	**2.3814**	0.050	2.1	ug/L	1182	Standard
	Co	59	806.4	2.2	**0.0568**	0.001	2.4	ug/L	333	Standard
	Ni	60	1097.4	4.2	**0.3828**	0.011	2.9	ug/L	71	Standard
	Cu	65	678.7	2.9	**0.2368**	0.007	2.8	ug/L	64	Standard
	Zn	66	2349.2	2.0	**1.4950**	0.023	1.6	ug/L	125	Standard
>	**Ge**	72	386102.1	1.9				ug/L	399053	Standard
	As	75	1098.3	5.2	**0.6798**	0.030	4.4	ug/L	-28	Standard
	Se	82	43.8	5.0	**0.1337**	0.009	6.9	ug/L	26	Standard
	Se-1	77	138.3	7.7	**0.3709**	0.101	27.3	ug/L	118	Standard
>	**Ga**	71	728.4	7.3				mg/L	8	Standard
	Rb	85	3855.5	2.6				ug/L	25	Standard
	Y	89	327731.2	2.4				ug/L	368853	Standard
>	**Rh**	103	18.3	78.7				ug/L	10	Standard
	Mo	98	7373.2	1.1	**3.8255**	0.076	2.0	ug/L	68	Standard
	Ag	107	107.7	14.9	**0.0025**	0.002	92.3	ug/L	84	Standard
	Cd	111	81.2	21.2	**0.0018**	0.006	348.1	mg/L	72	Standard
	Cd	114	221.5	5.8	**0.0044**	0.002	37.3	ug/L	187	Standard
>	**In**	115	411653.7	2.1				ug/L	464664	Standard
	Sn	118	441.7	4.6	**0.0094**	0.002	24.0	ug/L	438	Standard
	Sb	123	1150.1	6.9	**0.2101**	0.011	5.4	ug/L	433	Standard
	Ba	135	13440.3	1.5	**5.3843**	0.034	0.6	ug/L	14	Standard
	Ce	140	475.0	1.1				ug/L	20	Standard
>	**Tb**	159	575469.5	1.4				ug/L	663064	Standard
	Ho	165	40.0	50.0				ug/L	10	Standard
	Tl	203	1457.1	2.7	**0.1373**	0.001	1.0	ug/L	32	Standard
	Tl	205	1320.1	4.3	**0.1400**	0.009	6.1	ug/L	28	Standard
	Pb	206	346.0	1.6	**0.0175**	0.001	8.1	ug/L	190	Standard
	Pb	207	282.7	4.8	**0.0172**	0.002	14.3	ug/L	155	Standard
	Pb	208	1355.4	3.0	**0.0200**	0.002	10.5	ug/L	766	Standard
	U	238	1017.4	4.2	**0.0819**	0.005	5.9	ug/L	30	Standard
>	**Bi**	209	340209.2	1.7				ug/L	364780	Standard

Sample ID: L1404024310SDL WG469895-02
Report Date/Time: Friday, April 04, 2014 13:17:10
Page 1

Approved: April 07, 2014

	Na	23	6.7	114.6	**1.2590**	2.377	188.8	mg/L	0	Standard
	Mg	24	1243.4	7.9	**1.1712**	0.114	9.7	mg/L	58	Standard
	K	39	18.3	41.7	**0.1124**	0.081	72.1	mg/L	12	Standard
	Ca	43	100.0	5.0	**2.5883**	0.322	12.4	mg/L	53	Standard
	Fe	54	87.0	23.3	**-0.0326**	0.012	38.2	mg/L	190	Standard
	Fe	57	608.3	5.3	**0.1341**	0.088	65.4	mg/L	638	Standard
>	**Sc-1**	45	33807.7	2.6				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	2.0	50.0				ug/L	2	Standard
	Br	81	5591.0	2.3				ug/L	2030	Standard
	P	31	114042.7	2.4				ug/L	256822	Standard
	S	34	37080.3	1.6				ug/L	33255	Standard
	Sr	88	175.0	5.7				ug/L	153	Standard
	C	12	1120.0	8.6				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	20.0	50.0				mg/L	0	Standard
	Dy	164	36.0	85.8				mg/L	6	Standard
	Ho-1	165	40.0	50.0				mg/L	10	Standard
	Er	166	13.3	114.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		114.723	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.755	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404024310SDL WG469895-02
Report Date/Time: Friday, April 04, 2014 13:17:10
Page 2

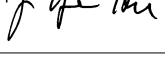
Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		88.592
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		93.264
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 13:18:03
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	130183.6	1.1				ug/L	113180	Standard
	Be	9	126746.3	0.7	**46.7330**	0.193	0.4	ug/L	17	Standard
	Al	27	7625068.6	1.9	**41.2085**	1.227	3.0	ug/L	633	Standard
	Sc	45	36380.4	5.0				ug/L	41381	Standard
	Ti	47	30066.5	1.2	**91.4729**	1.383	1.5	ug/L	30	Standard
	V	51	416941.6	1.9	**46.6752**	1.335	2.9	ug/L	1879	Standard
	Cr	52	444340.9	2.3	**46.4352**	0.743	1.6	ug/L	8035	Standard
	Cr	53	66102.2	1.4	**47.2146**	0.615	1.3	ug/L	470	Standard
	Mn	55	516251.3	0.7	**46.8932**	0.468	1.0	ug/L	1182	Standard
	Co	59	381987.8	0.9	**47.9770**	0.401	0.8	ug/L	333	Standard
	Ni	60	134984.5	2.3	**48.8834**	0.666	1.4	ug/L	71	Standard
	Cu	65	130393.5	2.2	**49.4144**	0.504	1.0	ug/L	64	Standard
	Zn	66	77297.7	1.2	**51.1306**	0.121	0.2	ug/L	125	Standard
>	**Ge**	72	405188.9	1.2				ug/L	399053	Standard
	As	75	86976.6	1.3	**50.4619**	0.141	0.3	ug/L	-28	Standard
	Se	82	9529.2	2.3	**50.7229**	1.071	2.1	ug/L	26	Standard
	Se-1	77	5679.7	0.9	**51.1927**	0.836	1.6	ug/L	118	Standard
>	**Ga**	71	50.0	10.0				mg/L	8	Standard
	Rb	85	871.7	8.0				ug/L	25	Standard
	Y	89	353997.8	0.9				ug/L	368853	Standard
>	**Rh**	103	30.0	44.1				ug/L	10	Standard
	Mo	98	220711.4	1.0	**109.0211**	1.528	1.4	ug/L	68	Standard
	Ag	107	350410.4	1.2	**53.1540**	0.291	0.5	ug/L	84	Standard
	Cd	111	151122.5	1.7	**50.1892**	0.438	0.9	mg/L	72	Standard
	Cd	114	367088.3	0.7	**49.6612**	0.342	0.7	ug/L	187	Standard
>	**In**	115	435136.8	1.1				ug/L	464664	Standard
	Sn	118	414679.3	1.9	**51.5101**	0.419	0.8	ug/L	438	Standard
	Sb	123	270681.3	0.4	**52.7574**	0.736	1.4	ug/L	433	Standard
	Ba	135	126398.8	1.7	**47.9948**	0.407	0.8	ug/L	14	Standard
	Ce	140	161.7	12.5				ug/L	20	Standard
>	**Tb**	159	599981.6	1.3				ug/L	663064	Standard
	Ho	165	13.3	86.6				ug/L	10	Standard
	Tl	203	529150.3	2.6	**50.8311**	0.521	1.0	ug/L	32	Standard
	Tl	205	491849.5	1.0	**52.6300**	0.782	1.5	ug/L	28	Standard
	Pb	206	331702.9	1.6	**51.2817**	0.391	0.8	ug/L	190	Standard
	Pb	207	301608.3	1.7	**51.4682**	0.485	0.9	ug/L	155	Standard
	Pb	208	1347317.9	1.1	**51.4175**	0.418	0.8	ug/L	766	Standard
	U	238	678663.2	0.4	**55.5465**	0.718	1.3	ug/L	30	Standard
>	**Bi**	209	347507.3	1.7				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 13:20:13
Page 1

Approved: April 07, 2014

	Na	23	25.0	60.0	**6.4007**	4.061	63.4	mg/L	0	Standard
	Mg	24	5902.8	1.1	**5.3072**	0.270	5.1	mg/L	58	Standard
	K	39	378.3	8.8	**3.4832**	0.468	13.4	mg/L	12	Standard
	Ca	43	145.0	19.2	**4.1294**	1.331	32.2	mg/L	53	Standard
	Fe	54	8209.3	1.4	**5.0662**	0.288	5.7	mg/L	190	Standard
	Fe	57	2770.3	2.5	**5.0354**	0.421	8.4	mg/L	638	Standard
>	**Sc-1**	45	36380.4	5.0				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	2.7	57.3				ug/L	2	Standard
	Br	81	2110.1	12.4				ug/L	2030	Standard
	P	31	313178.2	3.8				ug/L	256822	Standard
	S	34	45376.2	0.7				ug/L	33255	Standard
	Sr	88	173.3	10.1				ug/L	153	Standard
	C	12	1086.7	7.4				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0	100.0				mg/L	0	Standard
	Dy	164	9.7	177.5				mg/L	6	Standard
	Ho-1	165	13.3	86.6				mg/L	10	Standard
	Er	166	6.7	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		115.024	
	Be	9	93.466		
	Al	27	82.417		
	Sc	45			
	Ti	47	91.473		
	V	51	93.350		
	Cr	52	92.870		
	Cr	53			
	Mn	55	93.786		
	Co	59	95.954		
	Ni	60	97.767		
	Cu	65	98.829		
	Zn	66	102.261		
>	Ge	72		101.538	
	As	75	100.924		
	Se	82	101.446		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 13:20:13
Page 2

Approved: April 07, 2014

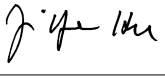
⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	109.021		
|	Ag	107	106.308		
|	Cd	111	100.378		
|	Cd	114			
|>	In	115		93.646	
|	Sn	118	103.020		
|	Sb	123	105.515		
⌊	Ba	135	95.990		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	101.662		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	102.835		
|	U	238	111.093		
⌊>	Bi	209		95.265	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Al	27	
QC Std 6	U	238	

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 13:20:13
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 13:21:05
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	119987.0	3.9				ug/L	113180	Standard
	Be	9	56.7	68.5	**0.0189**	0.015	77.2	ug/L	17	Standard
	Al	27	7636.9	111.6	**0.0194**	0.048	246.6	ug/L	633	Standard
	Sc	45	33944.7	4.7				ug/L	41381	Standard
	Ti	47	19.7	2.9	**0.0009**	0.004	474.8	ug/L	30	Standard
	V	51	1468.4	15.3	**-0.0374**	0.016	43.3	ug/L	1879	Standard
	Cr	52	5949.5	7.2	**-0.1786**	0.006	3.2	ug/L	8035	Standard
	Cr	53	431.7	18.0	**-0.0175**	0.038	218.6	ug/L	470	Standard
	Mn	55	1361.4	51.9	**0.0114**	0.060	523.6	ug/L	1182	Standard
	Co	59	308.3	49.5	**-0.0082**	0.018	215.8	ug/L	333	Standard
	Ni	60	150.7	31.8	**0.0241**	0.015	61.4	ug/L	71	Standard
	Cu	65	118.7	24.3	**0.0152**	0.009	57.1	ug/L	64	Standard
	Zn	66	134.3	33.3	**-0.0447**	0.026	57.4	ug/L	125	Standard
>	**Ge**	72	373263.1	6.4				ug/L	399053	Standard
	As	75	4.1	454.1	**0.0136**	0.011	83.4	ug/L	-28	Standard
	Se	82	23.1	4.1	**0.0226**	0.010	42.9	ug/L	26	Standard
	Se-1	77	105.7	6.2	**0.0913**	0.018	19.4	ug/L	118	Standard
>	**Ga**	71	13.3	57.3				mg/L	8	Standard
	Rb	85	45.0	88.2				ug/L	25	Standard
	Y	89	310711.7	6.3				ug/L	368853	Standard
>	**Rh**	103	8.3	69.3				ug/L	10	Standard
	Mo	98	119.0	82.1	**0.0373**	0.049	132.3	ug/L	68	Standard
	Ag	107	155.7	86.7	**0.0106**	0.021	197.0	ug/L	84	Standard
	Cd	111	147.4	90.2	**0.0257**	0.045	176.1	mg/L	72	Standard
	Cd	114	315.1	80.5	**0.0186**	0.035	188.3	ug/L	187	Standard
>	**In**	115	396798.9	4.1				ug/L	464664	Standard
	Sn	118	491.7	27.0	**0.0180**	0.015	83.7	ug/L	438	Standard
	Sb	123	682.8	48.4	**0.1175**	0.064	54.1	ug/L	433	Standard
	Ba	135	117.3	142.2	**0.0348**	0.066	189.7	ug/L	14	Standard
	Ce	140	36.7	102.3				ug/L	20	Standard
>	**Tb**	159	553416.5	3.4				ug/L	663064	Standard
	Ho	165	3.3	173.2				ug/L	10	Standard
	Tl	203	251.0	139.5	**0.0191**	0.034	178.2	ug/L	32	Standard
	Tl	205	110.0	90.8	**0.0079**	0.011	136.4	ug/L	28	Standard
	Pb	206	335.0	66.2	**0.0171**	0.034	195.7	ug/L	190	Standard
	Pb	207	262.3	63.9	**0.0149**	0.028	188.1	ug/L	155	Standard
	Pb	208	1240.4	63.9	**0.0168**	0.030	176.1	ug/L	766	Standard
	U	238	198.0	123.2	**0.0135**	0.020	149.3	ug/L	30	Standard
>	**Bi**	209	325821.7	4.2				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 13:23:15
Page 1

Approved: April 07, 2014

	Na	23	3.3	173.2	**0.1522**	1.733	1138.4	mg/L	0	Standard
	Mg	24	60.0	30.0	**0.0180**	0.018	101.8	mg/L	58	Standard
	K	39	11.7	24.7	**0.0443**	0.033	74.7	mg/L	12	Standard
	Ca	43	38.3	32.8	**-0.1153**	0.571	495.3	mg/L	53	Standard
	Fe	54	129.2	7.4	**-0.0043**	0.003	74.8	mg/L	190	Standard
	Fe	57	630.0	9.6	**0.1873**	0.212	113.3	mg/L	638	Standard
>	**Sc-1**	45	33944.7	4.7				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	3.0	33.3				ug/L	2	Standard
	Br	81	2156.8	16.3				ug/L	2030	Standard
	P	31	287541.4	5.4				ug/L	256822	Standard
	S	34	42618.3	4.3				ug/L	33255	Standard
	Sr	88	148.3	5.1				ug/L	153	Standard
	C	12	1066.7	2.2				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	2.9	218.3				mg/L	6	Standard
	Ho-1	165	3.3	173.2				mg/L	10	Standard
	Er	166	10.0	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		106.015	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		93.537	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 13:23:15
Page 2

Approved: April 07, 2014

	Y	89	
>	Rh	103	
	Mo	98	
	Ag	107	
	Cd	111	
	Cd	114	
>	In	115	85.395
	Sn	118	
	Sb	123	
	Ba	135	
	Ce	140	
>	Tb	159	
	Ho	165	
	Tl	203	
	Tl	205	
	Pb	206	
	Pb	207	
	Pb	208	
	U	238	
>	Bi	209	89.320
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 13:23:15
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403162103
Sample Date/Time: Friday, April 04, 2014 13:40:19
Number of Replicates: 3
Autosampler Position: 321
Sample Description: 1
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	144343.3	3.9				ug/L	113180	Standard
	Be	9	20.0	25.0	**0.0033**	0.002	54.0	ug/L	17	Standard
	Al	27	4392.3	1.5	**-0.0028**	0.001	39.9	ug/L	633	Standard
	Sc	45	41617.1	2.5				ug/L	41381	Standard
	Ti	47	131.3	3.4	**0.2876**	0.007	2.5	ug/L	30	Standard
	V	51	2096.4	5.0	**-0.0087**	0.006	67.3	ug/L	1879	Standard
	Cr	52	9570.0	0.3	**0.0311**	0.023	74.3	ug/L	8035	Standard
	Cr	53	688.3	5.3	**0.0827**	0.018	21.6	ug/L	470	Standard
	Mn	55	3422.7	2.3	**0.1538**	0.013	8.7	ug/L	1182	Standard
	Co	59	243.0	3.4	**-0.0226**	0.001	5.8	ug/L	333	Standard
	Ni	60	199.7	6.1	**0.0293**	0.005	17.6	ug/L	71	Standard
	Cu	65	287.3	6.6	**0.0625**	0.004	6.6	ug/L	64	Standard
	Zn	66	2218.5	3.9	**1.1547**	0.043	3.8	ug/L	125	Standard
>	**Ge**	72	460457.3	2.7				ug/L	399053	Standard
	As	75	-47.8	80.5	**-0.0128**	0.019	150.9	ug/L	-28	Standard
	Se	82	20.6	31.7	**-0.0144**	0.032	223.7	ug/L	26	Standard
	Se-1	77	100.3	8.1	**-0.1522**	0.045	29.5	ug/L	118	Standard
>	**Ga**	71	30.0	66.7				mg/L	8	Standard
	Rb	85	118.3	4.9				ug/L	25	Standard
	Y	89	385929.1	1.7				ug/L	368853	Standard
>	**Rh**	103	13.3	94.4				ug/L	10	Standard
	Mo	98	41.3	23.0	**-0.0075**	0.004	56.9	ug/L	68	Standard
	Ag	107	77.0	11.9	**-0.0042**	0.001	29.9	ug/L	84	Standard
	Cd	111	108.2	7.5	**0.0055**	0.002	41.6	mg/L	72	Standard
	Cd	114	286.6	15.7	**0.0076**	0.005	70.2	ug/L	187	Standard
>	**In**	115	484438.9	0.5				ug/L	464664	Standard
	Sn	118	1431.7	2.8	**0.1112**	0.004	3.3	ug/L	438	Standard
	Sb	123	196.2	10.3	**0.0076**	0.004	49.0	ug/L	433	Standard
	Ba	135	155.7	6.5	**0.0408**	0.003	8.4	ug/L	14	Standard
	Ce	140	275.0	12.6				ug/L	20	Standard
>	**Tb**	159	643807.1	0.5				ug/L	663064	Standard
	Ho	165	30.0	33.3				ug/L	10	Standard
	Tl	203	11.7	13.1	**-0.0046**	0.000	3.2	ug/L	32	Standard
	Tl	205	15.0	33.3	**-0.0029**	0.000	17.1	ug/L	28	Standard
	Pb	206	337.7	6.8	**0.0114**	0.003	30.4	ug/L	190	Standard
	Pb	207	297.0	4.4	**0.0151**	0.002	12.9	ug/L	155	Standard
	Pb	208	1334.4	1.9	**0.0145**	0.001	9.3	ug/L	766	Standard
	U	238	13.7	4.2	**-0.0022**	0.000	2.6	ug/L	30	Standard
>	**Bi**	209	373355.1	1.2				ug/L	364780	Standard

Sample ID: L1403162103
Report Date/Time: Friday, April 04, 2014 13:42:30
Page 1

Approved: April 07, 2014

	Na	23	3.3	173.2	**-0.0104**	1.451	13903.4	mg/L	0	Standard
	Mg	24	78.3	20.5	**0.0216**	0.012	57.0	mg/L	58	Standard
	K	39	5.0	0.0	**-0.0325**	0.001	3.1	mg/L	12	Standard
	Ca	43	23.3	12.4	**-0.9566**	0.120	12.6	mg/L	53	Standard
	Fe	54	247.6	1.2	**0.0447**	0.003	6.7	mg/L	190	Standard
	Fe	57	600.0	5.1	**-0.1659**	0.088	52.8	mg/L	638	Standard
>	**Sc-1**	45	41617.1	2.5				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	2.0	132.3				ug/L	2	Standard
	Br	81	2873.6	6.2				ug/L	2030	Standard
	P	31	400478.2	2.0				ug/L	256822	Standard
	S	34	39823.9	1.8				ug/L	33255	Standard
	Sr	88	140.0	15.6				ug/L	153	Standard
	C	12	1283.4	14.5				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	15.9	96.6				mg/L	6	Standard
	Ho-1	165	30.0	33.3				mg/L	10	Standard
	Er	166	16.7	34.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		127.535	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		115.388	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403162103
Report Date/Time: Friday, April 04, 2014 13:42:30
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	104.256
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	102.351
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403162104
Sample Date/Time: Friday, April 04, 2014 13:43:30
Number of Replicates: 3
Autosampler Position: 322
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	146312.0	3.6				ug/L	113180	Standard
	Be	9	28.3	10.2	**0.0059**	0.001	19.4	ug/L	17	Standard
	Al	27	13133965.7	2.4	**63.1748**	0.789	1.2	ug/L	633	Standard
	Sc	45	41871.1	2.2				ug/L	41381	Standard
	Ti	47	675.0	2.0	**1.8035**	0.075	4.2	ug/L	30	Standard
	V	51	4187.1	2.0	**0.2117**	0.007	3.2	ug/L	1879	Standard
	Cr	52	12742.0	0.8	**0.3666**	0.016	4.5	ug/L	8035	Standard
	Cr	53	1615.1	4.9	**0.7035**	0.071	10.1	ug/L	470	Standard
	Mn	55	6565.4	1.8	**0.4225**	0.013	3.1	ug/L	1182	Standard
	Co	59	660.0	5.9	**0.0259**	0.006	22.1	ug/L	333	Standard
	Ni	60	2364.5	2.5	**0.7442**	0.026	3.5	ug/L	71	Standard
	Cu	65	819.4	2.0	**0.2489**	0.003	1.0	ug/L	64	Standard
	Zn	66	1779.4	1.6	**0.9322**	0.030	3.2	ug/L	125	Standard
>	**Ge**	72	446042.5	2.1				ug/L	399053	Standard
	As	75	42.2	43.4	**0.0334**	0.009	27.9	ug/L	-28	Standard
	Se	82	49.3	4.1	**0.1275**	0.006	4.5	ug/L	26	Standard
	Se-1	77	180.7	13.3	**0.5470**	0.221	40.5	ug/L	118	Standard
>	**Ga**	71	213.3	8.9				mg/L	8	Standard
	Rb	85	14393.5	3.1				ug/L	25	Standard
	Y	89	382079.7	3.5				ug/L	368853	Standard
>	**Rh**	103	23.3	65.5				ug/L	10	Standard
	Mo	98	221.4	8.5	**0.0749**	0.009	11.8	ug/L	68	Standard
	Ag	107	86.3	6.8	**-0.0026**	0.001	37.5	ug/L	84	Standard
	Cd	111	114.9	5.1	**0.0084**	0.001	14.8	mg/L	72	Standard
	Cd	114	278.5	2.1	**0.0075**	0.001	13.5	ug/L	187	Standard
>	**In**	115	472562.1	1.9				ug/L	464664	Standard
	Sn	118	1608.4	2.8	**0.1355**	0.002	1.3	ug/L	438	Standard
	Sb	123	230.0	10.6	**0.0145**	0.005	34.5	ug/L	433	Standard
	Ba	135	39465.0	2.6	**13.7890**	0.103	0.7	ug/L	14	Standard
	Ce	140	3598.8	1.0				ug/L	20	Standard
>	**Tb**	159	636317.4	2.9				ug/L	663064	Standard
	Ho	165	120.0	30.0				ug/L	10	Standard
	Tl	203	252.3	9.6	**0.0175**	0.003	14.7	ug/L	32	Standard
	Tl	205	245.0	19.7	**0.0206**	0.005	24.0	ug/L	28	Standard
	Pb	206	678.3	4.0	**0.0629**	0.003	4.7	ug/L	190	Standard
	Pb	207	572.0	8.3	**0.0611**	0.008	13.4	ug/L	155	Standard
	Pb	208	2622.1	1.8	**0.0626**	0.001	1.7	ug/L	766	Standard
	U	238	1484.7	1.0	**0.1127**	0.001	0.9	ug/L	30	Standard
>	**Bi**	209	364383.5	1.5				ug/L	364780	Standard

Sample ID: L1403162104
Report Date/Time: Friday, April 04, 2014 13:45:40
Page 1

Approved: April 07, 2014

	Na	23	111.7	13.7	**27.8533**	4.442	15.9	mg/L	0	Standard
	Mg	24	2983.6	7.7	**2.3071**	0.222	9.6	mg/L	58	Standard
	K	39	33.3	31.2	**0.1965**	0.078	39.6	mg/L	12	Standard
	Ca	43	475.0	3.8	**14.9696**	0.266	1.8	mg/L	53	Standard
	Fe	54	337.2	19.9	**0.0930**	0.039	42.2	mg/L	190	Standard
	Fe	57	673.3	8.2	**-0.0252**	0.139	551.3	mg/L	638	Standard
>	**Sc-1**	45	41871.1	2.2				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	2.7	21.7				ug/L	2	Standard
	Br	81	5464.3	1.7				ug/L	2030	Standard
	P	31	442997.6	2.7				ug/L	256822	Standard
	S	34	39979.4	2.9				ug/L	33255	Standard
	Sr	88	215.0	12.3				ug/L	153	Standard
	C	12	1916.8	5.1				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	16.7	34.6				mg/L	0	Standard
	Dy	164	81.1	31.9				mg/L	6	Standard
	Ho-1	165	120.0	30.0				mg/L	10	Standard
	Er	166	46.7	32.7				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		129.274	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		111.775	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403162104
Report Date/Time: Friday, April 04, 2014 13:45:40
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.700
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	99.891
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403162105
Sample Date/Time: Friday, April 04, 2014 13:46:31
Number of Replicates: 3
Autosampler Position: 323
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	135488.4	3.0				ug/L	113180	Standard
	Be	9	30.0	60.1	**0.0074**	0.007	89.4	ug/L	17	Standard
	Al	27	11711954.2	0.7	**60.8435**	1.368	2.2	ug/L	633	Standard
	Sc	45	39397.8	1.2				ug/L	41381	Standard
	Ti	47	903.0	3.2	**2.6542**	0.074	2.8	ug/L	30	Standard
	V	51	4505.5	1.7	**0.2850**	0.011	3.8	ug/L	1879	Standard
	Cr	52	12154.9	0.8	**0.4138**	0.006	1.4	ug/L	8035	Standard
	Cr	53	1778.4	8.2	**0.9122**	0.099	10.8	ug/L	470	Standard
	Mn	55	8317.3	0.4	**0.6283**	0.002	0.3	ug/L	1182	Standard
	Co	59	657.7	3.7	**0.0322**	0.003	9.2	ug/L	333	Standard
	Ni	60	2262.8	5.0	**0.7765**	0.039	5.0	ug/L	71	Standard
	Cu	65	870.0	1.9	**0.2930**	0.007	2.2	ug/L	64	Standard
	Zn	66	3623.1	3.5	**2.2363**	0.086	3.9	ug/L	125	Standard
>	**Ge**	72	409720.3	0.5				ug/L	399053	Standard
	As	75	71.3	54.1	**0.0523**	0.022	42.6	ug/L	-28	Standard
	Se	82	55.5	7.1	**0.1812**	0.022	12.3	ug/L	26	Standard
	Se-1	77	189.0	2.7	**0.7540**	0.040	5.3	ug/L	118	Standard
>	**Ga**	71	306.7	18.2				mg/L	8	Standard
	Rb	85	14391.8	2.0				ug/L	25	Standard
	Y	89	357122.6	2.1				ug/L	368853	Standard
>	**Rh**	103	18.3	56.8				ug/L	10	Standard
	Mo	98	192.1	7.9	**0.0679**	0.007	10.1	ug/L	68	Standard
	Ag	107	72.7	4.8	**-0.0038**	0.000	12.7	ug/L	84	Standard
	Cd	111	72.9	9.1	**-0.0028**	0.002	79.9	mg/L	72	Standard
	Cd	114	161.7	33.6	**-0.0056**	0.007	129.3	ug/L	187	Standard
>	**In**	115	440253.6	0.7				ug/L	464664	Standard
	Sn	118	870.0	15.9	**0.0583**	0.018	30.5	ug/L	438	Standard
	Sb	123	90.0	15.4	**-0.0095**	0.003	29.3	ug/L	433	Standard
	Ba	135	35399.3	1.5	**13.2771**	0.208	1.6	ug/L	14	Standard
	Ce	140	5552.7	2.1				ug/L	20	Standard
>	**Tb**	159	613998.2	1.2				ug/L	663064	Standard
	Ho	165	203.3	32.0				ug/L	10	Standard
	Tl	203	216.7	6.9	**0.0148**	0.001	8.9	ug/L	32	Standard
	Tl	205	185.0	16.2	**0.0150**	0.003	20.8	ug/L	28	Standard
	Pb	206	727.0	1.6	**0.0732**	0.002	2.9	ug/L	190	Standard
	Pb	207	586.7	3.6	**0.0662**	0.004	5.8	ug/L	155	Standard
	Pb	208	2787.1	1.8	**0.0716**	0.002	3.2	ug/L	766	Standard
	U	238	1335.4	3.1	**0.1041**	0.003	3.0	ug/L	30	Standard
>	**Bi**	209	353919.5	0.4				ug/L	364780	Standard

Sample ID: L1403162105
Report Date/Time: Friday, April 04, 2014 13:48:42
Page 1

Approved: April 07, 2014

	Na	23	71.7	16.1	**18.6921**	3.183	17.0	mg/L	0	Standard
	Mg	24	2830.3	3.4	**2.3231**	0.053	2.3	mg/L	58	Standard
	K	39	43.3	17.6	**0.3013**	0.068	22.4	mg/L	12	Standard
	Ca	43	516.7	10.9	**17.5937**	2.182	12.4	mg/L	53	Standard
	Fe	54	342.1	21.2	**0.1069**	0.040	37.8	mg/L	190	Standard
	Fe	57	773.4	7.1	**0.2721**	0.138	50.6	mg/L	638	Standard
>	**Sc-1**	45	39397.8	1.2				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	2.0	50.0				ug/L	2	Standard
	Br	81	4780.8	3.5				ug/L	2030	Standard
	P	31	316264.6	3.7				ug/L	256822	Standard
	S	34	40669.5	2.5				ug/L	33255	Standard
	Sr	88	221.7	18.9				ug/L	153	Standard
	C	12	1843.4	4.1				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	95.2	10.3				mg/L	6	Standard
	Ho-1	165	203.3	32.0				mg/L	10	Standard
	Er	166	100.0	26.5				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		119.711	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.673	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403162105
Report Date/Time: Friday, April 04, 2014 13:48:42
Page 2

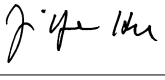
Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		94.747
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		97.023
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1403162106
Sample Date/Time: Friday, April 04, 2014 13:49:53
Number of Replicates: 3
Autosampler Position: 324
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	133874.4	3.8				ug/L	113180	Standard
	Be	9	55.0	41.7	**0.0165**	0.009	52.0	ug/L	17	Standard
	Al	27	4719293.9	0.9	**24.8068**	0.800	3.2	ug/L	633	Standard
	Sc	45	38355.2	1.5				ug/L	41381	Standard
	Ti	47	944.0	5.9	**2.8031**	0.116	4.1	ug/L	30	Standard
	V	51	4307.6	2.2	**0.2675**	0.009	3.2	ug/L	1879	Standard
	Cr	52	12722.0	5.5	**0.4852**	0.033	6.9	ug/L	8035	Standard
	Cr	53	1840.1	11.3	**0.9689**	0.154	15.9	ug/L	470	Standard
	Mn	55	8647.5	2.8	**0.6654**	0.016	2.4	ug/L	1182	Standard
	Co	59	495.3	5.5	**0.0126**	0.002	12.6	ug/L	333	Standard
	Ni	60	1191.4	2.9	**0.3965**	0.005	1.2	ug/L	71	Standard
	Cu	65	713.4	3.2	**0.2367**	0.005	1.9	ug/L	64	Standard
	Zn	66	3208.3	1.0	**1.9847**	0.059	3.0	ug/L	125	Standard
>	**Ge**	72	405975.8	3.0				ug/L	399053	Standard
	As	75	12.7	294.4	**0.0185**	0.022	118.2	ug/L	-28	Standard
	Se	82	44.4	15.4	**0.1245**	0.031	24.7	ug/L	26	Standard
	Se-1	77	174.3	7.8	**0.6342**	0.082	13.0	ug/L	118	Standard
>	**Ga**	71	368.3	6.1				mg/L	8	Standard
	Rb	85	11662.8	1.0				ug/L	25	Standard
	Y	89	361663.2	3.1				ug/L	368853	Standard
>	**Rh**	103	10.0	50.0				ug/L	10	Standard
	Mo	98	220.4	3.0	**0.0825**	0.001	1.2	ug/L	68	Standard
	Ag	107	67.3	9.5	**-0.0045**	0.001	19.3	ug/L	84	Standard
	Cd	111	79.9	11.9	**-0.0003**	0.004	1211.6	mg/L	72	Standard
	Cd	114	189.6	4.3	**-0.0017**	0.001	86.9	ug/L	187	Standard
>	**In**	115	437099.7	2.3				ug/L	464664	Standard
	Sn	118	635.0	6.4	**0.0299**	0.003	11.0	ug/L	438	Standard
	Sb	123	101.4	4.0	**-0.0071**	0.001	16.5	ug/L	433	Standard
	Ba	135	13425.3	2.6	**5.0639**	0.050	1.0	ug/L	14	Standard
	Ce	140	5786.1	4.1				ug/L	20	Standard
>	**Tb**	159	597054.4	2.0				ug/L	663064	Standard
	Ho	165	363.3	5.7				ug/L	10	Standard
	Tl	203	190.7	10.5	**0.0123**	0.002	12.4	ug/L	32	Standard
	Tl	205	150.0	31.8	**0.0115**	0.005	46.1	ug/L	28	Standard
	Pb	206	1556.1	2.1	**0.1997**	0.008	4.1	ug/L	190	Standard
	Pb	207	1304.1	4.0	**0.1869**	0.010	5.1	ug/L	155	Standard
	Pb	208	6058.8	1.6	**0.1947**	0.004	2.3	ug/L	766	Standard
	U	238	493.7	4.1	**0.0365**	0.001	2.0	ug/L	30	Standard
>	**Bi**	209	353382.2	2.7				ug/L	364780	Standard

Sample ID: L1403162106
Report Date/Time: Friday, April 04, 2014 13:52:03
Page 1

Approved: April 07, 2014

	Na	23	31.7	48.2	**7.9836**	4.167	52.2	mg/L	0	Standard
	Mg	24	3855.5	4.3	**3.2664**	0.097	3.0	mg/L	58	Standard
	K	39	35.0	28.6	**0.2365**	0.084	35.6	mg/L	12	Standard
	Ca	43	241.7	18.8	**7.5147**	1.697	22.6	mg/L	53	Standard
	Fe	54	329.0	7.9	**0.1045**	0.014	13.6	mg/L	190	Standard
	Fe	57	631.7	5.7	**0.0063**	0.099	1580.2	mg/L	638	Standard
>	**Sc-1**	45	38355.2	1.5				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	1.7	69.3				ug/L	2	Standard
	Br	81	4133.9	5.2				ug/L	2030	Standard
	P	31	313578.9	1.5				ug/L	256822	Standard
	S	34	39668.5	1.3				ug/L	33255	Standard
	Sr	88	166.7	13.5				ug/L	153	Standard
	C	12	1426.7	9.1				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	63.3	55.5				mg/L	0	Standard
	Dy	164	255.8	42.8				mg/L	6	Standard
	Ho-1	165	363.3	5.7				mg/L	10	Standard
	Er	166	156.7	35.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		118.285	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.735	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403162106
Report Date/Time: Friday, April 04, 2014 13:52:03
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	94.068
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	96.875
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1403162106
Report Date/Time: Friday, April 04, 2014 13:52:03
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403164901
Sample Date/Time: Friday, April 04, 2014 13:52:55
Number of Replicates: 3
Autosampler Position: 325
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	128953.2	1.6				ug/L	113180	Standard
	Be	9	25.0	60.0	**0.0060**	0.006	95.8	ug/L	17	Standard
	Al	27	25147.5	1.2	**0.1130**	0.001	0.9	ug/L	633	Standard
	Sc	45	36635.9	0.9				ug/L	41381	Standard
	Ti	47	26.7	2.2	**0.0170**	0.001	7.4	ug/L	30	Standard
	V	51	2060.2	4.1	**0.0158**	0.009	55.8	ug/L	1879	Standard
	Cr	52	8879.3	2.5	**0.0803**	0.036	45.1	ug/L	8035	Standard
	Cr	53	590.0	15.1	**0.0721**	0.068	94.3	ug/L	470	Standard
	Mn	55	3608.1	1.6	**0.2082**	0.010	4.8	ug/L	1182	Standard
	Co	59	214.0	3.5	**-0.0226**	0.001	3.0	ug/L	333	Standard
	Ni	60	576.0	4.4	**0.1743**	0.007	4.1	ug/L	71	Standard
	Cu	65	462.0	6.3	**0.1420**	0.011	7.8	ug/L	64	Standard
	Zn	66	6948.9	2.5	**4.4732**	0.175	3.9	ug/L	125	Standard
>	**Ge**	72	404944.4	1.5				ug/L	399053	Standard
	As	75	-25.6	159.6	**-0.0038**	0.024	630.5	ug/L	-28	Standard
	Se	82	18.7	30.6	**-0.0119**	0.029	243.6	ug/L	26	Standard
	Se-1	77	120.0	3.0	**0.1407**	0.043	30.8	ug/L	118	Standard
>	**Ga**	71	11.7	24.7				mg/L	8	Standard
	Rb	85	158.3	4.8				ug/L	25	Standard
	Y	89	347978.1	1.9				ug/L	368853	Standard
>	**Rh**	103	5.0	0.0				ug/L	10	Standard
	Mo	98	27.0	35.9	**-0.0125**	0.005	38.1	ug/L	68	Standard
	Ag	107	60.3	9.1	**-0.0055**	0.001	14.5	ug/L	84	Standard
	Cd	111	72.3	7.6	**-0.0027**	0.002	63.3	mg/L	72	Standard
	Cd	114	191.0	28.0	**-0.0013**	0.007	551.8	ug/L	187	Standard
>	**In**	115	433238.2	0.7				ug/L	464664	Standard
	Sn	118	1145.0	5.0	**0.0943**	0.006	6.8	ug/L	438	Standard
	Sb	123	88.1	16.1	**-0.0096**	0.003	28.8	ug/L	433	Standard
	Ba	135	286.3	2.7	**0.0970**	0.002	2.5	ug/L	14	Standard
	Ce	140	63.3	36.5				ug/L	20	Standard
>	**Tb**	159	589316.5	1.2				ug/L	663064	Standard
	Ho	165	13.3	114.6				ug/L	10	Standard
	Tl	203	20.0	26.5	**-0.0038**	0.000	13.0	ug/L	32	Standard
	Tl	205	18.3	15.7	**-0.0024**	0.000	13.2	ug/L	28	Standard
	Pb	206	250.7	9.1	**0.0015**	0.004	252.8	ug/L	190	Standard
	Pb	207	208.0	8.5	**0.0033**	0.003	90.6	ug/L	155	Standard
	Pb	208	970.3	4.4	**0.0040**	0.002	44.8	ug/L	766	Standard
	U	238	23.3	36.4	**-0.0013**	0.001	53.9	ug/L	30	Standard
>	**Bi**	209	348638.3	0.8				ug/L	364780	Standard

Sample ID: L1403164901
Report Date/Time: Friday, April 04, 2014 13:55:05
Page 1

Approved: April 07, 2014

	Na	23	3.3	173.2	**0.1322**	1.698	1284.8	mg/L	0	Standard
	Mg	24	135.0	42.7	**0.0808**	0.052	64.0	mg/L	58	Standard
	K	39	3.3	86.6	**-0.0426**	0.027	62.8	mg/L	12	Standard
	Ca	43	33.3	37.7	**-0.4401**	0.515	117.0	mg/L	53	Standard
	Fe	54	184.1	10.9	**0.0236**	0.013	56.3	mg/L	190	Standard
	Fe	57	601.7	10.8	**0.0017**	0.155	8856.1	mg/L	638	Standard
>	**Sc-1**	45	36635.9	0.9				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	3.0	0.0				ug/L	2	Standard
	Br	81	2080.1	3.3				ug/L	2030	Standard
	P	31	283603.2	1.2				ug/L	256822	Standard
	S	34	40315.2	0.8				ug/L	33255	Standard
	Sr	88	148.3	12.8				ug/L	153	Standard
	C	12	1170.0	11.1				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	12.7	46.6				mg/L	6	Standard
	Ho-1	165	13.3	114.6				mg/L	10	Standard
	Er	166	13.3	43.3				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		113.937	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.476	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403164901
Report Date/Time: Friday, April 04, 2014 13:55:05
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	93.237
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	95.575
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1403164901
Report Date/Time: Friday, April 04, 2014 13:55:05
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403164902
Sample Date/Time: Friday, April 04, 2014 13:55:57
Number of Replicates: 3
Autosampler Position: 326
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	480718.6	5.9				ug/L	113180	Standard
	Be	9	25.0	20.0	**-0.0009**	0.001	75.8	ug/L	17	Standard
	Al	27	9687570.4	1.7	**14.1838**	0.627	4.4	ug/L	633	Standard
	Sc	45	29500.4	2.0				ug/L	41381	Standard
	Ti	47	569.3	8.4	**2.1941**	0.227	10.3	ug/L	30	Standard
	V	51	10615.6	5.2	**1.3375**	0.073	5.5	ug/L	1879	Standard
	Cr	52	18805.0	0.4	**1.7402**	0.033	1.9	ug/L	8035	Standard
	Cr	53	48706.6	4.3	**45.2917**	2.637	5.8	ug/L	470	Standard
	Mn	55	12077850.5	1.4	**1431.5282**	21.256	1.5	ug/L	1182	Standard
	Co	59	13491.3	2.1	**2.1582**	0.039	1.8	ug/L	333	Standard
	Ni	60	176587.9	2.5	**83.2581**	0.886	1.1	ug/L	71	Standard
	Cu	65	4866.8	2.9	**2.3688**	0.038	1.6	ug/L	64	Standard
	Zn	66	4915.1	2.7	**4.1027**	0.065	1.6	ug/L	125	Standard
>	**Ge**	72	311306.1	1.6				ug/L	399053	Standard
	As	75	2752.6	30.4	**2.0886**	0.622	29.8	ug/L	-28	Standard
	Se	82	1073.5	2.0	**7.3422**	0.118	1.6	ug/L	26	Standard
	Se-1	77	22597.5	2.9	**269.1996**	11.332	4.2	ug/L	118	Standard
>	**Ga**	71	1566.7	4.9				mg/L	8	Standard
	Rb	85	8743901.3	1.8				ug/L	25	Standard
	Y	89	288163.4	1.9				ug/L	368853	Standard
>	**Rh**	103	1931.8	7.2				ug/L	10	Standard
	Mo	98	6644.7	3.2	**4.0828**	0.120	2.9	ug/L	68	Standard
	Ag	107	70.3	3.6	**-0.0014**	0.000	33.5	ug/L	84	Standard
	Cd	111	84.5	11.2	**0.0084**	0.004	46.9	mg/L	72	Standard
	Cd	114	212.9	21.0	**0.0088**	0.008	85.3	ug/L	187	Standard
>	**In**	115	347642.7	0.3				ug/L	464664	Standard
	Sn	118	1630.1	3.1	**0.2050**	0.008	4.1	ug/L	438	Standard
	Sb	123	543.2	3.4	**0.1057**	0.004	3.9	ug/L	433	Standard
	Ba	135	4527410.5	0.9	**2152.4109**	25.205	1.2	ug/L	14	Standard
	Ce	140	318.3	5.5				ug/L	20	Standard
>	**Tb**	159	533654.5	2.0				ug/L	663064	Standard
	Ho	165	60.0	44.1				ug/L	10	Standard
	Tl	203	166.7	10.9	**0.0152**	0.003	17.1	ug/L	32	Standard
	Tl	205	145.0	12.4	**0.0158**	0.002	15.3	ug/L	28	Standard
	Pb	206	473.3	6.2	**0.0580**	0.004	7.3	ug/L	190	Standard
	Pb	207	388.7	12.6	**0.0541**	0.009	17.2	ug/L	155	Standard
	Pb	208	1823.0	8.7	**0.0576**	0.006	10.9	ug/L	766	Standard
	U	238	2348.8	1.8	**0.2469**	0.003	1.2	ug/L	30	Standard
>	**Bi**	209	267052.4	1.7				ug/L	364780	Standard

Sample ID: L1403164902
Report Date/Time: Friday, April 04, 2014 13:58:07
Page 1

Approved: April 07, 2014

	Na	23	4227.3	0.4	**1538.4620**	30.913	2.0	mg/L	0	Standard
	Mg	24	46215.4	0.2	**51.5210**	0.986	1.9	mg/L	58	Standard
	K	39	15866.7	6.0	**183.2507**	14.082	7.7	mg/L	12	Standard
	Ca	43	25630.0	2.9	**1281.7802**	26.579	2.1	mg/L	53	Standard
	Fe	54	190.1	29.7	**0.0554**	0.041	73.9	mg/L	190	Standard
	Fe	57	6353.0	3.3	**16.7229**	0.367	2.2	mg/L	638	Standard
>	**Sc-1**	45	29500.4	2.0				mg/L	41381	Standard
	Cl	35	3.3	69.3				ug/L	4	Standard
	Kr	83	6.0	28.9				ug/L	2	Standard
	Br	81	259996.9	3.5				ug/L	2030	Standard
	P	31	312294.8	2.1				ug/L	256822	Standard
	S	34	42568.1	3.4				ug/L	33255	Standard
	Sr	88	6816.5	6.2				ug/L	153	Standard
	C	12	6241.3	7.7				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	10.0					mg/L	0	Standard
	Dy	164	32.9	96.5				mg/L	6	Standard
	Ho-1	165	60.0	44.1				mg/L	10	Standard
	Er	166	10.0	100.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		424.739	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		78.011	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	74.816
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	73.209
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Mn 55 Upper, S, EEE	Mn	55	
Se-1 77 Upper, S, EEE	Se-1	77	
Ba 135 Upper, S, EEE	Ba	135	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403164903
Sample Date/Time: Friday, April 04, 2014 13:58:58
Number of Replicates: 3
Autosampler Position: 327
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	109919.0	1.7				ug/L	113180	Standard
	Be	9	28.3	27.0	**0.0090**	0.004	39.1	ug/L	17	Standard
	Al	27	313967.9	2.8	**1.9866**	0.069	3.5	ug/L	633	Standard
	Sc	45	38305.0	2.0				ug/L	41381	Standard
	Ti	47	153.3	5.0	**0.4369**	0.018	4.1	ug/L	30	Standard
	V	51	4975.6	7.8	**0.3857**	0.060	15.6	ug/L	1879	Standard
	Cr	52	10530.0	12.0	**0.3361**	0.115	34.2	ug/L	8035	Standard
	Cr	53	12605.3	7.4	**9.4022**	0.941	10.0	ug/L	470	Standard
	Mn	55	8856.3	16.3	**0.7435**	0.119	16.0	ug/L	1182	Standard
	Co	59	1585.1	5.3	**0.1644**	0.006	3.7	ug/L	333	Standard
	Ni	60	3226.0	3.6	**1.2208**	0.014	1.1	ug/L	71	Standard
	Cu	65	816.4	0.3	**0.2993**	0.008	2.7	ug/L	64	Standard
	Zn	66	2056.8	2.9	**1.3247**	0.027	2.1	ug/L	125	Standard
>	**Ge**	72	377322.7	2.5				ug/L	399053	Standard
	As	75	16575.1	0.9	**10.3385**	0.169	1.6	ug/L	-28	Standard
	Se	82	66.4	14.9	**0.2682**	0.052	19.5	ug/L	26	Standard
	Se-1	77	1039.7	8.9	**9.2789**	0.666	7.2	ug/L	118	Standard
>	**Ga**	71	276.7	24.3				mg/L	8	Standard
	Rb	85	50781.6	0.8				ug/L	25	Standard
	Y	89	335267.1	0.4				ug/L	368853	Standard
>	**Rh**	103	36.7	34.3				ug/L	10	Standard
	Mo	98	5027.2	2.8	**2.4950**	0.054	2.2	ug/L	68	Standard
	Ag	107	53.3	18.9	**-0.0065**	0.001	22.7	ug/L	84	Standard
	Cd	111	80.3	6.5	**0.0003**	0.002	628.9	mg/L	72	Standard
	Cd	114	2713.4	40.3	**0.3446**	0.147	42.7	ug/L	187	Standard
>	**In**	115	428673.0	1.0				ug/L	464664	Standard
	Sn	118	829126.1	2.4	**104.6231**	3.508	3.4	ug/L	438	Standard
	Sb	123	5981.1	1.3	**1.1572**	0.026	2.3	ug/L	433	Standard
	Ba	135	54292.4	1.5	**20.9200**	0.235	1.1	ug/L	14	Standard
	Ce	140	165.0	10.9				ug/L	20	Standard
>	**Tb**	159	607523.5	1.4				ug/L	663064	Standard
	Ho	165	40.0	50.0				ug/L	10	Standard
	Tl	203	1093.4	32.4	**0.1079**	0.037	34.1	ug/L	32	Standard
	Tl	205	950.0	33.5	**0.1055**	0.037	34.8	ug/L	28	Standard
	Pb	206	260.0	4.0	**0.0063**	0.002	26.1	ug/L	190	Standard
	Pb	207	249.7	5.1	**0.0140**	0.002	17.0	ug/L	155	Standard
	Pb	208	1077.0	5.3	**0.0116**	0.002	19.7	ug/L	766	Standard
	U	238	4819.1	1.3	**0.4232**	0.005	1.1	ug/L	30	Standard
>	**Bi**	209	321433.1	0.3				ug/L	364780	Standard

Sample ID: L1403164903
Report Date/Time: Friday, April 04, 2014 14:01:09
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.3749**	0.820	218.6	mg/L	0	Standard
	Mg	24	67967.1	1.6	**58.3475**	0.257	0.4	mg/L	58	Standard
	K	39	130.0	13.9	**1.0820**	0.157	14.5	mg/L	12	Standard
	Ca	43	58.3	13.1	**0.4674**	0.335	71.6	mg/L	53	Standard
	Fe	54	192.0	22.4	**0.0234**	0.026	113.1	mg/L	190	Standard
	Fe	57	776.7	10.2	**0.3280**	0.205	62.6	mg/L	638	Standard
>	**Sc-1**	45	38305.0	2.0				mg/L	41381	Standard
	Cl	35	1.3	173.2				ug/L	4	Standard
	Kr	83	3.7	56.8				ug/L	2	Standard
	Br	81	7812.0	15.0				ug/L	2030	Standard
	P	31	309204.6	3.9				ug/L	256822	Standard
	S	34	42080.1	2.8				ug/L	33255	Standard
	Sr	88	235.0	16.9				ug/L	153	Standard
	C	12	1480.1	4.9				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	673.3	4.5				mg/L	0	Standard
	Dy	164	19.5	137.4				mg/L	6	Standard
	Ho-1	165	40.0	50.0				mg/L	10	Standard
	Er	166	10.0	100.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		97.119	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		94.555	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403164903
Report Date/Time: Friday, April 04, 2014 14:01:09
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		92.254
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		88.117
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Sn 118 Upper, S, EEE	Sn	118	

Sample ID: L1403164903
Report Date/Time: Friday, April 04, 2014 14:01:09
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403162106PS WG469374-01
Sample Date/Time: Friday, April 04, 2014 14:09:08
Number of Replicates: 3
Autosampler Position: 329
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	120252.3	3.2				ug/L	113180	Standard
	Be	9	122032.9	2.0	**48.7291**	1.175	2.4	ug/L	17	Standard
	Al	27	4683115.2	2.2	**27.4062**	1.139	4.2	ug/L	633	Standard
	Sc	45	41080.6	1.6				ug/L	41381	Standard
	Ti	47	1043.4	8.1	**3.1183**	0.275	8.8	ug/L	30	Standard
	V	51	474518.2	2.9	**53.2237**	1.165	2.2	ug/L	1879	Standard
	Cr	52	503097.0	2.7	**52.7792**	1.174	2.2	ug/L	8035	Standard
	Cr	53	76960.0	2.1	**55.1172**	0.875	1.6	ug/L	470	Standard
	Mn	55	575101.9	3.0	**52.3333**	1.320	2.5	ug/L	1182	Standard
	Co	59	415871.8	2.6	**52.3176**	0.912	1.7	ug/L	333	Standard
	Ni	60	142765.6	1.8	**51.7931**	0.756	1.5	ug/L	71	Standard
	Cu	65	137420.7	0.9	**52.1707**	0.161	0.3	ug/L	64	Standard
	Zn	66	83788.4	0.7	**55.5310**	0.499	0.9	ug/L	125	Standard
>	Ge	72	404508.5	0.8				ug/L	399053	Standard
	As	75	86386.4	1.1	**50.2038**	0.297	0.6	ug/L	-28	Standard
	Se	82	9173.2	1.3	**48.9058**	0.576	1.2	ug/L	26	Standard
	Se-1	77	5755.8	3.8	**51.9699**	1.760	3.4	ug/L	118	Standard
>	Ga	71	378.3	13.8				mg/L	8	Standard
	Rb	85	12268.3	8.6				ug/L	25	Standard
	Y	89	376433.6	2.2				ug/L	368853	Standard
>	Rh	103	46.7	16.4				ug/L	10	Standard
	Mo	98	241.4	9.8	**0.0861**	0.012	14.5	ug/L	68	Standard
	Ag	107	360599.2	2.6	**51.3136**	0.531	1.0	ug/L	84	Standard
	Cd	111	159432.0	1.9	**49.6781**	0.415	0.8	mg/L	72	Standard
	Cd	114	385978.6	3.1	**48.9838**	1.022	2.1	ug/L	187	Standard
>	In	115	463849.9	2.5				ug/L	464664	Standard
	Sn	118	1490.1	7.6	**0.1252**	0.012	10.0	ug/L	438	Standard
	Sb	123	276450.1	1.9	**50.5488**	0.789	1.6	ug/L	433	Standard
	Ba	135	153591.9	2.4	**54.7140**	0.162	0.3	ug/L	14	Standard
	Ce	140	6404.7	3.6				ug/L	20	Standard
>	Tb	159	622316.1	2.0				ug/L	663064	Standard
	Ho	165	316.7	11.1				ug/L	10	Standard
	Tl	203	536003.5	0.8	**51.5210**	0.528	1.0	ug/L	32	Standard
	Tl	205	486559.2	2.0	**52.0792**	0.691	1.3	ug/L	28	Standard
	Pb	206	330900.0	0.1	**51.1840**	0.549	1.1	ug/L	190	Standard
	Pb	207	300027.5	0.6	**51.2234**	0.420	0.8	ug/L	155	Standard
	Pb	208	1341075.3	0.2	**51.2026**	0.491	1.0	ug/L	766	Standard
	U	238	620723.1	2.1	**50.8188**	0.787	1.5	ug/L	30	Standard
>	Bi	209	347346.6	1.1				ug/L	364780	Standard

Sample ID: L1403162106PS WG469374-01
Report Date/Time: Friday, April 04, 2014 14:11:18
Page 1

Approved: April 07, 2014

	Na	23	35.0	24.7	**8.3268**	2.428	29.2	mg/L	0	Standard
	Mg	24	4137.2	2.5	**3.2737**	0.079	2.4	mg/L	58	Standard
	K	39	40.0	54.5	**0.2572**	0.178	69.1	mg/L	12	Standard
	Ca	43	316.7	13.4	**9.5890**	1.375	14.3	mg/L	53	Standard
	Fe	54	455.3	12.6	**0.1617**	0.031	19.1	mg/L	190	Standard
	Fe	57	761.7	7.6	**0.1802**	0.130	72.1	mg/L	638	Standard
>	**Sc-1**	45	41080.6	1.6				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	0.7	173.2				ug/L	2	Standard
	Br	81	4617.4	5.6				ug/L	2030	Standard
	P	31	424922.1	2.7				ug/L	256822	Standard
	S	34	44030.6	3.9				ug/L	33255	Standard
	Sr	88	160.0	25.6				ug/L	153	Standard
	C	12	1160.0	14.5				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	93.3	27.0				mg/L	0	Standard
	Dy	164	238.4	16.5				mg/L	6	Standard
	Ho-1	165	316.7	11.1				mg/L	10	Standard
	Er	166	173.3	20.3				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		106.249	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.367	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403162106PS WG469374-01
Report Date/Time: Friday, April 04, 2014 14:11:18
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.825
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	95.221
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1403162106PS WG469374-01
Report Date/Time: Friday, April 04, 2014 14:11:18
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403162106SDL WG469374-02
Sample Date/Time: Friday, April 04, 2014 14:12:10
Number of Replicates: 3
Autosampler Position: 330
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	91187.0	2.0				ug/L	113180	Standard
	Be	9	46.7	30.9	**0.0213**	0.008	37.4	ug/L	17	Standard
	Al	27	1055365.4	3.2	**8.1203**	0.097	1.2	ug/L	633	Standard
	Sc	45	31397.5	2.6				ug/L	41381	Standard
	Ti	47	171.0	7.2	**0.5973**	0.047	7.8	ug/L	30	Standard
	V	51	2139.8	8.6	**0.0894**	0.018	20.4	ug/L	1879	Standard
	Cr	52	7578.6	2.6	**0.1593**	0.005	3.0	ug/L	8035	Standard
	Cr	53	3658.8	1.8	**2.9946**	0.144	4.8	ug/L	470	Standard
	Mn	55	2474.9	22.1	**0.1667**	0.071	42.3	ug/L	1182	Standard
	Co	59	269.3	12.8	**-0.0064**	0.006	100.7	ug/L	333	Standard
	Ni	60	291.3	2.0	**0.0997**	0.002	1.5	ug/L	71	Standard
	Cu	65	210.0	6.0	**0.0679**	0.007	11.0	ug/L	64	Standard
	Zn	66	1244.4	5.0	**0.9080**	0.027	3.0	ug/L	125	Standard
>	**Ge**	72	318886.9	2.6				ug/L	399053	Standard
	As	75	-58.3	116.4	**-0.0324**	0.050	155.0	ug/L	-28	Standard
	Se	82	24.1	38.2	**0.0510**	0.058	114.0	ug/L	26	Standard
	Se-1	77	273.0	1.6	**2.2251**	0.129	5.8	ug/L	118	Standard
>	**Ga**	71	71.7	33.0				mg/L	8	Standard
	Rb	85	2480.2	17.5				ug/L	25	Standard
	Y	89	296050.6	2.6				ug/L	368853	Standard
>	**Rh**	103	11.7	65.5				ug/L	10	Standard
	Mo	98	39.7	21.8	**-0.0033**	0.005	163.5	ug/L	68	Standard
	Ag	107	78.3	28.6	**-0.0010**	0.004	400.5	ug/L	84	Standard
	Cd	111	38.2	29.1	**-0.0122**	0.004	36.4	mg/L	72	Standard
	Cd	114	112.0	48.2	**-0.0098**	0.009	88.0	ug/L	187	Standard
>	**In**	115	379445.8	2.8				ug/L	464664	Standard
	Sn	118	546.7	15.6	**0.0295**	0.014	47.1	ug/L	438	Standard
	Sb	123	275.5	15.9	**0.0349**	0.011	30.7	ug/L	433	Standard
	Ba	135	2625.2	11.4	**1.1321**	0.141	12.4	ug/L	14	Standard
	Ce	140	1080.0	6.1				ug/L	20	Standard
>	**Tb**	159	523846.8	0.2				ug/L	663064	Standard
	Ho	165	86.7	26.6				ug/L	10	Standard
	Tl	203	189.0	41.3	**0.0157**	0.009	58.6	ug/L	32	Standard
	Tl	205	156.7	24.0	**0.0153**	0.005	33.1	ug/L	28	Standard
	Pb	206	398.0	11.0	**0.0349**	0.008	23.0	ug/L	190	Standard
	Pb	207	323.0	10.5	**0.0325**	0.008	24.8	ug/L	155	Standard
	Pb	208	1469.7	10.2	**0.0328**	0.008	23.2	ug/L	766	Standard
	U	238	127.0	34.4	**0.0090**	0.004	49.2	ug/L	30	Standard
>	**Bi**	209	296975.6	2.4				ug/L	364780	Standard

Approved: April 07, 2014

	Na	23	5.0	100.0	**0.8824**	1.721	195.0	mg/L	0	Standard
	Mg	24	691.7	13.8	**0.6832**	0.081	11.8	mg/L	58	Standard
	K	39	15.0	100.0	**0.0912**	0.164	179.6	mg/L	12	Standard
	Ca	43	86.7	14.5	**2.2855**	0.512	22.4	mg/L	53	Standard
	Fe	54	72.2	11.5	**-0.0387**	0.005	12.5	mg/L	190	Standard
	Fe	57	758.4	4.9	**0.6527**	0.128	19.6	mg/L	638	Standard
>	**Sc-1**	45	31397.5	2.6				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	3.0	100.0				ug/L	2	Standard
	Br	81	2216.8	4.2				ug/L	2030	Standard
	P	31	108702.1	3.1				ug/L	256822	Standard
	S	34	41926.3	4.0				ug/L	33255	Standard
	Sr	88	178.3	4.3				ug/L	153	Standard
	C	12	743.4	3.4				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	33.3	91.7				mg/L	0	Standard
	Dy	164	40.6	38.3				mg/L	6	Standard
	Ho-1	165	86.7	26.6				mg/L	10	Standard
	Er	166	56.7	10.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		80.568	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		79.911	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403162106SDL WG469374-02
Report Date/Time: Friday, April 04, 2014 14:14:20
Page 2

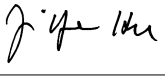
Approved: April 07, 2014

Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		81.660
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		81.412
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 14:15:14
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	109756.3	2.7				ug/L	113180	Standard
	Be	9	109007.6	2.8	**47.7058**	2.250	4.7	ug/L	17	Standard
	Al	27	7550354.3	1.2	**48.4083**	0.863	1.8	ug/L	633	Standard
	Sc	45	38072.8	1.6				ug/L	41381	Standard
	Ti	47	30890.8	1.2	**98.1338**	1.452	1.5	ug/L	30	Standard
	V	51	435287.1	3.5	**50.8725**	0.544	1.1	ug/L	1879	Standard
	Cr	52	447947.8	2.9	**48.9156**	0.277	0.6	ug/L	8035	Standard
	Cr	53	69129.1	3.6	**51.5690**	0.499	1.0	ug/L	470	Standard
	Mn	55	520104.1	1.7	**49.3311**	0.526	1.1	ug/L	1182	Standard
	Co	59	382377.9	2.3	**50.1404**	0.416	0.8	ug/L	333	Standard
	Ni	60	134353.7	3.0	**50.7952**	0.223	0.4	ug/L	71	Standard
	Cu	65	129675.2	2.9	**51.3052**	0.318	0.6	ug/L	64	Standard
	Zn	66	73449.4	3.4	**50.7139**	0.648	1.3	ug/L	125	Standard
>	Ge	72	388132.4	2.7				ug/L	399053	Standard
	As	75	82410.7	2.6	**49.9152**	0.135	0.3	ug/L	-28	Standard
	Se	82	9133.1	2.6	**50.7521**	0.453	0.9	ug/L	26	Standard
	Se-1	77	5449.6	5.4	**51.2504**	1.577	3.1	ug/L	118	Standard
>	Ga	71	31.7	32.9				mg/L	8	Standard
	Rb	85	1230.1	31.3				ug/L	25	Standard
	Y	89	351802.6	1.0				ug/L	368853	Standard
>	Rh	103	36.7	47.9				ug/L	10	Standard
	Mo	98	198734.7	2.5	**97.1983**	1.648	1.7	ug/L	68	Standard
	Ag	107	333627.3	2.5	**50.1108**	0.492	1.0	ug/L	84	Standard
	Cd	111	153326.7	3.0	**50.4191**	0.518	1.0	mg/L	72	Standard
	Cd	114	378848.8	2.1	**50.7594**	1.244	2.5	ug/L	187	Standard
>	In	115	439432.8	2.1				ug/L	464664	Standard
	Sn	118	415825.8	3.2	**51.1429**	0.632	1.2	ug/L	438	Standard
	Sb	123	260779.1	1.8	**50.3329**	1.018	2.0	ug/L	433	Standard
	Ba	135	131842.8	2.7	**49.5702**	0.392	0.8	ug/L	14	Standard
	Ce	140	211.7	3.6				ug/L	20	Standard
>	Tb	159	591936.2	3.4				ug/L	663064	Standard
	Ho	165	26.7	21.7				ug/L	10	Standard
	Tl	203	509080.4	1.9	**51.3387**	0.643	1.3	ug/L	32	Standard
	Tl	205	455676.1	2.2	**51.1718**	0.370	0.7	ug/L	28	Standard
	Pb	206	310237.9	2.1	**50.3430**	0.437	0.9	ug/L	190	Standard
	Pb	207	282137.7	1.6	**50.5395**	0.694	1.4	ug/L	155	Standard
	Pb	208	1257403.3	1.9	**50.3664**	0.530	1.1	ug/L	766	Standard
	U	238	587612.1	1.4	**50.4908**	1.424	2.8	ug/L	30	Standard
>	Bi	209	331120.3	2.9				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 14:17:24
Page 1

Approved: April 07, 2014

	Na	23	18.3	15.7	**4.3162**	0.746	17.3	mg/L	0	Standard
	Mg	24	5961.2	2.3	**5.1118**	0.099	1.9	mg/L	58	Standard
	K	39	475.0	0.0	**4.1761**	0.070	1.7	mg/L	12	Standard
	Ca	43	135.0	17.0	**3.4469**	0.832	24.1	mg/L	53	Standard
	Fe	54	8199.8	2.6	**4.8229**	0.128	2.7	mg/L	190	Standard
	Fe	57	3033.6	5.2	**5.3227**	0.422	7.9	mg/L	638	Standard
>	**Sc-1**	45	38072.8	1.6				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	2.3	65.5				ug/L	2	Standard
	Br	81	1993.5	3.6				ug/L	2030	Standard
	P	31	338203.6	4.0				ug/L	256822	Standard
	S	34	51564.3	2.1				ug/L	33255	Standard
	Sr	88	193.3	4.0				ug/L	153	Standard
	C	12	846.7	9.0				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	6.5	86.7				mg/L	6	Standard
	Ho-1	165	26.7	21.7				mg/L	10	Standard
	Er	166	3.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		96.975	
	Be	9	95.412		
	Al	27	96.817		
	Sc	45			
	Ti	47	98.134		
	V	51	101.745		
	Cr	52	97.831		
	Cr	53			
	Mn	55	98.662		
	Co	59	100.281		
	Ni	60	101.590		
	Cu	65	102.610		
	Zn	66	101.428		
>	Ge	72		97.263	
	As	75	99.830		
	Se	82	101.504		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 14:17:24
Page 2

Approved: April 07, 2014

⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	97.198		
|	Ag	107	100.222		
|	Cd	111	100.838		
|	Cd	114			
|>	In	115			94.570
|	Sn	118	102.286		
|	Sb	123	100.666		
⌊	Ba	135	99.140		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	102.677		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	100.733		
|	U	238	100.982		
⌊>	Bi	209			90.773
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 14:17:24
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 14:18:16
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	101240.6	2.8				ug/L	113180	Standard
	Be	9	38.3	41.9	**0.0148**	0.007	50.5	ug/L	17	Standard
	Al	27	911.7	19.5	**-0.0179**	0.001	7.0	ug/L	633	Standard
	Sc	45	36240.0	2.8				ug/L	41381	Standard
	Ti	47	29.7	28.3	**0.0349**	0.027	77.4	ug/L	30	Standard
	V	51	1433.0	7.6	**-0.0387**	0.014	37.0	ug/L	1879	Standard
	Cr	52	6145.9	1.2	**-0.1460**	0.012	8.0	ug/L	8035	Standard
	Cr	53	1063.4	6.6	**0.4892**	0.066	13.6	ug/L	470	Standard
	Mn	55	1192.7	5.8	**-0.0013**	0.006	448.2	ug/L	1182	Standard
	Co	59	241.0	7.8	**-0.0162**	0.002	13.3	ug/L	333	Standard
	Ni	60	97.7	6.8	**0.0045**	0.003	65.2	ug/L	71	Standard
	Cu	65	84.0	7.4	**0.0017**	0.003	156.7	ug/L	64	Standard
	Zn	66	103.0	16.0	**-0.0652**	0.012	17.9	ug/L	125	Standard
>	Ge	72	368318.5	1.3				ug/L	399053	Standard
	As	75	-9.7	208.0	**0.0052**	0.013	245.7	ug/L	-28	Standard
	Se	82	19.5	28.6	**0.0029**	0.034	1143.7	ug/L	26	Standard
	Se-1	77	157.3	10.7	**0.6259**	0.152	24.2	ug/L	118	Standard
>	Ga	71	11.7	49.5				mg/L	8	Standard
	Rb	85	51.7	40.3				ug/L	25	Standard
	Y	89	330586.4	3.1				ug/L	368853	Standard
>	Rh	103	10.0					ug/L	10	Standard
	Mo	98	76.0	41.7	**0.0129**	0.016	120.9	ug/L	68	Standard
	Ag	107	76.0	17.7	**-0.0028**	0.002	75.7	ug/L	84	Standard
	Cd	111	69.8	10.3	**-0.0027**	0.003	97.0	mg/L	72	Standard
	Cd	114	162.9	9.0	**-0.0044**	0.002	51.4	ug/L	187	Standard
>	In	115	419574.0	1.6				ug/L	464664	Standard
	Sn	118	511.7	4.6	**0.0173**	0.004	20.3	ug/L	438	Standard
	Sb	123	596.1	28.8	**0.0935**	0.033	35.6	ug/L	433	Standard
	Ba	135	30.3	13.7	**-0.0003**	0.001	448.7	ug/L	14	Standard
	Ce	140	8.3	91.7				ug/L	20	Standard
>	Tb	159	566172.7	0.6				ug/L	663064	Standard
	Ho	165	10.0	100.0				ug/L	10	Standard
	Tl	203	55.3	7.3	**0.0001**	0.000	409.0	ug/L	32	Standard
	Tl	205	43.3	63.5	**0.0006**	0.003	506.3	ug/L	28	Standard
	Pb	206	177.0	1.1	**-0.0075**	0.001	6.8	ug/L	190	Standard
	Pb	207	161.7	9.3	**-0.0021**	0.003	134.6	ug/L	155	Standard
	Pb	208	702.7	5.2	**-0.0038**	0.002	43.5	ug/L	766	Standard
	U	238	44.3	14.7	**0.0007**	0.001	77.4	ug/L	30	Standard
>	Bi	209	320013.6	0.6				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 14:20:26
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.3616**	0.843	233.1	mg/L	0	Standard
	Mg	24	35.0	24.7	**-0.0084**	0.009	105.9	mg/L	58	Standard
	K	39	11.7	65.5	**0.0375**	0.076	201.8	mg/L	12	Standard
	Ca	43	35.0	51.5	**-0.3629**	0.715	196.9	mg/L	53	Standard
	Fe	54	144.4	11.9	**-0.0002**	0.010	4597.5	mg/L	190	Standard
	Fe	57	651.7	4.4	**0.1327**	0.059	44.4	mg/L	638	Standard
>	**Sc-1**	45	36240.0	2.8				mg/L	41381	Standard
	Cl	35	2.7	43.3				ug/L	4	Standard
	Kr	83	1.0	100.0				ug/L	2	Standard
	Br	81	1833.4	5.5				ug/L	2030	Standard
	P	31	330199.0	2.4				ug/L	256822	Standard
	S	34	50216.4	2.0				ug/L	33255	Standard
	Sr	88	171.7	21.9				ug/L	153	Standard
	C	12	786.7	9.6				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	9.7	105.8				mg/L	6	Standard
	Ho-1	165	10.0	100.0				mg/L	10	Standard
	Er	166	6.7	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		89.451	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.298	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 14:20:26
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	90.296
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	87.728
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 14:20:26
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, April 04, 2014 14:21:19
Number of Replicates: 3
Autosampler Position: 202
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	103903.4	0.5				ug/L	113180	Standard
	Be	9	425.0	5.1	**0.1930**	0.011	5.7	ug/L	17	Standard
	Al	27	618.3	4.9	**-0.0201**	0.000	1.0	ug/L	633	Standard
	Sc	45	36774.6	3.8				ug/L	41381	Standard
	Ti	47	16.3	7.1	**-0.0102**	0.004	34.3	ug/L	30	Standard
	V	51	4936.3	1.0	**0.3874**	0.012	3.0	ug/L	1879	Standard
	Cr	52	13362.2	1.1	**0.6807**	0.034	5.0	ug/L	8035	Standard
	Cr	53	2053.5	5.8	**1.2525**	0.070	5.6	ug/L	470	Standard
	Mn	55	6153.2	1.8	**0.4884**	0.011	2.2	ug/L	1182	Standard
	Co	59	3133.0	2.4	**0.3786**	0.008	2.1	ug/L	333	Standard
	Ni	60	4236.9	2.9	**1.6345**	0.029	1.8	ug/L	71	Standard
	Cu	65	2099.8	5.3	**0.8320**	0.034	4.0	ug/L	64	Standard
	Zn	66	8986.3	3.0	**6.3382**	0.117	1.8	ug/L	125	Standard
>	**Ge**	72	372746.9	1.4				ug/L	399053	Standard
	As	75	588.5	2.5	**0.3825**	0.014	3.6	ug/L	-28	Standard
	Se	82	77.9	5.9	**0.3401**	0.023	6.8	ug/L	26	Standard
	Se-1	77	176.0	6.0	**0.7952**	0.117	14.7	ug/L	118	Standard
>	**Ga**	71	18.3	15.7				mg/L	8	Standard
	Rb	85	48.3	31.6				ug/L	25	Standard
	Y	89	342854.9	1.8				ug/L	368853	Standard
>	**Rh**	103	8.3	34.6				ug/L	10	Standard
	Mo	98	32.4	17.0	**-0.0097**	0.003	26.3	ug/L	68	Standard
	Ag	107	2599.6	2.3	**0.3830**	0.008	2.1	ug/L	84	Standard
	Cd	111	761.0	3.5	**0.2281**	0.005	2.1	mg/L	72	Standard
	Cd	114	1857.3	3.8	**0.2262**	0.008	3.6	ug/L	187	Standard
>	**In**	115	431540.7	1.6				ug/L	464664	Standard
	Sn	118	478.3	15.4	**0.0114**	0.010	84.6	ug/L	438	Standard
	Sb	123	2125.4	1.6	**0.3911**	0.006	1.6	ug/L	433	Standard
	Ba	135	1917.8	1.8	**0.7224**	0.021	2.9	ug/L	14	Standard
	Ce	140	15.0	88.2				ug/L	20	Standard
>	**Tb**	159	572565.2	2.4				ug/L	663064	Standard
	Ho	165	3.3	173.2				ug/L	10	Standard
	Tl	203	818.4	4.5	**0.0794**	0.004	4.9	ug/L	32	Standard
	Tl	205	680.0	3.8	**0.0743**	0.003	4.2	ug/L	28	Standard
	Pb	206	1433.7	4.8	**0.2026**	0.010	4.9	ug/L	190	Standard
	Pb	207	1193.4	3.6	**0.1882**	0.006	3.3	ug/L	155	Standard
	Pb	208	5505.7	4.2	**0.1944**	0.008	4.0	ug/L	766	Standard
	U	238	4501.7	1.4	**0.3952**	0.008	2.1	ug/L	30	Standard
>	**Bi**	209	321367.9	0.8				ug/L	364780	Standard

Sample ID: QC Std 8
Report Date/Time: Friday, April 04, 2014 14:23:30
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.3740**	0.821	219.6	mg/L	0	Standard
	Mg	24	40.0	12.5	**-0.0046**	0.004	76.3	mg/L	58	Standard
	K	39	5.0	100.0	**-0.0281**	0.046	162.2	mg/L	12	Standard
	Ca	43	36.7	7.9	**-0.3141**	0.091	29.1	mg/L	53	Standard
	Fe	54	155.5	10.4	**0.0057**	0.014	243.3	mg/L	190	Standard
	Fe	57	725.0	9.0	**0.2825**	0.203	71.8	mg/L	638	Standard
>	**Sc-1**	45	36774.6	3.8				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	3.3	45.8				ug/L	2	Standard
	Br	81	2073.5	7.1				ug/L	2030	Standard
	P	31	311489.5	1.0				ug/L	256822	Standard
	S	34	48684.8	1.1				ug/L	33255	Standard
	Sr	88	150.0	11.5				ug/L	153	Standard
	C	12	843.4	18.6				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	6.0	193.9				mg/L	6	Standard
	Ho-1	165	3.3	173.2				mg/L	10	Standard
	Er	166	13.3	43.3				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		91.804	
	Be	9	96.502		
	Al	27			
	Sc	45			
	Ti	47			
	V	51	96.856		
	Cr	52	85.093		
	Cr	53			
	Mn	55	97.687		
	Co	59	94.654		
	Ni	60	102.156		
	Cu	65	104.001		
	Zn	66	101.411		
>	Ge	72		93.408	
	As	75	95.621		
	Se	82	85.018		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 8
Report Date/Time: Friday, April 04, 2014 14:23:30
Page 2

Approved: April 07, 2014

⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98			
|	Ag	107	95.758		
|	Cd	111	95.056		
|	Cd	114			
|>	In	115		92.872	
|	Sn	118			
|	Sb	123	97.770		
⌊	Ba	135	96.320		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	99.190		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	97.193		
|	U	238	98.801		
⌊>	Bi	209		88.099	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 8
Report Date/Time: Friday, April 04, 2014 14:23:30
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 4
Sample Date/Time: Friday, April 04, 2014 14:25:21
Number of Replicates: 3
Autosampler Position: 203
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	94765.5	1.9				ug/L	113180	Standard
	Be	9	10.0		**0.0017**	0.000	5.7	ug/L	17	Standard
	Al	27	5464627.2	3.2	**40.5553**	0.560	1.4	ug/L	633	Standard
	Sc	45	32257.7	2.8				ug/L	41381	Standard
	Ti	47	37691.5	2.5	**138.0879**	0.502	0.4	ug/L	30	Standard
	V	51	1469.8	26.8	**-0.0178**	0.048	270.2	ug/L	1879	Standard
	Cr	52	5611.0	2.4	**-0.1466**	0.005	3.7	ug/L	8035	Standard
	Cr	53	3463.7	1.7	**2.6495**	0.113	4.3	ug/L	470	Standard
	Mn	55	2091.1	6.5	**0.1087**	0.016	15.0	ug/L	1182	Standard
	Co	59	267.7	3.8	**-0.0090**	0.003	28.6	ug/L	333	Standard
	Ni	60	671.7	7.3	**0.2586**	0.021	7.9	ug/L	71	Standard
	Cu	65	431.0	6.7	**0.1633**	0.008	5.0	ug/L	64	Standard
	Zn	66	963.0	2.9	**0.6288**	0.013	2.1	ug/L	125	Standard
>	**Ge**	72	336542.2	2.6				ug/L	399053	Standard
	As	75	-31.5	254.7	**-0.0099**	0.055	553.0	ug/L	-28	Standard
	Se	82	19.1	38.2	**0.0115**	0.049	421.4	ug/L	26	Standard
	Se-1	77	498.0	2.6	**4.5434**	0.065	1.4	ug/L	118	Standard
>	**Ga**	71	121.7	30.8				mg/L	8	Standard
	Rb	85	3283.7	3.1				ug/L	25	Standard
	Y	89	301852.4	1.1				ug/L	368853	Standard
>	**Rh**	103	8.3	69.3				ug/L	10	Standard
	Mo	98	194656.9	3.1	**108.9503**	1.997	1.8	ug/L	68	Standard
	Ag	107	78.7	14.2	**-0.0012**	0.002	167.4	ug/L	84	Standard
	Cd	111	-13.8	43.4	**-0.0320**	0.002	7.3	mg/L	72	Standard
	Cd	114	860.6	2.7	**0.1048**	0.003	2.9	ug/L	187	Standard
>	**In**	115	383932.3	1.3				ug/L	464664	Standard
	Sn	118	415.0	4.3	**0.0098**	0.003	28.4	ug/L	438	Standard
	Sb	123	170.6	13.3	**0.0109**	0.005	43.5	ug/L	433	Standard
	Ba	135	84.0	9.3	**0.0239**	0.003	14.5	ug/L	14	Standard
	Ce	140	1095.0	0.5				ug/L	20	Standard
>	**Tb**	159	542500.2	1.0				ug/L	663064	Standard
	Ho	165	16.7	34.6				ug/L	10	Standard
	Tl	203	565.7	5.7	**0.0565**	0.004	7.7	ug/L	32	Standard
	Tl	205	478.3	6.6	**0.0541**	0.003	5.2	ug/L	28	Standard
	Pb	206	466.0	3.9	**0.0453**	0.006	13.4	ug/L	190	Standard
	Pb	207	391.3	5.7	**0.0443**	0.005	11.6	ug/L	155	Standard
	Pb	208	1815.0	2.5	**0.0464**	0.005	10.3	ug/L	766	Standard
	U	238	9.7	41.8	**-0.0023**	0.000	15.5	ug/L	30	Standard
>	**Bi**	209	304067.2	3.5				ug/L	364780	Standard

Sample ID: QC Std 4
Report Date/Time: Friday, April 04, 2014 14:27:31
Page 1

Approved: April 07, 2014

	Na	23	38.3	32.8	**11.9310**	4.188	35.1	mg/L	0	Standard
	Mg	24	11210.8	1.9	**11.3971**	0.103	0.9	mg/L	58	Standard
	K	39	350.0	4.9	**3.6201**	0.082	2.3	mg/L	12	Standard
	Ca	43	288.3	5.6	**11.4346**	1.018	8.9	mg/L	53	Standard
	Fe	54	14911.9	4.8	**10.4575**	0.475	4.5	mg/L	190	Standard
	Fe	57	4972.5	4.3	**11.5761**	0.231	2.0	mg/L	638	Standard
>	**Sc-1**	45	32257.7	2.8				mg/L	41381	Standard
	Cl	35	2.7	43.3				ug/L	4	Standard
	Kr	83	2.7	78.1				ug/L	2	Standard
	Br	81	1896.8	5.3				ug/L	2030	Standard
	P	31	93957.4	3.7				ug/L	256822	Standard
	S	34	43004.3	1.9				ug/L	33255	Standard
	Sr	88	140.0	16.4				ug/L	153	Standard
	C	12	1146.7	9.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	9.5	105.0				mg/L	6	Standard
	Ho-1	165	16.7	34.6				mg/L	10	Standard
	Er	166	10.0					mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		83.730	
	Be	9			
	Al	27	0.811		
	Sc	45			
	Ti	47	138.088		
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		84.335	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 4
Report Date/Time: Friday, April 04, 2014 14:27:31
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	108.950	
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		82.626
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		83.356
⌈	Na	23	95.448	
|	Mg	24	227.942	
|	K	39	72.402	
|	Ca	43	76.231	
|	Fe	54	83.660	
|	Fe	57	92.609	
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 4	Al	27	
QC Std 4	Ti	47	
QC Std 4	Tl	203	
QC Std 4	Mg	24	
QC Std 4	K	39	

Approved: April 07, 2014

QC Std 4	Ca	43

Sample ID: QC Std 4
Report Date/Time: Friday, April 04, 2014 14:27:31
Page 4

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 5
Sample Date/Time: Friday, April 04, 2014 14:28:23
Number of Replicates: 3
Autosampler Position: 204
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	118090.2	2.4				ug/L	113180	Standard
	Be	9	233533.1	1.9	**94.9351**	1.075	1.1	ug/L	17	Standard
	Al	27	6317977.0	1.7	**37.6357**	0.318	0.8	ug/L	633	Standard
	Sc	45	38677.7	4.7				ug/L	41381	Standard
	Ti	47	44952.3	3.2	**137.0564**	2.807	2.0	ug/L	30	Standard
	V	51	863261.4	3.5	**97.0335**	1.474	1.5	ug/L	1879	Standard
	Cr	52	902570.1	3.4	**95.4072**	1.815	1.9	ug/L	8035	Standard
	Cr	53	136838.6	1.8	**98.3208**	0.268	0.3	ug/L	470	Standard
	Mn	55	1049151.9	4.7	**95.5800**	2.643	2.8	ug/L	1182	Standard
	Co	59	763760.0	3.9	**96.1488**	2.043	2.1	ug/L	333	Standard
	Ni	60	273477.5	2.7	**99.2802**	1.216	1.2	ug/L	71	Standard
	Cu	65	263907.3	4.1	**100.2403**	2.547	2.5	ug/L	64	Standard
	Zn	66	156663.2	2.8	**103.9777**	0.970	0.9	ug/L	125	Standard
>	Ge	72	404353.0	2.1				ug/L	399053	Standard
	As	75	171229.3	1.3	**99.5534**	1.347	1.4	ug/L	-28	Standard
	Se	82	18592.3	1.1	**99.3014**	2.235	2.3	ug/L	26	Standard
	Se-1	77	11501.0	0.7	**104.8769**	1.697	1.6	ug/L	118	Standard
>	Ga	71	170.0	7.8				mg/L	8	Standard
	Rb	85	4213.9	12.1				ug/L	25	Standard
	Y	89	360301.1	3.0				ug/L	368853	Standard
>	Rh	103	68.3	16.9				ug/L	10	Standard
	Mo	98	239295.7	2.2	**116.1312**	2.057	1.8	ug/L	68	Standard
	Ag	107	690835.2	1.9	**102.9777**	1.432	1.4	ug/L	84	Standard
	Cd	111	308516.7	2.6	**100.6886**	0.775	0.8	mg/L	72	Standard
	Cd	114	756296.6	3.8	**100.5202**	1.789	1.8	ug/L	187	Standard
>	In	115	442999.9	3.3				ug/L	464664	Standard
	Sn	118	2326.8	2.5	**0.2358**	0.013	5.6	ug/L	438	Standard
	Sb	123	533361.5	2.1	**102.1581**	1.904	1.9	ug/L	433	Standard
	Ba	135	260275.8	2.0	**97.1163**	1.203	1.2	ug/L	14	Standard
	Ce	140	1281.7	8.0				ug/L	20	Standard
>	Tb	159	601483.9	2.3				ug/L	663064	Standard
	Ho	165	13.3	43.3				ug/L	10	Standard
	Tl	203	1025436.8	2.0	**100.6169**	0.612	0.6	ug/L	32	Standard
	Tl	205	946267.7	2.7	**103.3943**	1.500	1.5	ug/L	28	Standard
	Pb	206	635301.5	0.6	**100.3567**	0.906	0.9	ug/L	190	Standard
	Pb	207	574409.2	1.1	**100.1439**	0.407	0.4	ug/L	155	Standard
	Pb	208	2569255.8	1.1	**100.1706**	0.405	0.4	ug/L	766	Standard
	U	238	1235365.3	1.2	**103.2601**	0.454	0.4	ug/L	30	Standard
>	Bi	209	340245.1	1.5				ug/L	364780	Standard

Sample ID: QC Std 5
Report Date/Time: Friday, April 04, 2014 14:30:33
Page 1

Approved: April 07, 2014

	Na	23	40.0	33.1	**10.3947**	4.311	41.5	mg/L	0	Standard
	Mg	24	12366.7	2.0	**10.4899**	0.301	2.9	mg/L	58	Standard
	K	39	320.0	7.2	**2.7421**	0.077	2.8	mg/L	12	Standard
	Ca	43	311.7	9.8	**10.1052**	0.752	7.4	mg/L	53	Standard
	Fe	54	16972.8	2.2	**9.9292**	0.283	2.8	mg/L	190	Standard
	Fe	57	5474.3	2.6	**10.5415**	0.761	7.2	mg/L	638	Standard
>	**Sc-1**	45	38677.7	4.7				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	5.7	53.9				ug/L	2	Standard
	Br	81	1900.1	5.9				ug/L	2030	Standard
	P	31	284390.3	4.0				ug/L	256822	Standard
	S	34	42895.7	4.1				ug/L	33255	Standard
	Sr	88	148.3	5.1				ug/L	153	Standard
	C	12	1193.4	2.7				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	6.0	94.2				mg/L	6	Standard
	Ho-1	165	13.3	43.3				mg/L	10	Standard
	Er	166	13.3	114.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		104.339	
	Be	9	94.935		
	Al	27	0.753		
	Sc	45			
	Ti	47	137.056		
	V	51	97.033		
	Cr	52	95.407		
	Cr	53			
	Mn	55	95.580		
	Co	59	96.149		
	Ni	60	99.280		
	Cu	65	100.240		
	Zn	66	103.978		
>	Ge	72		101.328	
	As	75	99.553		
	Se	82	99.301		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 5
Report Date/Time: Friday, April 04, 2014 14:30:33
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	116.131	
|	Ag	107	102.978	
|	Cd	111	100.689	
|	Cd	114		
|>	In	115		95.338
|	Sn	118		
|	Sb	123	102.158	
⌊	Ba	135	97.116	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	100.617	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	100.171	
|	U	238	103.260	
⌊>	Bi	209		93.274
⌈	Na	23	83.157	
|	Mg	24	209.798	
|	K	39	54.841	
|	Ca	43	67.368	
|	Fe	54	79.433	
|	Fe	57	84.332	
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 5	Al	27	
QC Std 5	Ti	47	
QC Std 5	Na	23	
QC Std 5	Mg	24	
QC Std 5	K	39	

Approved: April 07, 2014

QC Std 5	Ca	43
QC Std 5	Fe	54

Sample ID: QC Std 5
Report Date/Time: Friday, April 04, 2014 14:30:33
Page 4

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 14:31:30
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	116622.1	1.0				ug/L	113180	Standard
	Be	9	115162.7	1.5	**47.4056**	1.149	2.4	ug/L	17	Standard
	Al	27	7782959.5	1.4	**46.9462**	0.434	0.9	ug/L	633	Standard
	Sc	45	38799.6	2.3				ug/L	41381	Standard
	Ti	47	31918.3	0.9	**95.9988**	1.857	1.9	ug/L	30	Standard
	V	51	447624.1	0.6	**49.5423**	0.821	1.7	ug/L	1879	Standard
	Cr	52	469554.6	0.9	**48.5513**	0.784	1.6	ug/L	8035	Standard
	Cr	53	69211.1	1.2	**48.8766**	0.134	0.3	ug/L	470	Standard
	Mn	55	536266.3	0.5	**48.1536**	0.462	1.0	ug/L	1182	Standard
	Co	59	391691.4	1.2	**48.6295**	0.510	1.0	ug/L	333	Standard
	Ni	60	140444.3	1.0	**50.2804**	0.241	0.5	ug/L	71	Standard
	Cu	65	137622.9	0.7	**51.5609**	0.291	0.6	ug/L	64	Standard
	Zn	66	78723.3	1.2	**51.4748**	0.060	0.1	ug/L	125	Standard
>	**Ge**	72	409909.7	1.2				ug/L	399053	Standard
	As	75	86578.7	0.7	**49.6585**	0.743	1.5	ug/L	-28	Standard
	Se	82	9526.5	0.7	**50.1258**	0.484	1.0	ug/L	26	Standard
	Se-1	77	5751.1	1.2	**51.2344**	0.122	0.2	ug/L	118	Standard
>	**Ga**	71	55.0	31.5				mg/L	8	Standard
	Rb	85	911.7	8.4				ug/L	25	Standard
	Y	89	362793.1	3.1				ug/L	368853	Standard
>	**Rh**	103	25.0	40.0				ug/L	10	Standard
	Mo	98	212784.6	0.1	**100.7087**	0.951	0.9	ug/L	68	Standard
	Ag	107	350705.9	0.8	**50.9753**	0.241	0.5	ug/L	84	Standard
	Cd	111	159059.7	0.5	**50.6217**	0.499	1.0	mg/L	72	Standard
	Cd	114	389246.5	1.7	**50.4541**	0.459	0.9	ug/L	187	Standard
>	**In**	115	454116.9	0.8				ug/L	464664	Standard
	Sn	118	435259.0	2.4	**51.8093**	1.151	2.2	ug/L	438	Standard
	Sb	123	270042.7	1.3	**50.4257**	0.298	0.6	ug/L	433	Standard
	Ba	135	134571.0	0.9	**48.9639**	0.158	0.3	ug/L	14	Standard
	Ce	140	166.7	6.2				ug/L	20	Standard
>	**Tb**	159	612724.5	1.0				ug/L	663064	Standard
	Ho	165	23.3	65.5				ug/L	10	Standard
	Tl	203	521742.1	0.8	**51.1667**	0.355	0.7	ug/L	32	Standard
	Tl	205	473470.7	0.5	**51.7120**	0.564	1.1	ug/L	28	Standard
	Pb	206	321124.7	0.6	**50.6771**	0.161	0.3	ug/L	190	Standard
	Pb	207	292064.5	0.8	**50.8746**	0.313	0.6	ug/L	155	Standard
	Pb	208	1301515.2	0.5	**50.6988**	0.241	0.5	ug/L	766	Standard
	U	238	620166.4	1.9	**51.8071**	0.996	1.9	ug/L	30	Standard
>	**Bi**	209	340429.4	0.7				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 14:33:40
Page 1

Approved: April 07, 2014

	Na	23	28.3	53.9	**7.0634**	4.453	63.0	mg/L	0	Standard
	Mg	24	5894.5	4.7	**4.9599**	0.246	5.0	mg/L	58	Standard
	K	39	530.0	8.2	**4.5789**	0.370	8.1	mg/L	12	Standard
	Ca	43	140.0	19.9	**3.5464**	1.058	29.8	mg/L	53	Standard
	Fe	54	8407.4	3.4	**4.8524**	0.115	2.4	mg/L	190	Standard
	Fe	57	2947.0	3.2	**5.0099**	0.308	6.2	mg/L	638	Standard
>	**Sc-1**	45	38799.6	2.3				mg/L	41381	Standard
	Cl	35	4.0	0.0				ug/L	4	Standard
	Kr	83	1.3	114.6				ug/L	2	Standard
	Br	81	2123.5	7.0				ug/L	2030	Standard
	P	31	311526.4	2.6				ug/L	256822	Standard
	S	34	46708.6	1.7				ug/L	33255	Standard
	Sr	88	146.7	26.5				ug/L	153	Standard
	C	12	896.7	9.0				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0	100.0				mg/L	0	Standard
	Dy	164	9.4	5.9				mg/L	6	Standard
	Ho-1	165	23.3	65.5				mg/L	10	Standard
	Er	166	13.3	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		103.042	
	Be	9	94.811		
	Al	27	93.892		
	Sc	45			
	Ti	47	95.999		
	V	51	99.085		
	Cr	52	97.103		
	Cr	53			
	Mn	55	96.307		
	Co	59	97.259		
	Ni	60	100.561		
	Cu	65	103.122		
	Zn	66	102.950		
>	Ge	72		102.721	
	As	75	99.317		
	Se	82	100.252		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 14:33:40
Page 2

Approved: April 07, 2014

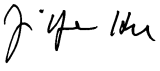
⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	100.709		
|	Ag	107	101.951		
|	Cd	111	101.243		
|	Cd	114			
|>	In	115		97.730	
|	Sn	118	103.619		
|	Sb	123	100.851		
⌊	Ba	135	97.928		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	102.333		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	101.398		
|	U	238	103.614		
⌊>	Bi	209		93.325	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 14:33:40
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 14:34:31
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	115215.0	3.3				ug/L	113180	Standard
	Be	9	40.0	21.7	**0.0133**	0.003	24.8	ug/L	17	Standard
	Al	27	1638.4	4.4	**-0.0143**	0.001	4.3	ug/L	633	Standard
	Sc	45	37478.0	2.4				ug/L	41381	Standard
	Ti	47	27.7	14.6	**0.0235**	0.013	56.7	ug/L	30	Standard
	V	51	1680.2	6.9	**-0.0193**	0.014	72.4	ug/L	1879	Standard
	Cr	52	6953.9	4.1	**-0.0952**	0.033	34.3	ug/L	8035	Standard
	Cr	53	683.3	6.9	**0.1586**	0.033	20.6	ug/L	470	Standard
	Mn	55	1085.0	3.8	**-0.0179**	0.003	19.4	ug/L	1182	Standard
	Co	59	261.3	10.6	**-0.0153**	0.004	24.8	ug/L	333	Standard
	Ni	60	100.7	4.9	**0.0035**	0.002	57.5	ug/L	71	Standard
	Cu	65	110.3	16.3	**0.0102**	0.007	68.6	ug/L	64	Standard
	Zn	66	130.7	2.9	**-0.0501**	0.002	4.6	ug/L	125	Standard
>	**Ge**	72	389239.8	0.5				ug/L	399053	Standard
	As	75	-43.6	92.7	**-0.0151**	0.025	162.6	ug/L	-28	Standard
	Se	82	20.0	16.9	**-0.0006**	0.018	2963.3	ug/L	26	Standard
	Se-1	77	128.0	11.7	**0.2618**	0.148	56.6	ug/L	118	Standard
>	**Ga**	71	10.0	100.0				mg/L	8	Standard
	Rb	85	28.3	10.2				ug/L	25	Standard
	Y	89	343910.0	1.7				ug/L	368853	Standard
>	**Rh**	103	11.7	137.8				ug/L	10	Standard
	Mo	98	158.6	16.1	**0.0530**	0.013	23.8	ug/L	68	Standard
	Ag	107	116.7	7.8	**0.0031**	0.002	49.2	ug/L	84	Standard
	Cd	111	80.0	17.6	**-0.0001**	0.005	8199.3	mg/L	72	Standard
	Cd	114	229.6	12.6	**0.0040**	0.004	97.7	ug/L	187	Standard
>	**In**	115	432339.4	0.8				ug/L	464664	Standard
	Sn	118	513.3	5.9	**0.0156**	0.004	26.9	ug/L	438	Standard
	Sb	123	773.4	23.9	**0.1250**	0.037	29.2	ug/L	433	Standard
	Ba	135	29.0	24.9	**-0.0012**	0.003	241.0	ug/L	14	Standard
	Ce	140	10.0	86.6				ug/L	20	Standard
>	**Tb**	159	583191.0	1.1				ug/L	663064	Standard
	Ho	165	6.7	86.6				ug/L	10	Standard
	Tl	203	99.3	3.5	**0.0044**	0.000	8.7	ug/L	32	Standard
	Tl	205	88.3	21.4	**0.0056**	0.002	38.4	ug/L	28	Standard
	Pb	206	231.7	3.6	**0.0007**	0.001	203.0	ug/L	190	Standard
	Pb	207	179.3	8.6	**0.0002**	0.003	1228.0	ug/L	155	Standard
	Pb	208	842.7	2.0	**0.0011**	0.001	66.5	ug/L	766	Standard
	U	238	94.0	5.9	**0.0049**	0.001	10.2	ug/L	30	Standard
>	**Bi**	209	328951.9	0.3				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 14:36:42
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	45.0	19.2	**-0.0009**	0.007	768.2	mg/L	58	Standard
	K	39	10.0	86.6	**0.0186**	0.082	438.9	mg/L	12	Standard
	Ca	43	50.0	30.0	**0.1874**	0.598	318.9	mg/L	53	Standard
	Fe	54	175.9	13.7	**0.0160**	0.015	92.8	mg/L	190	Standard
	Fe	57	650.0	4.7	**0.0804**	0.102	127.4	mg/L	638	Standard
>	**Sc-1**	45	37478.0	2.4				mg/L	41381	Standard
	Cl	35	2.7	86.6				ug/L	4	Standard
	Kr	83	3.3	45.8				ug/L	2	Standard
	Br	81	1876.8	2.5				ug/L	2030	Standard
	P	31	305459.2	2.1				ug/L	256822	Standard
	S	34	46894.1	0.9				ug/L	33255	Standard
	Sr	88	156.7	10.3				ug/L	153	Standard
	C	12	766.7	8.7				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	9.2	103.6				mg/L	6	Standard
	Ho-1	165	6.7	86.6				mg/L	10	Standard
	Er	166	16.7	91.7				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		101.798	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.541	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 14:36:42
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		93.043
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		90.178
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 14:36:42
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404018901
Sample Date/Time: Friday, April 04, 2014 14:37:51
Number of Replicates: 3
Autosampler Position: 340
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	185199.2	5.9				ug/L	113180	Standard
	Be	9	9072.7	1.7	**2.3527**	0.119	5.0	ug/L	17	Standard
	Al	27	52257048.4	2.8	**198.8957**	9.349	4.7	ug/L	633	Standard
	Sc	45	41047.3	5.7				ug/L	41381	Standard
	Ti	47	721.0	10.1	**2.0676**	0.218	10.6	ug/L	30	Standard
	V	51	89484.8	2.2	**9.5566**	0.269	2.8	ug/L	1879	Standard
	Cr	52	84867.8	2.9	**7.9089**	0.277	3.5	ug/L	8035	Standard
	Cr	53	12833.8	1.5	**8.6150**	0.060	0.7	ug/L	470	Standard
	Mn	55	29358043.5	0.3	**2596.2141**	16.646	0.6	ug/L	1182	Standard
	Co	59	323358.2	0.9	**39.4339**	0.634	1.6	ug/L	333	Standard
	Ni	60	234308.8	0.5	**82.4355**	0.399	0.5	ug/L	71	Standard
	Cu	65	34403.0	2.2	**12.6376**	0.270	2.1	ug/L	64	Standard
	Zn	66	307283.5	0.8	**197.7991**	1.047	0.5	ug/L	125	Standard
>	Ge	72	417231.0	0.9				ug/L	399053	Standard
	As	75	36476.4	1.0	**20.5602**	0.305	1.5	ug/L	-28	Standard
	Se	82	188.0	11.4	**0.8624**	0.110	12.8	ug/L	26	Standard
	Se-1	77	301.0	1.4	**1.7222**	0.060	3.5	ug/L	118	Standard
>	Ga	71	1635.1	12.4				mg/L	8	Standard
	Rb	85	299380.5	3.0				ug/L	25	Standard
	Y	89	1556244.1	2.3				ug/L	368853	Standard
>	Rh	103	268.3	3.9				ug/L	10	Standard
	Mo	98	243.9	8.9	**0.1050**	0.015	14.1	ug/L	68	Standard
	Ag	107	93.3	12.0	**0.0007**	0.002	323.9	ug/L	84	Standard
	Cd	111	1598.3	3.0	**0.5489**	0.003	0.6	mg/L	72	Standard
	Cd	114	3859.2	5.9	**0.5388**	0.025	4.7	ug/L	187	Standard
>	In	115	401405.8	2.6				ug/L	464664	Standard
	Sn	118	546.7	1.1	**0.0250**	0.002	6.2	ug/L	438	Standard
	Sb	123	374.5	3.7	**0.0524**	0.004	6.8	ug/L	433	Standard
	Ba	135	7036.3	2.8	**2.8848**	0.020	0.7	ug/L	14	Standard
	Ce	140	944726.0	2.8				ug/L	20	Standard
>	Tb	159	662698.4	1.0				ug/L	663064	Standard
	Ho	165	152658.6	1.2				ug/L	10	Standard
	Tl	203	2970.0	0.8	**0.2952**	0.003	0.9	ug/L	32	Standard
	Tl	205	2746.9	2.4	**0.3055**	0.007	2.2	ug/L	28	Standard
	Pb	206	4007.5	2.3	**0.6164**	0.008	1.3	ug/L	190	Standard
	Pb	207	3292.7	2.3	**0.5606**	0.013	2.3	ug/L	155	Standard
	Pb	208	15541.1	2.4	**0.5927**	0.009	1.5	ug/L	766	Standard
	U	238	9445.6	3.4	**0.8117**	0.022	2.7	ug/L	30	Standard
>	Bi	209	329618.1	1.1				ug/L	364780	Standard

Sample ID: L1404018901
Report Date/Time: Friday, April 04, 2014 14:40:01
Page 1

Approved: April 07, 2014

	Na	23	550.0	8.8	**142.9862**	8.261	5.8	mg/L	0	Standard
	Mg	24	107265.0	0.5	**86.1514**	5.373	6.2	mg/L	58	Standard
	K	39	228.3	9.9	**1.8221**	0.171	9.4	mg/L	12	Standard
	Ca	43	3258.7	7.8	**115.5040**	6.498	5.6	mg/L	53	Standard
	Fe	54	197666.3	1.6	**109.9920**	5.995	5.5	mg/L	190	Standard
	Fe	57	56185.7	0.7	**113.9271**	6.257	5.5	mg/L	638	Standard
>	**Sc-1**	45	41047.3	5.7				mg/L	41381	Standard
	Cl	35	3.3	69.3				ug/L	4	Standard
	Kr	83	2.0	50.0				ug/L	2	Standard
	Br	81	8092.2	1.2				ug/L	2030	Standard
	P	31	458576.7	2.9				ug/L	256822	Standard
	S	34	25643.6	13.8				ug/L	33255	Standard
	Sr	88	1641.8	7.4				ug/L	153	Standard
	C	12	2813.6	3.6				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	123201.1	1.9				mg/L	6	Standard
	Ho-1	165	152658.6	1.2				mg/L	10	Standard
	Er	166	62609.1	1.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		163.633	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.555	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018901
Report Date/Time: Friday, April 04, 2014 14:40:01
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
| >	In	115	86.386
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	90.361
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Zn 66 Upper, S, EEE	Zn	66	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404018902
Sample Date/Time: Friday, April 04, 2014 14:40:53
Number of Replicates: 3
Autosampler Position: 341
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	198860.1	1.8				ug/L	113180	Standard
	Be	9	9546.3	3.5	**2.3011**	0.077	3.4	ug/L	17	Standard
	Al	27	51280603.7	1.6	**181.4831**	1.767	1.0	ug/L	633	Standard
	Sc	45	39802.2	1.0				ug/L	41381	Standard
	Ti	47	403.0	9.3	**1.1080**	0.106	9.6	ug/L	30	Standard
	V	51	57178.3	3.1	**5.9276**	0.157	2.6	ug/L	1879	Standard
	Cr	52	69254.3	0.7	**6.1799**	0.017	0.3	ug/L	8035	Standard
	Cr	53	10708.8	0.4	**7.0113**	0.049	0.7	ug/L	470	Standard
	Mn	55	29089711.0	1.6	**2531.2845**	20.571	0.8	ug/L	1182	Standard
	Co	59	316931.8	0.5	**38.0302**	0.291	0.8	ug/L	333	Standard
	Ni	60	230653.7	1.8	**79.8500**	1.008	1.3	ug/L	71	Standard
	Cu	65	33141.5	1.3	**11.9779**	0.063	0.5	ug/L	64	Standard
	Zn	66	322857.0	0.6	**204.5145**	0.370	0.2	ug/L	125	Standard
>	Ge	72	423987.6	0.8				ug/L	399053	Standard
	As	75	22537.2	1.4	**12.5040**	0.098	0.8	ug/L	-28	Standard
	Se	82	199.2	6.7	**0.9037**	0.061	6.8	ug/L	26	Standard
	Se-1	77	283.3	3.9	**1.5245**	0.112	7.4	ug/L	118	Standard
>	Ga	71	1323.4	2.9				mg/L	8	Standard
	Rb	85	286568.9	2.3				ug/L	25	Standard
	Y	89	1505870.1	1.1				ug/L	368853	Standard
>	Rh	103	225.0	19.4				ug/L	10	Standard
	Mo	98	164.7	11.6	**0.0649**	0.012	17.9	ug/L	68	Standard
	Ag	107	83.7	4.5	**-0.0006**	0.001	131.2	ug/L	84	Standard
	Cd	111	1695.1	3.4	**0.6010**	0.017	2.8	mg/L	72	Standard
	Cd	114	4065.8	5.1	**0.5865**	0.040	6.8	ug/L	187	Standard
>	In	115	390412.3	1.6				ug/L	464664	Standard
	Sn	118	986.7	4.1	**0.0881**	0.007	7.6	ug/L	438	Standard
	Sb	123	279.9	1.4	**0.0340**	0.000	1.2	ug/L	433	Standard
	Ba	135	7887.7	1.8	**3.3269**	0.033	1.0	ug/L	14	Standard
	Ce	140	897472.9	2.6				ug/L	20	Standard
>	Tb	159	655217.9	1.6				ug/L	663064	Standard
	Ho	165	150053.2	3.3				ug/L	10	Standard
	Tl	203	2990.3	1.4	**0.2911**	0.004	1.5	ug/L	32	Standard
	Tl	205	2725.2	7.0	**0.2968**	0.021	7.2	ug/L	28	Standard
	Pb	206	3980.5	1.2	**0.5988**	0.007	1.2	ug/L	190	Standard
	Pb	207	3416.7	1.4	**0.5704**	0.009	1.6	ug/L	155	Standard
	Pb	208	15798.9	0.9	**0.5902**	0.005	0.9	ug/L	766	Standard
	U	238	9944.9	2.5	**0.8374**	0.022	2.6	ug/L	30	Standard
>	Bi	209	336457.0	0.1				ug/L	364780	Standard

Sample ID: L1404018902
Report Date/Time: Friday, April 04, 2014 14:43:03
Page 1

Approved: April 07, 2014

	Na	23	543.3	18.6	**145.7242**	26.980	18.5	mg/L	0	Standard
	Mg	24	104650.2	1.4	**86.4838**	1.859	2.1	mg/L	58	Standard
	K	39	200.0	2.5	**1.6382**	0.060	3.7	mg/L	12	Standard
	Ca	43	2833.6	4.8	**103.4303**	6.095	5.9	mg/L	53	Standard
	Fe	54	190291.9	1.8	**108.9996**	2.839	2.6	mg/L	190	Standard
	Fe	57	53865.6	1.1	**112.4032**	2.222	2.0	mg/L	638	Standard
>	**Sc-1**	45	39802.2	1.0				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	1.3	86.6				ug/L	2	Standard
	Br	81	8535.7	1.6				ug/L	2030	Standard
	P	31	453156.6	3.9				ug/L	256822	Standard
	S	34	21413.5	5.6				ug/L	33255	Standard
	Sr	88	1851.8	2.3				ug/L	153	Standard
	C	12	2403.5	9.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	121551.5	0.5				mg/L	6	Standard
	Ho-1	165	150053.2	3.3				mg/L	10	Standard
	Er	166	60417.0	3.4				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		175.703	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.249	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018902
Report Date/Time: Friday, April 04, 2014 14:43:03
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	84.020
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	92.236
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Zn 66 Upper, S, EEE	Zn	66	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404019201
Sample Date/Time: Friday, April 04, 2014 14:44:04
Number of Replicates: 3
Autosampler Position: 342
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	142565.2	7.7				ug/L	113180	Standard
	Be	9	160.0	18.8	**0.0504**	0.008	15.4	ug/L	17	Standard
	Al	27	82046794.7	0.9	**406.4199**	27.089	6.7	ug/L	633	Standard
	Sc	45	31153.7	2.5				ug/L	41381	Standard
	Ti	47	2363.2	8.4	**9.2004**	0.937	10.2	ug/L	30	Standard
	V	51	5449.5	3.4	**0.5720**	0.016	2.8	ug/L	1879	Standard
	Cr	52	16017.5	5.0	**1.3265**	0.067	5.1	ug/L	8035	Standard
	Cr	53	13826.4	11.2	**12.4655**	1.681	13.5	ug/L	470	Standard
	Mn	55	13233606.6	2.7	**1549.7863**	26.470	1.7	ug/L	1182	Standard
	Co	59	22125.5	1.3	**3.5285**	0.031	0.9	ug/L	333	Standard
	Ni	60	36176.8	3.0	**16.8268**	0.234	1.4	ug/L	71	Standard
	Cu	65	10401.6	9.9	**5.0482**	0.601	11.9	ug/L	64	Standard
	Zn	66	8493.7	4.6	**7.1119**	0.476	6.7	ug/L	125	Standard
>	**Ge**	72	315039.7	2.0				ug/L	399053	Standard
	As	75	96.8	2432.3	**0.0609**	1.740	2855.4	ug/L	-28	Standard
	Se	82	734.1	113.8	**4.8522**	5.590	115.2	ug/L	26	Standard
	Se-1	77	3163.7	2.1	**36.4173**	1.494	4.1	ug/L	118	Standard
>	**Ga**	71	311.7	17.9				mg/L	8	Standard
	Rb	85	94656.5	1.5				ug/L	25	Standard
	Y	89	313564.1	2.2				ug/L	368853	Standard
>	**Rh**	103	3555.4	12.1				ug/L	10	Standard
	Mo	98	2038.7	3.6	**1.3291**	0.036	2.7	ug/L	68	Standard
	Ag	107	110.0	8.2	**0.0078**	0.002	25.3	ug/L	84	Standard
	Cd	111	117.1	12.4	**0.0256**	0.007	26.3	mg/L	72	Standard
	Cd	114	246.4	14.1	**0.0176**	0.006	35.6	ug/L	187	Standard
>	**In**	115	323385.5	1.0				ug/L	464664	Standard
	Sn	118	3177.0	1.0	**0.4829**	0.007	1.5	ug/L	438	Standard
	Sb	123	554.7	4.8	**0.1187**	0.006	4.7	ug/L	433	Standard
	Ba	135	27242.8	0.9	**13.9108**	0.012	0.1	ug/L	14	Standard
	Ce	140	20440.4	2.1				ug/L	20	Standard
>	**Tb**	159	481961.8	1.6				ug/L	663064	Standard
	Ho	165	3317.0	5.3				ug/L	10	Standard
	Tl	203	374.3	14.6	**0.0466**	0.007	14.2	ug/L	32	Standard
	Tl	205	311.7	16.4	**0.0440**	0.007	15.1	ug/L	28	Standard
	Pb	206	2104.1	1.5	**0.4364**	0.007	1.6	ug/L	190	Standard
	Pb	207	1778.1	4.4	**0.4094**	0.011	2.7	ug/L	155	Standard
	Pb	208	8266.2	3.6	**0.4262**	0.005	1.3	ug/L	766	Standard
	U	238	7666.9	4.7	**0.9092**	0.020	2.2	ug/L	30	Standard
>	**Bi**	209	238894.4	2.5				ug/L	364780	Standard

Sample ID: L1404019201
Report Date/Time: Friday, April 04, 2014 14:46:14
Page 1

Approved: April 07, 2014

	Na	23	1026.7	5.3	**353.4498**	25.661	7.3	mg/L	0	Standard
	Mg	24	1559170.9	1.2	**1647.4356**	44.867	2.7	mg/L	58	Standard
	K	39	231.7	22.7	**2.4607**	0.573	23.3	mg/L	12	Standard
	Ca	43	4228.9	4.3	**198.8420**	9.783	4.9	mg/L	53	Standard
	Fe	54	13848.9	2.1	**10.0579**	0.450	4.5	mg/L	190	Standard
	Fe	57	7018.3	4.4	**17.5718**	1.082	6.2	mg/L	638	Standard
>	**Sc-1**	45	31153.7	2.5				mg/L	41381	Standard
	Cl	35	6.0	33.3				ug/L	4	Standard
	Kr	83	2.0	50.0				ug/L	2	Standard
	Br	81	1395500.0	3.0				ug/L	2030	Standard
	P	31	202163.2	1.2				ug/L	256822	Standard
	S	34	16749.3	2.4				ug/L	33255	Standard
	Sr	88	17628.6	7.4				ug/L	153	Standard
	C	12	10627.1	13.6				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	2091.3	8.7				mg/L	6	Standard
	Ho-1	165	3317.0	5.3				mg/L	10	Standard
	Er	166	1716.8	8.1				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		125.964	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		78.947	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404019201
Report Date/Time: Friday, April 04, 2014 14:46:14
Page 2

Approved: April 07, 2014

Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		69.596
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		65.490
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	

Sample ID: L1404019201
Report Date/Time: Friday, April 04, 2014 14:46:14
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404019202
Sample Date/Time: Friday, April 04, 2014 14:47:06
Number of Replicates: 3
Autosampler Position: 343
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	158028.4	1.9				ug/L	113180	Standard
	Be	9	36.7	67.3	**0.0077**	0.007	95.3	ug/L	17	Standard
	Al	27	89126890.7	2.7	**397.0600**	14.541	3.7	ug/L	633	Standard
	Sc	45	32835.5	1.6				ug/L	41381	Standard
	Ti	47	499.0	6.8	**1.8297**	0.107	5.9	ug/L	30	Standard
	V	51	6849.3	14.1	**0.7454**	0.144	19.3	ug/L	1879	Standard
	Cr	52	13823.0	3.6	**0.9701**	0.082	8.5	ug/L	8035	Standard
	Cr	53	38155.4	15.4	**33.9254**	5.543	16.3	ug/L	470	Standard
	Mn	55	399529.6	0.8	**45.2644**	0.893	2.0	ug/L	1182	Standard
	Co	59	4825.8	0.6	**0.7072**	0.006	0.9	ug/L	333	Standard
	Ni	60	15879.7	1.1	**7.1449**	0.155	2.2	ug/L	71	Standard
	Cu	65	8095.2	5.9	**3.7973**	0.252	6.6	ug/L	64	Standard
	Zn	66	8690.2	12.2	**7.0543**	0.928	13.2	ug/L	125	Standard
>	**Ge**	72	324858.3	1.2				ug/L	399053	Standard
	As	75	9207.0	4.8	**6.6752**	0.388	5.8	ug/L	-28	Standard
	Se	82	4141.8	4.6	**27.4585**	1.573	5.7	ug/L	26	Standard
	Se-1	77	4686.1	13.1	**52.7372**	7.348	13.9	ug/L	118	Standard
>	**Ga**	71	140.0	32.7				mg/L	8	Standard
	Rb	85	105395.4	2.3				ug/L	25	Standard
	Y	89	288124.1	1.5				ug/L	368853	Standard
>	**Rh**	103	2010.1	0.7				ug/L	10	Standard
	Mo	98	3745.3	1.5	**2.2516**	0.038	1.7	ug/L	68	Standard
	Ag	107	67.0	28.8	**-0.0022**	0.004	161.5	ug/L	84	Standard
	Cd	111	57.0	7.3	**-0.0035**	0.002	47.3	mg/L	72	Standard
	Cd	114	149.6	24.9	**-0.0023**	0.006	266.8	ug/L	187	Standard
>	**In**	115	353524.3	0.3				ug/L	464664	Standard
	Sn	118	573.3	5.3	**0.0391**	0.004	11.3	ug/L	438	Standard
	Sb	123	445.8	4.2	**0.0802**	0.004	5.1	ug/L	433	Standard
	Ba	135	3427.1	1.2	**1.5899**	0.021	1.3	ug/L	14	Standard
	Ce	140	345.0	15.3				ug/L	20	Standard
>	**Tb**	159	517553.3	1.1				ug/L	663064	Standard
	Ho	165	220.0	19.8				ug/L	10	Standard
	Tl	203	288.0	12.0	**0.0322**	0.005	14.4	ug/L	32	Standard
	Tl	205	278.3	22.2	**0.0364**	0.009	25.4	ug/L	28	Standard
	Pb	206	371.3	9.9	**0.0414**	0.008	19.8	ug/L	190	Standard
	Pb	207	297.7	3.4	**0.0374**	0.002	6.5	ug/L	155	Standard
	Pb	208	1403.4	3.3	**0.0404**	0.003	6.5	ug/L	766	Standard
	U	238	6937.9	0.7	**0.7733**	0.010	1.3	ug/L	30	Standard
>	**Bi**	209	254118.0	0.6				ug/L	364780	Standard

Sample ID: L1404019202
Report Date/Time: Friday, April 04, 2014 14:49:16
Page 1

Approved: April 07, 2014

	Na	23	190.0	13.9	**61.2658**	8.281	13.5	mg/L	0	Standard
	Mg	24	1927003.7	1.5	**1931.0256**	7.227	0.4	mg/L	58	Standard
	K	39	321.7	6.3	**3.2650**	0.251	7.7	mg/L	12	Standard
	Ca	43	655.0	5.3	**27.6990**	1.896	6.8	mg/L	53	Standard
	Fe	54	149.6	1.9	**0.0129**	0.003	25.6	mg/L	190	Standard
	Fe	57	2013.5	7.1	**3.7757**	0.360	9.5	mg/L	638	Standard
>	**Sc-1**	45	32835.5	1.6				mg/L	41381	Standard
	Cl	35	5.3	78.1				ug/L	4	Standard
	Kr	83	3.0	33.3				ug/L	2	Standard
	Br	81	1460734.1	0.7				ug/L	2030	Standard
	P	31	191698.6	1.5				ug/L	256822	Standard
	S	34	18429.5	0.5				ug/L	33255	Standard
	Sr	88	4532.3	4.6				ug/L	153	Standard
	C	12	2126.8	6.3				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	10.0					mg/L	0	Standard
	Dy	164	46.8	63.4				mg/L	6	Standard
	Ho-1	165	220.0	19.8				mg/L	10	Standard
	Er	166	136.7	18.4				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		139.626	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		81.407	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

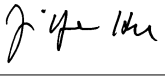
Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	76.082
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	69.663
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1404019802
Sample Date/Time: Friday, April 04, 2014 14:50:07
Number of Replicates: 3
Autosampler Position: 344
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	114073.8	5.8				ug/L	113180	Standard
	Be	9	203.3	9.9	**0.0821**	0.005	5.9	ug/L	17	Standard
	Al	27	66651757.2	4.0	**411.4821**	7.060	1.7	ug/L	633	Standard
	Sc	45	33657.4	5.5				ug/L	41381	Standard
	Ti	47	6431.4	3.0	**24.9649**	0.750	3.0	ug/L	30	Standard
	V	51	11889.1	3.2	**1.4925**	0.025	1.7	ug/L	1879	Standard
	Cr	52	19444.5	5.6	**1.7781**	0.058	3.3	ug/L	8035	Standard
	Cr	53	14103.2	6.8	**12.6035**	0.340	2.7	ug/L	470	Standard
	Mn	55	5303505.9	1.6	**617.3587**	16.134	2.6	ug/L	1182	Standard
	Co	59	22726.7	3.0	**3.6023**	0.049	1.4	ug/L	333	Standard
	Ni	60	50178.7	3.6	**23.2046**	0.212	0.9	ug/L	71	Standard
	Cu	65	11769.9	2.7	**5.6720**	0.084	1.5	ug/L	64	Standard
	Zn	66	47014.9	2.9	**39.7190**	0.750	1.9	ug/L	125	Standard
>	Ge	72	317139.1	4.2				ug/L	399053	Standard
	As	75	5717.5	9.5	**4.2432**	0.262	6.2	ug/L	-28	Standard
	Se	82	2208.9	6.3	**14.9365**	0.455	3.0	ug/L	26	Standard
	Se-1	77	2264.8	5.0	**25.6025**	0.422	1.7	ug/L	118	Standard
>	Ga	71	721.7	8.4				mg/L	8	Standard
	Rb	85	99390.4	4.9				ug/L	25	Standard
	Y	89	324143.0	5.8				ug/L	368853	Standard
>	Rh	103	3622.1	3.8				ug/L	10	Standard
	Mo	98	1473.7	4.9	**0.9218**	0.072	7.8	ug/L	68	Standard
	Ag	107	148.0	4.9	**0.0145**	0.002	14.1	ug/L	84	Standard
	Cd	111	215.0	10.3	**0.0660**	0.007	10.3	mg/L	72	Standard
	Cd	114	432.5	3.7	**0.0490**	0.005	10.5	ug/L	187	Standard
>	In	115	334774.9	3.1				ug/L	464664	Standard
	Sn	118	1583.4	6.7	**0.2077**	0.024	11.3	ug/L	438	Standard
	Sb	123	968.9	4.2	**0.2190**	0.015	7.0	ug/L	433	Standard
	Ba	135	55214.5	2.9	**27.2473**	0.063	0.2	ug/L	14	Standard
	Ce	140	36607.5	2.4				ug/L	20	Standard
>	Tb	159	494802.0	2.8				ug/L	663064	Standard
	Ho	165	4664.1	3.3				ug/L	10	Standard
	Tl	203	743.7	6.2	**0.0959**	0.003	3.0	ug/L	32	Standard
	Tl	205	678.3	12.9	**0.0986**	0.010	9.9	ug/L	28	Standard
	Pb	206	1810.4	3.8	**0.3610**	0.002	0.5	ug/L	190	Standard
	Pb	207	1499.1	4.4	**0.3318**	0.010	3.0	ug/L	155	Standard
	Pb	208	6919.3	3.8	**0.3427**	0.006	1.7	ug/L	766	Standard
	U	238	7114.0	2.7	**0.8247**	0.007	0.8	ug/L	30	Standard
>	Bi	209	244408.3	3.3				ug/L	364780	Standard

Sample ID: L1404019802
Report Date/Time: Friday, April 04, 2014 14:52:17
Page 1

Approved: April 07, 2014

	Na	23	1396.7	10.0	**445.7788**	53.222	11.9	mg/L	0	Standard
	Mg	24	1236000.3	2.5	**1209.6378**	37.642	3.1	mg/L	58	Standard
	K	39	253.3	18.3	**2.5100**	0.601	24.0	mg/L	12	Standard
	Ca	43	6664.8	2.7	**291.2112**	14.451	5.0	mg/L	53	Standard
	Fe	54	11825.8	0.6	**7.9395**	0.401	5.1	mg/L	190	Standard
	Fe	57	7165.0	0.8	**16.5528**	0.997	6.0	mg/L	638	Standard
>	**Sc-1**	45	33657.4	5.5				mg/L	41381	Standard
	Cl	35	4.0	132.3				ug/L	4	Standard
	Kr	83	3.7	63.0				ug/L	2	Standard
	Br	81	986550.2	2.7				ug/L	2030	Standard
	P	31	231180.4	1.0				ug/L	256822	Standard
	S	34	21792.3	0.7				ug/L	33255	Standard
	Sr	88	13994.8	4.8				ug/L	153	Standard
	C	12	8242.3	12.2				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13.3	86.6				mg/L	0	Standard
	Dy	164	2906.9	6.5				mg/L	6	Standard
	Ho-1	165	4664.1	3.3				mg/L	10	Standard
	Er	166	2506.9	4.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		100.790	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		79.473	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404019802
Report Date/Time: Friday, April 04, 2014 14:52:17
Page 2

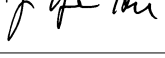
Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		72.047
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		67.002
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1404019803
Sample Date/Time: Friday, April 04, 2014 14:53:09
Number of Replicates: 3
Autosampler Position: 345
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	123516.5	1.9				ug/L	113180	Standard
	Be	9	43.3	37.1	**0.0135**	0.006	47.8	ug/L	17	Standard
	Al	27	54881429.0	2.7	**312.6722**	2.726	0.9	ug/L	633	Standard
	Sc	45	33406.8	4.1				ug/L	41381	Standard
	Ti	47	477.7	3.9	**1.7090**	0.059	3.4	ug/L	30	Standard
	V	51	7131.9	1.0	**0.7621**	0.013	1.8	ug/L	1879	Standard
	Cr	52	12943.9	3.4	**0.8145**	0.043	5.3	ug/L	8035	Standard
	Cr	53	26782.0	5.7	**23.1505**	1.307	5.6	ug/L	470	Standard
	Mn	55	166463.3	1.9	**18.3657**	0.242	1.3	ug/L	1182	Standard
	Co	59	2893.9	3.0	**0.3941**	0.009	2.2	ug/L	333	Standard
	Ni	60	17315.6	1.7	**7.6188**	0.077	1.0	ug/L	71	Standard
	Cu	65	15974.1	2.2	**7.3547**	0.116	1.6	ug/L	64	Standard
	Zn	66	32720.6	2.8	**26.3283**	0.653	2.5	ug/L	125	Standard
>	**Ge**	72	332234.3	1.0				ug/L	399053	Standard
	As	75	7797.4	4.0	**5.5272**	0.213	3.9	ug/L	-28	Standard
	Se	82	3295.5	5.0	**21.3264**	0.973	4.6	ug/L	26	Standard
	Se-1	77	2669.2	8.4	**28.9195**	2.329	8.1	ug/L	118	Standard
>	**Ga**	71	210.0	2.4				mg/L	8	Standard
	Rb	85	100146.6	1.9				ug/L	25	Standard
	Y	89	297905.4	1.1				ug/L	368853	Standard
>	**Rh**	103	901.7	5.6				ug/L	10	Standard
	Mo	98	751.3	6.8	**0.4243**	0.031	7.4	ug/L	68	Standard
	Ag	107	87.7	11.1	**0.0014**	0.002	125.7	ug/L	84	Standard
	Cd	111	112.1	1.8	**0.0184**	0.001	3.9	mg/L	72	Standard
	Cd	114	298.7	16.6	**0.0218**	0.008	37.2	ug/L	187	Standard
>	**In**	115	358836.4	0.3				ug/L	464664	Standard
	Sn	118	855.0	8.7	**0.0803**	0.011	14.3	ug/L	438	Standard
	Sb	123	445.5	4.7	**0.0785**	0.005	6.2	ug/L	433	Standard
	Ba	135	5177.6	2.9	**2.3726**	0.076	3.2	ug/L	14	Standard
	Ce	140	1726.8	4.9				ug/L	20	Standard
>	**Tb**	159	512457.6	0.9				ug/L	663064	Standard
	Ho	165	420.0	24.7				ug/L	10	Standard
	Tl	203	491.0	7.6	**0.0574**	0.005	7.9	ug/L	32	Standard
	Tl	205	430.0	14.5	**0.0571**	0.009	15.6	ug/L	28	Standard
	Pb	206	1578.1	2.6	**0.2892**	0.007	2.4	ug/L	190	Standard
	Pb	207	1319.7	5.8	**0.2691**	0.016	5.9	ug/L	155	Standard
	Pb	208	6103.8	2.2	**0.2787**	0.006	2.1	ug/L	766	Standard
	U	238	3128.3	2.2	**0.3391**	0.008	2.3	ug/L	30	Standard
>	**Bi**	209	259922.9	0.5				ug/L	364780	Standard

Approved: April 07, 2014

	Na	23	76.7	37.1	**23.7258**	8.737	36.8	mg/L	0	Standard
	Mg	24	1338739.2	2.0	**1320.6200**	76.841	5.8	mg/L	58	Standard
	K	39	223.3	17.0	**2.2056**	0.401	18.2	mg/L	12	Standard
	Ca	43	340.0	2.9	**13.2706**	0.886	6.7	mg/L	53	Standard
	Fe	54	1313.4	3.3	**0.8071**	0.052	6.5	mg/L	190	Standard
	Fe	57	1990.1	3.5	**3.6299**	0.074	2.0	mg/L	638	Standard
>	**Sc-1**	45	33406.8	4.1				mg/L	41381	Standard
	Cl	35	7.3	68.6				ug/L	4	Standard
	Kr	83	3.7	15.7				ug/L	2	Standard
	Br	81	775341.4	2.0				ug/L	2030	Standard
	P	31	218692.3	1.9				ug/L	256822	Standard
	S	34	21583.7	0.7				ug/L	33255	Standard
	Sr	88	1640.1	0.6				ug/L	153	Standard
	C	12	2156.8	15.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	175.9	15.3				mg/L	6	Standard
	Ho-1	165	420.0	24.7				mg/L	10	Standard
	Er	166	363.3	22.4				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		109.133	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		83.256	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404019803
Report Date/Time: Friday, April 04, 2014 14:55:19
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	77.225
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	71.255
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	

Sample ID: L1404019803
Report Date/Time: Friday, April 04, 2014 14:55:19
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404019804
Sample Date/Time: Friday, April 04, 2014 14:56:11
Number of Replicates: 3
Autosampler Position: 346
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	127356.4	0.8				ug/L	113180	Standard
	Be	9	41.7	50.0	**0.0124**	0.008	64.4	ug/L	17	Standard
	Al	27	334313.1	2.7	**1.8236**	0.064	3.5	ug/L	633	Standard
	Sc	45	41396.5	1.8				ug/L	41381	Standard
	Ti	47	522.0	18.8	**1.4394**	0.279	19.4	ug/L	30	Standard
	V	51	4177.0	4.9	**0.2285**	0.020	8.8	ug/L	1879	Standard
	Cr	52	13423.6	7.2	**0.4861**	0.081	16.7	ug/L	8035	Standard
	Cr	53	4569.0	9.8	**2.7565**	0.267	9.7	ug/L	470	Standard
	Mn	55	24552.2	2.1	**1.9955**	0.039	2.0	ug/L	1182	Standard
	Co	59	405.7	10.7	**-0.0013**	0.005	358.2	ug/L	333	Standard
	Ni	60	532.3	2.3	**0.1481**	0.002	1.4	ug/L	71	Standard
	Cu	65	43526.5	3.1	**15.5882**	0.298	1.9	ug/L	64	Standard
	Zn	66	8186.2	7.1	**4.9966**	0.302	6.0	ug/L	125	Standard
>	**Ge**	72	428096.8	1.2				ug/L	399053	Standard
	As	75	1141.8	26.6	**0.6368**	0.159	25.0	ug/L	-28	Standard
	Se	82	281.8	39.2	**1.3072**	0.540	41.3	ug/L	26	Standard
	Se-1	77	379.3	15.8	**2.3306**	0.481	20.7	ug/L	118	Standard
>	**Ga**	71	145.0	6.0				mg/L	8	Standard
	Rb	85	5676.1	2.6				ug/L	25	Standard
	Y	89	376443.8	2.2				ug/L	368853	Standard
>	**Rh**	103	106.7	26.7				ug/L	10	Standard
	Mo	98	1440.6	0.2	**0.6342**	0.013	2.1	ug/L	68	Standard
	Ag	107	81.0	8.6	**-0.0033**	0.001	32.1	ug/L	84	Standard
	Cd	111	86.0	4.0	**-0.0003**	0.001	485.9	mg/L	72	Standard
	Cd	114	200.8	25.0	**-0.0020**	0.006	311.9	ug/L	187	Standard
>	**In**	115	469324.5	1.8				ug/L	464664	Standard
	Sn	118	10967.3	2.6	**1.2157**	0.028	2.3	ug/L	438	Standard
	Sb	123	171.4	5.6	**0.0042**	0.002	42.1	ug/L	433	Standard
	Ba	135	46746.3	0.4	**16.4525**	0.250	1.5	ug/L	14	Standard
	Ce	140	1316.7	20.3				ug/L	20	Standard
>	**Tb**	159	613068.9	2.9				ug/L	663064	Standard
	Ho	165	110.0	9.1				ug/L	10	Standard
	Tl	203	497.7	34.8	**0.0433**	0.016	38.1	ug/L	32	Standard
	Tl	205	393.3	27.9	**0.0387**	0.012	30.0	ug/L	28	Standard
	Pb	206	1629.4	4.6	**0.2213**	0.010	4.6	ug/L	190	Standard
	Pb	207	1374.7	1.2	**0.2087**	0.006	2.9	ug/L	155	Standard
	Pb	208	6330.5	1.9	**0.2150**	0.004	1.8	ug/L	766	Standard
	U	238	243.3	4.5	**0.0172**	0.001	3.8	ug/L	30	Standard
>	**Bi**	209	338788.2	1.3				ug/L	364780	Standard

Sample ID: L1404019804
Report Date/Time: Friday, April 04, 2014 14:58:21
Page 1

Approved: April 07, 2014

	Na	23	15.0	33.3	**3.0529**	1.350	44.2	mg/L	0	Standard
	Mg	24	45616.9	0.7	**36.2256**	0.638	1.8	mg/L	58	Standard
	K	39	23.3	65.5	**0.1200**	0.130	108.0	mg/L	12	Standard
	Ca	43	66.7	37.0	**0.5837**	0.837	143.4	mg/L	53	Standard
	Fe	54	243.6	31.2	**0.0429**	0.040	93.1	mg/L	190	Standard
	Fe	57	718.4	8.1	**0.0789**	0.103	130.7	mg/L	638	Standard
>	**Sc-1**	45	41396.5	1.8				mg/L	41381	Standard
	Cl	35	1.3	173.2				ug/L	4	Standard
	Kr	83	2.3	49.5				ug/L	2	Standard
	Br	81	16342.6	26.8				ug/L	2030	Standard
	P	31	307049.4	2.3				ug/L	256822	Standard
	S	34	29199.8	2.5				ug/L	33255	Standard
	Sr	88	181.7	21.0				ug/L	153	Standard
	C	12	2393.5	5.7				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	54.4	21.7				mg/L	6	Standard
	Ho-1	165	110.0	9.1				mg/L	10	Standard
	Er	166	46.7	12.4				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		112.526	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.278	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.003
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	92.875
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1404019804
Report Date/Time: Friday, April 04, 2014 14:58:21
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404019805
Sample Date/Time: Friday, April 04, 2014 14:59:13
Number of Replicates: 3
Autosampler Position: 347
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	130523.3	2.2				ug/L	113180	Standard
	Be	9	38.3	19.9	**0.0107**	0.003	24.0	ug/L	17	Standard
	Al	27	627997.3	2.5	**3.3619**	0.015	0.5	ug/L	633	Standard
	Sc	45	40480.7	2.7				ug/L	41381	Standard
	Ti	47	219.7	34.2	**0.5572**	0.202	36.2	ug/L	30	Standard
	V	51	3200.0	5.3	**0.1195**	0.020	16.5	ug/L	1879	Standard
	Cr	52	11062.7	5.1	**0.2318**	0.041	17.5	ug/L	8035	Standard
	Cr	53	3565.4	4.1	**2.0386**	0.081	4.0	ug/L	470	Standard
	Mn	55	28043.3	1.4	**2.2602**	0.018	0.8	ug/L	1182	Standard
	Co	59	350.7	7.6	**-0.0084**	0.003	35.7	ug/L	333	Standard
	Ni	60	714.0	2.2	**0.2068**	0.005	2.3	ug/L	71	Standard
	Cu	65	21749.3	2.0	**7.6567**	0.091	1.2	ug/L	64	Standard
	Zn	66	8441.0	5.4	**5.0776**	0.203	4.0	ug/L	125	Standard
>	**Ge**	72	434613.3	1.7				ug/L	399053	Standard
	As	75	854.3	3.9	**0.4733**	0.018	3.8	ug/L	-28	Standard
	Se	82	163.4	7.4	**0.7008**	0.046	6.6	ug/L	26	Standard
	Se-1	77	299.7	6.9	**1.6043**	0.197	12.3	ug/L	118	Standard
>	**Ga**	71	111.7	42.3				mg/L	8	Standard
	Rb	85	5267.6	1.7				ug/L	25	Standard
	Y	89	383804.4	1.6				ug/L	368853	Standard
>	**Rh**	103	61.7	20.4				ug/L	10	Standard
	Mo	98	1973.4	4.6	**0.8888**	0.052	5.8	ug/L	68	Standard
	Ag	107	58.3	11.7	**-0.0064**	0.001	16.2	ug/L	84	Standard
	Cd	111	77.4	16.7	**-0.0027**	0.004	139.4	mg/L	72	Standard
	Cd	114	225.7	10.1	**0.0014**	0.003	224.2	ug/L	187	Standard
>	**In**	115	463989.4	1.2				ug/L	464664	Standard
	Sn	118	2148.5	3.4	**0.2020**	0.011	5.7	ug/L	438	Standard
	Sb	123	140.3	15.4	**-0.0012**	0.004	333.5	ug/L	433	Standard
	Ba	135	41482.7	0.9	**14.7643**	0.081	0.5	ug/L	14	Standard
	Ce	140	540.0	19.4				ug/L	20	Standard
>	**Tb**	159	616585.9	0.5				ug/L	663064	Standard
	Ho	165	76.7	7.5				ug/L	10	Standard
	Tl	203	261.3	12.8	**0.0200**	0.003	14.9	ug/L	32	Standard
	Tl	205	240.0	11.6	**0.0219**	0.003	15.5	ug/L	28	Standard
	Pb	206	836.7	2.0	**0.0954**	0.004	4.2	ug/L	190	Standard
	Pb	207	721.0	2.8	**0.0939**	0.002	2.5	ug/L	155	Standard
	Pb	208	3277.5	1.9	**0.0952**	0.001	1.1	ug/L	766	Standard
	U	238	243.3	4.3	**0.0172**	0.001	5.0	ug/L	30	Standard
>	**Bi**	209	339367.3	1.3				ug/L	364780	Standard

Sample ID: L1404019805
Report Date/Time: Friday, April 04, 2014 15:01:23
Page 1

Approved: April 07, 2014

	Na	23	6.7	114.6	**0.9353**	2.027	216.8	mg/L	0	Standard
	Mg	24	51448.9	1.7	**41.7981**	1.257	3.0	mg/L	58	Standard
	K	39	21.7	35.3	**0.1100**	0.069	63.0	mg/L	12	Standard
	Ca	43	63.3	31.9	**0.5387**	0.801	148.8	mg/L	53	Standard
	Fe	54	513.7	12.7	**0.1987**	0.038	19.2	mg/L	190	Standard
	Fe	57	776.7	10.3	**0.2334**	0.157	67.3	mg/L	638	Standard
>	**Sc-1**	45	40480.7	2.7				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	3.7	83.3				ug/L	2	Standard
	Br	81	16695.9	9.5				ug/L	2030	Standard
	P	31	308336.0	1.2				ug/L	256822	Standard
	S	34	30686.1	2.5				ug/L	33255	Standard
	Sr	88	206.7	14.2				ug/L	153	Standard
	C	12	1440.1	3.7				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0	173.2				mg/L	0	Standard
	Dy	164	76.0	49.4				mg/L	6	Standard
	Ho-1	165	76.7	7.5				mg/L	10	Standard
	Er	166	83.3	38.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		115.324	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.911	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404019805
Report Date/Time: Friday, April 04, 2014 15:01:23
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		99.855
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		93.033
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1404019805
Report Date/Time: Friday, April 04, 2014 15:01:23
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404019806
Sample Date/Time: Friday, April 04, 2014 15:02:14
Number of Replicates: 3
Autosampler Position: 348
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	129730.0	3.1				ug/L	113180	Standard
	Be	9	73.3	21.9	**0.0238**	0.006	25.1	ug/L	17	Standard
	Al	27	3475392.1	0.8	**18.8399**	0.444	2.4	ug/L	633	Standard
	Sc	45	41099.0	2.0				ug/L	41381	Standard
	Ti	47	362.7	13.3	**0.9641**	0.138	14.3	ug/L	30	Standard
	V	51	2423.0	3.0	**0.0377**	0.003	8.2	ug/L	1879	Standard
	Cr	52	8511.7	3.7	**-0.0221**	0.017	75.2	ug/L	8035	Standard
	Cr	53	2483.5	9.3	**1.3109**	0.146	11.2	ug/L	470	Standard
	Mn	55	1844209.9	0.7	**156.3164**	2.974	1.9	ug/L	1182	Standard
	Co	59	1363.7	1.3	**0.1102**	0.003	2.9	ug/L	333	Standard
	Ni	60	1812.8	5.8	**0.5771**	0.024	4.2	ug/L	71	Standard
	Cu	65	3401.7	7.6	**1.1673**	0.068	5.9	ug/L	64	Standard
	Zn	66	26338.9	2.5	**16.1301**	0.266	1.6	ug/L	125	Standard
>	**Ge**	72	435069.0	1.8				ug/L	399053	Standard
	As	75	2614.1	1.0	**1.4236**	0.013	0.9	ug/L	-28	Standard
	Se	82	105.2	20.5	**0.4099**	0.097	23.7	ug/L	26	Standard
	Se-1	77	203.0	8.1	**0.7739**	0.139	17.9	ug/L	118	Standard
>	**Ga**	71	190.0	24.1				mg/L	8	Standard
	Rb	85	13803.0	2.7				ug/L	25	Standard
	Y	89	378741.9	2.3				ug/L	368853	Standard
>	**Rh**	103	76.7	24.7				ug/L	10	Standard
	Mo	98	1100.6	1.6	**0.4783**	0.018	3.8	ug/L	68	Standard
	Ag	107	77.0	11.1	**-0.0039**	0.001	20.8	ug/L	84	Standard
	Cd	111	217.9	4.6	**0.0403**	0.003	6.4	mg/L	72	Standard
	Cd	114	513.4	8.7	**0.0372**	0.006	16.4	ug/L	187	Standard
>	**In**	115	469628.6	3.6				ug/L	464664	Standard
	Sn	118	1241.7	1.3	**0.0946**	0.007	7.4	ug/L	438	Standard
	Sb	123	242.5	0.8	**0.0170**	0.002	9.1	ug/L	433	Standard
	Ba	135	753068.7	1.7	**265.1404**	5.646	2.1	ug/L	14	Standard
	Ce	140	926.7	7.3				ug/L	20	Standard
>	**Tb**	159	617259.7	1.7				ug/L	663064	Standard
	Ho	165	106.7	5.4				ug/L	10	Standard
	Tl	203	158.7	17.0	**0.0093**	0.002	24.6	ug/L	32	Standard
	Tl	205	158.3	18.2	**0.0123**	0.003	24.3	ug/L	28	Standard
	Pb	206	5471.3	1.4	**0.7981**	0.015	1.9	ug/L	190	Standard
	Pb	207	4556.7	2.7	**0.7355**	0.017	2.4	ug/L	155	Standard
	Pb	208	21192.8	1.5	**0.7655**	0.007	0.9	ug/L	766	Standard
	U	238	117.0	10.7	**0.0062**	0.001	12.5	ug/L	30	Standard
>	**Bi**	209	352246.0	2.4				ug/L	364780	Standard

Sample ID: L1404019806
Report Date/Time: Friday, April 04, 2014 15:04:24
Page 1

Approved: April 07, 2014

	Na	23	60.0	25.0	**14.8758**	4.146	27.9	mg/L	0	Standard
	Mg	24	11858.0	2.8	**9.4569**	0.373	3.9	mg/L	58	Standard
	K	39	41.7	38.6	**0.2728**	0.137	50.3	mg/L	12	Standard
	Ca	43	380.0	8.2	**11.8621**	0.847	7.1	mg/L	53	Standard
	Fe	54	21499.6	1.5	**11.8487**	0.403	3.4	mg/L	190	Standard
	Fe	57	6591.4	0.5	**12.1071**	0.303	2.5	mg/L	638	Standard
>	**Sc-1**	45	41099.0	2.0				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	3.3	75.5				ug/L	2	Standard
	Br	81	8452.4	1.1				ug/L	2030	Standard
	P	31	355509.6	1.4				ug/L	256822	Standard
	S	34	30051.5	4.7				ug/L	33255	Standard
	Sr	88	301.7	5.3				ug/L	153	Standard
	C	12	1490.1	8.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	47.1	53.5				mg/L	6	Standard
	Ho-1	165	106.7	5.4				mg/L	10	Standard
	Er	166	60.0	44.1				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		114.623	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		109.025	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404019806
Report Date/Time: Friday, April 04, 2014 15:04:24
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.068
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	96.564
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 15:05:17
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	125280.9	1.3				ug/L	113180	Standard
	Be	9	127025.7	3.7	**48.6819**	2.222	4.6	ug/L	17	Standard
	Al	27	8187810.3	3.3	**45.9897**	2.012	4.4	ug/L	633	Standard
	Sc	45	40796.5	0.8				ug/L	41381	Standard
	Ti	47	33222.1	2.7	**94.2077**	1.218	1.3	ug/L	30	Standard
	V	51	485758.8	3.6	**50.7145**	2.170	4.3	ug/L	1879	Standard
	Cr	52	499769.5	1.0	**48.7437**	1.147	2.4	ug/L	8035	Standard
	Cr	53	74986.8	1.2	**49.9516**	0.429	0.9	ug/L	470	Standard
	Mn	55	593175.1	1.4	**50.2350**	0.256	0.5	ug/L	1182	Standard
	Co	59	428472.6	0.9	**50.1714**	0.383	0.8	ug/L	333	Standard
	Ni	60	148614.5	3.3	**50.1710**	1.218	2.4	ug/L	71	Standard
	Cu	65	144314.3	2.6	**50.9827**	0.519	1.0	ug/L	64	Standard
	Zn	66	83091.6	1.6	**51.2382**	0.153	0.3	ug/L	125	Standard
>	Ge	72	434652.7	1.7				ug/L	399053	Standard
	As	75	92091.5	0.3	**49.8163**	0.753	1.5	ug/L	-28	Standard
	Se	82	10153.8	1.2	**50.3849**	0.319	0.6	ug/L	26	Standard
	Se-1	77	6076.2	0.1	**51.0553**	0.883	1.7	ug/L	118	Standard
>	Ga	71	50.0	10.0				mg/L	8	Standard
	Rb	85	1216.7	29.8				ug/L	25	Standard
	Y	89	380600.7	2.1				ug/L	368853	Standard
>	Rh	103	45.0	40.1				ug/L	10	Standard
	Mo	98	230008.9	1.6	**105.4140**	1.504	1.4	ug/L	68	Standard
	Ag	107	367969.9	1.8	**51.7889**	0.286	0.6	ug/L	84	Standard
	Cd	111	162279.6	1.9	**50.0058**	0.239	0.5	mg/L	72	Standard
	Cd	114	400867.3	0.7	**50.3222**	0.596	1.2	ug/L	187	Standard
>	In	115	468983.3	1.7				ug/L	464664	Standard
	Sn	118	443205.8	2.2	**51.0829**	0.693	1.4	ug/L	438	Standard
	Sb	123	278795.2	0.6	**50.4205**	0.865	1.7	ug/L	433	Standard
	Ba	135	134425.1	1.3	**47.3619**	0.174	0.4	ug/L	14	Standard
	Ce	140	381.7	87.0				ug/L	20	Standard
>	Tb	159	619686.9	0.3				ug/L	663064	Standard
	Ho	165	50.0	121.7				ug/L	10	Standard
	Tl	203	531262.5	1.1	**50.5486**	0.253	0.5	ug/L	32	Standard
	Tl	205	500153.4	1.1	**53.0030**	0.982	1.9	ug/L	28	Standard
	Pb	206	325500.5	1.0	**49.8382**	0.369	0.7	ug/L	190	Standard
	Pb	207	296898.1	0.6	**50.1786**	0.485	1.0	ug/L	155	Standard
	Pb	208	1321739.4	0.8	**49.9540**	0.385	0.8	ug/L	766	Standard
	U	238	668829.5	1.0	**54.2130**	0.885	1.6	ug/L	30	Standard
>	Bi	209	350893.0	1.6				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 15:07:27
Page 1

Approved: April 07, 2014

	Na	23	26.7	28.6	**6.1834**	2.075	33.6	mg/L	0	Standard
	Mg	24	6159.6	2.0	**4.9273**	0.060	1.2	mg/L	58	Standard
	K	39	410.0	13.6	**3.3479**	0.452	13.5	mg/L	12	Standard
	Ca	43	165.0	13.2	**4.1848**	0.748	17.9	mg/L	53	Standard
	Fe	54	8612.0	1.9	**4.7252**	0.099	2.1	mg/L	190	Standard
	Fe	57	3013.6	2.2	**4.8303**	0.088	1.8	mg/L	638	Standard
>	**Sc-1**	45	40796.5	0.8				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	3.0	33.3				ug/L	2	Standard
	Br	81	4023.9	9.9				ug/L	2030	Standard
	P	31	271674.3	1.4				ug/L	256822	Standard
	S	34	36642.6	2.9				ug/L	33255	Standard
	Sr	88	176.7	15.6				ug/L	153	Standard
	C	12	1050.0	9.7				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	25.9	178.0				mg/L	6	Standard
	Ho-1	165	50.0	121.7				mg/L	10	Standard
	Er	166	16.7	91.7				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		110.692	
	Be	9	97.364		
	Al	27	91.979		
	Sc	45			
	Ti	47	94.208		
	V	51	101.429		
	Cr	52	97.487		
	Cr	53			
	Mn	55	100.470		
	Co	59	100.343		
	Ni	60	100.342		
	Cu	65	101.965		
	Zn	66	102.476		
>	Ge	72		108.921	
	As	75	99.633		
	Se	82	100.770		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 15:07:27
Page 2

Approved: April 07, 2014

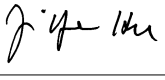
⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	105.414		
|	Ag	107	103.578		
|	Cd	111	100.012		
|	Cd	114			
|>	In	115		100.930	
|	Sn	118	102.166		
|	Sb	123	100.841		
⌊	Ba	135	94.724		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	101.097		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	99.908		
|	U	238	108.426		
⌊>	Bi	209		96.193	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 15:07:27

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 15:08:19
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	119566.8	2.7				ug/L	113180	Standard
	Be	9	43.3	29.0	**0.0140**	0.005	34.5	ug/L	17	Standard
	Al	27	2105.2	25.5	**-0.0119**	0.003	23.6	ug/L	633	Standard
	Sc	45	37212.3	2.3				ug/L	41381	Standard
	Ti	47	27.7	10.4	**0.0194**	0.008	41.9	ug/L	30	Standard
	V	51	1729.3	10.0	**-0.0227**	0.019	85.7	ug/L	1879	Standard
	Cr	52	7475.5	2.1	**-0.0745**	0.023	31.4	ug/L	8035	Standard
	Cr	53	1383.4	13.0	**0.6363**	0.124	19.4	ug/L	470	Standard
	Mn	55	1353.1	8.0	**0.0018**	0.009	507.3	ug/L	1182	Standard
	Co	59	220.0	6.9	**-0.0221**	0.002	7.5	ug/L	333	Standard
	Ni	60	241.7	5.6	**0.0526**	0.005	9.6	ug/L	71	Standard
	Cu	65	296.0	5.6	**0.0782**	0.005	6.9	ug/L	64	Standard
	Zn	66	289.0	4.5	**0.0502**	0.007	13.9	ug/L	125	Standard
>	**Ge**	72	407541.2	0.9				ug/L	399053	Standard
	As	75	-8.6	218.4	**0.0064**	0.011	169.5	ug/L	-28	Standard
	Se	82	41.1	4.7	**0.1063**	0.009	8.6	ug/L	26	Standard
	Se-1	77	164.0	2.1	**0.5350**	0.023	4.3	ug/L	118	Standard
>	**Ga**	71	21.7	48.0				mg/L	8	Standard
	Rb	85	60.0	41.7				ug/L	25	Standard
	Y	89	362336.5	0.9				ug/L	368853	Standard
>	**Rh**	103	25.0	52.9				ug/L	10	Standard
	Mo	98	121.2	45.1	**0.0322**	0.026	80.1	ug/L	68	Standard
	Ag	107	76.3	19.0	**-0.0035**	0.002	59.2	ug/L	84	Standard
	Cd	111	72.1	13.2	**-0.0035**	0.003	87.5	mg/L	72	Standard
	Cd	114	176.4	6.3	**-0.0041**	0.001	32.3	ug/L	187	Standard
>	**In**	115	447802.1	0.7				ug/L	464664	Standard
	Sn	118	568.3	10.2	**0.0200**	0.007	32.9	ug/L	438	Standard
	Sb	123	611.7	33.7	**0.0889**	0.038	42.9	ug/L	433	Standard
	Ba	135	22.3	49.1	**-0.0040**	0.004	98.7	ug/L	14	Standard
	Ce	140	11.7	49.5				ug/L	20	Standard
>	**Tb**	159	581355.0	0.4				ug/L	663064	Standard
	Ho	165	20.0	132.3				ug/L	10	Standard
	Tl	203	63.0	48.6	**0.0005**	0.003	547.7	ug/L	32	Standard
	Tl	205	78.3	44.8	**0.0042**	0.004	89.5	ug/L	28	Standard
	Pb	206	184.0	7.3	**-0.0079**	0.002	26.7	ug/L	190	Standard
	Pb	207	165.3	11.6	**-0.0030**	0.003	109.4	ug/L	155	Standard
	Pb	208	767.7	7.1	**-0.0027**	0.002	67.1	ug/L	766	Standard
	U	238	49.7	51.8	**0.0010**	0.002	221.0	ug/L	30	Standard
>	**Bi**	209	337050.1	1.4				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 15:10:29
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	116.7	27.2	**0.0631**	0.029	46.2	mg/L	58	Standard
	K	39	6.7	114.6	**-0.0132**	0.069	522.3	mg/L	12	Standard
	Ca	43	46.7	55.0	**0.0635**	0.999	1573.2	mg/L	53	Standard
	Fe	54	179.2	24.9	**0.0185**	0.026	137.8	mg/L	190	Standard
	Fe	57	658.3	7.4	**0.1099**	0.138	125.9	mg/L	638	Standard
>	**Sc-1**	45	37212.3	2.3				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	2.3	65.5				ug/L	2	Standard
	Br	81	3340.4	2.9				ug/L	2030	Standard
	P	31	269587.7	1.8				ug/L	256822	Standard
	S	34	38694.3	0.3				ug/L	33255	Standard
	Sr	88	155.0	18.0				ug/L	153	Standard
	C	12	946.7	22.0				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.7	100.8				mg/L	6	Standard
	Ho-1	165	20.0	132.3				mg/L	10	Standard
	Er	166	6.7	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		105.643	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.127	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 15:10:29
Page 2

Approved: April 07, 2014

	Y	89	
>	Rh	103	
	Mo	98	
	Ag	107	
	Cd	111	
	Cd	114	
>	In	115	96.371
	Sn	118	
	Sb	123	
	Ba	135	
	Ce	140	
>	Tb	159	
	Ho	165	
	Tl	203	
	Tl	205	
	Pb	206	
	Pb	207	
	Pb	208	
	U	238	
>	Bi	209	92.398
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 15:10:29
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404019807
Sample Date/Time: Friday, April 04, 2014 15:11:22
Number of Replicates: 3
Autosampler Position: 349
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	134255.6	0.9				ug/L	113180	Standard
	Be	9	31.7	24.1	**0.0080**	0.003	35.6	ug/L	17	Standard
	Al	27	3514799.9	1.1	**18.4038**	0.340	1.8	ug/L	633	Standard
	Sc	45	41794.2	2.0				ug/L	41381	Standard
	Ti	47	160.7	22.0	**0.3828**	0.097	25.3	ug/L	30	Standard
	V	51	2220.1	1.3	**0.0123**	0.008	61.6	ug/L	1879	Standard
	Cr	52	9246.5	4.4	**0.0339**	0.019	56.9	ug/L	8035	Standard
	Cr	53	1403.4	6.3	**0.5715**	0.080	14.0	ug/L	470	Standard
	Mn	55	997865.4	1.2	**82.9906**	1.927	2.3	ug/L	1182	Standard
	Co	59	488.3	1.3	**0.0066**	0.001	21.5	ug/L	333	Standard
	Ni	60	1638.1	3.5	**0.5083**	0.013	2.5	ug/L	71	Standard
	Cu	65	1721.8	1.8	**0.5638**	0.011	1.9	ug/L	64	Standard
	Zn	66	5001.2	3.2	**2.8924**	0.028	1.0	ug/L	125	Standard
>	**Ge**	72	443134.2	2.3				ug/L	399053	Standard
	As	75	138.0	17.4	**0.0847**	0.014	16.8	ug/L	-28	Standard
	Se	82	47.1	11.9	**0.1181**	0.028	23.8	ug/L	26	Standard
	Se-1	77	169.0	4.3	**0.4582**	0.092	20.0	ug/L	118	Standard
>	**Ga**	71	25.0	20.0				mg/L	8	Standard
	Rb	85	13546.1	3.6				ug/L	25	Standard
	Y	89	388689.2	3.2				ug/L	368853	Standard
>	**Rh**	103	76.7	13.6				ug/L	10	Standard
	Mo	98	1263.5	5.0	**0.5351**	0.019	3.5	ug/L	68	Standard
	Ag	107	69.3	25.4	**-0.0053**	0.002	40.1	ug/L	84	Standard
	Cd	111	99.5	6.6	**0.0029**	0.002	59.8	mg/L	72	Standard
	Cd	114	253.7	16.0	**0.0036**	0.004	122.9	ug/L	187	Standard
>	**In**	115	484057.1	2.7				ug/L	464664	Standard
	Sn	118	731.7	6.8	**0.0331**	0.004	11.9	ug/L	438	Standard
	Sb	123	263.3	14.3	**0.0193**	0.006	30.5	ug/L	433	Standard
	Ba	135	534009.6	2.7	**182.3181**	1.033	0.6	ug/L	14	Standard
	Ce	140	105.0	17.2				ug/L	20	Standard
>	**Tb**	159	626329.6	3.1				ug/L	663064	Standard
	Ho	165	30.0	0.0				ug/L	10	Standard
	Tl	203	66.7	3.1	**0.0006**	0.000	46.3	ug/L	32	Standard
	Tl	205	63.3	9.1	**0.0022**	0.001	31.2	ug/L	28	Standard
	Pb	206	336.3	3.0	**0.0137**	0.002	18.0	ug/L	190	Standard
	Pb	207	296.3	6.8	**0.0173**	0.003	15.0	ug/L	155	Standard
	Pb	208	1346.4	3.8	**0.0173**	0.002	11.6	ug/L	766	Standard
	U	238	37.7	7.7	**-0.0002**	0.000	133.0	ug/L	30	Standard
>	**Bi**	209	355602.6	2.0				ug/L	364780	Standard

Sample ID: L1404019807
Report Date/Time: Friday, April 04, 2014 15:13:32
Page 1

Approved: April 07, 2014

	Na	23	90.0	20.0	**22.2923**	4.757	21.3	mg/L	0	Standard
	Mg	24	12094.8	2.7	**9.4810**	0.071	0.7	mg/L	58	Standard
	K	39	51.7	56.7	**0.3490**	0.245	70.1	mg/L	12	Standard
	Ca	43	458.3	3.3	**14.4248**	0.816	5.7	mg/L	53	Standard
	Fe	54	264.4	5.6	**0.0532**	0.006	10.6	mg/L	190	Standard
	Fe	57	681.7	11.1	**-0.0058**	0.177	3047.3	mg/L	638	Standard
>	**Sc-1**	45	41794.2	2.0				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	1.0	173.2				ug/L	2	Standard
	Br	81	6411.4	2.7				ug/L	2030	Standard
	P	31	346804.7	1.5				ug/L	256822	Standard
	S	34	33276.5	0.3				ug/L	33255	Standard
	Sr	88	390.0	4.4				ug/L	153	Standard
	C	12	1473.4	8.4				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	3.0	187.1				mg/L	6	Standard
	Ho-1	165	30.0	0.0				mg/L	10	Standard
	Er	166	6.7	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		118.622	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		111.047	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404019807
Report Date/Time: Friday, April 04, 2014 15:13:32
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	104.174
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	97.484
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Ba 135 Upper, S, EEE	Ba	135	

Sample ID: L1404019807
Report Date/Time: Friday, April 04, 2014 15:13:32
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404027201
Sample Date/Time: Friday, April 04, 2014 15:14:24
Number of Replicates: 3
Autosampler Position: 350
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	118611.0	2.8				ug/L	113180	Standard
	Be	9	41.7	38.6	**0.0136**	0.007	51.6	ug/L	17	Standard
	Al	27	419472.8	1.2	**2.4663**	0.085	3.5	ug/L	633	Standard
	Sc	45	36555.7	2.9				ug/L	41381	Standard
	Ti	47	409.7	2.9	**1.2529**	0.034	2.7	ug/L	30	Standard
	V	51	911841.5	1.1	**108.0782**	0.989	0.9	ug/L	1879	Standard
	Cr	52	38734683.5	2.7	**4354.8014**	125.347	2.9	ug/L	8035	Standard
	Cr	53	5206241.6	2.2	**3956.7150**	87.973	2.2	ug/L	470	Standard
	Mn	55	108691.3	2.4	**10.3335**	0.253	2.4	ug/L	1182	Standard
	Co	59	1217.7	3.4	**0.1121**	0.005	4.6	ug/L	333	Standard
	Ni	60	12327.7	2.2	**4.6845**	0.102	2.2	ug/L	71	Standard
	Cu	65	49348.2	1.6	**19.7354**	0.401	2.0	ug/L	64	Standard
	Zn	66	8234.2	1.2	**5.6283**	0.036	0.6	ug/L	125	Standard
>	**Ge**	72	383620.2	0.8				ug/L	399053	Standard
	As	75	185.1	16.7	**0.1246**	0.018	14.6	ug/L	-28	Standard
	Se	82	42.5	11.5	**0.1276**	0.027	21.2	ug/L	26	Standard
	Se-1	77	162.3	8.4	**0.6130**	0.144	23.5	ug/L	118	Standard
>	**Ga**	71	116.7	26.2				mg/L	8	Standard
	Rb	85	2086.8	4.4				ug/L	25	Standard
	Y	89	331074.2	2.2				ug/L	368853	Standard
>	**Rh**	103	31.7	9.1				ug/L	10	Standard
	Mo	98	2373.6	3.1	**1.2077**	0.030	2.5	ug/L	68	Standard
	Ag	107	1591.1	2.6	**0.2393**	0.007	2.8	ug/L	84	Standard
	Cd	111	35.8	30.3	**-0.0143**	0.004	27.2	mg/L	72	Standard
	Cd	114	189.1	45.0	**-0.0003**	0.012	4510.9	ug/L	187	Standard
>	**In**	115	413611.1	0.7				ug/L	464664	Standard
	Sn	118	46075.0	3.6	**5.9778**	0.182	3.0	ug/L	438	Standard
	Sb	123	1254.3	3.3	**0.2305**	0.007	3.2	ug/L	433	Standard
	Ba	135	3079.0	2.1	**1.2181**	0.029	2.4	ug/L	14	Standard
	Ce	140	403.3	9.9				ug/L	20	Standard
>	**Tb**	159	557689.9	0.4				ug/L	663064	Standard
	Ho	165	33.3	34.6				ug/L	10	Standard
	Tl	203	154.7	21.8	**0.0101**	0.003	33.5	ug/L	32	Standard
	Tl	205	130.0	16.8	**0.0105**	0.003	26.4	ug/L	28	Standard
	Pb	206	3830.5	0.6	**0.5942**	0.012	2.0	ug/L	190	Standard
	Pb	207	3070.6	1.9	**0.5264**	0.005	0.9	ug/L	155	Standard
	Pb	208	14649.1	0.4	**0.5631**	0.013	2.3	ug/L	766	Standard
	U	238	53.7	19.7	**0.0015**	0.001	65.1	ug/L	30	Standard
>	**Bi**	209	326244.7	2.2				ug/L	364780	Standard

Sample ID: L1404027201
Report Date/Time: Friday, April 04, 2014 15:16:34
Page 1

Approved: April 07, 2014

	Na	23	5.0	100.0	**0.5980**	1.422	237.8	mg/L	0	Standard
	Mg	24	17738.7	4.2	**15.9310**	0.677	4.2	mg/L	58	Standard
	K	39	15.0	0.0	**0.0664**	0.004	6.0	mg/L	12	Standard
	Ca	43	51.7	11.2	**0.3068**	0.289	94.1	mg/L	53	Standard
	Fe	54	563.5	38.6	**0.2593**	0.131	50.4	mg/L	190	Standard
	Fe	57	880.0	2.8	**0.6447**	0.029	4.4	mg/L	638	Standard
>	**Sc-1**	45	36555.7	2.9				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	4.3	53.3				ug/L	2	Standard
	Br	81	2840.3	10.0				ug/L	2030	Standard
	P	31	176805.9	2.0				ug/L	256822	Standard
	S	34	29979.6	0.8				ug/L	33255	Standard
	Sr	88	166.7	9.2				ug/L	153	Standard
	C	12	1156.7	9.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	5.5	203.3				mg/L	6	Standard
	Ho-1	165	33.3	34.6				mg/L	10	Standard
	Er	166	23.3	49.5				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		104.799	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.133	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404027201
Report Date/Time: Friday, April 04, 2014 15:16:34
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	89.013
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	89.436
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
V 51 Upper, S, EEE	V	51	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	

Sample ID: L1404027201
Report Date/Time: Friday, April 04, 2014 15:16:34
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404027403
Sample Date/Time: Friday, April 04, 2014 15:17:26
Number of Replicates: 3
Autosampler Position: 351
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	147267.8	3.5				ug/L	113180	Standard
	Be	9	40.0	37.5	**0.0098**	0.005	54.1	ug/L	17	Standard
	Al	27	7589288.8	2.2	**36.2602**	0.718	2.0	ug/L	633	Standard
	Sc	45	41020.5	1.7				ug/L	41381	Standard
	Ti	47	340.3	10.0	**0.8732**	0.074	8.5	ug/L	30	Standard
	V	51	-3288.3	118.7	**-0.5428**	0.381	70.2	ug/L	1879	Standard
	Cr	52	859275.6	6.4	**81.9167**	1.578	1.9	ug/L	8035	Standard
	Cr	53	128470.0	5.2	**83.3374**	1.193	1.4	ug/L	470	Standard
	Mn	55	274968.4	3.6	**22.5574**	0.276	1.2	ug/L	1182	Standard
	Co	59	1099.0	2.8	**0.0757**	0.004	5.3	ug/L	333	Standard
	Ni	60	32630.5	4.2	**10.6746**	0.112	1.1	ug/L	71	Standard
	Cu	65	21024.6	5.0	**7.1853**	0.061	0.8	ug/L	64	Standard
	Zn	66	6703.2	5.7	**3.8841**	0.065	1.7	ug/L	125	Standard
>	**Ge**	72	447492.1	4.4				ug/L	399053	Standard
	As	75	362.8	21.0	**0.2021**	0.042	20.7	ug/L	-28	Standard
	Se	82	94.4	15.8	**0.3432**	0.052	15.1	ug/L	26	Standard
	Se-1	77	314.0	6.4	**1.6560**	0.271	16.3	ug/L	118	Standard
>	**Ga**	71	220.0	28.4				mg/L	8	Standard
	Rb	85	16018.5	2.9				ug/L	25	Standard
	Y	89	392436.5	4.3				ug/L	368853	Standard
>	**Rh**	103	51.7	39.1				ug/L	10	Standard
	Mo	98	2991.6	5.5	**1.3391**	0.038	2.9	ug/L	68	Standard
	Ag	107	86.7	16.8	**-0.0026**	0.002	63.6	ug/L	84	Standard
	Cd	111	81.8	11.2	**-0.0017**	0.002	128.7	mg/L	72	Standard
	Cd	114	3513.0	40.3	**0.4095**	0.163	39.9	ug/L	187	Standard
>	**In**	115	470965.9	3.3				ug/L	464664	Standard
	Sn	118	1649856.6	3.3	**189.5023**	2.693	1.4	ug/L	438	Standard
	Sb	123	2373.3	3.9	**0.4007**	0.006	1.4	ug/L	433	Standard
	Ba	135	13507.7	2.6	**4.7287**	0.052	1.1	ug/L	14	Standard
	Ce	140	596.7	5.7				ug/L	20	Standard
>	**Tb**	159	624143.0	2.6				ug/L	663064	Standard
	Ho	165	60.0	33.3				ug/L	10	Standard
	Tl	203	495.3	4.9	**0.0419**	0.003	8.2	ug/L	32	Standard
	Tl	205	471.7	8.8	**0.0460**	0.004	9.6	ug/L	28	Standard
	Pb	206	1046.4	1.3	**0.1246**	0.003	2.7	ug/L	190	Standard
	Pb	207	941.4	4.2	**0.1285**	0.003	2.6	ug/L	155	Standard
	Pb	208	4150.6	3.2	**0.1254**	0.001	0.9	ug/L	766	Standard
	U	238	457.3	5.0	**0.0342**	0.002	5.1	ug/L	30	Standard
>	**Bi**	209	347773.9	2.5				ug/L	364780	Standard

Sample ID: L1404027403
Report Date/Time: Friday, April 04, 2014 15:19:36
Page 1

Approved: April 07, 2014

	Na	23	55.0	45.5	**13.4865**	6.353	47.1	mg/L	0	Standard
	Mg	24	56438.3	2.6	**45.2369**	1.213	2.7	mg/L	58	Standard
	K	39	86.7	16.7	**0.6470**	0.127	19.6	mg/L	12	Standard
	Ca	43	448.3	1.7	**14.3607**	0.109	0.8	mg/L	53	Standard
	Fe	54	725.1	5.7	**0.3123**	0.025	8.0	mg/L	190	Standard
	Fe	57	888.4	3.1	**0.4413**	0.044	9.9	mg/L	638	Standard
>	**Sc-1**	45	41020.5	1.7				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	5.3	57.3				ug/L	2	Standard
	Br	81	9102.7	2.8				ug/L	2030	Standard
	P	31	339795.0	4.7				ug/L	256822	Standard
	S	34	30934.9	2.3				ug/L	33255	Standard
	Sr	88	235.0	12.8				ug/L	153	Standard
	C	12	2403.5	14.7				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	39.4	24.2				mg/L	6	Standard
	Ho-1	165	60.0	33.3				mg/L	10	Standard
	Er	166	13.3	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		130.119	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		112.139	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404027403
Report Date/Time: Friday, April 04, 2014 15:19:36
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.356
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	95.338
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
V 51 Lower	V	51	
Sn 118 Upper, S, EEE	Sn	118	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404027405
Sample Date/Time: Friday, April 04, 2014 15:20:27
Number of Replicates: 3
Autosampler Position: 352
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	139334.5	1.6				ug/L	113180	Standard
	Be	9	48.3	26.0	**0.0133**	0.005	34.5	ug/L	17	Standard
	Al	27	7445845.2	1.3	**37.5888**	0.186	0.5	ug/L	633	Standard
	Sc	45	40069.6	2.4				ug/L	41381	Standard
	Ti	47	476.3	23.7	**1.3210**	0.339	25.6	ug/L	30	Standard
	V	51	78450.6	2.8	**8.2014**	0.252	3.1	ug/L	1879	Standard
	Cr	52	44003.3	5.9	**3.6037**	0.255	7.1	ug/L	8035	Standard
	Cr	53	16197.1	11.1	**10.7670**	1.210	11.2	ug/L	470	Standard
	Mn	55	27758.4	1.8	**2.2912**	0.037	1.6	ug/L	1182	Standard
	Co	59	795.4	7.4	**0.0458**	0.007	14.6	ug/L	333	Standard
	Ni	60	3931.5	2.5	**1.3253**	0.044	3.4	ug/L	71	Standard
	Cu	65	1615.4	2.6	**0.5513**	0.020	3.6	ug/L	64	Standard
	Zn	66	7026.6	2.9	**4.3063**	0.096	2.2	ug/L	125	Standard
>	**Ge**	72	424653.3	0.9				ug/L	399053	Standard
	As	75	494.0	19.7	**0.2845**	0.052	18.4	ug/L	-28	Standard
	Se	82	172.8	3.1	**0.7678**	0.023	3.1	ug/L	26	Standard
	Se-1	77	986.4	7.4	**7.6797**	0.641	8.4	ug/L	118	Standard
>	**Ga**	71	250.0	27.5				mg/L	8	Standard
	Rb	85	164890.9	1.9				ug/L	25	Standard
	Y	89	367389.4	1.0				ug/L	368853	Standard
>	**Rh**	103	113.3	26.6				ug/L	10	Standard
	Mo	98	11323.4	2.1	**5.4501**	0.074	1.4	ug/L	68	Standard
	Ag	107	74.3	41.6	**-0.0037**	0.005	126.3	ug/L	84	Standard
	Cd	111	106.9	13.5	**0.0080**	0.005	60.1	mg/L	72	Standard
	Cd	114	281.7	21.1	**0.0101**	0.008	78.0	ug/L	187	Standard
>	**In**	115	444497.6	0.8				ug/L	464664	Standard
	Sn	118	1676.8	13.8	**0.1553**	0.027	17.5	ug/L	438	Standard
	Sb	123	691.9	1.4	**0.1053**	0.002	2.1	ug/L	433	Standard
	Ba	135	40661.5	1.0	**15.1063**	0.025	0.2	ug/L	14	Standard
	Ce	140	440.0	42.6				ug/L	20	Standard
>	**Tb**	159	601565.3	0.9				ug/L	663064	Standard
	Ho	165	33.3	34.6				ug/L	10	Standard
	Tl	203	827.0	6.2	**0.0768**	0.006	7.5	ug/L	32	Standard
	Tl	205	780.0	5.6	**0.0822**	0.006	7.1	ug/L	28	Standard
	Pb	206	979.0	4.7	**0.1199**	0.006	5.3	ug/L	190	Standard
	Pb	207	814.4	6.1	**0.1121**	0.010	8.5	ug/L	155	Standard
	Pb	208	3823.5	4.3	**0.1185**	0.007	5.9	ug/L	766	Standard
	U	238	1782.4	3.1	**0.1481**	0.006	4.3	ug/L	30	Standard
>	**Bi**	209	335100.6	1.3				ug/L	364780	Standard

Sample ID: L1404027405
Report Date/Time: Friday, April 04, 2014 15:22:37
Page 1

Approved: April 07, 2014

	Na	23	163.3	19.7	**42.8625**	7.920	18.5	mg/L	0	Standard
	Mg	24	60669.6	2.8	**49.7928**	1.530	3.1	mg/L	58	Standard
	K	39	321.7	14.9	**2.6607**	0.402	15.1	mg/L	12	Standard
	Ca	43	851.7	2.6	**29.6148**	0.252	0.9	mg/L	53	Standard
	Fe	54	204.8	8.4	**0.0254**	0.007	29.4	mg/L	190	Standard
	Fe	57	835.0	9.6	**0.3726**	0.160	42.9	mg/L	638	Standard
>	**Sc-1**	45	40069.6	2.4				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	4.0	0.0				ug/L	2	Standard
	Br	81	14173.3	6.7				ug/L	2030	Standard
	P	31	328489.7	2.9				ug/L	256822	Standard
	S	34	32586.7	0.4				ug/L	33255	Standard
	Sr	88	440.0	11.4				ug/L	153	Standard
	C	12	2050.1	3.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	143.3	10.7				mg/L	0	Standard
	Dy	164	25.2	60.0				mg/L	6	Standard
	Ho-1	165	33.3	34.6				mg/L	10	Standard
	Er	166	30.0	57.7				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		123.109	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.415	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404027405
Report Date/Time: Friday, April 04, 2014 15:22:37
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	95.660
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	91.864
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: L1404027405
Report Date/Time: Friday, April 04, 2014 15:22:37
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404027408
Sample Date/Time: Friday, April 04, 2014 15:23:29
Number of Replicates: 3
Autosampler Position: 353
Sample Description: 2
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	128129.6	2.1				ug/L	113180	Standard
	Be	9	106.7	16.5	**0.0365**	0.006	17.2	ug/L	17	Standard
	Al	27	29390017.5	3.6	**161.3991**	3.801	2.4	ug/L	633	Standard
	Sc	45	36584.2	4.8				ug/L	41381	Standard
	Ti	47	4762.4	2.7	**14.9333**	0.242	1.6	ug/L	30	Standard
	V	51	4883379.6	20.4	**567.3150**	111.077	19.6	ug/L	1879	Standard
	Cr	52	193196393.1	4.2	**21272.5583**	645.677	3.0	ug/L	8035	Standard
	Cr	53	25454314.3	2.1	**18948.8839**	286.484	1.5	ug/L	470	Standard
	Mn	55	1178854.3	1.1	**110.9434**	1.140	1.0	ug/L	1182	Standard
	Co	59	8269.3	1.4	**1.0260**	0.010	1.0	ug/L	333	Standard
	Ni	60	68834.7	1.1	**25.7763**	0.283	1.1	ug/L	71	Standard
	Cu	65	259705.6	2.3	**101.8557**	1.154	1.1	ug/L	64	Standard
	Zn	66	37579.9	1.2	**25.6480**	0.104	0.4	ug/L	125	Standard
>	**Ge**	72	391648.0	1.2				ug/L	399053	Standard
	As	75	1093.4	5.4	**0.6672**	0.028	4.2	ug/L	-28	Standard
	Se	82	114.5	7.7	**0.5202**	0.050	9.5	ug/L	26	Standard
	Se-1	77	183.3	10.2	**0.7794**	0.176	22.5	ug/L	118	Standard
>	**Ga**	71	1305.1	9.1				mg/L	8	Standard
	Rb	85	7041.6	2.7				ug/L	25	Standard
	Y	89	344692.1	1.2				ug/L	368853	Standard
>	**Rh**	103	75.0	29.1				ug/L	10	Standard
	Mo	98	13482.9	3.2	**6.9641**	0.103	1.5	ug/L	68	Standard
	Ag	107	4113.6	4.7	**0.6401**	0.018	2.9	ug/L	84	Standard
	Cd	111	105.3	16.9	**0.0098**	0.005	50.5	mg/L	72	Standard
	Cd	114	627.2	70.4	**0.0620**	0.064	102.8	ug/L	187	Standard
>	**In**	115	414712.6	3.5				ug/L	464664	Standard
	Sn	118	254652.1	3.4	**33.1770**	0.426	1.3	ug/L	438	Standard
	Sb	123	4877.7	1.4	**0.9718**	0.032	3.3	ug/L	433	Standard
	Ba	135	15168.6	1.6	**6.0354**	0.112	1.9	ug/L	14	Standard
	Ce	140	14798.9	2.1				ug/L	20	Standard
>	**Tb**	159	570677.5	2.4				ug/L	663064	Standard
	Ho	165	900.0	7.3				ug/L	10	Standard
	Tl	203	284.0	8.3	**0.0232**	0.002	8.9	ug/L	32	Standard
	Tl	205	231.7	16.5	**0.0219**	0.005	20.8	ug/L	28	Standard
	Pb	206	23103.9	1.6	**3.7481**	0.040	1.1	ug/L	190	Standard
	Pb	207	18482.3	1.0	**3.3100**	0.016	0.5	ug/L	155	Standard
	Pb	208	87327.8	1.3	**3.4984**	0.007	0.2	ug/L	766	Standard
	U	238	4367.0	1.9	**0.3752**	0.002	0.6	ug/L	30	Standard
>	**Bi**	209	328152.3	1.5				ug/L	364780	Standard

Sample ID: L1404027408
Report Date/Time: Friday, April 04, 2014 15:25:39
Page 1

Approved: April 07, 2014

	Na	23	240.0	9.1	**69.8116**	8.557	12.3	mg/L	0	Standard
	Mg	24	19520.9	2.0	**17.5394**	0.785	4.5	mg/L	58	Standard
	K	39	35.0	71.4	**0.2463**	0.217	88.1	mg/L	12	Standard
	Ca	43	1241.7	5.6	**48.3617**	1.758	3.6	mg/L	53	Standard
	Fe	54	12509.4	5.1	**7.7269**	0.645	8.3	mg/L	190	Standard
	Fe	57	4912.5	2.6	**9.9181**	0.333	3.4	mg/L	638	Standard
>	**Sc-1**	45	36584.2	4.8				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	1.7	69.3				ug/L	2	Standard
	Br	81	4700.7	11.9				ug/L	2030	Standard
	P	31	256821.8	1.2				ug/L	256822	Standard
	S	34	27187.8	7.9				ug/L	33255	Standard
	Sr	88	223.3	13.1				ug/L	153	Standard
	C	12	1263.4	11.5				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	13.3	114.6				mg/L	0	Standard
	Dy	164	642.1	8.3				mg/L	6	Standard
	Ho-1	165	900.0	7.3				mg/L	10	Standard
	Er	166	443.3	8.5				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		113.209	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.144	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404027408
Report Date/Time: Friday, April 04, 2014 15:25:39
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	89.250
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	89.959
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
V 51 Upper, S, EEE	V	51	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	
Mn 55 Upper, S, EEE	Mn	55	

Approved: April 07, 2014

Cu 65 Upper, S, EEE	Cu	65

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404027409
Sample Date/Time: Friday, April 04, 2014 15:29:50
Number of Replicates: 3
Autosampler Position: 354
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	147030.6	3.8				ug/L	113180	Standard
	Be	9	26.7	28.6	**0.0054**	0.003	52.9	ug/L	17	Standard
	Al	27	4671470.1	1.8	**22.3522**	0.626	2.8	ug/L	633	Standard
	Sc	45	39641.8	2.7				ug/L	41381	Standard
	Ti	47	136.0	9.6	**0.3043**	0.024	8.0	ug/L	30	Standard
	V	51	3579.6	2.3	**0.1428**	0.010	6.7	ug/L	1879	Standard
	Cr	52	24396.6	27.6	**1.4506**	0.640	44.1	ug/L	8035	Standard
	Cr	53	3898.9	32.1	**2.1523**	0.813	37.8	ug/L	470	Standard
	Mn	55	1059817.0	2.5	**85.9425**	3.413	4.0	ug/L	1182	Standard
	Co	59	2145.2	2.4	**0.1910**	0.009	4.9	ug/L	333	Standard
	Ni	60	4004.5	1.9	**1.2595**	0.034	2.7	ug/L	71	Standard
	Cu	65	2442.5	2.9	**0.7923**	0.013	1.6	ug/L	64	Standard
	Zn	66	25261.0	2.4	**14.7944**	0.118	0.8	ug/L	125	Standard
>	**Ge**	72	454636.5	2.9				ug/L	399053	Standard
	As	75	163.4	6.0	**0.0958**	0.006	6.0	ug/L	-28	Standard
	Se	82	56.9	6.7	**0.1592**	0.026	16.1	ug/L	26	Standard
	Se-1	77	225.3	9.5	**0.8837**	0.193	21.8	ug/L	118	Standard
>	**Ga**	71	35.0	0.0				mg/L	8	Standard
	Rb	85	12303.3	1.6				ug/L	25	Standard
	Y	89	385392.3	1.6				ug/L	368853	Standard
>	**Rh**	103	45.0	48.4				ug/L	10	Standard
	Mo	98	433.6	0.4	**0.1680**	0.003	1.8	ug/L	68	Standard
	Ag	107	70.3	23.0	**-0.0051**	0.002	44.4	ug/L	84	Standard
	Cd	111	74.7	13.9	**-0.0043**	0.003	70.0	mg/L	72	Standard
	Cd	114	201.0	22.6	**-0.0026**	0.006	208.7	ug/L	187	Standard
>	**In**	115	480914.0	1.3				ug/L	464664	Standard
	Sn	118	2138.5	6.2	**0.1920**	0.015	8.0	ug/L	438	Standard
	Sb	123	313.3	10.7	**0.0285**	0.006	21.0	ug/L	433	Standard
	Ba	135	37154.5	0.6	**12.7574**	0.127	1.0	ug/L	14	Standard
	Ce	140	203.3	5.1				ug/L	20	Standard
>	**Tb**	159	628203.5	2.4				ug/L	663064	Standard
	Ho	165	46.7	44.6				ug/L	10	Standard
	Tl	203	96.7	6.7	**0.0033**	0.001	18.4	ug/L	32	Standard
	Tl	205	103.3	11.2	**0.0063**	0.001	17.5	ug/L	28	Standard
	Pb	206	569.7	4.7	**0.0479**	0.004	9.3	ug/L	190	Standard
	Pb	207	481.7	3.8	**0.0473**	0.002	3.3	ug/L	155	Standard
	Pb	208	2197.4	2.5	**0.0481**	0.001	2.1	ug/L	766	Standard
	U	238	21.3	61.2	**-0.0015**	0.001	68.5	ug/L	30	Standard
>	**Bi**	209	359891.7	1.9				ug/L	364780	Standard

Sample ID: L1404027409
Report Date/Time: Friday, April 04, 2014 15:32:00
Page 1

Approved: April 07, 2014

	Na	23	53.3	10.8	**13.6170**	1.738	12.8	mg/L	0	Standard
	Mg	24	10925.6	4.2	**9.0331**	0.462	5.1	mg/L	58	Standard
	K	39	68.3	36.1	**0.5111**	0.203	39.6	mg/L	12	Standard
	Ca	43	218.3	20.8	**6.3797**	1.857	29.1	mg/L	53	Standard
	Fe	54	406.6	16.2	**0.1429**	0.038	26.6	mg/L	190	Standard
	Fe	57	696.7	9.0	**0.0984**	0.132	133.8	mg/L	638	Standard
>	**Sc-1**	45	39641.8	2.7				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	2.3	137.8				ug/L	2	Standard
	Br	81	6211.3	4.9				ug/L	2030	Standard
	P	31	315193.8	1.8				ug/L	256822	Standard
	S	34	32625.1	1.2				ug/L	33255	Standard
	Sr	88	240.0	14.6				ug/L	153	Standard
	C	12	4037.2	7.7				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	29.2	32.6				mg/L	6	Standard
	Ho-1	165	46.7	44.6				mg/L	10	Standard
	Er	166	16.7	69.3				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		129.909	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		113.929	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404027409
Report Date/Time: Friday, April 04, 2014 15:32:00
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	103.497
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	98.660
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: L1404027409
Report Date/Time: Friday, April 04, 2014 15:32:00
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404027408
Sample Date/Time: Friday, April 04, 2014 15:32:51
Number of Replicates: 3
Autosampler Position: 355
Sample Description: 2000
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	128554.8	1.4				ug/L	113180	Standard
	Be	9	25.0	40.0	**0.0060**	0.004	63.3	ug/L	17	Standard
	Al	27	50639.5	0.2	**0.2530**	0.004	1.6	ug/L	633	Standard
	Sc	45	34776.6	5.5				ug/L	41381	Standard
	Ti	47	26.7	16.9	**0.0193**	0.015	76.8	ug/L	30	Standard
	V	51	1221.1	65.3	**-0.0743**	0.094	126.2	ug/L	1879	Standard
	Cr	52	237117.5	2.0	**25.0894**	0.281	1.1	ug/L	8035	Standard
	Cr	53	35416.3	1.2	**25.8546**	0.423	1.6	ug/L	470	Standard
	Mn	55	4465.3	1.0	**0.2974**	0.004	1.4	ug/L	1182	Standard
	Co	59	222.3	1.8	**-0.0208**	0.001	3.7	ug/L	333	Standard
	Ni	60	468.0	6.1	**0.1399**	0.010	7.2	ug/L	71	Standard
	Cu	65	472.0	5.0	**0.1507**	0.007	5.0	ug/L	64	Standard
	Zn	66	2849.6	5.2	**1.8038**	0.115	6.4	ug/L	125	Standard
>	**Ge**	72	394042.8	1.0				ug/L	399053	Standard
	As	75	-47.1	55.5	**-0.0169**	0.016	94.2	ug/L	-28	Standard
	Se	82	23.7	40.5	**0.0183**	0.052	283.6	ug/L	26	Standard
	Se-1	77	137.3	3.4	**0.3348**	0.051	15.1	ug/L	118	Standard
>	**Ga**	71	18.3	83.3				mg/L	8	Standard
	Rb	85	58.3	60.2				ug/L	25	Standard
	Y	89	345176.8	1.9				ug/L	368853	Standard
>	**Rh**	103	11.7	49.5				ug/L	10	Standard
	Mo	98	62.2	16.3	**0.0050**	0.005	99.9	ug/L	68	Standard
	Ag	107	61.3	2.5	**-0.0053**	0.000	3.2	ug/L	84	Standard
	Cd	111	98.9	3.0	**0.0063**	0.001	18.6	mg/L	72	Standard
	Cd	114	220.6	17.1	**0.0028**	0.005	173.2	ug/L	187	Standard
>	**In**	115	432014.5	1.0				ug/L	464664	Standard
	Sn	118	1220.0	6.7	**0.1042**	0.012	11.1	ug/L	438	Standard
	Sb	123	55.4	4.6	**-0.0159**	0.000	2.5	ug/L	433	Standard
	Ba	135	57.3	4.4	**0.0097**	0.001	9.7	ug/L	14	Standard
	Ce	140	25.0	52.9				ug/L	20	Standard
>	**Tb**	159	571217.2	0.9				ug/L	663064	Standard
	Ho	165	10.0	173.2				ug/L	10	Standard
	Tl	203	14.0	14.3	**-0.0043**	0.000	4.3	ug/L	32	Standard
	Tl	205	21.7	13.3	**-0.0020**	0.000	15.0	ug/L	28	Standard
	Pb	206	231.7	6.3	**0.0004**	0.002	596.4	ug/L	190	Standard
	Pb	207	213.0	5.4	**0.0060**	0.002	41.5	ug/L	155	Standard
	Pb	208	947.3	1.0	**0.0050**	0.000	8.5	ug/L	766	Standard
	U	238	9.7	15.8	**-0.0024**	0.000	5.6	ug/L	30	Standard
>	**Bi**	209	331562.2	1.2				ug/L	364780	Standard

Sample ID: L1404027408
Report Date/Time: Friday, April 04, 2014 15:35:02
Page 1

Approved: April 07, 2014

	Na	23	3.3	173.2	**0.2342**	1.875	800.5	mg/L	0	Standard
	Mg	24	106.7	21.7	**0.0615**	0.026	42.9	mg/L	58	Standard
	K	39	10.0	86.6	**0.0271**	0.091	337.0	mg/L	12	Standard
	Ca	43	38.3	64.3	**-0.1564**	1.064	680.7	mg/L	53	Standard
	Fe	54	187.9	9.4	**0.0322**	0.010	32.4	mg/L	190	Standard
	Fe	57	641.7	10.1	**0.1787**	0.217	121.3	mg/L	638	Standard
>	**Sc-1**	45	34776.6	5.5				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	1.7	91.7				ug/L	2	Standard
	Br	81	2423.5	13.4				ug/L	2030	Standard
	P	31	256362.5	1.2				ug/L	256822	Standard
	S	34	33705.8	2.3				ug/L	33255	Standard
	Sr	88	151.7	16.3				ug/L	153	Standard
	C	12	1216.7	15.4				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	16.5	92.2				mg/L	6	Standard
	Ho-1	165	10.0	173.2				mg/L	10	Standard
	Er	166	3.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		113.585	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.745	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404027408
Report Date/Time: Friday, April 04, 2014 15:35:02
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	92.974
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	90.894
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 15:35:55
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	136515.6	0.9				ug/L	113180	Standard
	Be	9	130577.1	2.4	**45.9127**	1.121	2.4	ug/L	17	Standard
	Al	27	7973447.5	1.3	**41.0888**	0.864	2.1	ug/L	633	Standard
	Sc	45	36945.0	2.4				ug/L	41381	Standard
	Ti	47	30662.3	0.3	**89.9965**	2.154	2.4	ug/L	30	Standard
	V	51	443784.5	1.3	**47.9201**	0.717	1.5	ug/L	1879	Standard
	Cr	52	470860.2	0.2	**47.4966**	1.103	2.3	ug/L	8035	Standard
	Cr	53	70421.7	2.0	**48.5343**	1.322	2.7	ug/L	470	Standard
	Mn	55	533253.7	1.7	**46.7291**	1.311	2.8	ug/L	1182	Standard
	Co	59	397804.7	0.8	**48.2082**	1.446	3.0	ug/L	333	Standard
	Ni	60	140989.7	1.3	**49.2614**	1.064	2.2	ug/L	71	Standard
	Cu	65	137327.9	1.0	**50.2086**	0.781	1.6	ug/L	64	Standard
	Zn	66	79697.8	1.9	**50.8493**	0.578	1.1	ug/L	125	Standard
>	Ge	72	420129.5	2.5				ug/L	399053	Standard
	As	75	88942.9	1.5	**49.7790**	0.789	1.6	ug/L	-28	Standard
	Se	82	9843.7	3.0	**50.5380**	1.226	2.4	ug/L	26	Standard
	Se-1	77	5900.8	3.0	**51.2927**	1.017	2.0	ug/L	118	Standard
>	Ga	71	41.7	30.2				mg/L	8	Standard
	Rb	85	845.0	9.3				ug/L	25	Standard
	Y	89	355425.7	0.8				ug/L	368853	Standard
>	Rh	103	33.3	22.9				ug/L	10	Standard
	Mo	98	229833.8	0.5	**109.0876**	0.828	0.8	ug/L	68	Standard
	Ag	107	362397.5	0.6	**52.8261**	0.394	0.7	ug/L	84	Standard
	Cd	111	156052.1	1.2	**49.8034**	0.495	1.0	mg/L	72	Standard
	Cd	114	378071.3	1.7	**49.1493**	0.972	2.0	ug/L	187	Standard
>	In	115	452820.5	0.4				ug/L	464664	Standard
	Sn	118	437201.7	0.8	**52.1912**	0.486	0.9	ug/L	438	Standard
	Sb	123	274126.1	0.8	**51.3371**	0.446	0.9	ug/L	433	Standard
	Ba	135	129235.5	1.1	**47.1561**	0.374	0.8	ug/L	14	Standard
	Ce	140	201.7	5.2				ug/L	20	Standard
>	Tb	159	600792.0	2.3				ug/L	663064	Standard
	Ho	165	20.0	86.6				ug/L	10	Standard
	Tl	203	533990.5	0.1	**50.8773**	0.772	1.5	ug/L	32	Standard
	Tl	205	492112.9	2.0	**52.2201**	1.550	3.0	ug/L	28	Standard
	Pb	206	331254.2	0.0	**50.7877**	0.742	1.5	ug/L	190	Standard
	Pb	207	299244.9	0.3	**50.6424**	0.859	1.7	ug/L	155	Standard
	Pb	208	1337932.1	0.1	**50.6327**	0.680	1.3	ug/L	766	Standard
	U	238	663088.6	0.8	**53.8180**	1.097	2.0	ug/L	30	Standard
>	Bi	209	350451.1	1.5				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 15:38:05
Page 1

Approved: April 07, 2014

	Na	23	15.0	33.3	**3.5004**	1.412	40.3	mg/L	0	Standard
	Mg	24	5801.1	5.0	**5.1242**	0.135	2.6	mg/L	58	Standard
	K	39	285.0	5.3	**2.5560**	0.185	7.2	mg/L	12	Standard
	Ca	43	120.0	21.7	**3.0152**	1.056	35.0	mg/L	53	Standard
	Fe	54	7924.9	5.2	**4.8064**	0.321	6.7	mg/L	190	Standard
	Fe	57	2855.3	4.9	**5.1155**	0.182	3.5	mg/L	638	Standard
>	**Sc-1**	45	36945.0	2.4				mg/L	41381	Standard
	Cl	35	2.0	0.0				ug/L	4	Standard
	Kr	83	2.0	50.0				ug/L	2	Standard
	Br	81	2486.9	6.6				ug/L	2030	Standard
	P	31	296560.2	2.4				ug/L	256822	Standard
	S	34	37807.1	2.7				ug/L	33255	Standard
	Sr	88	155.0	18.0				ug/L	153	Standard
	C	12	1116.7	23.0				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	9.5	110.1				mg/L	6	Standard
	Ho-1	165	20.0	86.6				mg/L	10	Standard
	Er	166	10.0	100.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		120.618	
	Be	9	91.825		
	Al	27	82.178		
	Sc	45			
	Ti	47	89.996		
	V	51	95.840		
	Cr	52	94.993		
	Cr	53			
	Mn	55	93.458		
	Co	59	96.416		
	Ni	60	98.523		
	Cu	65	100.417		
	Zn	66	101.699		
>	Ge	72		105.282	
	As	75	99.558		
	Se	82	101.076		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 15:38:05
Page 2

Approved: April 07, 2014

Y	89			
> Rh	103			
Mo	98	109.088		
Ag	107	105.652		
Cd	111	99.607		
Cd	114			
> In	115			97.451
Sn	118	104.382		
Sb	123	102.674		
Ba	135	94.312		
Ce	140			
> Tb	159			
Ho	165			
Tl	203	101.755		
Tl	205			
Pb	206			
Pb	207			
Pb	208	101.265		
U	238	107.636		
> Bi	209			96.072
Na	23			
Mg	24			
K	39			
Ca	43			
Fe	54			
Fe	57			
> Sc-1	45			
Cl	35			
Kr	83			
Br	81			
P	31			
S	34			
Sr	88			
C	12			
N	14			
Hg	202			
Dy	164			
Ho-1	165			
Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample
QC Std 6	Al	27	
QC Std 6	Ti	47	

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 15:38:05
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 15:38:57
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	138020.8	0.9				ug/L	113180	Standard
	Be	9	48.3	36.3	**0.0134**	0.006	44.9	ug/L	17	Standard
	Al	27	1623.4	24.2	**-0.0160**	0.002	12.1	ug/L	633	Standard
	Sc	45	37275.8	1.8				ug/L	41381	Standard
	Ti	47	23.3	17.8	**0.0020**	0.012	598.5	ug/L	30	Standard
	V	51	1722.3	2.4	**-0.0354**	0.004	12.3	ug/L	1879	Standard
	Cr	52	8546.4	2.6	**-0.0174**	0.021	120.5	ug/L	8035	Standard
	Cr	53	1008.4	12.6	**0.3236**	0.086	26.6	ug/L	470	Standard
	Mn	55	1069.4	3.7	**-0.0299**	0.003	10.7	ug/L	1182	Standard
	Co	59	225.3	12.2	**-0.0231**	0.003	13.7	ug/L	333	Standard
	Ni	60	232.0	3.4	**0.0439**	0.003	6.2	ug/L	71	Standard
	Cu	65	117.0	6.0	**0.0080**	0.003	31.8	ug/L	64	Standard
	Zn	66	130.0	0.8	**-0.0599**	0.001	1.1	ug/L	125	Standard
>	**Ge**	72	434499.3	0.2				ug/L	399053	Standard
	As	75	-32.3	88.6	**-0.0062**	0.016	250.2	ug/L	-28	Standard
	Se	82	21.5	25.9	**-0.0046**	0.028	604.5	ug/L	26	Standard
	Se-1	77	124.0	5.8	**0.0997**	0.061	61.4	ug/L	118	Standard
>	**Ga**	71	18.3	68.6				mg/L	8	Standard
	Rb	85	31.7	48.2				ug/L	25	Standard
	Y	89	371966.1	1.5				ug/L	368853	Standard
>	**Rh**	103	10.0	100.0				ug/L	10	Standard
	Mo	98	105.5	35.2	**0.0231**	0.016	69.7	ug/L	68	Standard
	Ag	107	89.7	22.6	**-0.0019**	0.003	141.8	ug/L	84	Standard
	Cd	111	72.1	12.9	**-0.0041**	0.004	86.6	mg/L	72	Standard
	Cd	114	176.2	33.8	**-0.0048**	0.007	150.0	ug/L	187	Standard
>	**In**	115	460295.9	2.6				ug/L	464664	Standard
	Sn	118	576.7	7.5	**0.0191**	0.004	20.5	ug/L	438	Standard
	Sb	123	610.8	30.8	**0.0853**	0.032	37.5	ug/L	433	Standard
	Ba	135	13.7	33.0	**-0.0074**	0.002	20.4	ug/L	14	Standard
	Ce	140	15.0	66.7				ug/L	20	Standard
>	**Tb**	159	595533.5	1.6				ug/L	663064	Standard
	Ho	165	10.0	100.0				ug/L	10	Standard
	Tl	203	45.3	41.6	**-0.0014**	0.002	128.8	ug/L	32	Standard
	Tl	205	56.7	50.9	**0.0016**	0.003	188.0	ug/L	28	Standard
	Pb	206	207.7	4.9	**-0.0053**	0.002	32.4	ug/L	190	Standard
	Pb	207	175.7	7.7	**-0.0024**	0.002	84.0	ug/L	155	Standard
	Pb	208	812.3	5.8	**-0.0021**	0.002	78.4	ug/L	766	Standard
	U	238	50.0	42.8	**0.0008**	0.002	205.0	ug/L	30	Standard
>	**Bi**	209	350402.8	1.0				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 15:41:07
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.3584**	0.848	236.6	mg/L	0	Standard
	Mg	24	91.7	25.2	**0.0406**	0.021	50.8	mg/L	58	Standard
	K	39	13.3	43.3	**0.0479**	0.051	105.7	mg/L	12	Standard
	Ca	43	30.0	16.7	**-0.5952**	0.220	36.9	mg/L	53	Standard
	Fe	54	159.3	17.4	**0.0062**	0.015	245.9	mg/L	190	Standard
	Fe	57	663.3	8.6	**0.1159**	0.109	93.9	mg/L	638	Standard
>	**Sc-1**	45	37275.8	1.8				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	1.7	34.6				ug/L	2	Standard
	Br	81	2433.5	3.9				ug/L	2030	Standard
	P	31	293550.7	2.3				ug/L	256822	Standard
	S	34	36565.7	1.6				ug/L	33255	Standard
	Sr	88	176.7	19.9				ug/L	153	Standard
	C	12	1226.7	19.5				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	3.2	186.4				mg/L	6	Standard
	Ho-1	165	10.0	100.0				mg/L	10	Standard
	Er	166	3.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		121.948	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.883	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 15:41:07
Page 2

Approved: April 07, 2014

Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		99.060
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		96.059
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 15:41:07
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: PBW 71 WG469509-03
Sample Date/Time: Friday, April 04, 2014 15:44:17
Number of Replicates: 3
Autosampler Position: 205
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	124306.2	1.0				ug/L	113180	Standard
	Be	9	18.3	56.8	**0.0037**	0.004	109.5	ug/L	17	Standard
	Al	27	1153.4	10.0	**-0.0177**	0.001	3.3	ug/L	633	Standard
	Sc	45	34342.2	3.0				ug/L	41381	Standard
	Ti	47	31.7	33.2	**0.0344**	0.035	100.3	ug/L	30	Standard
	V	51	1609.3	4.9	**-0.0313**	0.013	41.6	ug/L	1879	Standard
	Cr	52	8263.9	0.7	**0.0315**	0.025	78.6	ug/L	8035	Standard
	Cr	53	858.4	4.1	**0.2770**	0.032	11.7	ug/L	470	Standard
	Mn	55	2597.2	0.6	**0.1206**	0.007	5.4	ug/L	1182	Standard
	Co	59	200.3	10.5	**-0.0239**	0.003	11.7	ug/L	333	Standard
	Ni	60	723.4	4.4	**0.2330**	0.016	7.0	ug/L	71	Standard
	Cu	65	1634.1	2.3	**0.5990**	0.028	4.7	ug/L	64	Standard
	Zn	66	2925.6	2.1	**1.8395**	0.083	4.5	ug/L	125	Standard
>	Ge	72	397375.3	2.1				ug/L	399053	Standard
	As	75	-26.7	316.6	**-0.0041**	0.049	1192.1	ug/L	-28	Standard
	Se	82	23.3	57.7	**0.0156**	0.073	469.5	ug/L	26	Standard
	Se-1	77	128.3	3.1	**0.2395**	0.030	12.5	ug/L	118	Standard
>	Ga	71	15.0	66.7				mg/L	8	Standard
	Rb	85	50.0	36.1				ug/L	25	Standard
	Y	89	350625.5	2.5				ug/L	368853	Standard
>	Rh	103	6.7	43.3				ug/L	10	Standard
	Mo	98	52.7	13.6	**0.0004**	0.003	764.0	ug/L	68	Standard
	Ag	107	54.7	14.0	**-0.0063**	0.001	15.7	ug/L	84	Standard
	Cd	111	50.2	11.7	**-0.0099**	0.002	21.0	mg/L	72	Standard
	Cd	114	135.2	30.0	**-0.0087**	0.006	64.7	ug/L	187	Standard
>	In	115	430659.3	2.1				ug/L	464664	Standard
	Sn	118	1420.1	5.8	**0.1299**	0.013	9.9	ug/L	438	Standard
	Sb	123	132.9	11.3	**-0.0006**	0.003	501.5	ug/L	433	Standard
	Ba	135	46.3	13.7	**0.0055**	0.002	41.0	ug/L	14	Standard
	Ce	140	25.0	40.0				ug/L	20	Standard
>	Tb	159	567433.0	2.6				ug/L	663064	Standard
	Ho	165	10.0	173.2				ug/L	10	Standard
	Tl	203	25.3	16.0	**-0.0031**	0.000	12.9	ug/L	32	Standard
	Tl	205	23.3	12.4	**-0.0018**	0.000	19.2	ug/L	28	Standard
	Pb	206	249.7	0.6	**0.0030**	0.001	28.8	ug/L	190	Standard
	Pb	207	222.7	7.6	**0.0074**	0.003	36.3	ug/L	155	Standard
	Pb	208	1031.7	1.7	**0.0081**	0.001	10.5	ug/L	766	Standard
	U	238	12.0	30.0	**-0.0022**	0.000	13.6	ug/L	30	Standard
>	Bi	209	334036.3	1.6				ug/L	364780	Standard

Sample ID: PBW 71 WG469509-03
Report Date/Time: Friday, April 04, 2014 15:46:27
Page 1

Approved: April 07, 2014

	Na	23	3.3	86.6	**0.1764**	0.887	502.9	mg/L	0	Standard
	Mg	24	80.0	25.0	**0.0360**	0.017	47.9	mg/L	58	Standard
	K	39	8.3	69.3	**0.0087**	0.056	640.0	mg/L	12	Standard
	Ca	43	26.7	28.6	**-0.6327**	0.367	57.9	mg/L	53	Standard
	Fe	54	97.7	16.4	**-0.0260**	0.012	46.0	mg/L	190	Standard
	Fe	57	586.7	9.9	**0.0602**	0.181	300.9	mg/L	638	Standard
>	**Sc-1**	45	34342.2	3.0				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	2.7	43.3				ug/L	2	Standard
	Br	81	2316.8	7.4				ug/L	2030	Standard
	P	31	189710.8	2.5				ug/L	256822	Standard
	S	34	33234.8	2.4				ug/L	33255	Standard
	Sr	88	156.7	18.1				ug/L	153	Standard
	C	12	1003.4	9.7				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.8	2.8				mg/L	6	Standard
	Ho-1	165	10.0	173.2				mg/L	10	Standard
	Er	166	3.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		109.831	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.580	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: PBW 71 WG469509-03
Report Date/Time: Friday, April 04, 2014 15:46:27
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		92.682
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		91.572
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: PBW 71 WG469509-03
Report Date/Time: Friday, April 04, 2014 15:46:27
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: LCSW 71 WG469509-04
Sample Date/Time: Friday, April 04, 2014 15:47:19
Number of Replicates: 3
Autosampler Position: 206
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	140729.1	2.5				ug/L	113180	Standard
	Be	9	68188.2	2.7	**23.2645**	0.835	3.6	ug/L	17	Standard
	Al	27	5649.4	2.7	**0.0040**	0.001	24.6	ug/L	633	Standard
	Sc	45	39810.6	1.5				ug/L	41381	Standard
	Ti	47	35.0	33.7	**0.0335**	0.031	91.7	ug/L	30	Standard
	V	51	234658.9	1.8	**24.0985**	0.255	1.1	ug/L	1879	Standard
	Cr	52	259943.0	1.9	**24.6340**	0.074	0.3	ug/L	8035	Standard
	Cr	53	37147.2	3.4	**24.2769**	0.626	2.6	ug/L	470	Standard
	Mn	55	283497.5	2.9	**23.6651**	0.299	1.3	ug/L	1182	Standard
	Co	59	210507.9	2.6	**24.3353**	0.156	0.6	ug/L	333	Standard
	Ni	60	75210.9	0.9	**25.0871**	0.371	1.5	ug/L	71	Standard
	Cu	65	74689.3	1.1	**26.0712**	0.304	1.2	ug/L	64	Standard
	Zn	66	50558.4	5.7	**30.7445**	1.112	3.6	ug/L	125	Standard
>	Ge	72	439737.2	2.2				ug/L	399053	Standard
	As	75	46516.7	1.5	**24.8766**	0.289	1.2	ug/L	-28	Standard
	Se	82	5105.9	1.6	**24.9891**	0.309	1.2	ug/L	26	Standard
	Se-1	77	3058.6	1.8	**24.9170**	0.267	1.1	ug/L	118	Standard
>	Ga	71	13.3	43.3				mg/L	8	Standard
	Rb	85	80.0	16.5				ug/L	25	Standard
	Y	89	380339.2	2.1				ug/L	368853	Standard
>	Rh	103	28.3	53.9				ug/L	10	Standard
	Mo	98	81.4	7.8	**0.0119**	0.004	30.3	ug/L	68	Standard
	Ag	107	189804.2	2.4	**27.0551**	1.102	4.1	ug/L	84	Standard
	Cd	111	78420.3	1.2	**24.4578**	0.278	1.1	mg/L	72	Standard
	Cd	114	191661.8	1.7	**24.3461**	0.242	1.0	ug/L	187	Standard
>	In	115	463185.8	2.2				ug/L	464664	Standard
	Sn	118	553.3	14.9	**0.0160**	0.010	64.2	ug/L	438	Standard
	Sb	123	142637.9	1.0	**26.1080**	0.516	2.0	ug/L	433	Standard
	Ba	135	65678.1	1.6	**23.4252**	0.215	0.9	ug/L	14	Standard
	Ce	140	75.0	26.7				ug/L	20	Standard
>	Tb	159	605272.4	1.2				ug/L	663064	Standard
	Ho	165	10.0	100.0				ug/L	10	Standard
	Tl	203	271071.6	1.2	**25.5212**	0.199	0.8	ug/L	32	Standard
	Tl	205	254708.7	2.2	**26.7094**	0.681	2.5	ug/L	28	Standard
	Pb	206	171204.2	0.5	**25.9235**	0.020	0.1	ug/L	190	Standard
	Pb	207	148716.0	0.8	**24.8562**	0.098	0.4	ug/L	155	Standard
	Pb	208	681958.6	0.6	**25.4900**	0.115	0.4	ug/L	766	Standard
	U	238	330970.4	1.0	**26.5460**	0.350	1.3	ug/L	30	Standard
>	Bi	209	354552.1	0.5				ug/L	364780	Standard

Sample ID: LCSW 71 WG469509-04
Report Date/Time: Friday, April 04, 2014 15:49:29
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	71.7	22.4	**0.0190**	0.014	74.5	mg/L	58	Standard
	K	39	10.0	100.0	**0.0126**	0.087	687.8	mg/L	12	Standard
	Ca	43	23.3	24.7	**-0.9211**	0.212	23.0	mg/L	53	Standard
	Fe	54	186.8	13.7	**0.0161**	0.016	101.0	mg/L	190	Standard
	Fe	57	656.7	9.9	**0.0067**	0.125	1858.9	mg/L	638	Standard
>	**Sc-1**	45	39810.6	1.5				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	3.0	88.2				ug/L	2	Standard
	Br	81	2386.9	5.7				ug/L	2030	Standard
	P	31	292528.9	1.3				ug/L	256822	Standard
	S	34	33368.4	2.2				ug/L	33255	Standard
	Sr	88	128.3	17.6				ug/L	153	Standard
	C	12	1273.4	11.4				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	16.5	34.2				mg/L	6	Standard
	Ho-1	165	10.0	100.0				mg/L	10	Standard
	Er	166	3.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		124.341	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		110.195	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: LCSW 71 WG469509-04
Report Date/Time: Friday, April 04, 2014 15:49:29
Page 2

Approved: April 07, 2014

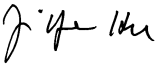
⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		99.682
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		97.196
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: LCSW 71 WG469509-04
Report Date/Time: Friday, April 04, 2014 15:49:29
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1403161601 WG469509-01
Sample Date/Time: Friday, April 04, 2014 15:50:20
Number of Replicates: 3
Autosampler Position: 207
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	200009.7	4.2				ug/L	113180	Standard
	Be	9	85.0	5.9	**0.0171**	0.002	11.9	ug/L	17	Standard
	Al	27	81799101.8	2.8	**287.9509**	5.089	1.8	ug/L	633	Standard
	Sc	45	37199.0	2.2				ug/L	41381	Standard
	Ti	47	1069.0	5.2	**3.1359**	0.092	2.9	ug/L	30	Standard
	V	51	5069.4	1.2	**0.3451**	0.023	6.6	ug/L	1879	Standard
	Cr	52	12915.5	3.0	**0.4867**	0.005	1.0	ug/L	8035	Standard
	Cr	53	4847.5	15.3	**3.0905**	0.624	20.2	ug/L	470	Standard
	Mn	55	2227443.7	2.5	**199.4219**	1.277	0.6	ug/L	1182	Standard
	Co	59	4585.0	3.4	**0.5174**	0.005	1.0	ug/L	333	Standard
	Ni	60	18164.9	0.8	**6.4447**	0.176	2.7	ug/L	71	Standard
	Cu	65	5442.0	6.6	**1.9955**	0.078	3.9	ug/L	64	Standard
	Zn	66	26255.7	1.3	**16.9966**	0.328	1.9	ug/L	125	Standard
>	Ge	72	411916.4	3.0				ug/L	399053	Standard
	As	75	838.5	6.8	**0.4901**	0.037	7.5	ug/L	-28	Standard
	Se	82	381.4	3.5	**1.8923**	0.125	6.6	ug/L	26	Standard
	Se-1	77	633.0	7.4	**4.7667**	0.586	12.3	ug/L	118	Standard
>	Ga	71	213.3	25.9				mg/L	8	Standard
	Rb	85	54026.2	2.1				ug/L	25	Standard
	Y	89	353806.5	2.5				ug/L	368853	Standard
>	Rh	103	1045.0	3.9				ug/L	10	Standard
	Mo	98	1133.0	1.0	**0.5580**	0.012	2.1	ug/L	68	Standard
	Ag	107	80.0	6.3	**-0.0020**	0.001	52.4	ug/L	84	Standard
	Cd	111	116.4	8.6	**0.0135**	0.003	21.0	mg/L	72	Standard
	Cd	114	312.5	8.9	**0.0168**	0.003	20.6	ug/L	187	Standard
>	In	115	417268.7	2.8				ug/L	464664	Standard
	Sn	118	651.7	2.3	**0.0359**	0.002	4.2	ug/L	438	Standard
	Sb	123	309.7	17.2	**0.0360**	0.009	25.4	ug/L	433	Standard
	Ba	135	46384.6	1.2	**18.3657**	0.326	1.8	ug/L	14	Standard
	Ce	140	15179.3	2.3				ug/L	20	Standard
>	Tb	159	591045.9	0.1				ug/L	663064	Standard
	Ho	165	393.3	10.3				ug/L	10	Standard
	Tl	203	663.0	0.7	**0.0634**	0.001	1.7	ug/L	32	Standard
	Tl	205	651.7	9.1	**0.0712**	0.007	9.5	ug/L	28	Standard
	Pb	206	1230.4	3.3	**0.1692**	0.006	3.8	ug/L	190	Standard
	Pb	207	993.7	0.6	**0.1519**	0.001	0.8	ug/L	155	Standard
	Pb	208	4656.9	1.8	**0.1599**	0.002	1.1	ug/L	766	Standard
	U	238	200012.9	0.7	**17.7502**	0.263	1.5	ug/L	30	Standard
>	Bi	209	320435.5	0.9				ug/L	364780	Standard

Sample ID: L1403161601 WG469509-01
Report Date/Time: Friday, April 04, 2014 15:52:31
Page 1

Approved: April 07, 2014

	Na	23	640.0	13.7	**184.3204**	29.430	16.0	mg/L	0	Standard
	Mg	24	207278.3	0.9	**183.3469**	2.682	1.5	mg/L	58	Standard
	K	39	198.3	3.9	**1.7434**	0.098	5.6	mg/L	12	Standard
	Ca	43	3167.0	3.4	**124.0975**	7.078	5.7	mg/L	53	Standard
	Fe	54	329.0	14.8	**0.1109**	0.032	29.2	mg/L	190	Standard
	Fe	57	1538.4	2.2	**2.0993**	0.138	6.6	mg/L	638	Standard
>	**Sc-1**	45	37199.0	2.2				mg/L	41381	Standard
	Cl	35	4.0	50.0				ug/L	4	Standard
	Kr	83	4.0	0.0				ug/L	2	Standard
	Br	81	25518.2	4.2				ug/L	2030	Standard
	P	31	295133.5	0.9				ug/L	256822	Standard
	S	34	29543.8	1.8				ug/L	33255	Standard
	Sr	88	3868.8	5.0				ug/L	153	Standard
	C	12	5004.2	5.2				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0	173.2				mg/L	0	Standard
	Dy	164	209.1	9.4				mg/L	6	Standard
	Ho-1	165	393.3	10.3				mg/L	10	Standard
	Er	166	226.7	18.4				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		176.719	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.224	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161601 WG469509-01
Report Date/Time: Friday, April 04, 2014 15:52:31
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	89.800
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	87.844
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403161602S WG469509-05
Sample Date/Time: Friday, April 04, 2014 15:53:22
Number of Replicates: 3
Autosampler Position: 208
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	194090.7	2.3				ug/L	113180	Standard
	Be	9	70791.7	1.2	**17.5133**	0.572	3.3	ug/L	17	Standard
	Al	27	64595212.4	1.1	**234.2818**	4.874	2.1	ug/L	633	Standard
	Sc	45	39559.9	1.7				ug/L	41381	Standard
	Ti	47	16451.3	1.3	**48.9548**	0.760	1.6	ug/L	30	Standard
	V	51	238691.4	0.4	**26.0526**	0.135	0.5	ug/L	1879	Standard
	Cr	52	241691.7	1.4	**24.3171**	0.333	1.4	ug/L	8035	Standard
	Cr	53	40311.9	0.2	**28.0387**	0.218	0.8	ug/L	470	Standard
	Mn	55	2157496.9	0.2	**192.1715**	1.147	0.6	ug/L	1182	Standard
	Co	59	198416.9	1.3	**24.3644**	0.130	0.5	ug/L	333	Standard
	Ni	60	81703.1	1.3	**28.9459**	0.155	0.5	ug/L	71	Standard
	Cu	65	94106.0	0.9	**34.8985**	0.424	1.2	ug/L	64	Standard
	Zn	66	347845.1	1.8	**225.6663**	2.816	1.2	ug/L	125	Standard
>	**Ge**	72	413995.6	0.8				ug/L	399053	Standard
	As	75	46746.5	1.3	**26.5503**	0.339	1.3	ug/L	-28	Standard
	Se	82	5346.4	1.5	**27.8025**	0.411	1.5	ug/L	26	Standard
	Se-1	77	3628.1	1.1	**31.6424**	0.446	1.4	ug/L	118	Standard
>	**Ga**	71	3483.7	3.8				mg/L	8	Standard
	Rb	85	165849.5	1.0				ug/L	25	Standard
	Y	89	440133.1	0.8				ug/L	368853	Standard
>	**Rh**	103	665.0	7.9				ug/L	10	Standard
	Mo	98	1376.2	2.7	**0.6749**	0.014	2.0	ug/L	68	Standard
	Ag	107	159503.0	1.6	**24.9341**	0.308	1.2	ug/L	84	Standard
	Cd	111	70802.7	0.7	**24.2275**	0.085	0.3	mg/L	72	Standard
	Cd	114	171940.2	2.7	**23.9618**	0.464	1.9	ug/L	187	Standard
>	**In**	115	422102.7	0.7				ug/L	464664	Standard
	Sn	118	3153.7	4.4	**0.3555**	0.015	4.2	ug/L	438	Standard
	Sb	123	125678.9	0.5	**25.2359**	0.078	0.3	ug/L	433	Standard
	Ba	135	186985.5	0.9	**73.2070**	1.223	1.7	ug/L	14	Standard
	Ce	140	511149.5	1.0				ug/L	20	Standard
>	**Tb**	159	602024.0	0.2				ug/L	663064	Standard
	Ho	165	11787.9	2.5				ug/L	10	Standard
	Tl	203	252646.6	1.5	**25.4636**	0.383	1.5	ug/L	32	Standard
	Tl	205	226436.3	1.3	**25.4161**	0.308	1.2	ug/L	28	Standard
	Pb	206	199005.8	0.9	**32.2661**	0.285	0.9	ug/L	190	Standard
	Pb	207	169699.7	0.4	**30.3697**	0.102	0.3	ug/L	155	Standard
	Pb	208	783537.7	0.8	**31.3584**	0.243	0.8	ug/L	766	Standard
	U	238	472043.1	0.1	**40.5299**	0.032	0.1	ug/L	30	Standard
>	**Bi**	209	331207.9	0.1				ug/L	364780	Standard

Sample ID: L1403161602S WG469509-05
Report Date/Time: Friday, April 04, 2014 15:55:32
Page 1

Approved: April 07, 2014

	Na	23	515.0	12.2	**138.9763**	17.175	12.4	mg/L	0	Standard
	Mg	24	140577.5	1.1	**116.8994**	1.460	1.2	mg/L	58	Standard
	K	39	145.0	18.2	**1.1736**	0.217	18.5	mg/L	12	Standard
	Ca	43	2456.9	4.7	**89.9377**	2.871	3.2	mg/L	53	Standard
	Fe	54	2933.9	4.6	**1.6008**	0.069	4.3	mg/L	190	Standard
	Fe	57	2055.1	5.6	**2.9911**	0.308	10.3	mg/L	638	Standard
>	**Sc-1**	45	39559.9	1.7				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	3.3	62.4				ug/L	2	Standard
	Br	81	16675.8	3.8				ug/L	2030	Standard
	P	31	330467.0	1.2				ug/L	256822	Standard
	S	34	29123.0	6.0				ug/L	33255	Standard
	Sr	88	2985.3	4.0				ug/L	153	Standard
	C	12	4033.9	6.1				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	63.3	39.7				mg/L	0	Standard
	Dy	164	8990.5	3.3				mg/L	6	Standard
	Ho-1	165	11787.9	2.5				mg/L	10	Standard
	Er	166	5267.6	4.5				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		171.489	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.745	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161602S WG469509-05
Report Date/Time: Friday, April 04, 2014 15:55:32
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	90.840
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	90.797
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Zn 66 Upper, S, EEE	Zn	66	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403161603SD WG469509-06
Sample Date/Time: Friday, April 04, 2014 15:56:24
Number of Replicates: 3
Autosampler Position: 209
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	228606.8	1.0				ug/L	113180	Standard
	Be	9	71516.7	1.4	**15.0150**	0.292	1.9	ug/L	17	Standard
	Al	27	101623753.0	1.2	**312.8640**	3.958	1.3	ug/L	633	Standard
	Sc	45	38993.4	0.7				ug/L	41381	Standard
	Ti	47	18468.3	1.5	**55.0723**	1.934	3.5	ug/L	30	Standard
	V	51	242523.7	1.8	**26.5250**	0.884	3.3	ug/L	1879	Standard
	Cr	52	259248.2	11.7	**26.1396**	2.377	9.1	ug/L	8035	Standard
	Cr	53	43880.2	5.3	**30.5861**	1.074	3.5	ug/L	470	Standard
	Mn	55	5700556.1	1.9	**508.7333**	4.331	0.9	ug/L	1182	Standard
	Co	59	203114.6	1.6	**24.9840**	0.324	1.3	ug/L	333	Standard
	Ni	60	90106.2	1.9	**31.9787**	0.432	1.4	ug/L	71	Standard
	Cu	65	89446.0	2.4	**33.2168**	0.281	0.8	ug/L	64	Standard
	Zn	66	322723.6	2.3	**209.6800**	1.140	0.5	ug/L	125	Standard
>	Ge	72	413415.0	2.8				ug/L	399053	Standard
	As	75	48796.6	1.7	**27.7619**	0.620	2.2	ug/L	-28	Standard
	Se	82	5883.2	1.7	**30.6570**	0.633	2.1	ug/L	26	Standard
	Se-1	77	4073.9	5.0	**35.6842**	0.790	2.2	ug/L	118	Standard
>	Ga	71	4120.6	2.3				mg/L	8	Standard
	Rb	85	182369.3	0.3				ug/L	25	Standard
	Y	89	418167.0	0.3				ug/L	368853	Standard
>	Rh	103	966.7	7.4				ug/L	10	Standard
	Mo	98	1687.5	6.8	**0.8399**	0.040	4.8	ug/L	68	Standard
	Ag	107	162312.1	0.4	**25.5847**	0.430	1.7	ug/L	84	Standard
	Cd	111	69969.3	1.3	**24.1383**	0.222	0.9	mg/L	72	Standard
	Cd	114	169226.2	1.4	**23.7823**	0.563	2.4	ug/L	187	Standard
>	In	115	418723.9	2.1				ug/L	464664	Standard
	Sn	118	2715.2	17.7	**0.3014**	0.054	18.0	ug/L	438	Standard
	Sb	123	127449.6	0.9	**25.8024**	0.301	1.2	ug/L	433	Standard
	Ba	135	144901.7	1.8	**57.1844**	0.430	0.8	ug/L	14	Standard
	Ce	140	410392.5	1.2				ug/L	20	Standard
>	Tb	159	601547.9	1.8				ug/L	663064	Standard
	Ho	165	9249.5	1.3				ug/L	10	Standard
	Tl	203	257072.0	1.0	**26.1837**	0.167	0.6	ug/L	32	Standard
	Tl	205	232150.3	1.8	**26.3344**	0.517	2.0	ug/L	28	Standard
	Pb	206	196203.9	0.6	**32.1499**	0.413	1.3	ug/L	190	Standard
	Pb	207	168300.6	0.9	**30.4408**	0.542	1.8	ug/L	155	Standard
	Pb	208	776472.5	0.5	**31.4068**	0.457	1.5	ug/L	766	Standard
	U	238	614098.5	1.2	**53.2840**	0.184	0.3	ug/L	30	Standard
>	Bi	209	327762.4	1.5				ug/L	364780	Standard

Sample ID: L1403161603SD WG469509-06
Report Date/Time: Friday, April 04, 2014 15:58:34
Page 1

Approved: April 07, 2014

	Na	23	711.7	10.0	**195.0757**	18.279	9.4	mg/L	0	Standard
	Mg	24	258944.1	0.9	**218.4790**	2.887	1.3	mg/L	58	Standard
	K	39	196.7	1.5	**1.6443**	0.034	2.1	mg/L	12	Standard
	Ca	43	3532.1	5.1	**132.0665**	7.663	5.8	mg/L	53	Standard
	Fe	54	3481.0	1.2	**1.9456**	0.020	1.0	mg/L	190	Standard
	Fe	57	2561.9	8.9	**4.1451**	0.512	12.4	mg/L	638	Standard
>	**Sc-1**	45	38993.4	0.7				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	2.7	21.7				ug/L	2	Standard
	Br	81	36640.9	3.0				ug/L	2030	Standard
	P	31	355826.4	0.4				ug/L	256822	Standard
	S	34	27374.7	2.5				ug/L	33255	Standard
	Sr	88	5117.5	0.5				ug/L	153	Standard
	C	12	5197.6	4.4				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	43.3	13.3				mg/L	0	Standard
	Dy	164	7762.9	5.8				mg/L	6	Standard
	Ho-1	165	9249.5	1.3				mg/L	10	Standard
	Er	166	4297.3	4.7				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		201.986	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.599	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161603SD WG469509-06
Report Date/Time: Friday, April 04, 2014 15:58:34
Page 2

Approved: April 07, 2014

Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		90.113
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		89.852
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Zn 66 Upper, S, EEE	Zn	66	

Sample ID: L1403161603SD WG469509-06
Report Date/Time: Friday, April 04, 2014 15:58:34
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403161604
Sample Date/Time: Friday, April 04, 2014 15:59:26
Number of Replicates: 3
Autosampler Position: 210
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	348152.4	3.3				ug/L	113180	Standard
	Be	9	78.3	73.7	**0.0076**	0.008	111.5	ug/L	17	Standard
	Al	27	163255540.5	2.4	**330.1378**	7.969	2.4	ug/L	633	Standard
	Sc	45	36724.5	1.1				ug/L	41381	Standard
	Ti	47	307.7	8.7	**0.8628**	0.092	10.6	ug/L	30	Standard
	V	51	4507.2	14.1	**0.2847**	0.065	23.0	ug/L	1879	Standard
	Cr	52	121273.9	5.0	**11.9088**	0.800	6.7	ug/L	8035	Standard
	Cr	53	17483.4	4.4	**12.0917**	0.614	5.1	ug/L	470	Standard
	Mn	55	5867976.9	1.1	**528.3524**	3.187	0.6	ug/L	1182	Standard
	Co	59	2543.9	2.7	**0.2668**	0.012	4.6	ug/L	333	Standard
	Ni	60	17112.3	3.2	**6.0981**	0.129	2.1	ug/L	71	Standard
	Cu	65	8408.7	3.2	**3.1200**	0.064	2.1	ug/L	64	Standard
	Zn	66	7630.6	2.6	**4.8648**	0.083	1.7	ug/L	125	Standard
>	**Ge**	72	409699.8	1.2				ug/L	399053	Standard
	As	75	1606.3	6.0	**0.9324**	0.045	4.8	ug/L	-28	Standard
	Se	82	1285.9	1.5	**6.6729**	0.082	1.2	ug/L	26	Standard
	Se-1	77	801.4	1.5	**6.3160**	0.183	2.9	ug/L	118	Standard
>	**Ga**	71	123.3	42.2				mg/L	8	Standard
	Rb	85	301096.3	1.9				ug/L	25	Standard
	Y	89	339166.1	2.9				ug/L	368853	Standard
>	**Rh**	103	1443.4	6.5				ug/L	10	Standard
	Mo	98	209.1	41.3	**0.0874**	0.048	54.6	ug/L	68	Standard
	Ag	107	688.0	16.5	**0.0996**	0.020	19.8	ug/L	84	Standard
	Cd	111	142.9	77.7	**0.0254**	0.041	161.2	mg/L	72	Standard
	Cd	114	330.1	80.8	**0.0218**	0.040	183.2	ug/L	187	Standard
>	**In**	115	397603.6	0.7				ug/L	464664	Standard
	Sn	118	680.0	42.3	**0.0441**	0.040	90.5	ug/L	438	Standard
	Sb	123	325.5	16.8	**0.0427**	0.012	28.6	ug/L	433	Standard
	Ba	135	4983.8	5.3	**2.0600**	0.124	6.0	ug/L	14	Standard
	Ce	140	650.0	28.8				ug/L	20	Standard
>	**Tb**	159	581322.0	0.3				ug/L	663064	Standard
	Ho	165	80.0	12.5				ug/L	10	Standard
	Tl	203	559.7	48.1	**0.0533**	0.028	52.5	ug/L	32	Standard
	Tl	205	466.7	40.0	**0.0504**	0.022	42.8	ug/L	28	Standard
	Pb	206	432.0	44.3	**0.0361**	0.032	88.7	ug/L	190	Standard
	Pb	207	363.0	39.6	**0.0359**	0.027	73.9	ug/L	155	Standard
	Pb	208	1645.0	38.7	**0.0360**	0.026	72.8	ug/L	766	Standard
	U	238	598915.4	1.2	**53.8559**	0.902	1.7	ug/L	30	Standard
>	**Bi**	209	316270.9	0.6				ug/L	364780	Standard

Sample ID: L1403161604
Report Date/Time: Friday, April 04, 2014 16:01:36
Page 1

Approved: April 07, 2014

	Na	23	721.7	9.0	**210.3549**	21.405	10.2	mg/L	0	Standard
	Mg	24	287108.2	0.9	**257.2077**	0.787	0.3	mg/L	58	Standard
	K	39	2751.9	3.9	**25.4410**	0.755	3.0	mg/L	12	Standard
	Ca	43	3275.4	6.2	**129.9983**	8.510	6.5	mg/L	53	Standard
	Fe	54	183.1	21.4	**0.0228**	0.026	111.9	mg/L	190	Standard
	Fe	57	1625.1	7.0	**2.3397**	0.234	10.0	mg/L	638	Standard
>	**Sc-1**	45	36724.5	1.1				mg/L	41381	Standard
	Cl	35	4.7	24.7				ug/L	4	Standard
	Kr	83	1.3	114.6				ug/L	2	Standard
	Br	81	26580.0	3.0				ug/L	2030	Standard
	P	31	312735.3	1.9				ug/L	256822	Standard
	S	34	29284.9	1.0				ug/L	33255	Standard
	Sr	88	7015.0	3.9				ug/L	153	Standard
	C	12	21308.3	1.6				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	206.7	20.1				mg/L	0	Standard
	Dy	164	66.2	48.0				mg/L	6	Standard
	Ho-1	165	80.0	12.5				mg/L	10	Standard
	Er	166	10.0	100.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		307.610	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.668	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161604
Report Date/Time: Friday, April 04, 2014 16:01:36
Page 2

Approved: April 07, 2014

Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		85.568
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		86.702
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403161605
Sample Date/Time: Friday, April 04, 2014 16:02:28
Number of Replicates: 3
Autosampler Position: 211
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	432831.3	4.9				ug/L	113180	Standard
	Be	9	51.7	29.6	**0.0024**	0.002	75.7	ug/L	17	Standard
	Al	27	196647142.1	2.2	**320.0249**	8.768	2.7	ug/L	633	Standard
	Sc	45	34065.0	4.8				ug/L	41381	Standard
	Ti	47	504.0	7.4	**1.5448**	0.094	6.1	ug/L	30	Standard
	V	51	5633.5	4.8	**0.4490**	0.039	8.8	ug/L	1879	Standard
	Cr	52	42027.2	1.5	**3.8296**	0.084	2.2	ug/L	8035	Standard
	Cr	53	5082.5	4.1	**3.4837**	0.098	2.8	ug/L	470	Standard
	Mn	55	2832176.2	0.4	**270.5506**	3.599	1.3	ug/L	1182	Standard
	Co	59	2601.6	3.5	**0.2937**	0.012	4.2	ug/L	333	Standard
	Ni	60	25504.1	1.8	**9.6648**	0.032	0.3	ug/L	71	Standard
	Cu	65	14825.9	2.1	**5.8683**	0.180	3.1	ug/L	64	Standard
	Zn	66	10734.1	0.1	**7.3323**	0.121	1.6	ug/L	125	Standard
>	**Ge**	72	386127.3	1.6				ug/L	399053	Standard
	As	75	3347.5	3.4	**2.0486**	0.044	2.2	ug/L	-28	Standard
	Se	82	2068.8	0.9	**11.4700**	0.076	0.7	ug/L	26	Standard
	Se-1	77	1123.7	0.7	**9.8668**	0.206	2.1	ug/L	118	Standard
>	**Ga**	71	136.7	8.4				mg/L	8	Standard
	Rb	85	184019.6	2.6				ug/L	25	Standard
	Y	89	319003.8	1.6				ug/L	368853	Standard
>	**Rh**	103	1490.1	1.2				ug/L	10	Standard
	Mo	98	816.1	2.6	**0.4522**	0.019	4.1	ug/L	68	Standard
	Ag	107	432.7	4.9	**0.0631**	0.004	5.6	ug/L	84	Standard
	Cd	111	145.1	5.3	**0.0304**	0.003	11.3	mg/L	72	Standard
	Cd	114	333.9	14.7	**0.0264**	0.008	31.6	ug/L	187	Standard
>	**In**	115	367130.5	1.8				ug/L	464664	Standard
	Sn	118	663.3	12.8	**0.0491**	0.012	24.9	ug/L	438	Standard
	Sb	123	482.2	1.4	**0.0846**	0.002	2.9	ug/L	433	Standard
	Ba	135	10748.1	0.7	**4.8275**	0.104	2.1	ug/L	14	Standard
	Ce	140	1058.4	5.1				ug/L	20	Standard
>	**Tb**	159	550769.6	1.4				ug/L	663064	Standard
	Ho	165	220.0	25.3				ug/L	10	Standard
	Tl	203	397.3	4.2	**0.0403**	0.001	3.7	ug/L	32	Standard
	Tl	205	361.7	6.8	**0.0422**	0.004	8.7	ug/L	28	Standard
	Pb	206	389.0	5.7	**0.0353**	0.004	12.7	ug/L	190	Standard
	Pb	207	315.7	6.9	**0.0328**	0.005	13.9	ug/L	155	Standard
	Pb	208	1489.4	3.0	**0.0355**	0.002	6.1	ug/L	766	Standard
	U	238	714495.8	0.4	**70.3811**	0.547	0.8	ug/L	30	Standard
>	**Bi**	209	288718.7	1.1				ug/L	364780	Standard

Sample ID: L1403161605
Report Date/Time: Friday, April 04, 2014 16:04:38
Page 1

Approved: April 07, 2014

	Na	23	641.7	10.8	**202.3936**	31.492	15.6	mg/L	0	Standard
	Mg	24	893252.9	1.3	**864.0522**	41.333	4.8	mg/L	58	Standard
	K	39	1200.0	6.2	**11.9515**	1.123	9.4	mg/L	12	Standard
	Ca	43	2338.5	11.6	**99.4224**	7.464	7.5	mg/L	53	Standard
	Fe	54	178.7	12.3	**0.0292**	0.021	71.0	mg/L	190	Standard
	Fe	57	1723.4	4.2	**2.8863**	0.387	13.4	mg/L	638	Standard
>	**Sc-1**	45	34065.0	4.8				mg/L	41381	Standard
	Cl	35	4.0	50.0				ug/L	4	Standard
	Kr	83	2.7	43.3				ug/L	2	Standard
	Br	81	36550.7	1.1				ug/L	2030	Standard
	P	31	252534.3	2.0				ug/L	256822	Standard
	S	34	24202.7	2.6				ug/L	33255	Standard
	Sr	88	8012.1	2.5				ug/L	153	Standard
	C	12	22904.0	0.6				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	116.7	30.1				mg/L	0	Standard
	Dy	164	99.5	50.9				mg/L	6	Standard
	Ho-1	165	220.0	25.3				mg/L	10	Standard
	Er	166	80.0	25.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		382.428	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.761	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161605
Report Date/Time: Friday, April 04, 2014 16:04:38
Page 2

Approved: April 07, 2014

Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		79.010
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		79.149
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403161605PS WG469526-03
Sample Date/Time: Friday, April 04, 2014 16:05:30
Number of Replicates: 3
Autosampler Position: 212
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	469413.0	2.3				ug/L	113180	Standard
	Be	9	134892.9	1.9	**13.7924**	0.175	1.3	ug/L	17	Standard
	Al	27	215411772.9	2.2	**322.9931**	5.171	1.6	ug/L	633	Standard
	Sc	45	37526.4	3.2				ug/L	41381	Standard
	Ti	47	526.0	13.6	**1.5002**	0.232	15.5	ug/L	30	Standard
	V	51	447056.1	3.2	**48.8208**	0.590	1.2	ug/L	1879	Standard
	Cr	52	499635.5	3.3	**51.0212**	0.656	1.3	ug/L	8035	Standard
	Cr	53	71945.5	2.8	**50.1525**	0.423	0.8	ug/L	470	Standard
	Mn	55	3648541.2	3.2	**323.9936**	5.071	1.6	ug/L	1182	Standard
	Co	59	382204.8	3.4	**46.8241**	0.657	1.4	ug/L	333	Standard
	Ni	60	157725.3	3.3	**55.7331**	1.223	2.2	ug/L	71	Standard
	Cu	65	145837.7	1.9	**53.9312**	0.462	0.9	ug/L	64	Standard
	Zn	66	90403.0	2.0	**58.3696**	1.044	1.8	ug/L	125	Standard
>	**Ge**	72	415294.3	2.0				ug/L	399053	Standard
	As	75	103766.8	1.8	**58.7396**	0.516	0.9	ug/L	-28	Standard
	Se	82	14692.4	1.2	**76.3659**	0.648	0.8	ug/L	26	Standard
	Se-1	77	8830.6	1.7	**78.1486**	0.633	0.8	ug/L	118	Standard
>	**Ga**	71	151.7	10.6				mg/L	8	Standard
	Rb	85	204409.7	0.9				ug/L	25	Standard
	Y	89	348116.5	2.1				ug/L	368853	Standard
>	**Rh**	103	1656.8	4.8				ug/L	10	Standard
	Mo	98	947.6	2.3	**0.4916**	0.017	3.4	ug/L	68	Standard
	Ag	107	315951.0	0.6	**52.9713**	0.446	0.8	ug/L	84	Standard
	Cd	111	133718.3	2.3	**49.0784**	0.631	1.3	mg/L	72	Standard
	Cd	114	324314.7	2.6	**48.4831**	0.770	1.6	ug/L	187	Standard
>	**In**	115	393715.3	1.0				ug/L	464664	Standard
	Sn	118	1498.4	6.9	**0.1572**	0.013	8.5	ug/L	438	Standard
	Sb	123	276754.3	1.6	**59.6141**	0.795	1.3	ug/L	433	Standard
	Ba	135	130424.7	1.4	**54.7356**	0.218	0.4	ug/L	14	Standard
	Ce	140	1150.0	6.4				ug/L	20	Standard
>	**Tb**	159	577452.8	1.4				ug/L	663064	Standard
	Ho	165	210.0	23.8				ug/L	10	Standard
	Tl	203	500081.2	0.5	**55.0050**	0.759	1.4	ug/L	32	Standard
	Tl	205	455361.6	2.1	**55.7752**	1.131	2.0	ug/L	28	Standard
	Pb	206	322455.6	0.6	**57.0754**	0.380	0.7	ug/L	190	Standard
	Pb	207	291643.2	0.7	**56.9776**	0.306	0.5	ug/L	155	Standard
	Pb	208	1307590.9	0.8	**57.1280**	0.367	0.6	ug/L	766	Standard
	U	238	1442223.3	1.4	**135.1243**	1.999	1.5	ug/L	30	Standard
>	**Bi**	209	303555.9	1.1				ug/L	364780	Standard

Approved: April 07, 2014

	Na	23	691.7	10.3	**197.6508**	26.430	13.4	mg/L	0	Standard
	Mg	24	938769.7	1.6	**823.4545**	18.622	2.3	mg/L	58	Standard
	K	39	1195.0	2.2	**10.7830**	0.553	5.1	mg/L	12	Standard
	Ca	43	2293.5	0.8	**88.5567**	2.429	2.7	mg/L	53	Standard
	Fe	54	197.5	6.3	**0.0290**	0.006	21.9	mg/L	190	Standard
	Fe	57	1821.8	2.7	**2.7023**	0.031	1.2	mg/L	638	Standard
>	**Sc-1**	45	37526.4	3.2				mg/L	41381	Standard
	Cl	35	2.7	43.3				ug/L	4	Standard
	Kr	83	3.7	31.5				ug/L	2	Standard
	Br	81	38970.1	1.8				ug/L	2030	Standard
	P	31	347840.5	2.4				ug/L	256822	Standard
	S	34	24393.0	3.5				ug/L	33255	Standard
	Sr	88	8679.2	1.7				ug/L	153	Standard
	C	12	25999.0	6.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	123.3	26.1				mg/L	0	Standard
	Dy	164	79.5	62.5				mg/L	6	Standard
	Ho-1	165	210.0	23.8				mg/L	10	Standard
	Er	166	80.0	12.5				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		414.750	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.070	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161605PS WG469526-03
Report Date/Time: Friday, April 04, 2014 16:07:40
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	84.731
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	83.216
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
U 238 Upper, S, EEE	U	238	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403161605SDL WG469526-04
Sample Date/Time: Friday, April 04, 2014 16:08:32
Number of Replicates: 3
Autosampler Position: 213
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	191091.3	2.5				ug/L	113180	Standard
	Be	9	43.3	17.6	**0.0075**	0.002	24.0	ug/L	17	Standard
	Al	27	37178006.2	0.9	**136.9833**	4.498	3.3	ug/L	633	Standard
	Sc	45	31572.9	2.9				ug/L	41381	Standard
	Ti	47	158.0	11.4	**0.4603**	0.055	12.0	ug/L	30	Standard
	V	51	2894.8	2.6	**0.1393**	0.011	8.1	ug/L	1879	Standard
	Cr	52	17212.5	8.3	**1.1342**	0.169	14.9	ug/L	8035	Standard
	Cr	53	1981.8	12.3	**1.2037**	0.196	16.3	ug/L	470	Standard
	Mn	55	498811.0	1.3	**49.4582**	1.086	2.2	ug/L	1182	Standard
	Co	59	675.7	3.3	**0.0432**	0.002	5.6	ug/L	333	Standard
	Ni	60	5311.6	1.8	**2.0666**	0.051	2.5	ug/L	71	Standard
	Cu	65	3855.8	3.6	**1.5628**	0.066	4.2	ug/L	64	Standard
	Zn	66	4625.4	4.8	**3.2090**	0.188	5.8	ug/L	125	Standard
>	**Ge**	72	371285.3	1.4				ug/L	399053	Standard
	As	75	764.4	12.8	**0.4952**	0.062	12.5	ug/L	-28	Standard
	Se	82	464.4	6.4	**2.5926**	0.177	6.8	ug/L	26	Standard
	Se-1	77	266.7	4.0	**1.7102**	0.110	6.4	ug/L	118	Standard
>	**Ga**	71	30.0	28.9				mg/L	8	Standard
	Rb	85	36462.2	2.8				ug/L	25	Standard
	Y	89	315547.1	1.0				ug/L	368853	Standard
>	**Rh**	103	276.7	12.0				ug/L	10	Standard
	Mo	98	144.9	6.3	**0.0556**	0.005	9.3	ug/L	68	Standard
	Ag	107	183.7	14.4	**0.0170**	0.005	27.6	ug/L	84	Standard
	Cd	111	59.0	33.1	**-0.0044**	0.007	168.4	mg/L	72	Standard
	Cd	114	142.7	29.7	**-0.0052**	0.007	126.5	ug/L	187	Standard
>	**In**	115	382146.3	0.5				ug/L	464664	Standard
	Sn	118	333.3	4.8	**-0.0015**	0.002	157.0	ug/L	438	Standard
	Sb	123	312.0	19.3	**0.0425**	0.014	32.2	ug/L	433	Standard
	Ba	135	2221.8	2.1	**0.9487**	0.024	2.6	ug/L	14	Standard
	Ce	140	248.3	9.5				ug/L	20	Standard
>	**Tb**	159	556108.8	0.9				ug/L	663064	Standard
	Ho	165	36.7	41.7				ug/L	10	Standard
	Tl	203	305.3	12.6	**0.0274**	0.005	16.8	ug/L	32	Standard
	Tl	205	260.0	28.7	**0.0270**	0.009	34.9	ug/L	28	Standard
	Pb	206	273.0	10.9	**0.0103**	0.006	55.3	ug/L	190	Standard
	Pb	207	252.0	13.8	**0.0163**	0.007	44.6	ug/L	155	Standard
	Pb	208	1120.7	15.8	**0.0153**	0.008	53.2	ug/L	766	Standard
	U	238	134289.2	0.4	**12.3606**	0.173	1.4	ug/L	30	Standard
>	**Bi**	209	308934.1	1.3				ug/L	364780	Standard

Approved: April 07, 2014

	Na	23	91.7	30.0	**30.4749**	9.927	32.6	mg/L	0	Standard
	Mg	24	175524.2	0.3	**182.9769**	4.795	2.6	mg/L	58	Standard
	K	39	335.0	19.1	**3.5417**	0.705	19.9	mg/L	12	Standard
	Ca	43	718.4	6.6	**31.8862**	3.129	9.8	mg/L	53	Standard
	Fe	54	81.6	39.1	**-0.0318**	0.024	75.0	mg/L	190	Standard
	Fe	57	926.7	2.4	**1.0898**	0.104	9.5	mg/L	638	Standard
>	**Sc-1**	45	31572.9	2.9				mg/L	41381	Standard
	Cl	35	2.7	43.3				ug/L	4	Standard
	Kr	83	2.3	24.7				ug/L	2	Standard
	Br	81	8532.4	2.5				ug/L	2030	Standard
	P	31	98182.1	0.5				ug/L	256822	Standard
	S	34	27037.5	4.2				ug/L	33255	Standard
	Sr	88	1278.4	9.7				ug/L	153	Standard
	C	12	5901.2	5.0				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	20.0	50.0				mg/L	0	Standard
	Dy	164	28.4	2.6				mg/L	6	Standard
	Ho-1	165	36.7	41.7				mg/L	10	Standard
	Er	166	33.3	45.8				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		168.839	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		93.042	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161605SDL WG469526-04
Report Date/Time: Friday, April 04, 2014 16:10:42
Page 2

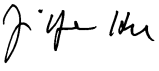
Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	82.241
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	84.691
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1403161605SDL WG469526-04
Sample Date/Time: Friday, April 04, 2014 16:11:33
Number of Replicates: 3
Autosampler Position: 214
Sample Description: 25
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	149884.7	2.4				ug/L	113180	Standard
	Be	9	30.0	66.7	**0.0061**	0.006	101.2	ug/L	17	Standard
	Al	27	7918562.4	0.7	**37.1721**	0.806	2.2	ug/L	633	Standard
	Sc	45	32458.1	1.0				ug/L	41381	Standard
	Ti	47	63.0	13.0	**0.1402**	0.025	18.1	ug/L	30	Standard
	V	51	2658.2	3.3	**0.1029**	0.015	14.9	ug/L	1879	Standard
	Cr	52	12673.0	0.7	**0.5736**	0.035	6.2	ug/L	8035	Standard
	Cr	53	931.7	4.4	**0.3625**	0.044	12.1	ug/L	470	Standard
	Mn	55	103030.5	1.4	**9.8880**	0.183	1.8	ug/L	1182	Standard
	Co	59	282.7	9.4	**-0.0117**	0.003	25.7	ug/L	333	Standard
	Ni	60	1347.4	3.3	**0.4863**	0.008	1.6	ug/L	71	Standard
	Cu	65	1143.7	5.3	**0.4292**	0.021	4.9	ug/L	64	Standard
	Zn	66	2913.9	2.8	**1.9210**	0.019	1.0	ug/L	125	Standard
>	**Ge**	72	379883.4	1.8				ug/L	399053	Standard
	As	75	218.0	8.2	**0.1462**	0.010	7.2	ug/L	-28	Standard
	Se	82	142.2	6.3	**0.6977**	0.056	8.0	ug/L	26	Standard
	Se-1	77	170.7	13.3	**0.7079**	0.201	28.4	ug/L	118	Standard
>	**Ga**	71	11.7	24.7				mg/L	8	Standard
	Rb	85	7606.9	1.6				ug/L	25	Standard
	Y	89	323099.1	1.5				ug/L	368853	Standard
>	**Rh**	103	73.3	50.3				ug/L	10	Standard
	Mo	98	41.0	10.2	**-0.0040**	0.002	51.7	ug/L	68	Standard
	Ag	107	83.7	24.4	**-0.0010**	0.003	307.2	ug/L	84	Standard
	Cd	111	29.3	24.7	**-0.0163**	0.003	15.4	mg/L	72	Standard
	Cd	114	48.5	47.2	**-0.0202**	0.003	16.3	ug/L	187	Standard
>	**In**	115	403387.5	1.1				ug/L	464664	Standard
	Sn	118	305.0	8.7	**-0.0078**	0.004	46.2	ug/L	438	Standard
	Sb	123	106.1	9.3	**-0.0045**	0.002	41.6	ug/L	433	Standard
	Ba	135	463.7	3.1	**0.1778**	0.008	4.4	ug/L	14	Standard
	Ce	140	60.0	36.3				ug/L	20	Standard
>	**Tb**	159	564033.5	2.3				ug/L	663064	Standard
	Ho	165	33.3	17.3				ug/L	10	Standard
	Tl	203	135.3	12.0	**0.0088**	0.002	22.5	ug/L	32	Standard
	Tl	205	121.7	20.3	**0.0100**	0.003	27.9	ug/L	28	Standard
	Pb	206	201.0	13.2	**-0.0026**	0.005	189.5	ug/L	190	Standard
	Pb	207	178.0	7.0	**0.0016**	0.003	171.6	ug/L	155	Standard
	Pb	208	777.3	8.9	**0.0001**	0.003	4895.8	ug/L	766	Standard
	U	238	25469.1	2.4	**2.3108**	0.091	3.9	ug/L	30	Standard
>	**Bi**	209	313141.3	1.6				ug/L	364780	Standard

Sample ID: L1403161605SDL WG469526-04
Report Date/Time: Friday, April 04, 2014 16:13:43
Page 1

Approved: April 07, 2014

	Na	23	33.3	31.2	**10.1669**	3.354	33.0	mg/L	0	Standard
	Mg	24	36161.4	0.4	**36.6217**	0.506	1.4	mg/L	58	Standard
	K	39	81.7	7.1	**0.7831**	0.053	6.8	mg/L	12	Standard
	Ca	43	166.7	19.1	**5.7907**	1.382	23.9	mg/L	53	Standard
	Fe	54	43.8	28.9	**-0.0603**	0.009	15.0	mg/L	190	Standard
	Fe	57	763.4	1.5	**0.5980**	0.038	6.4	mg/L	638	Standard
>	**Sc-1**	45	32458.1	1.0				mg/L	41381	Standard
	Cl	35	2.7	114.6				ug/L	4	Standard
	Kr	83	3.7	15.7				ug/L	2	Standard
	Br	81	3330.4	13.3				ug/L	2030	Standard
	P	31	69900.9	0.7				ug/L	256822	Standard
	S	34	31267.2	1.1				ug/L	33255	Standard
	Sr	88	343.3	6.6				ug/L	153	Standard
	C	12	2313.5	15.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	-0.8	69.3				mg/L	6	Standard
	Ho-1	165	33.3	17.3				mg/L	10	Standard
	Er	166	16.7	69.3				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		132.431	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.196	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161605SDL WG469526-04
Report Date/Time: Friday, April 04, 2014 16:13:43
Page 2

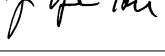
Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	86.813
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	85.844
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 16:14:37
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	152242.9	1.7				ug/L	113180	Standard
	Be	9	143166.8	2.4	**45.1524**	1.621	3.6	ug/L	17	Standard
	Al	27	8721286.2	2.3	**40.2981**	0.899	2.2	ug/L	633	Standard
	Sc	45	38762.9	2.0				ug/L	41381	Standard
	Ti	47	32281.4	4.0	**89.0017**	3.436	3.9	ug/L	30	Standard
	V	51	454624.2	1.9	**46.1221**	1.271	2.8	ug/L	1879	Standard
	Cr	52	493833.7	0.7	**46.7844**	0.530	1.1	ug/L	8035	Standard
	Cr	53	72936.8	0.2	**47.2169**	0.346	0.7	ug/L	470	Standard
	Mn	55	569482.2	1.0	**46.8832**	0.725	1.5	ug/L	1182	Standard
	Co	59	415884.6	1.2	**47.3395**	0.504	1.1	ug/L	333	Standard
	Ni	60	147659.1	1.1	**48.4690**	0.533	1.1	ug/L	71	Standard
	Cu	65	145217.3	0.6	**49.8849**	0.652	1.3	ug/L	64	Standard
	Zn	66	83887.3	1.6	**50.2941**	1.058	2.1	ug/L	125	Standard
>	**Ge**	72	447065.1	0.9				ug/L	399053	Standard
	As	75	93643.6	0.8	**49.2421**	0.133	0.3	ug/L	-28	Standard
	Se	82	10332.4	1.0	**49.8434**	0.119	0.2	ug/L	26	Standard
	Se-1	77	6393.0	2.7	**52.2386**	1.388	2.7	ug/L	118	Standard
>	**Ga**	71	40.0	33.1				mg/L	8	Standard
	Rb	85	986.7	5.1				ug/L	25	Standard
	Y	89	376395.0	1.3				ug/L	368853	Standard
>	**Rh**	103	36.7	47.9				ug/L	10	Standard
	Mo	98	246352.6	0.2	**113.0787**	2.173	1.9	ug/L	68	Standard
	Ag	107	385295.0	0.9	**54.3083**	0.490	0.9	ug/L	84	Standard
	Cd	111	160173.2	0.5	**49.4344**	0.795	1.6	mg/L	72	Standard
	Cd	114	398320.0	1.7	**50.0657**	0.269	0.5	ug/L	187	Standard
>	**In**	115	468341.4	1.8				ug/L	464664	Standard
	Sn	118	446474.5	0.5	**51.5392**	0.722	1.4	ug/L	438	Standard
	Sb	123	289549.6	0.8	**52.4453**	1.367	2.6	ug/L	433	Standard
	Ba	135	133734.7	1.0	**47.1860**	0.399	0.8	ug/L	14	Standard
	Ce	140	210.0	8.6				ug/L	20	Standard
>	**Tb**	159	631655.3	1.0				ug/L	663064	Standard
	Ho	165	16.7	34.6				ug/L	10	Standard
	Tl	203	558475.3	0.8	**50.4571**	0.487	1.0	ug/L	32	Standard
	Tl	205	522749.0	1.2	**52.6067**	1.407	2.7	ug/L	28	Standard
	Pb	206	354137.8	0.1	**51.4915**	0.808	1.6	ug/L	190	Standard
	Pb	207	319941.0	0.3	**51.3461**	0.747	1.5	ug/L	155	Standard
	Pb	208	1431316.7	0.3	**51.3700**	0.881	1.7	ug/L	766	Standard
	U	238	715682.4	1.2	**55.0899**	1.500	2.7	ug/L	30	Standard
>	**Bi**	209	369556.7	1.7				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 16:16:47
Page 1

Approved: April 07, 2014

	Na	23	18.3	31.5	**4.2478**	1.687	39.7	mg/L	0	Standard
	Mg	24	6323.0	2.6	**5.3275**	0.126	2.4	mg/L	58	Standard
	K	39	338.3	1.7	**2.8999**	0.085	2.9	mg/L	12	Standard
	Ca	43	146.7	12.9	**3.8038**	0.725	19.1	mg/L	53	Standard
	Fe	54	8437.3	0.5	**4.8758**	0.080	1.6	mg/L	190	Standard
	Fe	57	2942.0	4.1	**5.0041**	0.336	6.7	mg/L	638	Standard
>	**Sc-1**	45	38762.9	2.0				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	3.3	62.4				ug/L	2	Standard
	Br	81	2556.9	12.1				ug/L	2030	Standard
	P	31	284776.2	4.3				ug/L	256822	Standard
	S	34	34327.2	1.0				ug/L	33255	Standard
	Sr	88	133.3	18.5				ug/L	153	Standard
	C	12	1616.8	5.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	2.2	267.0				mg/L	6	Standard
	Ho-1	165	16.7	34.6				mg/L	10	Standard
	Er	166	23.3	24.7				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		134.514	
	Be	9	90.305		
	Al	27	80.596		
	Sc	45			
	Ti	47	89.002		
	V	51	92.244		
	Cr	52	93.569		
	Cr	53			
	Mn	55	93.766		
	Co	59	94.679		
	Ni	60	96.938		
	Cu	65	99.770		
	Zn	66	100.588		
>	Ge	72		112.032	
	As	75	98.484		
	Se	82	99.687		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 16:16:47
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	113.079	
|	Ag	107	108.617	
|	Cd	111	98.869	
|	Cd	114		
|>	In	115		100.791
|	Sn	118	103.078	
|	Sb	123	104.891	
⌊	Ba	135	94.372	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	100.914	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	102.740	
|	U	238	110.180	
⌊>	Bi	209		101.310
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample
QC Std 6	Al	27	
QC Std 6	Ti	47	
QC Std 6	Mo	98	
QC Std 6	U	238	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 16:17:39
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	145614.7	6.1				ug/L	113180	Standard
	Be	9	50.0	52.9	**0.0130**	0.009	66.6	ug/L	17	Standard
	Al	27	4232.3	30.0	**-0.0039**	0.005	137.6	ug/L	633	Standard
	Sc	45	35757.2	3.0				ug/L	41381	Standard
	Ti	47	29.7	27.2	**0.0221**	0.022	101.2	ug/L	30	Standard
	V	51	1556.8	4.1	**-0.0482**	0.003	6.7	ug/L	1879	Standard
	Cr	52	7455.2	3.3	**-0.1046**	0.031	29.9	ug/L	8035	Standard
	Cr	53	641.7	7.9	**0.0892**	0.023	26.1	ug/L	470	Standard
	Mn	55	1049.0	6.4	**-0.0292**	0.003	10.7	ug/L	1182	Standard
	Co	59	210.3	6.0	**-0.0242**	0.001	5.9	ug/L	333	Standard
	Ni	60	272.3	5.5	**0.0601**	0.003	4.7	ug/L	71	Standard
	Cu	65	273.7	8.1	**0.0661**	0.006	8.4	ug/L	64	Standard
	Zn	66	281.0	3.2	**0.0386**	0.011	28.8	ug/L	125	Standard
>	Ge	72	422646.1	3.1				ug/L	399053	Standard
	As	75	-30.1	128.2	**-0.0054**	0.022	400.7	ug/L	-28	Standard
	Se	82	38.7	16.5	**0.0872**	0.038	43.1	ug/L	26	Standard
	Se-1	77	109.0	12.8	**0.0004**	0.150	36379.9	ug/L	118	Standard
>	Ga	71	20.0	90.1				mg/L	8	Standard
	Rb	85	36.7	31.5				ug/L	25	Standard
	Y	89	359196.5	1.0				ug/L	368853	Standard
>	Rh	103	11.7	49.5				ug/L	10	Standard
	Mo	98	106.3	44.5	**0.0247**	0.022	89.1	ug/L	68	Standard
	Ag	107	92.7	9.2	**-0.0011**	0.001	105.6	ug/L	84	Standard
	Cd	111	84.4	11.9	**0.0003**	0.003	973.6	mg/L	72	Standard
	Cd	114	183.2	23.7	**-0.0033**	0.006	169.8	ug/L	187	Standard
>	In	115	450385.9	1.1				ug/L	464664	Standard
	Sn	118	625.0	6.5	**0.0264**	0.005	17.7	ug/L	438	Standard
	Sb	123	694.9	31.7	**0.1038**	0.040	38.6	ug/L	433	Standard
	Ba	135	20.7	11.2	**-0.0047**	0.001	16.6	ug/L	14	Standard
	Ce	140	21.7	70.5				ug/L	20	Standard
>	Tb	159	599837.1	1.0				ug/L	663064	Standard
	Ho	165	26.7	21.7				ug/L	10	Standard
	Tl	203	56.7	46.8	**-0.0003**	0.002	694.8	ug/L	32	Standard
	Tl	205	51.7	62.2	**0.0010**	0.003	330.8	ug/L	28	Standard
	Pb	206	207.7	10.5	**-0.0056**	0.003	49.3	ug/L	190	Standard
	Pb	207	177.3	19.2	**-0.0024**	0.005	224.2	ug/L	155	Standard
	Pb	208	849.7	8.9	**-0.0010**	0.002	230.1	ug/L	766	Standard
	U	238	86.7	37.6	**0.0037**	0.003	67.3	ug/L	30	Standard
>	Bi	209	353335.1	1.6				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 16:19:49
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.3588**	0.847	236.1	mg/L	0	Standard
	Mg	24	85.0	23.5	**0.0379**	0.018	47.0	mg/L	58	Standard
	K	39	8.3	91.7	**0.0072**	0.075	1034.1	mg/L	12	Standard
	Ca	43	41.7	42.1	**-0.0526**	0.778	1479.2	mg/L	53	Standard
	Fe	54	137.2	2.1	**-0.0035**	0.001	21.7	mg/L	190	Standard
	Fe	57	588.3	16.1	**0.0026**	0.201	7704.0	mg/L	638	Standard
>	**Sc-1**	45	35757.2	3.0				mg/L	41381	Standard
	Cl	35	1.3	173.2				ug/L	4	Standard
	Kr	83	3.3	34.6				ug/L	2	Standard
	Br	81	2483.5	5.6				ug/L	2030	Standard
	P	31	264861.6	3.4				ug/L	256822	Standard
	S	34	33455.2	2.8				ug/L	33255	Standard
	Sr	88	150.0	16.7				ug/L	153	Standard
	C	12	1480.1	6.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	0.0					mg/L	6	Standard
	Ho-1	165	26.7	21.7				mg/L	10	Standard
	Er	166	0.0					mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		128.658	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.912	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 16:19:49
Page 2

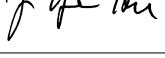
Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	96.927
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	96.863
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample

Approved: April 07, 2014



Method 6020 - Summary Report

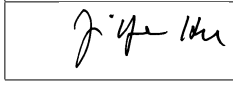
Sample ID: L1403161606
Sample Date/Time: Friday, April 04, 2014 16:20:43
Number of Replicates: 3
Autosampler Position: 215
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	346600.4	1.9				ug/L	113180	Standard
	Be	9	43.3	48.0	**0.0026**	0.003	111.5	ug/L	17	Standard
	Al	27	166793036.8	1.4	**338.8078**	10.680	3.2	ug/L	633	Standard
	Sc	45	36191.6	5.5				ug/L	41381	Standard
	Ti	47	294.0	7.4	**0.8152**	0.061	7.4	ug/L	30	Standard
	V	51	4983.4	7.3	**0.3352**	0.050	14.8	ug/L	1879	Standard
	Cr	52	109117.3	4.2	**10.5478**	0.345	3.3	ug/L	8035	Standard
	Cr	53	14813.9	2.8	**10.1224**	0.217	2.1	ug/L	470	Standard
	Mn	55	5818709.4	1.4	**520.6145**	3.592	0.7	ug/L	1182	Standard
	Co	59	2392.5	1.6	**0.2461**	0.001	0.6	ug/L	333	Standard
	Ni	60	17957.0	2.8	**6.3607**	0.110	1.7	ug/L	71	Standard
	Cu	65	8725.2	1.0	**3.2189**	0.039	1.2	ug/L	64	Standard
	Zn	66	6688.1	0.8	**4.2199**	0.067	1.6	ug/L	125	Standard
>	**Ge**	72	412311.5	1.7				ug/L	399053	Standard
	As	75	1391.7	3.3	**0.8051**	0.040	5.0	ug/L	-28	Standard
	Se	82	1149.1	2.4	**5.9133**	0.167	2.8	ug/L	26	Standard
	Se-1	77	725.7	3.2	**5.5860**	0.188	3.4	ug/L	118	Standard
>	**Ga**	71	80.0	6.3				mg/L	8	Standard
	Rb	85	299694.9	2.9				ug/L	25	Standard
	Y	89	342671.6	2.5				ug/L	368853	Standard
>	**Rh**	103	1583.4	9.0				ug/L	10	Standard
	Mo	98	246.7	5.8	**0.1063**	0.006	5.4	ug/L	68	Standard
	Ag	107	511.0	2.4	**0.0694**	0.001	1.2	ug/L	84	Standard
	Cd	111	78.5	6.7	**0.0015**	0.002	139.0	mg/L	72	Standard
	Cd	114	171.0	10.4	**-0.0022**	0.002	107.3	ug/L	187	Standard
>	**In**	115	400963.5	1.6				ug/L	464664	Standard
	Sn	118	523.3	4.5	**0.0220**	0.004	16.5	ug/L	438	Standard
	Sb	123	384.0	4.2	**0.0544**	0.003	4.9	ug/L	433	Standard
	Ba	135	5008.8	1.8	**2.0524**	0.027	1.3	ug/L	14	Standard
	Ce	140	641.7	10.8				ug/L	20	Standard
>	**Tb**	159	577235.3	1.7				ug/L	663064	Standard
	Ho	165	56.7	27.0				ug/L	10	Standard
	Tl	203	264.0	6.3	**0.0222**	0.001	5.8	ug/L	32	Standard
	Tl	205	208.3	9.1	**0.0201**	0.002	9.3	ug/L	28	Standard
	Pb	206	346.7	3.4	**0.0218**	0.002	10.2	ug/L	190	Standard
	Pb	207	291.3	2.5	**0.0226**	0.002	9.7	ug/L	155	Standard
	Pb	208	1297.7	0.6	**0.0216**	0.001	3.2	ug/L	766	Standard
	U	238	580934.1	1.1	**52.2880**	1.128	2.2	ug/L	30	Standard
>	**Bi**	209	316022.3	1.7				ug/L	364780	Standard

Sample ID: L1403161606
Report Date/Time: Friday, April 04, 2014 16:22:53
Page 1

Approved: April 07, 2014



	Na	23	695.0	6.3	**205.3791**	5.341	2.6	mg/L	0	Standard
	Mg	24	280878.0	0.9	**255.7667**	11.940	4.7	mg/L	58	Standard
	K	39	2770.3	1.4	**26.0371**	1.218	4.7	mg/L	12	Standard
	Ca	43	3255.4	5.6	**131.6330**	14.458	11.0	mg/L	53	Standard
	Fe	54	154.0	7.1	**0.0060**	0.003	57.8	mg/L	190	Standard
	Fe	57	1581.7	6.3	**2.2950**	0.114	5.0	mg/L	638	Standard
>	**Sc-1**	45	36191.6	5.5				mg/L	41381	Standard
	Cl	35	2.7	114.6				ug/L	4	Standard
	Kr	83	3.0	66.7				ug/L	2	Standard
	Br	81	24469.7	1.6				ug/L	2030	Standard
	P	31	321202.6	1.2				ug/L	256822	Standard
	S	34	29692.4	1.6				ug/L	33255	Standard
	Sr	88	7015.0	5.4				ug/L	153	Standard
	C	12	24059.2	7.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	190.0	0.0				mg/L	0	Standard
	Dy	164	26.5	77.5				mg/L	6	Standard
	Ho-1	165	56.7	27.0				mg/L	10	Standard
	Er	166	3.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		306.239	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.323	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Approved: April 07, 2014

Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		86.291
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		86.634
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403161601 WG469509-01
Sample Date/Time: Friday, April 04, 2014 16:23:44
Number of Replicates: 3
Autosampler Position: 216
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	136253.7	3.3				ug/L	113180	Standard
	Be	9	73.3	137.9	**0.0226**	0.036	158.5	ug/L	17	Standard
	Al	27	1797680.0	8.8	**9.2731**	0.934	10.1	ug/L	633	Standard
	Sc	45	31008.4	3.2				ug/L	41381	Standard
	Ti	47	69.3	8.8	**0.1657**	0.019	11.5	ug/L	30	Standard
	V	51	2722.6	8.8	**0.1176**	0.030	25.5	ug/L	1879	Standard
	Cr	52	15362.9	38.2	**0.9162**	0.679	74.1	ug/L	8035	Standard
	Cr	53	1228.4	45.0	**0.6100**	0.432	70.8	ug/L	470	Standard
	Mn	55	44866.0	12.0	**4.3304**	0.527	12.2	ug/L	1182	Standard
	Co	59	415.7	58.9	**0.0074**	0.033	452.7	ug/L	333	Standard
	Ni	60	670.0	17.2	**0.2301**	0.045	19.6	ug/L	71	Standard
	Cu	65	483.0	17.5	**0.1660**	0.033	20.0	ug/L	64	Standard
	Zn	66	2286.2	6.3	**1.5118**	0.099	6.5	ug/L	125	Standard
>	Ge	72	371888.5	1.7				ug/L	399053	Standard
	As	75	55.5	107.3	**0.0461**	0.038	81.6	ug/L	-28	Standard
	Se	82	48.2	6.2	**0.1691**	0.021	12.5	ug/L	26	Standard
	Se-1	77	126.7	9.8	**0.3053**	0.125	40.9	ug/L	118	Standard
>	Ga	71	26.7	47.2				mg/L	8	Standard
	Rb	85	1223.4	14.0				ug/L	25	Standard
	Y	89	312156.4	1.2				ug/L	368853	Standard
>	Rh	103	40.0	21.7				ug/L	10	Standard
	Mo	98	78.8	71.4	**0.0173**	0.031	179.7	ug/L	68	Standard
	Ag	107	187.7	118.3	**0.0169**	0.038	221.9	ug/L	84	Standard
	Cd	111	56.5	104.5	**-0.0059**	0.022	369.5	mg/L	72	Standard
	Cd	114	135.9	105.6	**-0.0068**	0.022	316.7	ug/L	187	Standard
>	In	115	393019.4	0.7				ug/L	464664	Standard
	Sn	118	278.3	17.3	**-0.0103**	0.007	66.3	ug/L	438	Standard
	Sb	123	155.8	119.6	**0.0069**	0.040	583.3	ug/L	433	Standard
	Ba	135	1001.4	7.3	**0.4089**	0.033	8.0	ug/L	14	Standard
	Ce	140	338.3	23.6				ug/L	20	Standard
>	Tb	159	551318.0	2.3				ug/L	663064	Standard
	Ho	165	16.7	69.3				ug/L	10	Standard
	Tl	203	294.0	68.5	**0.0280**	0.023	81.8	ug/L	32	Standard
	Tl	205	315.0	90.7	**0.0358**	0.036	101.3	ug/L	28	Standard
	Pb	206	287.0	51.5	**0.0158**	0.027	171.0	ug/L	190	Standard
	Pb	207	267.7	49.0	**0.0225**	0.027	117.8	ug/L	155	Standard
	Pb	208	1220.7	56.2	**0.0227**	0.031	136.3	ug/L	766	Standard
	U	238	4254.0	23.0	**0.4132**	0.095	23.0	ug/L	30	Standard
>	Bi	209	290602.7	3.0				ug/L	364780	Standard

Sample ID: L1403161601 WG469509-01
Report Date/Time: Friday, April 04, 2014 16:25:54
Page 1

Approved: April 07, 2014

	Na	23	11.7	24.7	**3.2035**	1.063	33.2	mg/L	0	Standard
	Mg	24	4739.1	14.9	**4.9763**	0.582	11.7	mg/L	58	Standard
	K	39	10.0	100.0	**0.0344**	0.106	308.6	mg/L	12	Standard
	Ca	43	108.3	30.7	**3.3459**	1.409	42.1	mg/L	53	Standard
	Fe	54	54.1	0.8	**-0.0512**	0.001	2.7	mg/L	190	Standard
	Fe	57	766.7	10.6	**0.7038**	0.267	38.0	mg/L	638	Standard
>	**Sc-1**	45	31008.4	3.2				mg/L	41381	Standard
	Cl	35	2.7	114.6				ug/L	4	Standard
	Kr	83	2.3	49.5				ug/L	2	Standard
	Br	81	2450.2	2.4				ug/L	2030	Standard
	P	31	65330.7	4.0				ug/L	256822	Standard
	S	34	34218.6	1.3				ug/L	33255	Standard
	Sr	88	226.7	22.1				ug/L	153	Standard
	C	12	1916.8	11.1				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	5.7	109.1				mg/L	6	Standard
	Ho-1	165	16.7	69.3				mg/L	10	Standard
	Er	166	20.0	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		120.387	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		93.193	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161601 WG469509-01
Report Date/Time: Friday, April 04, 2014 16:25:54
Page 2

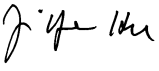
Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	84.581
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	79.665
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1403161602S WG469509-05
Sample Date/Time: Friday, April 04, 2014 16:26:46
Number of Replicates: 3
Autosampler Position: 217
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	132241.9	4.1				ug/L	113180	Standard
	Be	9	1261.7	7.7	**0.4550**	0.039	8.5	ug/L	17	Standard
	Al	27	1545006.4	1.6	**8.2048**	0.235	2.9	ug/L	633	Standard
	Sc	45	31399.2	1.3				ug/L	41381	Standard
	Ti	47	283.3	4.9	**0.8754**	0.048	5.4	ug/L	30	Standard
	V	51	6346.1	1.9	**0.5613**	0.020	3.5	ug/L	1879	Standard
	Cr	52	15612.0	0.4	**0.9447**	0.026	2.7	ug/L	8035	Standard
	Cr	53	1360.1	7.3	**0.7133**	0.084	11.8	ug/L	470	Standard
	Mn	55	35234.9	2.1	**3.3744**	0.067	2.0	ug/L	1182	Standard
	Co	59	3516.1	3.4	**0.4320**	0.019	4.4	ug/L	333	Standard
	Ni	60	1714.4	4.0	**0.6422**	0.023	3.6	ug/L	71	Standard
	Cu	65	1883.5	2.7	**0.7447**	0.021	2.8	ug/L	64	Standard
	Zn	66	8214.2	2.6	**5.7949**	0.167	2.9	ug/L	125	Standard
>	Ge	72	371979.8	1.1				ug/L	399053	Standard
	As	75	777.0	1.7	**0.5022**	0.004	0.7	ug/L	-28	Standard
	Se	82	128.5	5.4	**0.6351**	0.037	5.8	ug/L	26	Standard
	Se-1	77	184.0	6.1	**0.8787**	0.124	14.1	ug/L	118	Standard
>	Ga	71	51.7	24.4				mg/L	8	Standard
	Rb	85	2738.6	2.3				ug/L	25	Standard
	Y	89	314118.1	1.3				ug/L	368853	Standard
>	Rh	103	41.7	30.2				ug/L	10	Standard
	Mo	98	35.5	14.8	**-0.0064**	0.003	45.6	ug/L	68	Standard
	Ag	107	3002.0	1.9	**0.4901**	0.014	2.9	ug/L	84	Standard
	Cd	111	1368.7	1.2	**0.4773**	0.011	2.4	mg/L	72	Standard
	Cd	114	3399.5	4.1	**0.4826**	0.017	3.4	ug/L	187	Standard
>	In	115	392671.0	1.0				ug/L	464664	Standard
	Sn	118	281.7	15.3	**-0.0099**	0.006	56.2	ug/L	438	Standard
	Sb	123	2279.8	1.9	**0.4657**	0.005	1.0	ug/L	433	Standard
	Ba	135	3350.7	2.5	**1.3979**	0.021	1.5	ug/L	14	Standard
	Ce	140	8747.5	1.9				ug/L	20	Standard
>	Tb	159	542467.3	0.9				ug/L	663064	Standard
	Ho	165	193.3	48.1				ug/L	10	Standard
	Tl	203	4648.4	1.1	**0.5091**	0.006	1.2	ug/L	32	Standard
	Tl	205	4097.2	5.9	**0.5011**	0.036	7.1	ug/L	28	Standard
	Pb	206	3768.5	1.3	**0.6347**	0.003	0.4	ug/L	190	Standard
	Pb	207	3156.7	2.4	**0.5892**	0.020	3.3	ug/L	155	Standard
	Pb	208	14838.2	0.9	**0.6202**	0.011	1.8	ug/L	766	Standard
	U	238	7667.3	1.3	**0.7201**	0.017	2.3	ug/L	30	Standard
>	Bi	209	301518.6	1.2				ug/L	364780	Standard

Sample ID: L1403161602S WG469509-05
Report Date/Time: Friday, April 04, 2014 16:28:56
Page 1

Approved: April 07, 2014

	Na	23	8.3	124.9	**1.9912**	3.523	176.9	mg/L	0	Standard
	Mg	24	2608.6	2.5	**2.6934**	0.068	2.5	mg/L	58	Standard
	K	39	11.7	49.5	**0.0533**	0.063	118.4	mg/L	12	Standard
	Ca	43	73.3	28.4	**1.6655**	0.983	59.0	mg/L	53	Standard
	Fe	54	95.3	17.2	**-0.0218**	0.012	53.3	mg/L	190	Standard
	Fe	57	740.0	4.7	**0.6019**	0.084	14.0	mg/L	638	Standard
>	**Sc-1**	45	31399.2	1.3				mg/L	41381	Standard
	Cl	35	3.3	69.3				ug/L	4	Standard
	Kr	83	1.3	114.6				ug/L	2	Standard
	Br	81	2233.5	6.9				ug/L	2030	Standard
	P	31	66942.6	1.0				ug/L	256822	Standard
	S	34	35932.6	1.5				ug/L	33255	Standard
	Sr	88	218.3	7.4				ug/L	153	Standard
	C	12	1303.4	10.2				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	146.5	17.3				mg/L	6	Standard
	Ho-1	165	193.3	48.1				mg/L	10	Standard
	Er	166	73.3	34.3				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		116.842	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		93.216	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161602S WG469509-05
Report Date/Time: Friday, April 04, 2014 16:28:56
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	84.506
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	82.658
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1403161602S WG469509-05
Report Date/Time: Friday, April 04, 2014 16:28:56
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403161603SD WG469509-06
Sample Date/Time: Friday, April 04, 2014 16:29:48
Number of Replicates: 3
Autosampler Position: 218
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	133736.4	3.4				ug/L	113180	Standard
	Be	9	1406.7	2.0	**0.5021**	0.025	4.9	ug/L	17	Standard
	Al	27	1915402.3	2.3	**10.0600**	0.220	2.2	ug/L	633	Standard
	Sc	45	31325.7	3.5				ug/L	41381	Standard
	Ti	47	354.3	6.7	**1.1261**	0.074	6.5	ug/L	30	Standard
	V	51	6556.9	1.8	**0.5978**	0.015	2.5	ug/L	1879	Standard
	Cr	52	15276.0	1.6	**0.9294**	0.050	5.4	ug/L	8035	Standard
	Cr	53	1563.4	7.0	**0.8893**	0.101	11.3	ug/L	470	Standard
	Mn	55	101393.3	2.7	**10.0706**	0.292	2.9	ug/L	1182	Standard
	Co	59	3916.2	2.8	**0.4939**	0.018	3.6	ug/L	333	Standard
	Ni	60	2040.8	1.3	**0.7818**	0.001	0.2	ug/L	71	Standard
	Cu	65	1970.8	1.3	**0.7917**	0.014	1.8	ug/L	64	Standard
	Zn	66	8719.5	1.4	**6.2430**	0.041	0.7	ug/L	125	Standard
>	Ge	72	367125.5	1.5				ug/L	399053	Standard
	As	75	886.4	9.0	**0.5784**	0.044	7.6	ug/L	-28	Standard
	Se	82	143.5	5.1	**0.7334**	0.035	4.8	ug/L	26	Standard
	Se-1	77	192.7	2.1	**0.9910**	0.066	6.6	ug/L	118	Standard
>	Ga	71	95.0	32.0				mg/L	8	Standard
	Rb	85	3535.4	1.5				ug/L	25	Standard
	Y	89	313292.4	2.7				ug/L	368853	Standard
>	Rh	103	41.7	56.7				ug/L	10	Standard
	Mo	98	41.4	22.6	**-0.0035**	0.005	134.4	ug/L	68	Standard
	Ag	107	3242.7	3.4	**0.5254**	0.014	2.6	ug/L	84	Standard
	Cd	111	1506.6	1.1	**0.5228**	0.004	0.8	mg/L	72	Standard
	Cd	114	3722.4	1.9	**0.5258**	0.005	0.9	ug/L	187	Standard
>	In	115	396401.3	1.8				ug/L	464664	Standard
	Sn	118	1110.0	1.2	**0.1029**	0.002	1.5	ug/L	438	Standard
	Sb	123	2497.7	1.9	**0.5079**	0.015	2.9	ug/L	433	Standard
	Ba	135	2882.9	1.5	**1.1898**	0.004	0.4	ug/L	14	Standard
	Ce	140	8153.9	2.8				ug/L	20	Standard
>	Tb	159	536193.1	2.5				ug/L	663064	Standard
	Ho	165	173.3	14.5				ug/L	10	Standard
	Tl	203	5110.9	2.4	**0.5743**	0.009	1.5	ug/L	32	Standard
	Tl	205	4760.7	2.1	**0.5974**	0.014	2.3	ug/L	28	Standard
	Pb	206	3981.9	2.7	**0.6905**	0.020	2.9	ug/L	190	Standard
	Pb	207	3408.7	2.5	**0.6553**	0.010	1.5	ug/L	155	Standard
	Pb	208	15744.9	2.4	**0.6773**	0.015	2.2	ug/L	766	Standard
	U	238	10595.4	1.2	**1.0210**	0.003	0.3	ug/L	30	Standard
>	Bi	209	294193.3	1.2				ug/L	364780	Standard

Approved: April 07, 2014

	Na	23	16.7	75.5	**4.8501**	4.354	89.8	mg/L	0	Standard
	Mg	24	5017.5	2.0	**5.2352**	0.239	4.6	mg/L	58	Standard
	K	39	11.7	24.7	**0.0528**	0.027	50.5	mg/L	12	Standard
	Ca	43	125.0	10.6	**4.1276**	0.819	19.8	mg/L	53	Standard
	Fe	54	93.6	5.0	**-0.0229**	0.004	15.6	mg/L	190	Standard
	Fe	57	681.7	5.6	**0.4504**	0.089	19.8	mg/L	638	Standard
>	**Sc-1**	45	31325.7	3.5				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	1.0	0.0				ug/L	2	Standard
	Br	81	2513.5	10.7				ug/L	2030	Standard
	P	31	66701.6	2.4				ug/L	256822	Standard
	S	34	36089.6	2.7				ug/L	33255	Standard
	Sr	88	256.7	6.3				ug/L	153	Standard
	C	12	1526.7	19.4				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	172.7	33.0				mg/L	6	Standard
	Ho-1	165	173.3	14.5				mg/L	10	Standard
	Er	166	83.3	6.9				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		118.163	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		91.999	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161603SD WG469509-06
Report Date/Time: Friday, April 04, 2014 16:31:58
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	85.309
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	80.650
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1403161603SD WG469509-06
Report Date/Time: Friday, April 04, 2014 16:31:58
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403161604
Sample Date/Time: Friday, April 04, 2014 16:32:50
Number of Replicates: 3
Autosampler Position: 219
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	138091.4	0.3				ug/L	113180	Standard
	Be	9	10.0	100.0	**0.0001**	0.003	3739.4	ug/L	17	Standard
	Al	27	3123886.2	1.0	**15.8979**	0.188	1.2	ug/L	633	Standard
	Sc	45	31775.0	2.6				ug/L	41381	Standard
	Ti	47	33.3	27.7	**0.0443**	0.030	68.4	ug/L	30	Standard
	V	51	2490.7	1.7	**0.0836**	0.006	6.6	ug/L	1879	Standard
	Cr	52	12951.5	0.8	**0.6092**	0.014	2.3	ug/L	8035	Standard
	Cr	53	950.0	2.8	**0.3782**	0.021	5.5	ug/L	470	Standard
	Mn	55	104450.9	1.8	**10.0547**	0.182	1.8	ug/L	1182	Standard
	Co	59	212.3	9.0	**-0.0210**	0.003	12.5	ug/L	333	Standard
	Ni	60	544.0	8.4	**0.1764**	0.018	10.2	ug/L	71	Standard
	Cu	65	421.7	9.6	**0.1378**	0.017	12.1	ug/L	64	Standard
	Zn	66	1940.8	1.7	**1.2368**	0.025	2.1	ug/L	125	Standard
>	**Ge**	72	378751.5	0.2				ug/L	399053	Standard
	As	75	12.3	162.0	**0.0189**	0.012	65.2	ug/L	-28	Standard
	Se	82	52.0	6.1	**0.1851**	0.019	10.1	ug/L	26	Standard
	Se-1	77	122.0	9.1	**0.2362**	0.108	45.5	ug/L	118	Standard
>	**Ga**	71	18.3	41.7				mg/L	8	Standard
	Rb	85	5931.2	3.6				ug/L	25	Standard
	Y	89	320093.5	2.2				ug/L	368853	Standard
>	**Rh**	103	40.0	45.1				ug/L	10	Standard
	Mo	98	15.4	13.5	**-0.0177**	0.001	6.3	ug/L	68	Standard
	Ag	107	60.3	11.0	**-0.0048**	0.001	22.9	ug/L	84	Standard
	Cd	111	13.6	21.2	**-0.0219**	0.001	4.7	mg/L	72	Standard
	Cd	114	45.3	32.6	**-0.0206**	0.002	10.4	ug/L	187	Standard
>	**In**	115	403192.1	0.2				ug/L	464664	Standard
	Sn	118	300.0	6.7	**-0.0084**	0.003	31.1	ug/L	438	Standard
	Sb	123	45.9	18.1	**-0.0172**	0.002	10.3	ug/L	433	Standard
	Ba	135	90.7	15.1	**0.0249**	0.006	22.4	ug/L	14	Standard
	Ce	140	15.0	57.7				ug/L	20	Standard
>	**Tb**	159	546124.8	0.1				ug/L	663064	Standard
	Ho	165	6.7	86.6				ug/L	10	Standard
	Tl	203	53.0	15.1	**0.0001**	0.001	953.4	ug/L	32	Standard
	Tl	205	43.3	46.6	**0.0009**	0.003	294.7	ug/L	28	Standard
	Pb	206	172.7	7.7	**-0.0069**	0.004	51.1	ug/L	190	Standard
	Pb	207	142.7	12.0	**-0.0045**	0.004	94.3	ug/L	155	Standard
	Pb	208	691.7	4.9	**-0.0029**	0.003	90.8	ug/L	766	Standard
	U	238	10009.6	0.4	**0.9253**	0.041	4.4	ug/L	30	Standard
>	**Bi**	209	306966.1	4.1				ug/L	364780	Standard

Sample ID: L1403161604
Report Date/Time: Friday, April 04, 2014 16:35:00
Page 1

Approved: April 07, 2014

	Na	23	18.3	31.5	**5.3834**	2.135	39.7	mg/L	0	Standard
	Mg	24	5264.2	1.9	**5.4127**	0.136	2.5	mg/L	58	Standard
	K	39	61.7	36.6	**0.5850**	0.233	39.8	mg/L	12	Standard
	Ca	43	120.0	26.0	**3.8170**	1.602	42.0	mg/L	53	Standard
	Fe	54	43.7	41.1	**-0.0596**	0.013	22.4	mg/L	190	Standard
	Fe	57	661.7	11.1	**0.3748**	0.234	62.5	mg/L	638	Standard
>	**Sc-1**	45	31775.0	2.6				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	3.3	62.4				ug/L	2	Standard
	Br	81	2293.5	7.3				ug/L	2030	Standard
	P	31	66658.0	1.5				ug/L	256822	Standard
	S	34	37244.1	1.3				ug/L	33255	Standard
	Sr	88	233.3	10.8				ug/L	153	Standard
	C	12	1296.7	8.8				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	6.5	179.6				mg/L	6	Standard
	Ho-1	165	6.7	86.6				mg/L	10	Standard
	Er	166	3.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		122.011	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		94.913	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161604
Report Date/Time: Friday, April 04, 2014 16:35:00
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	86.771
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	84.151
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403161605
Sample Date/Time: Friday, April 04, 2014 16:35:52
Number of Replicates: 3
Autosampler Position: 220
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	138276.8	3.1				ug/L	113180	Standard
	Be	9	21.7	13.3	**0.0041**	0.001	25.3	ug/L	17	Standard
	Al	27	3931184.5	1.0	**19.9947**	0.455	2.3	ug/L	633	Standard
	Sc	45	31678.1	0.7				ug/L	41381	Standard
	Ti	47	38.3	12.3	**0.0615**	0.017	28.0	ug/L	30	Standard
	V	51	2515.9	2.0	**0.0885**	0.001	1.5	ug/L	1879	Standard
	Cr	52	11577.8	0.7	**0.4613**	0.031	6.8	ug/L	8035	Standard
	Cr	53	706.7	4.3	**0.1944**	0.026	13.5	ug/L	470	Standard
	Mn	55	52799.5	2.4	**5.0573**	0.205	4.1	ug/L	1182	Standard
	Co	59	242.3	5.6	**-0.0167**	0.002	13.5	ug/L	333	Standard
	Ni	60	772.4	6.2	**0.2667**	0.015	5.7	ug/L	71	Standard
	Cu	65	602.7	1.7	**0.2128**	0.008	3.8	ug/L	64	Standard
	Zn	66	1858.1	1.1	**1.1865**	0.012	1.0	ug/L	125	Standard
>	**Ge**	72	376396.7	1.7				ug/L	399053	Standard
	As	75	3.5	1239.6	**0.0135**	0.028	206.0	ug/L	-28	Standard
	Se	82	55.7	9.5	**0.2083**	0.030	14.5	ug/L	26	Standard
	Se-1	77	132.3	7.0	**0.3457**	0.085	24.7	ug/L	118	Standard
>	**Ga**	71	25.0	40.0				mg/L	8	Standard
	Rb	85	3870.5	7.3				ug/L	25	Standard
	Y	89	317234.0	1.9				ug/L	368853	Standard
>	**Rh**	103	41.7	45.4				ug/L	10	Standard
	Mo	98	38.9	25.4	**-0.0050**	0.005	107.8	ug/L	68	Standard
	Ag	107	70.3	0.8	**-0.0031**	0.000	3.9	ug/L	84	Standard
	Cd	111	17.3	31.9	**-0.0206**	0.002	9.6	mg/L	72	Standard
	Cd	114	37.5	15.6	**-0.0217**	0.001	3.9	ug/L	187	Standard
>	**In**	115	400325.7	0.5				ug/L	464664	Standard
	Sn	118	341.7	1.7	**-0.0025**	0.001	39.9	ug/L	438	Standard
	Sb	123	52.0	1.5	**-0.0158**	0.000	0.8	ug/L	433	Standard
	Ba	135	233.0	4.1	**0.0839**	0.004	4.2	ug/L	14	Standard
	Ce	140	31.7	50.8				ug/L	20	Standard
>	**Tb**	159	543295.8	0.3				ug/L	663064	Standard
	Ho	165	20.0	50.0				ug/L	10	Standard
	Tl	203	47.3	12.2	**-0.0006**	0.001	92.1	ug/L	32	Standard
	Tl	205	56.7	18.4	**0.0024**	0.001	54.5	ug/L	28	Standard
	Pb	206	180.0	11.7	**-0.0062**	0.003	54.9	ug/L	190	Standard
	Pb	207	144.7	13.2	**-0.0046**	0.004	75.8	ug/L	155	Standard
	Pb	208	695.7	3.7	**-0.0034**	0.001	28.0	ug/L	766	Standard
	U	238	12597.6	0.9	**1.1440**	0.035	3.1	ug/L	30	Standard
>	**Bi**	209	312429.6	2.2				ug/L	364780	Standard

Sample ID: L1403161605
Report Date/Time: Friday, April 04, 2014 16:38:02
Page 1

Approved: April 07, 2014

	Na	23	13.3	21.7	**3.6755**	0.998	27.2	mg/L	0	Standard
	Mg	24	17578.5	0.6	**18.2189**	0.085	0.5	mg/L	58	Standard
	K	39	43.3	13.3	**0.3927**	0.065	16.6	mg/L	12	Standard
	Ca	43	111.7	38.1	**3.4300**	2.020	58.9	mg/L	53	Standard
	Fe	54	46.1	16.6	**-0.0579**	0.005	9.2	mg/L	190	Standard
	Fe	57	716.7	10.1	**0.5225**	0.189	36.1	mg/L	638	Standard
>	**Sc-1**	45	31678.1	0.7				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	2.3	65.5				ug/L	2	Standard
	Br	81	2323.5	6.2				ug/L	2030	Standard
	P	31	64585.7	1.5				ug/L	256822	Standard
	S	34	36275.0	1.1				ug/L	33255	Standard
	Sr	88	248.3	18.2				ug/L	153	Standard
	C	12	1480.1	16.2				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	-0.5	100.0				mg/L	6	Standard
	Ho-1	165	20.0	50.0				mg/L	10	Standard
	Er	166	10.0	100.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		122.175	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		94.323	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161605
Report Date/Time: Friday, April 04, 2014 16:38:02
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	86.154
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	85.649
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403161605PS WG469526-03
Sample Date/Time: Friday, April 04, 2014 16:38:53
Number of Replicates: 3
Autosampler Position: 221
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	164075.9	3.2				ug/L	113180	Standard
	Be	9	146521.8	1.4	**42.8826**	0.991	2.3	ug/L	17	Standard
	Al	27	4948113.3	1.3	**21.2100**	0.411	1.9	ug/L	633	Standard
	Sc	45	38503.9	2.5				ug/L	41381	Standard
	Ti	47	42.7	12.9	**0.0512**	0.014	27.9	ug/L	30	Standard
	V	51	472133.9	1.5	**46.9956**	0.372	0.8	ug/L	1879	Standard
	Cr	52	516467.6	2.5	**48.0271**	0.798	1.7	ug/L	8035	Standard
	Cr	53	74978.4	1.9	**47.6362**	1.275	2.7	ug/L	470	Standard
	Mn	55	648568.2	3.1	**52.3977**	1.271	2.4	ug/L	1182	Standard
	Co	59	424588.6	1.9	**47.4218**	0.659	1.4	ug/L	333	Standard
	Ni	60	152422.3	1.5	**49.0925**	0.453	0.9	ug/L	71	Standard
	Cu	65	150166.2	1.2	**50.6137**	0.230	0.5	ug/L	64	Standard
	Zn	66	89856.7	0.6	**52.8660**	0.163	0.3	ug/L	125	Standard
>	Ge	72	455607.6	0.9				ug/L	399053	Standard
	As	75	96960.2	0.8	**50.0310**	0.483	1.0	ug/L	-28	Standard
	Se	82	10694.9	2.9	**50.6232**	1.164	2.3	ug/L	26	Standard
	Se-1	77	6559.8	1.1	**52.6013**	0.106	0.2	ug/L	118	Standard
>	Ga	71	45.0	29.4				mg/L	8	Standard
	Rb	85	4809.1	4.8				ug/L	25	Standard
	Y	89	381725.9	2.6				ug/L	368853	Standard
>	Rh	103	81.7	7.1				ug/L	10	Standard
	Mo	98	117.2	7.7	**0.0272**	0.003	12.8	ug/L	68	Standard
	Ag	107	390684.2	1.5	**54.4163**	0.375	0.7	ug/L	84	Standard
	Cd	111	163417.5	1.9	**49.8352**	0.667	1.3	mg/L	72	Standard
	Cd	114	400916.0	1.2	**49.8012**	0.381	0.8	ug/L	187	Standard
>	In	115	473916.2	1.7				ug/L	464664	Standard
	Sn	118	1891.8	8.2	**0.1672**	0.014	8.6	ug/L	438	Standard
	Sb	123	295515.7	0.6	**52.8872**	0.696	1.3	ug/L	433	Standard
	Ba	135	135352.3	1.5	**47.1926**	0.417	0.9	ug/L	14	Standard
	Ce	140	58.3	21.6				ug/L	20	Standard
>	Tb	159	634531.2	1.5				ug/L	663064	Standard
	Ho	165	20.0	50.0				ug/L	10	Standard
	Tl	203	554247.0	0.9	**51.2355**	0.298	0.6	ug/L	32	Standard
	Tl	205	518226.1	2.2	**53.3534**	1.310	2.5	ug/L	28	Standard
	Pb	206	350364.2	1.0	**52.1199**	0.348	0.7	ug/L	190	Standard
	Pb	207	315873.9	1.2	**51.8653**	0.472	0.9	ug/L	155	Standard
	Pb	208	1411012.5	1.4	**51.8101**	0.548	1.1	ug/L	766	Standard
	U	238	712822.9	0.3	**56.1314**	0.217	0.4	ug/L	30	Standard
>	Bi	209	361145.1	0.3				ug/L	364780	Standard

Sample ID: L1403161605PS WG469526-03
Report Date/Time: Friday, April 04, 2014 16:41:03
Page 1

Approved: April 07, 2014

	Na	23	20.0	25.0	**4.7176**	1.295	27.5	mg/L	0	Standard
	Mg	24	20295.3	2.3	**17.3044**	0.131	0.8	mg/L	58	Standard
	K	39	36.7	28.4	**0.2511**	0.094	37.4	mg/L	12	Standard
	Ca	43	118.3	12.9	**2.7607**	0.662	24.0	mg/L	53	Standard
	Fe	54	193.9	12.1	**0.0236**	0.011	46.0	mg/L	190	Standard
	Fe	57	680.0	5.6	**0.1047**	0.045	42.6	mg/L	638	Standard
>	**Sc-1**	45	38503.9	2.5				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	3.0	57.7				ug/L	2	Standard
	Br	81	3317.0	0.9				ug/L	2030	Standard
	P	31	277011.6	1.9				ug/L	256822	Standard
	S	34	38069.4	0.5				ug/L	33255	Standard
	Sr	88	316.7	4.0				ug/L	153	Standard
	C	12	1756.8	10.0				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	6.0	88.0				mg/L	6	Standard
	Ho-1	165	20.0	50.0				mg/L	10	Standard
	Er	166	13.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		144.969	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		114.172	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161605PS WG469526-03
Report Date/Time: Friday, April 04, 2014 16:41:03
Page 2

Approved: April 07, 2014

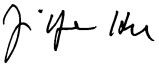
Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115	101.991	
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209	99.004	
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: L1403161605PS WG469526-03
Report Date/Time: Friday, April 04, 2014 16:41:03
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1403161605SDL WG469526-04
Sample Date/Time: Friday, April 04, 2014 16:41:55
Number of Replicates: 3
Autosampler Position: 222
Sample Description: 250
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	134139.6	1.5				ug/L	113180	Standard
	Be	9	38.3	64.3	**0.0104**	0.009	85.6	ug/L	17	Standard
	Al	27	1077921.0	2.7	**5.6310**	0.081	1.4	ug/L	633	Standard
	Sc	45	31519.4	2.0				ug/L	41381	Standard
	Ti	47	32.0	24.4	**0.0394**	0.026	66.1	ug/L	30	Standard
	V	51	2573.2	4.1	**0.0913**	0.008	8.7	ug/L	1879	Standard
	Cr	52	11552.7	2.3	**0.4408**	0.026	5.8	ug/L	8035	Standard
	Cr	53	500.0	13.1	**0.0286**	0.044	153.6	ug/L	470	Standard
	Mn	55	10941.3	0.8	**0.9381**	0.026	2.8	ug/L	1182	Standard
	Co	59	208.3	2.6	**-0.0217**	0.001	5.5	ug/L	333	Standard
	Ni	60	306.0	2.8	**0.0833**	0.003	3.5	ug/L	71	Standard
	Cu	65	288.3	7.3	**0.0829**	0.010	12.4	ug/L	64	Standard
	Zn	66	2277.2	3.5	**1.4653**	0.084	5.8	ug/L	125	Standard
>	Ge	72	381386.6	1.7				ug/L	399053	Standard
	As	75	-45.7	26.7	**-0.0170**	0.008	47.2	ug/L	-28	Standard
	Se	82	30.7	21.5	**0.0631**	0.041	64.4	ug/L	26	Standard
	Se-1	77	112.7	13.3	**0.1362**	0.136	99.6	ug/L	118	Standard
>	Ga	71	1.7	173.2				mg/L	8	Standard
	Rb	85	773.4	10.7				ug/L	25	Standard
	Y	89	322913.4	1.3				ug/L	368853	Standard
>	Rh	103	21.7	26.6				ug/L	10	Standard
	Mo	98	14.7	23.3	**-0.0181**	0.002	9.7	ug/L	68	Standard
	Ag	107	78.7	11.4	**-0.0019**	0.001	71.0	ug/L	84	Standard
	Cd	111	22.3	11.3	**-0.0188**	0.001	5.0	mg/L	72	Standard
	Cd	114	64.6	46.3	**-0.0178**	0.004	24.7	ug/L	187	Standard
>	In	115	405184.7	0.8				ug/L	464664	Standard
	Sn	118	325.0	10.8	**-0.0052**	0.005	94.9	ug/L	438	Standard
	Sb	123	252.5	18.2	**0.0261**	0.010	37.6	ug/L	433	Standard
	Ba	135	50.3	16.9	**0.0083**	0.004	42.7	ug/L	14	Standard
	Ce	140	3.3	173.2				ug/L	20	Standard
>	Tb	159	551076.7	1.1				ug/L	663064	Standard
	Ho	165	26.7	78.1				ug/L	10	Standard
	Tl	203	63.3	40.6	**0.0014**	0.003	212.0	ug/L	32	Standard
	Tl	205	63.3	12.1	**0.0034**	0.001	29.3	ug/L	28	Standard
	Pb	206	200.7	12.1	**-0.0013**	0.005	356.1	ug/L	190	Standard
	Pb	207	150.0	6.6	**-0.0025**	0.002	76.9	ug/L	155	Standard
	Pb	208	756.3	7.2	**0.0005**	0.003	566.4	ug/L	766	Standard
	U	238	2056.1	6.2	**0.1913**	0.014	7.3	ug/L	30	Standard
>	Bi	209	300774.5	1.0				ug/L	364780	Standard

Sample ID: L1403161605SDL WG469526-04
Report Date/Time: Friday, April 04, 2014 16:44:05
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.2671**	1.006	376.8	mg/L	0	Standard
	Mg	24	3618.8	5.0	**3.7410**	0.266	7.1	mg/L	58	Standard
	K	39	13.3	57.3	**0.0706**	0.082	115.8	mg/L	12	Standard
	Ca	43	51.7	24.4	**0.6362**	0.589	92.6	mg/L	53	Standard
	Fe	54	48.6	34.4	**-0.0558**	0.013	22.4	mg/L	190	Standard
	Fe	57	693.3	4.4	**0.4712**	0.109	23.2	mg/L	638	Standard
>	**Sc-1**	45	31519.4	2.0				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	2.0	50.0				ug/L	2	Standard
	Br	81	2226.8	10.4				ug/L	2030	Standard
	P	31	63166.4	0.5				ug/L	256822	Standard
	S	34	36640.9	2.7				ug/L	33255	Standard
	Sr	88	153.3	16.1				ug/L	153	Standard
	C	12	1130.0	15.1				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	6.3	86.6				mg/L	6	Standard
	Ho-1	165	26.7	78.1				mg/L	10	Standard
	Er	166	6.7	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		118.519	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.573	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161605SDL WG469526-04
Report Date/Time: Friday, April 04, 2014 16:44:05
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		87.200
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		82.454
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1403161605SDL WG469526-04
Report Date/Time: Friday, April 04, 2014 16:44:05
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403161606
Sample Date/Time: Friday, April 04, 2014 16:44:57
Number of Replicates: 3
Autosampler Position: 223
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	135671.5	1.3				ug/L	113180	Standard
	Be	9	45.0	22.2	**0.0126**	0.004	29.2	ug/L	17	Standard
	Al	27	3272368.3	1.7	**16.9514**	0.081	0.5	ug/L	633	Standard
	Sc	45	31586.2	3.2				ug/L	41381	Standard
	Ti	47	28.7	33.0	**0.0301**	0.032	106.1	ug/L	30	Standard
	V	51	2490.3	4.7	**0.0859**	0.017	19.7	ug/L	1879	Standard
	Cr	52	12938.5	1.4	**0.6192**	0.038	6.1	ug/L	8035	Standard
	Cr	53	780.0	13.6	**0.2514**	0.075	29.7	ug/L	470	Standard
	Mn	55	109961.6	1.6	**10.6739**	0.157	1.5	ug/L	1182	Standard
	Co	59	257.0	7.5	**-0.0147**	0.002	14.9	ug/L	333	Standard
	Ni	60	578.0	6.3	**0.1912**	0.012	6.2	ug/L	71	Standard
	Cu	65	397.7	1.9	**0.1293**	0.004	3.1	ug/L	64	Standard
	Zn	66	1392.4	3.4	**0.8554**	0.040	4.6	ug/L	125	Standard
>	**Ge**	72	375875.6	1.2				ug/L	399053	Standard
	As	75	10.3	70.4	**0.0177**	0.005	25.8	ug/L	-28	Standard
	Se	82	44.1	15.5	**0.1422**	0.042	29.4	ug/L	26	Standard
	Se-1	77	121.3	9.6	**0.2381**	0.102	42.8	ug/L	118	Standard
>	**Ga**	71	25.0	40.0				mg/L	8	Standard
	Rb	85	6092.9	4.9				ug/L	25	Standard
	Y	89	323368.4	1.8				ug/L	368853	Standard
>	**Rh**	103	50.0	20.0				ug/L	10	Standard
	Mo	98	17.9	30.2	**-0.0164**	0.003	16.6	ug/L	68	Standard
	Ag	107	85.0	24.0	**-0.0008**	0.003	414.8	ug/L	84	Standard
	Cd	111	23.3	62.8	**-0.0185**	0.005	28.3	mg/L	72	Standard
	Cd	114	49.2	115.3	**-0.0201**	0.008	41.2	ug/L	187	Standard
>	**In**	115	404112.1	1.4				ug/L	464664	Standard
	Sn	118	280.0	14.6	**-0.0112**	0.005	45.3	ug/L	438	Standard
	Sb	123	122.5	17.2	**-0.0011**	0.005	411.5	ug/L	433	Standard
	Ba	135	121.7	5.3	**0.0375**	0.003	7.0	ug/L	14	Standard
	Ce	140	255.0	147.7				ug/L	20	Standard
>	**Tb**	159	550053.5	0.8				ug/L	663064	Standard
	Ho	165	16.7	34.6				ug/L	10	Standard
	Tl	203	70.7	66.6	**0.0020**	0.005	264.1	ug/L	32	Standard
	Tl	205	55.0	27.3	**0.0022**	0.002	86.7	ug/L	28	Standard
	Pb	206	202.0	19.9	**-0.0021**	0.008	371.5	ug/L	190	Standard
	Pb	207	155.3	21.0	**-0.0023**	0.007	297.8	ug/L	155	Standard
	Pb	208	763.7	15.4	**-0.0002**	0.006	3391.3	ug/L	766	Standard
	U	238	10180.8	0.6	**0.9301**	0.013	1.4	ug/L	30	Standard
>	**Bi**	209	310288.9	2.1				ug/L	364780	Standard

Sample ID: L1403161606
Report Date/Time: Friday, April 04, 2014 16:47:07
Page 1

Approved: April 07, 2014

	Na	23	30.0	16.7	**9.3765**	1.911	20.4	mg/L	0	Standard
	Mg	24	5772.8	2.2	**5.9791**	0.287	4.8	mg/L	58	Standard
	K	39	80.0	39.0	**0.7878**	0.329	41.7	mg/L	12	Standard
	Ca	43	110.0	36.1	**3.3550**	1.847	55.1	mg/L	53	Standard
	Fe	54	40.0	47.6	**-0.0619**	0.014	23.4	mg/L	190	Standard
	Fe	57	725.0	2.1	**0.5509**	0.022	4.0	mg/L	638	Standard
>	**Sc-1**	45	31586.2	3.2				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	0.7	86.6				ug/L	2	Standard
	Br	81	2236.8	4.1				ug/L	2030	Standard
	P	31	66075.5	2.4				ug/L	256822	Standard
	S	34	36022.8	1.1				ug/L	33255	Standard
	Sr	88	226.7	17.8				ug/L	153	Standard
	C	12	1383.4	5.1				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0					mg/L	0	Standard
	Dy	164	6.3	86.9				mg/L	6	Standard
	Ho-1	165	16.7	34.6				mg/L	10	Standard
	Er	166	6.7	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		119.873	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		94.192	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403161606
Report Date/Time: Friday, April 04, 2014 16:47:07
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	86.969
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	85.062
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1403161606
Report Date/Time: Friday, April 04, 2014 16:47:07
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 16:48:01
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	146636.6	3.0				ug/L	113180	Standard
	Be	9	137627.8	3.8	**45.0432**	0.464	1.0	ug/L	17	Standard
	Al	27	8411646.9	3.3	**40.3523**	0.810	2.0	ug/L	633	Standard
	Sc	45	38051.1	2.9				ug/L	41381	Standard
	Ti	47	31543.1	2.4	**87.9858**	0.879	1.0	ug/L	30	Standard
	V	51	444959.5	3.1	**45.6549**	0.409	0.9	ug/L	1879	Standard
	Cr	52	493169.6	2.5	**47.2744**	0.514	1.1	ug/L	8035	Standard
	Cr	53	71106.5	2.4	**46.5653**	0.563	1.2	ug/L	470	Standard
	Mn	55	562634.2	1.7	**46.8742**	1.346	2.9	ug/L	1182	Standard
	Co	59	406220.2	2.8	**46.7948**	1.686	3.6	ug/L	333	Standard
	Ni	60	144812.5	1.1	**48.1054**	1.211	2.5	ug/L	71	Standard
	Cu	65	142835.9	1.4	**49.6499**	1.051	2.1	ug/L	64	Standard
	Zn	66	82737.1	2.6	**50.1787**	0.476	0.9	ug/L	125	Standard
>	Ge	72	441991.9	3.4				ug/L	399053	Standard
	As	75	92529.0	2.1	**49.2303**	0.812	1.6	ug/L	-28	Standard
	Se	82	10169.4	2.1	**49.6351**	0.691	1.4	ug/L	26	Standard
	Se-1	77	6185.3	2.9	**51.1083**	0.687	1.3	ug/L	118	Standard
>	Ga	71	56.7	40.8				mg/L	8	Standard
	Rb	85	883.4	5.7				ug/L	25	Standard
	Y	89	376519.3	0.4				ug/L	368853	Standard
>	Rh	103	41.7	18.3				ug/L	10	Standard
	Mo	98	242217.5	1.5	**113.2075**	3.202	2.8	ug/L	68	Standard
	Ag	107	373027.3	1.4	**53.5411**	1.309	2.4	ug/L	84	Standard
	Cd	111	159589.6	0.4	**50.1515**	0.999	2.0	mg/L	72	Standard
	Cd	114	386157.7	1.5	**49.4205**	0.558	1.1	ug/L	187	Standard
>	In	115	459983.6	1.7				ug/L	464664	Standard
	Sn	118	438779.7	0.9	**51.5771**	1.291	2.5	ug/L	438	Standard
	Sb	123	284101.9	0.6	**52.3892**	1.118	2.1	ug/L	433	Standard
	Ba	135	130987.2	1.2	**47.0674**	1.380	2.9	ug/L	14	Standard
	Ce	140	176.7	5.9				ug/L	20	Standard
>	Tb	159	603510.1	0.7				ug/L	663064	Standard
	Ho	165	30.0	88.2				ug/L	10	Standard
	Tl	203	543852.5	0.7	**50.6972**	0.900	1.8	ug/L	32	Standard
	Tl	205	506572.7	0.7	**52.5864**	0.666	1.3	ug/L	28	Standard
	Pb	206	342499.0	0.7	**51.3768**	0.831	1.6	ug/L	190	Standard
	Pb	207	311102.8	0.3	**51.5100**	0.738	1.4	ug/L	155	Standard
	Pb	208	1387598.2	0.4	**51.3768**	0.649	1.3	ug/L	766	Standard
	U	238	692729.0	0.3	**55.0039**	0.612	1.1	ug/L	30	Standard
>	Bi	209	358185.3	1.1				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 16:50:11
Page 1

Approved: April 07, 2014

	Na	23	11.7	24.7	**2.4375**	0.756	31.0	mg/L	0	Standard
	Mg	24	6034.5	0.9	**5.1819**	0.202	3.9	mg/L	58	Standard
	K	39	271.7	2.8	**2.3606**	0.140	5.9	mg/L	12	Standard
	Ca	43	105.0	26.5	**2.2905**	1.061	46.3	mg/L	53	Standard
	Fe	54	8038.8	3.3	**4.7309**	0.188	4.0	mg/L	190	Standard
	Fe	57	2813.6	5.1	**4.8440**	0.451	9.3	mg/L	638	Standard
>	**Sc-1**	45	38051.1	2.9				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	3.7	87.7				ug/L	2	Standard
	Br	81	2326.8	3.7				ug/L	2030	Standard
	P	31	290556.1	3.0				ug/L	256822	Standard
	S	34	38899.9	3.7				ug/L	33255	Standard
	Sr	88	145.0	9.1				ug/L	153	Standard
	C	12	1373.4	14.9				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	12.5	48.4				mg/L	6	Standard
	Ho-1	165	30.0	88.2				mg/L	10	Standard
	Er	166	16.7	69.3				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		129.561	
	Be	9	90.086		
	Al	27	80.705		
	Sc	45			
	Ti	47	87.986		
	V	51	91.310		
	Cr	52	94.549		
	Cr	53			
	Mn	55	93.748		
	Co	59	93.590		
	Ni	60	96.211		
	Cu	65	99.300		
	Zn	66	100.357		
>	Ge	72		110.760	
	As	75	98.461		
	Se	82	99.270		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 16:50:11
Page 2

Approved: April 07, 2014

⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	113.207		
|	Ag	107	107.082		
|	Cd	111	100.303		
|	Cd	114			
|>	In	115		98.993	
|	Sn	118	103.154		
|	Sb	123	104.778		
⌊	Ba	135	94.135		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	101.394		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	102.754		
|	U	238	110.008		
⌊>	Bi	209		98.192	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample
QC Std 6	Al	27	
QC Std 6	Ti	47	
QC Std 6	Mo	98	
QC Std 6	U	238	

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 16:50:11
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 16:51:03
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	141937.1	2.9				ug/L	113180	Standard
	Be	9	56.7	22.2	**0.0159**	0.005	30.2	ug/L	17	Standard
	Al	27	4179.0	33.4	**-0.0035**	0.007	207.9	ug/L	633	Standard
	Sc	45	36031.1	1.8				ug/L	41381	Standard
	Ti	47	20.7	24.4	**-0.0040**	0.015	365.6	ug/L	30	Standard
	V	51	1485.9	2.4	**-0.0561**	0.004	7.5	ug/L	1879	Standard
	Cr	52	6851.2	0.8	**-0.1679**	0.004	2.3	ug/L	8035	Standard
	Cr	53	483.3	7.8	**-0.0202**	0.027	133.1	ug/L	470	Standard
	Mn	55	1003.0	5.1	**-0.0333**	0.005	14.2	ug/L	1182	Standard
	Co	59	215.3	9.4	**-0.0236**	0.003	10.7	ug/L	333	Standard
	Ni	60	221.0	4.0	**0.0422**	0.003	7.9	ug/L	71	Standard
	Cu	65	167.0	8.3	**0.0273**	0.005	19.0	ug/L	64	Standard
	Zn	66	182.3	6.1	**-0.0246**	0.007	29.8	ug/L	125	Standard
>	**Ge**	72	423393.5	0.3				ug/L	399053	Standard
	As	75	-59.5	6.2	**-0.0217**	0.002	9.4	ug/L	-28	Standard
	Se	82	24.9	23.5	**0.0155**	0.030	194.3	ug/L	26	Standard
	Se-1	77	111.0	14.0	**0.0136**	0.140	1025.4	ug/L	118	Standard
>	**Ga**	71	11.7	49.5				mg/L	8	Standard
	Rb	85	25.0	40.0				ug/L	25	Standard
	Y	89	357250.1	1.7				ug/L	368853	Standard
>	**Rh**	103	16.7	34.6				ug/L	10	Standard
	Mo	98	117.0	37.2	**0.0310**	0.021	66.5	ug/L	68	Standard
	Ag	107	113.0	25.9	**0.0022**	0.004	195.9	ug/L	84	Standard
	Cd	111	81.4	12.4	**-0.0001**	0.004	7123.6	mg/L	72	Standard
	Cd	114	201.9	4.6	**-0.0003**	0.001	325.7	ug/L	187	Standard
>	**In**	115	441088.0	1.8				ug/L	464664	Standard
	Sn	118	611.7	9.9	**0.0264**	0.007	28.3	ug/L	438	Standard
	Sb	123	683.5	26.3	**0.1044**	0.033	31.8	ug/L	433	Standard
	Ba	135	32.0	22.5	**-0.0002**	0.003	1195.2	ug/L	14	Standard
	Ce	140	13.3	57.3				ug/L	20	Standard
>	**Tb**	159	583016.5	1.3				ug/L	663064	Standard
	Ho	165	10.0	100.0				ug/L	10	Standard
	Tl	203	83.3	43.6	**0.0024**	0.003	147.5	ug/L	32	Standard
	Tl	205	80.0	34.8	**0.0042**	0.003	69.5	ug/L	28	Standard
	Pb	206	341.7	53.8	**0.0161**	0.029	182.3	ug/L	190	Standard
	Pb	207	212.7	13.2	**0.0043**	0.005	105.6	ug/L	155	Standard
	Pb	208	987.7	19.1	**0.0050**	0.008	152.0	ug/L	766	Standard
	U	238	110.3	33.8	**0.0058**	0.003	51.1	ug/L	30	Standard
>	**Bi**	209	345972.8	1.3				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 16:53:13
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	50.0	36.1	**0.0055**	0.017	310.3	mg/L	58	Standard
	K	39	6.7	43.3	**-0.0104**	0.028	267.1	mg/L	12	Standard
	Ca	43	38.3	54.3	**-0.2059**	0.870	422.3	mg/L	53	Standard
	Fe	54	156.1	22.7	**0.0075**	0.021	275.0	mg/L	190	Standard
	Fe	57	566.7	8.0	**-0.0572**	0.101	176.4	mg/L	638	Standard
>	**Sc-1**	45	36031.1	1.8				mg/L	41381	Standard
	Cl	35	1.3	173.2				ug/L	4	Standard
	Kr	83	2.0	86.6				ug/L	2	Standard
	Br	81	2230.2	14.2				ug/L	2030	Standard
	P	31	281267.2	1.8				ug/L	256822	Standard
	S	34	37598.3	2.2				ug/L	33255	Standard
	Sr	88	158.3	10.2				ug/L	153	Standard
	C	12	1196.7	25.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	9.7	103.3				mg/L	6	Standard
	Ho-1	165	10.0	100.0				mg/L	10	Standard
	Er	166	6.7	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		125.409	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.100	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 16:53:13
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	94.926
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	94.844
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 16:53:13
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, April 04, 2014 16:54:06
Number of Replicates: 3
Autosampler Position: 202
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	139043.6	2.1				ug/L	113180	Standard
	Be	9	543.3	6.5	**0.1844**	0.015	8.1	ug/L	17	Standard
	Al	27	1058.4	13.7	**-0.0189**	0.001	3.2	ug/L	633	Standard
	Sc	45	35743.8	2.8				ug/L	41381	Standard
	Ti	47	21.7	22.8	**0.0004**	0.014	3733.2	ug/L	30	Standard
	V	51	4600.8	0.8	**0.2914**	0.009	3.0	ug/L	1879	Standard
	Cr	52	14041.8	1.9	**0.6003**	0.025	4.2	ug/L	8035	Standard
	Cr	53	1523.4	5.0	**0.7217**	0.043	6.0	ug/L	470	Standard
	Mn	55	6637.1	1.5	**0.4721**	0.006	1.3	ug/L	1182	Standard
	Co	59	3195.3	2.7	**0.3444**	0.006	1.7	ug/L	333	Standard
	Ni	60	4481.3	1.7	**1.5583**	0.009	0.6	ug/L	71	Standard
	Cu	65	2304.5	1.2	**0.8238**	0.004	0.5	ug/L	64	Standard
	Zn	66	10247.5	0.5	**6.5263**	0.059	0.9	ug/L	125	Standard
>	**Ge**	72	413144.8	1.2				ug/L	399053	Standard
	As	75	676.8	3.7	**0.3964**	0.018	4.4	ug/L	-28	Standard
	Se	82	97.8	7.9	**0.4003**	0.044	11.0	ug/L	26	Standard
	Se-1	77	146.3	3.9	**0.3558**	0.053	15.0	ug/L	118	Standard
>	**Ga**	71	18.3	41.7				mg/L	8	Standard
	Rb	85	31.7	50.8				ug/L	25	Standard
	Y	89	356628.0	2.3				ug/L	368853	Standard
>	**Rh**	103	8.3	91.7				ug/L	10	Standard
	Mo	98	30.0	31.3	**-0.0112**	0.005	41.0	ug/L	68	Standard
	Ag	107	2456.2	3.4	**0.3536**	0.015	4.3	ug/L	84	Standard
	Cd	111	759.0	3.4	**0.2223**	0.006	2.9	mg/L	72	Standard
	Cd	114	1849.7	10.0	**0.2202**	0.026	11.7	ug/L	187	Standard
>	**In**	115	440433.4	0.9				ug/L	464664	Standard
	Sn	118	513.3	11.2	**0.0144**	0.008	52.7	ug/L	438	Standard
	Sb	123	2284.8	4.4	**0.4133**	0.016	3.9	ug/L	433	Standard
	Ba	135	1813.8	1.1	**0.6684**	0.009	1.4	ug/L	14	Standard
	Ce	140	16.7	45.8				ug/L	20	Standard
>	**Tb**	159	583191.0	1.1				ug/L	663064	Standard
	Ho	165	10.0	100.0				ug/L	10	Standard
	Tl	203	816.4	2.4	**0.0738**	0.003	3.5	ug/L	32	Standard
	Tl	205	835.0	9.0	**0.0861**	0.008	9.2	ug/L	28	Standard
	Pb	206	1526.4	4.3	**0.2021**	0.012	6.0	ug/L	190	Standard
	Pb	207	1279.7	1.7	**0.1892**	0.002	1.1	ug/L	155	Standard
	Pb	208	5877.1	1.5	**0.1944**	0.004	1.8	ug/L	766	Standard
	U	238	5220.2	2.2	**0.4295**	0.010	2.4	ug/L	30	Standard
>	**Bi**	209	343074.8	0.9				ug/L	364780	Standard

Sample ID: QC Std 8
Report Date/Time: Friday, April 04, 2014 16:56:16
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.3438**	0.874	254.1	mg/L	0	Standard
	Mg	24	78.3	32.8	**0.0316**	0.023	71.6	mg/L	58	Standard
	K	39	3.3	173.2	**-0.0426**	0.053	125.1	mg/L	12	Standard
	Ca	43	31.7	9.1	**-0.4794**	0.084	17.5	mg/L	53	Standard
	Fe	54	152.0	24.6	**0.0064**	0.026	406.9	mg/L	190	Standard
	Fe	57	628.3	8.0	**0.0998**	0.135	134.9	mg/L	638	Standard
>	**Sc-1**	45	35743.8	2.8				mg/L	41381	Standard
	Cl	35	1.3	173.2				ug/L	4	Standard
	Kr	83	3.7	63.0				ug/L	2	Standard
	Br	81	2300.2	10.0				ug/L	2030	Standard
	P	31	265281.3	2.3				ug/L	256822	Standard
	S	34	36640.9	1.2				ug/L	33255	Standard
	Sr	88	173.3	8.8				ug/L	153	Standard
	C	12	1323.4	19.0				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	6.0	93.6				mg/L	6	Standard
	Ho-1	165	10.0	100.0				mg/L	10	Standard
	Er	166	13.3	43.3				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		122.852	
	Be	9	92.185		
	Al	27			
	Sc	45			
	Ti	47			
	V	51	72.849		
	Cr	52	75.032		
	Cr	53			
	Mn	55	94.413		
	Co	59	86.099		
	Ni	60	97.394		
	Cu	65	102.977		
	Zn	66	104.420		
>	Ge	72		103.531	
	As	75	99.104		
	Se	82	100.078		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 8
Report Date/Time: Friday, April 04, 2014 16:56:16
Page 2

Approved: April 07, 2014

⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98			
|	Ag	107	88.392		
|	Cd	111	92.645		
|	Cd	114			
|>	In	115		94.785	
|	Sn	118			
|	Sb	123	103.313		
⌊	Ba	135	89.119		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	92.237		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	97.208		
|	U	238	107.385		
⌊>	Bi	209		94.050	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample

Sample ID: QC Std 8
Report Date/Time: Friday, April 04, 2014 16:56:16
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: PBS 11 WG469717-01
Sample Date/Time: Friday, April 04, 2014 16:57:50
Number of Replicates: 3
Autosampler Position: 224
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	134694.8	3.1				ug/L	113180	Standard
	Be	9	23.3	44.6	**0.0050**	0.004	79.4	ug/L	17	Standard
	Al	27	9320.6	74.0	**0.0251**	0.038	151.1	ug/L	633	Standard
	Sc	45	34998.7	1.4				ug/L	41381	Standard
	Ti	47	20.0	15.0	**-0.0030**	0.010	329.0	ug/L	30	Standard
	V	51	1472.1	8.6	**-0.0496**	0.014	28.8	ug/L	1879	Standard
	Cr	52	7045.3	2.7	**-0.1115**	0.025	22.1	ug/L	8035	Standard
	Cr	53	555.0	1.6	**0.0485**	0.002	3.9	ug/L	470	Standard
	Mn	55	1719.1	8.5	**0.0367**	0.013	34.3	ug/L	1182	Standard
	Co	59	198.3	13.8	**-0.0245**	0.003	13.8	ug/L	333	Standard
	Ni	60	296.3	9.6	**0.0735**	0.010	13.1	ug/L	71	Standard
	Cu	65	1922.1	1.1	**0.6997**	0.003	0.4	ug/L	64	Standard
	Zn	66	2666.9	2.2	**1.6384**	0.026	1.6	ug/L	125	Standard
>	Ge	72	402927.4	1.2				ug/L	399053	Standard
	As	75	-4.9	1165.8	**0.0087**	0.033	384.0	ug/L	-28	Standard
	Se	82	21.3	31.6	**0.0029**	0.037	1260.5	ug/L	26	Standard
	Se-1	77	112.3	9.6	**0.0756**	0.106	140.0	ug/L	118	Standard
>	Ga	71	15.0	57.7				mg/L	8	Standard
	Rb	85	51.7	31.1				ug/L	25	Standard
	Y	89	345357.7	2.1				ug/L	368853	Standard
>	Rh	103	11.7	49.5				ug/L	10	Standard
	Mo	98	69.0	18.0	**0.0087**	0.007	78.2	ug/L	68	Standard
	Ag	107	79.3	27.1	**-0.0025**	0.003	137.0	ug/L	84	Standard
	Cd	111	55.9	23.3	**-0.0080**	0.005	58.6	mg/L	72	Standard
	Cd	114	118.8	15.2	**-0.0110**	0.002	22.4	ug/L	187	Standard
>	In	115	430077.2	1.8				ug/L	464664	Standard
	Sn	118	480.0	7.9	**0.0118**	0.006	49.0	ug/L	438	Standard
	Sb	123	147.3	2.9	**0.0022**	0.001	58.5	ug/L	433	Standard
	Ba	135	271.0	3.6	**0.0919**	0.004	4.7	ug/L	14	Standard
	Ce	140	30.0	57.7				ug/L	20	Standard
>	Tb	159	568825.5	2.1				ug/L	663064	Standard
	Ho	165	20.0	0.0				ug/L	10	Standard
	Tl	203	66.0	46.1	**0.0009**	0.003	348.6	ug/L	32	Standard
	Tl	205	40.0	43.3	**0.0000**	0.002	6504.6	ug/L	28	Standard
	Pb	206	464.0	10.6	**0.0369**	0.009	23.9	ug/L	190	Standard
	Pb	207	384.7	10.7	**0.0357**	0.008	22.4	ug/L	155	Standard
	Pb	208	1817.4	9.2	**0.0387**	0.007	19.2	ug/L	766	Standard
	U	238	52.0	82.2	**0.0012**	0.004	306.5	ug/L	30	Standard
>	Bi	209	336918.5	1.3				ug/L	364780	Standard

Sample ID: PBS 11 WG469717-01
Report Date/Time: Friday, April 04, 2014 17:00:00
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.3446**	0.872	253.0	mg/L	0	Standard
	Mg	24	118.3	14.8	**0.0711**	0.018	25.2	mg/L	58	Standard
	K	39	10.0	50.0	**0.0242**	0.049	204.2	mg/L	12	Standard
	Ca	43	25.0	34.6	**-0.7325**	0.362	49.4	mg/L	53	Standard
	Fe	54	99.0	43.2	**-0.0265**	0.028	107.0	mg/L	190	Standard
	Fe	57	616.7	9.7	**0.1025**	0.149	145.8	mg/L	638	Standard
>	**Sc-1**	45	34998.7	1.4				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	5.7	44.4				ug/L	2	Standard
	Br	81	2620.2	4.0				ug/L	2030	Standard
	P	31	183032.7	2.5				ug/L	256822	Standard
	S	34	35580.1	2.0				ug/L	33255	Standard
	Sr	88	161.7	14.6				ug/L	153	Standard
	C	12	1203.4	1.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.7	86.6				mg/L	6	Standard
	Ho-1	165	20.0	0.0				mg/L	10	Standard
	Er	166	0.0					mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		119.010	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.971	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: PBS 11 WG469717-01
Report Date/Time: Friday, April 04, 2014 17:00:00
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		92.557
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		92.362
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: PBS 11 WG469717-01
Report Date/Time: Friday, April 04, 2014 17:00:00
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: LCSS 11 WG469717-02
Sample Date/Time: Friday, April 04, 2014 17:00:52
Number of Replicates: 3
Autosampler Position: 225
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	138357.8	3.9				ug/L	113180	Standard
	Be	9	63426.0	4.1	**22.0026**	0.381	1.7	ug/L	17	Standard
	Al	27	11419.3	3.3	**0.0338**	0.001	2.4	ug/L	633	Standard
	Sc	45	36196.5	1.5				ug/L	41381	Standard
	Ti	47	32.0	27.2	**0.0306**	0.027	88.7	ug/L	30	Standard
	V	51	196070.8	1.7	**21.1891**	0.194	0.9	ug/L	1879	Standard
	Cr	52	218718.2	1.2	**21.7414**	0.111	0.5	ug/L	8035	Standard
	Cr	53	31492.7	0.8	**21.6539**	0.496	2.3	ug/L	470	Standard
	Mn	55	275633.6	0.4	**24.2513**	0.294	1.2	ug/L	1182	Standard
	Co	59	180970.3	0.2	**22.0441**	0.379	1.7	ug/L	333	Standard
	Ni	60	66055.1	3.2	**23.2077**	0.607	2.6	ug/L	71	Standard
	Cu	65	66199.0	2.7	**24.3391**	0.311	1.3	ug/L	64	Standard
	Zn	66	39003.8	2.2	**24.9779**	0.418	1.7	ug/L	125	Standard
>	Ge	72	417335.7	1.5				ug/L	399053	Standard
	As	75	41042.2	1.6	**23.1272**	0.406	1.8	ug/L	-28	Standard
	Se	82	4581.9	1.0	**23.6207**	0.228	1.0	ug/L	26	Standard
	Se-1	77	2862.9	2.2	**24.5632**	0.676	2.8	ug/L	118	Standard
>	Ga	71	16.7	45.8				mg/L	8	Standard
	Rb	85	30.0	28.9				ug/L	25	Standard
	Y	89	362703.9	1.5				ug/L	368853	Standard
>	Rh	103	15.0	33.3				ug/L	10	Standard
	Mo	98	162.5	7.7	**0.0530**	0.006	11.9	ug/L	68	Standard
	Ag	107	147505.2	0.8	**21.9655**	0.114	0.5	ug/L	84	Standard
	Cd	111	70296.0	0.8	**22.9137**	0.045	0.2	mg/L	72	Standard
	Cd	114	172763.4	2.4	**22.9372**	0.505	2.2	ug/L	187	Standard
>	In	115	443082.2	0.8				ug/L	464664	Standard
	Sn	118	1810.1	1.9	**0.1724**	0.005	2.8	ug/L	438	Standard
	Sb	123	131880.4	0.9	**25.2270**	0.123	0.5	ug/L	433	Standard
	Ba	135	58152.4	1.4	**21.6785**	0.161	0.7	ug/L	14	Standard
	Ce	140	38.3	30.1				ug/L	20	Standard
>	Tb	159	581421.6	1.2				ug/L	663064	Standard
	Ho	165	20.0	50.0				ug/L	10	Standard
	Tl	203	245192.4	0.8	**23.4851**	0.128	0.5	ug/L	32	Standard
	Tl	205	232049.0	2.3	**24.7520**	0.453	1.8	ug/L	28	Standard
	Pb	206	155595.2	0.7	**23.9662**	0.188	0.8	ug/L	190	Standard
	Pb	207	134667.2	0.3	**22.8971**	0.238	1.0	ug/L	155	Standard
	Pb	208	618996.8	0.8	**23.5354**	0.128	0.5	ug/L	766	Standard
	U	238	303325.5	0.5	**24.7504**	0.205	0.8	ug/L	30	Standard
>	Bi	209	348521.9	1.3				ug/L	364780	Standard

Sample ID: LCSS 11 WG469717-02
Report Date/Time: Friday, April 04, 2014 17:03:02
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	81.7	3.5	**0.0339**	0.003	7.7	mg/L	58	Standard
	K	39	10.0	100.0	**0.0215**	0.096	443.9	mg/L	12	Standard
	Ca	43	28.3	27.0	**-0.6274**	0.327	52.1	mg/L	53	Standard
	Fe	54	151.0	21.2	**0.0041**	0.020	488.0	mg/L	190	Standard
	Fe	57	636.7	10.5	**0.1009**	0.172	170.0	mg/L	638	Standard
>	**Sc-1**	45	36196.5	1.5				mg/L	41381	Standard
	Cl	35	1.3	173.2				ug/L	4	Standard
	Kr	83	2.7	78.1				ug/L	2	Standard
	Br	81	2780.3	6.3				ug/L	2030	Standard
	P	31	219315.9	0.7				ug/L	256822	Standard
	S	34	34926.9	1.8				ug/L	33255	Standard
	Sr	88	141.7	5.4				ug/L	153	Standard
	C	12	1136.7	10.0				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	16.5	36.7				mg/L	6	Standard
	Ho-1	165	20.0	50.0				mg/L	10	Standard
	Er	166	3.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		122.246	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		104.582	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: LCSS 11 WG469717-02
Report Date/Time: Friday, April 04, 2014 17:03:02
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	95.355
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	95.543
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: LCSS 11 WG469717-02
Report Date/Time: Friday, April 04, 2014 17:03:02
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: LCSS DP WG46971703
Sample Date/Time: Friday, April 04, 2014 17:03:54
Number of Replicates: 3
Autosampler Position: 226
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	143282.9	2.5				ug/L	113180	Standard
	Be	9	63784.0	2.6	**21.3662**	0.253	1.2	ug/L	17	Standard
	Al	27	9327.9	2.9	**0.0216**	0.001	5.9	ug/L	633	Standard
	Sc	45	35782.2	1.5				ug/L	41381	Standard
	Ti	47	24.0	15.0	**0.0063**	0.010	160.9	ug/L	30	Standard
	V	51	205525.7	1.4	**22.1174**	0.117	0.5	ug/L	1879	Standard
	Cr	52	228835.2	0.9	**22.6802**	0.427	1.9	ug/L	8035	Standard
	Cr	53	32965.9	3.9	**22.5695**	0.739	3.3	ug/L	470	Standard
	Mn	55	280062.9	1.1	**24.5260**	0.030	0.1	ug/L	1182	Standard
	Co	59	187206.3	1.6	**22.6957**	0.200	0.9	ug/L	333	Standard
	Ni	60	67886.1	1.9	**23.7415**	0.241	1.0	ug/L	71	Standard
	Cu	65	67948.4	2.6	**24.8689**	0.472	1.9	ug/L	64	Standard
	Zn	66	40587.3	1.5	**25.8767**	0.223	0.9	ug/L	125	Standard
>	**Ge**	72	419265.1	1.0				ug/L	399053	Standard
	As	75	43404.3	1.3	**24.3424**	0.056	0.2	ug/L	-28	Standard
	Se	82	4857.0	1.5	**24.9281**	0.266	1.1	ug/L	26	Standard
	Se-1	77	2975.0	1.7	**25.4347**	0.223	0.9	ug/L	118	Standard
>	**Ga**	71	15.0	33.3				mg/L	8	Standard
	Rb	85	41.7	45.4				ug/L	25	Standard
	Y	89	370701.2	3.1				ug/L	368853	Standard
>	**Rh**	103	30.0	33.3				ug/L	10	Standard
	Mo	98	83.2	3.8	**0.0138**	0.001	10.2	ug/L	68	Standard
	Ag	107	151342.1	0.5	**22.1552**	0.306	1.4	ug/L	84	Standard
	Cd	111	73416.3	1.3	**23.5237**	0.112	0.5	mg/L	72	Standard
	Cd	114	176710.8	2.3	**23.0660**	0.679	2.9	ug/L	187	Standard
>	**In**	115	450779.8	1.7				ug/L	464664	Standard
	Sn	118	593.3	10.5	**0.0225**	0.007	31.1	ug/L	438	Standard
	Sb	123	134459.2	0.6	**25.2873**	0.568	2.2	ug/L	433	Standard
	Ba	135	60755.6	0.6	**22.2656**	0.236	1.1	ug/L	14	Standard
	Ce	140	58.3	17.8				ug/L	20	Standard
>	**Tb**	159	594207.3	1.3				ug/L	663064	Standard
	Ho	165	6.7	86.6				ug/L	10	Standard
	Tl	203	254029.2	0.4	**24.1884**	0.092	0.4	ug/L	32	Standard
	Tl	205	236493.1	0.8	**25.0798**	0.351	1.4	ug/L	28	Standard
	Pb	206	163174.3	0.1	**24.9871**	0.177	0.7	ug/L	190	Standard
	Pb	207	140697.6	0.4	**23.7818**	0.128	0.5	ug/L	155	Standard
	Pb	208	645107.5	0.5	**24.3846**	0.041	0.2	ug/L	766	Standard
	U	238	308983.9	1.0	**25.0636**	0.337	1.3	ug/L	30	Standard
>	**Bi**	209	350576.9	0.6				ug/L	364780	Standard

Sample ID: LCSS DP WG46971703
Report Date/Time: Friday, April 04, 2014 17:06:04
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.3553**	0.853	240.2	mg/L	0	Standard
	Mg	24	95.0	10.5	**0.0469**	0.008	16.9	mg/L	58	Standard
	K	39	8.3	91.7	**0.0066**	0.074	1120.2	mg/L	12	Standard
	Ca	43	36.7	20.8	**-0.2708**	0.332	122.7	mg/L	53	Standard
	Fe	54	146.6	9.5	**0.0025**	0.010	408.6	mg/L	190	Standard
	Fe	57	655.0	8.0	**0.1610**	0.143	88.9	mg/L	638	Standard
>	**Sc-1**	45	35782.2	1.5				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	3.0	0.0				ug/L	2	Standard
	Br	81	2410.2	3.6				ug/L	2030	Standard
	P	31	211075.6	2.3				ug/L	256822	Standard
	S	34	33797.7	0.7				ug/L	33255	Standard
	Sr	88	140.0	3.6				ug/L	153	Standard
	C	12	1086.7	18.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	12.4	43.3				mg/L	6	Standard
	Ho-1	165	6.7	86.6				mg/L	10	Standard
	Er	166	20.0	50.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		126.598	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.065	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: LCSS DP WG46971703
Report Date/Time: Friday, April 04, 2014 17:06:04
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	97.012
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	96.106
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: LCSS DP WG46971703
Report Date/Time: Friday, April 04, 2014 17:06:04
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404018701
Sample Date/Time: Friday, April 04, 2014 17:06:56
Number of Replicates: 3
Autosampler Position: 227
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	150009.2	2.2				ug/L	113180	Standard
	Be	9	33.3	48.2	**0.0073**	0.005	70.6	ug/L	17	Standard
	Al	27	1749976.8	1.0	**8.1881**	0.125	1.5	ug/L	633	Standard
	Sc	45	38655.9	2.2				ug/L	41381	Standard
	Ti	47	174.0	5.8	**0.4247**	0.021	4.9	ug/L	30	Standard
	V	51	58379.8	1.6	**5.8466**	0.091	1.6	ug/L	1879	Standard
	Cr	52	11739.9	0.8	**0.2886**	0.023	8.0	ug/L	8035	Standard
	Cr	53	1236.7	14.4	**0.4690**	0.119	25.4	ug/L	470	Standard
	Mn	55	30700.1	1.6	**2.4610**	0.001	0.0	ug/L	1182	Standard
	Co	59	632.7	1.4	**0.0239**	0.001	5.0	ug/L	333	Standard
	Ni	60	10282.8	1.5	**3.4077**	0.080	2.3	ug/L	71	Standard
	Cu	65	12433.1	2.6	**4.3209**	0.072	1.7	ug/L	64	Standard
	Zn	66	2374.2	1.7	**1.3144**	0.047	3.6	ug/L	125	Standard
>	**Ge**	72	438755.8	1.6				ug/L	399053	Standard
	As	75	1946.7	1.0	**1.0544**	0.027	2.5	ug/L	-28	Standard
	Se	82	51.6	9.5	**0.1423**	0.021	14.9	ug/L	26	Standard
	Se-1	77	140.0	7.5	**0.2250**	0.084	37.4	ug/L	118	Standard
>	**Ga**	71	58.3	9.9				mg/L	8	Standard
	Rb	85	18766.6	0.4				ug/L	25	Standard
	Y	89	366461.0	2.8				ug/L	368853	Standard
>	**Rh**	103	26.7	54.1				ug/L	10	Standard
	Mo	98	1748.3	1.0	**0.7947**	0.005	0.6	ug/L	68	Standard
	Ag	107	78.3	15.1	**-0.0034**	0.002	46.4	ug/L	84	Standard
	Cd	111	277.7	11.0	**0.0609**	0.010	16.8	mg/L	72	Standard
	Cd	114	671.7	5.6	**0.0592**	0.006	10.0	ug/L	187	Standard
>	**In**	115	458014.2	1.4				ug/L	464664	Standard
	Sn	118	558.3	8.8	**0.0173**	0.005	30.1	ug/L	438	Standard
	Sb	123	6145.7	0.5	**1.1118**	0.020	1.8	ug/L	433	Standard
	Ba	135	41917.9	0.7	**15.1161**	0.279	1.8	ug/L	14	Standard
	Ce	140	20.0	25.0				ug/L	20	Standard
>	**Tb**	159	607973.7	1.0				ug/L	663064	Standard
	Ho	165	10.0	100.0				ug/L	10	Standard
	Tl	203	720.7	4.9	**0.0615**	0.003	5.2	ug/L	32	Standard
	Tl	205	663.3	5.0	**0.0645**	0.004	5.7	ug/L	28	Standard
	Pb	206	275.3	5.5	**0.0041**	0.002	49.6	ug/L	190	Standard
	Pb	207	221.3	6.9	**0.0045**	0.003	61.3	ug/L	155	Standard
	Pb	208	1053.0	2.9	**0.0061**	0.001	18.1	ug/L	766	Standard
	U	238	541.7	1.3	**0.0398**	0.001	2.0	ug/L	30	Standard
>	**Bi**	209	358251.0	0.6				ug/L	364780	Standard

Sample ID: L1404018701
Report Date/Time: Friday, April 04, 2014 17:09:06
Page 1

Approved: April 07, 2014

	Na	23	41.7	18.3	**10.7597**	2.361	21.9	mg/L	0	Standard
	Mg	24	1685.1	2.5	**1.3941**	0.025	1.8	mg/L	58	Standard
	K	39	140.0	42.1	**1.1543**	0.492	42.6	mg/L	12	Standard
	Ca	43	210.0	16.7	**6.2587**	1.477	23.6	mg/L	53	Standard
	Fe	54	119.4	3.9	**-0.0206**	0.003	12.6	mg/L	190	Standard
	Fe	57	671.7	4.2	**0.0816**	0.056	68.6	mg/L	638	Standard
>	**Sc-1**	45	38655.9	2.2				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	3.3	45.8				ug/L	2	Standard
	Br	81	3287.0	3.3				ug/L	2030	Standard
	P	31	279138.2	1.5				ug/L	256822	Standard
	S	34	31888.6	4.2				ug/L	33255	Standard
	Sr	88	221.7	23.9				ug/L	153	Standard
	C	12	3670.4	7.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	26.7	57.3				mg/L	0	Standard
	Dy	164	9.2	3.0				mg/L	6	Standard
	Ho-1	165	10.0	100.0				mg/L	10	Standard
	Er	166	16.7	34.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		132.541	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		109.949	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018701
Report Date/Time: Friday, April 04, 2014 17:09:06
Page 2

Approved: April 07, 2014

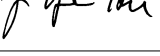
Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		98.569
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		98.210
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: L1404018701
Report Date/Time: Friday, April 04, 2014 17:09:06
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1404018703
Sample Date/Time: Friday, April 04, 2014 17:09:58
Number of Replicates: 3
Autosampler Position: 228
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	150800.4	2.5				ug/L	113180	Standard
	Be	9	35.0	37.8	**0.0077**	0.004	52.2	ug/L	17	Standard
	Al	27	1490489.2	0.6	**6.9357**	0.208	3.0	ug/L	633	Standard
	Sc	45	38565.7	1.2				ug/L	41381	Standard
	Ti	47	162.3	4.2	**0.3887**	0.013	3.2	ug/L	30	Standard
	V	51	98105.7	2.6	**9.8986**	0.309	3.1	ug/L	1879	Standard
	Cr	52	12611.2	2.8	**0.3648**	0.018	4.9	ug/L	8035	Standard
	Cr	53	1416.7	7.9	**0.5814**	0.072	12.3	ug/L	470	Standard
	Mn	55	19757.5	0.9	**1.5288**	0.009	0.6	ug/L	1182	Standard
	Co	59	375.3	4.3	**-0.0063**	0.002	35.1	ug/L	333	Standard
	Ni	60	12690.3	0.7	**4.1822**	0.033	0.8	ug/L	71	Standard
	Cu	65	5138.5	1.8	**1.7532**	0.012	0.7	ug/L	64	Standard
	Zn	66	2227.8	0.4	**1.2145**	0.018	1.4	ug/L	125	Standard
>	**Ge**	72	441975.1	1.4				ug/L	399053	Standard
	As	75	3483.9	2.8	**1.8637**	0.027	1.5	ug/L	-28	Standard
	Se	82	31.0	22.7	**0.0397**	0.032	80.7	ug/L	26	Standard
	Se-1	77	129.0	12.3	**0.1244**	0.141	113.1	ug/L	118	Standard
>	**Ga**	71	25.0	0.0				mg/L	8	Standard
	Rb	85	23236.2	4.2				ug/L	25	Standard
	Y	89	376256.6	1.2				ug/L	368853	Standard
>	**Rh**	103	15.0	0.0				ug/L	10	Standard
	Mo	98	2652.3	2.0	**1.2199**	0.018	1.5	ug/L	68	Standard
	Ag	107	58.7	6.5	**-0.0062**	0.001	8.5	ug/L	84	Standard
	Cd	111	178.3	8.9	**0.0295**	0.005	16.9	mg/L	72	Standard
	Cd	114	454.3	11.1	**0.0312**	0.006	20.1	ug/L	187	Standard
>	**In**	115	457648.2	0.8				ug/L	464664	Standard
	Sn	118	523.3	11.4	**0.0132**	0.007	50.5	ug/L	438	Standard
	Sb	123	9659.5	1.0	**1.7640**	0.009	0.5	ug/L	433	Standard
	Ba	135	17552.5	1.9	**6.3268**	0.128	2.0	ug/L	14	Standard
	Ce	140	36.7	43.8				ug/L	20	Standard
>	**Tb**	159	598906.7	1.9				ug/L	663064	Standard
	Ho	165	23.3	24.7				ug/L	10	Standard
	Tl	203	3202.3	1.5	**0.2915**	0.002	0.7	ug/L	32	Standard
	Tl	205	3007.0	4.6	**0.3062**	0.009	2.9	ug/L	28	Standard
	Pb	206	269.0	2.0	**0.0030**	0.001	49.3	ug/L	190	Standard
	Pb	207	234.0	5.8	**0.0064**	0.001	22.8	ug/L	155	Standard
	Pb	208	1039.7	2.7	**0.0054**	0.000	6.1	ug/L	766	Standard
	U	238	117.3	3.5	**0.0061**	0.001	8.4	ug/L	30	Standard
>	**Bi**	209	359883.3	2.0				ug/L	364780	Standard

Sample ID: L1404018703
Report Date/Time: Friday, April 04, 2014 17:12:08
Page 1

Approved: April 07, 2014

	Na	23	20.0	43.3	**4.7401**	2.491	52.6	mg/L	0	Standard
	Mg	24	1518.4	4.3	**1.2557**	0.069	5.5	mg/L	58	Standard
	K	39	138.3	2.1	**1.1483**	0.033	2.8	mg/L	12	Standard
	Ca	43	90.0	24.2	**1.6624**	0.841	50.6	mg/L	53	Standard
	Fe	54	130.5	12.4	**-0.0138**	0.010	75.9	mg/L	190	Standard
	Fe	57	608.3	7.0	**-0.0524**	0.105	200.8	mg/L	638	Standard
>	**Sc-1**	45	38565.7	1.2				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	4.3	74.2				ug/L	2	Standard
	Br	81	2770.3	4.0				ug/L	2030	Standard
	P	31	285556.2	1.6				ug/L	256822	Standard
	S	34	30634.3	2.7				ug/L	33255	Standard
	Sr	88	185.0	11.8				ug/L	153	Standard
	C	12	2906.9	2.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	43.3	26.6				mg/L	0	Standard
	Dy	164	6.5	173.2				mg/L	6	Standard
	Ho-1	165	23.3	24.7				mg/L	10	Standard
	Er	166	3.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		133.240	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		110.756	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018703
Report Date/Time: Friday, April 04, 2014 17:12:08
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	98.490
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	98.658
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404018705
Sample Date/Time: Friday, April 04, 2014 17:12:59
Number of Replicates: 3
Autosampler Position: 229
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	149977.8	4.1				ug/L	113180	Standard
	Be	9	53.3	53.3	**0.0139**	0.010	69.6	ug/L	17	Standard
	Al	27	1123709.5	2.4	**5.2521**	0.123	2.3	ug/L	633	Standard
	Sc	45	38009.3	2.2				ug/L	41381	Standard
	Ti	47	176.3	2.9	**0.4364**	0.006	1.3	ug/L	30	Standard
	V	51	91243.9	1.9	**9.3534**	0.079	0.8	ug/L	1879	Standard
	Cr	52	9898.9	3.1	**0.1169**	0.012	10.2	ug/L	8035	Standard
	Cr	53	970.0	1.5	**0.2981**	0.020	6.7	ug/L	470	Standard
	Mn	55	96899.9	1.6	**8.1130**	0.288	3.5	ug/L	1182	Standard
	Co	59	606.0	2.5	**0.0215**	0.001	6.4	ug/L	333	Standard
	Ni	60	2081.5	2.5	**0.6691**	0.014	2.1	ug/L	71	Standard
	Cu	65	2390.2	2.4	**0.8121**	0.005	0.6	ug/L	64	Standard
	Zn	66	21449.5	1.7	**13.1331**	0.361	2.8	ug/L	125	Standard
>	Ge	72	434422.3	1.9				ug/L	399053	Standard
	As	75	2705.7	3.5	**1.4749**	0.026	1.8	ug/L	-28	Standard
	Se	82	30.6	26.2	**0.0406**	0.039	94.8	ug/L	26	Standard
	Se-1	77	122.0	16.3	**0.0848**	0.189	222.5	ug/L	118	Standard
>	Ga	71	141.7	23.5				mg/L	8	Standard
	Rb	85	6361.3	1.0				ug/L	25	Standard
	Y	89	371848.4	1.6				ug/L	368853	Standard
>	Rh	103	25.0	69.3				ug/L	10	Standard
	Mo	98	455.8	7.6	**0.1880**	0.014	7.3	ug/L	68	Standard
	Ag	107	351.3	4.4	**0.0360**	0.003	8.7	ug/L	84	Standard
	Cd	111	294.7	5.1	**0.0663**	0.004	6.0	mg/L	72	Standard
	Cd	114	744.9	8.3	**0.0686**	0.009	13.0	ug/L	187	Standard
>	In	115	457895.5	1.8				ug/L	464664	Standard
	Sn	118	30635.9	0.9	**3.5723**	0.088	2.5	ug/L	438	Standard
	Sb	123	11946.1	2.1	**2.1867**	0.010	0.5	ug/L	433	Standard
	Ba	135	13139.0	0.5	**4.7310**	0.073	1.6	ug/L	14	Standard
	Ce	140	425.0	2.4				ug/L	20	Standard
>	Tb	159	606437.0	1.7				ug/L	663064	Standard
	Ho	165	36.7	15.7				ug/L	10	Standard
	Tl	203	844.7	0.8	**0.0725**	0.001	1.8	ug/L	32	Standard
	Tl	205	835.0	3.7	**0.0816**	0.003	3.5	ug/L	28	Standard
	Pb	206	1109.0	1.4	**0.1281**	0.004	3.0	ug/L	190	Standard
	Pb	207	981.0	4.3	**0.1292**	0.006	4.3	ug/L	155	Standard
	Pb	208	4542.9	2.2	**0.1341**	0.002	1.6	ug/L	766	Standard
	U	238	30.0	20.3	**-0.0009**	0.000	53.7	ug/L	30	Standard
>	Bi	209	360857.5	0.9				ug/L	364780	Standard

Sample ID: L1404018705
Report Date/Time: Friday, April 04, 2014 17:15:09
Page 1

Approved: April 07, 2014

	Na	23	18.3	41.7	**4.3541**	2.207	50.7	mg/L	0	Standard
	Mg	24	931.7	7.6	**0.7673**	0.077	10.0	mg/L	58	Standard
	K	39	53.3	44.3	**0.4038**	0.211	52.1	mg/L	12	Standard
	Ca	43	95.0	34.5	**1.9001**	1.236	65.1	mg/L	53	Standard
	Fe	54	149.2	14.4	**-0.0015**	0.013	825.7	mg/L	190	Standard
	Fe	57	625.0	6.9	**0.0024**	0.070	2957.0	mg/L	638	Standard
>	**Sc-1**	45	38009.3	2.2				mg/L	41381	Standard
	Cl	35	2.0	0.0				ug/L	4	Standard
	Kr	83	1.7	91.7				ug/L	2	Standard
	Br	81	2450.2	3.9				ug/L	2030	Standard
	P	31	299989.1	0.7				ug/L	256822	Standard
	S	34	31454.3	1.3				ug/L	33255	Standard
	Sr	88	178.3	7.1				ug/L	153	Standard
	C	12	2706.9	7.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	23.3	49.5				mg/L	0	Standard
	Dy	164	19.4	104.5				mg/L	6	Standard
	Ho-1	165	36.7	15.7				mg/L	10	Standard
	Er	166	13.3	43.3				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		132.513	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.863	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018705
Report Date/Time: Friday, April 04, 2014 17:15:09
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	98.543
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	98.925
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404018707
Sample Date/Time: Friday, April 04, 2014 17:16:01
Number of Replicates: 3
Autosampler Position: 230
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	160194.2	1.4				ug/L	113180	Standard
	Be	9	26.7	39.0	**0.0046**	0.003	66.5	ug/L	17	Standard
	Al	27	3545077.2	3.3	**15.5488**	0.299	1.9	ug/L	633	Standard
	Sc	45	43072.8	2.5				ug/L	41381	Standard
	Ti	47	509.7	3.8	**1.3283**	0.041	3.1	ug/L	30	Standard
	V	51	231673.4	2.0	**23.1681**	0.456	2.0	ug/L	1879	Standard
	Cr	52	11556.4	3.7	**0.2382**	0.026	10.7	ug/L	8035	Standard
	Cr	53	1313.4	6.5	**0.4959**	0.067	13.6	ug/L	470	Standard
	Mn	55	11842.6	1.5	**0.8474**	0.015	1.7	ug/L	1182	Standard
	Co	59	538.0	3.3	**0.0112**	0.001	12.1	ug/L	333	Standard
	Ni	60	1889.8	3.2	**0.5802**	0.009	1.5	ug/L	71	Standard
	Cu	65	4853.1	4.4	**1.6182**	0.043	2.7	ug/L	64	Standard
	Zn	66	2261.2	6.5	**1.2055**	0.074	6.1	ug/L	125	Standard
>	**Ge**	72	451420.1	1.8				ug/L	399053	Standard
	As	75	2572.3	2.2	**1.3505**	0.006	0.4	ug/L	-28	Standard
	Se	82	46.2	17.2	**0.1099**	0.042	37.8	ug/L	26	Standard
	Se-1	77	140.0	2.5	**0.1923**	0.049	25.2	ug/L	118	Standard
>	**Ga**	71	25.0	52.9				mg/L	8	Standard
	Rb	85	20398.7	4.2				ug/L	25	Standard
	Y	89	373054.1	2.8				ug/L	368853	Standard
>	**Rh**	103	26.7	39.0				ug/L	10	Standard
	Mo	98	11698.9	0.8	**5.4704**	0.026	0.5	ug/L	68	Standard
	Ag	107	54.7	23.0	**-0.0068**	0.002	26.4	ug/L	84	Standard
	Cd	111	360.6	6.6	**0.0871**	0.007	8.2	mg/L	72	Standard
	Cd	114	946.9	7.3	**0.0946**	0.009	9.6	ug/L	187	Standard
>	**In**	115	457568.9	0.4				ug/L	464664	Standard
	Sn	118	676.7	8.8	**0.0313**	0.007	22.0	ug/L	438	Standard
	Sb	123	2644.4	4.1	**0.4635**	0.019	4.2	ug/L	433	Standard
	Ba	135	45530.3	2.1	**16.4325**	0.281	1.7	ug/L	14	Standard
	Ce	140	176.7	8.2				ug/L	20	Standard
>	**Tb**	159	607518.5	1.5				ug/L	663064	Standard
	Ho	165	56.7	20.4				ug/L	10	Standard
	Tl	203	214.0	2.0	**0.0141**	0.001	3.6	ug/L	32	Standard
	Tl	205	186.7	14.8	**0.0148**	0.003	19.0	ug/L	28	Standard
	Pb	206	251.3	0.8	**0.0001**	0.001	436.6	ug/L	190	Standard
	Pb	207	197.0	1.8	**0.0002**	0.000	12.1	ug/L	155	Standard
	Pb	208	954.0	3.9	**0.0021**	0.001	44.3	ug/L	766	Standard
	U	238	682.0	5.1	**0.0503**	0.002	3.5	ug/L	30	Standard
>	**Bi**	209	361950.9	1.9				ug/L	364780	Standard

Sample ID: L1404018707
Report Date/Time: Friday, April 04, 2014 17:18:12
Page 1

Approved: April 07, 2014

	Na	23	26.7	21.7	**5.8004**	1.433	24.7	mg/L	0	Standard
	Mg	24	9688.1	0.4	**7.3631**	0.148	2.0	mg/L	58	Standard
	K	39	73.3	20.8	**0.5062**	0.120	23.7	mg/L	12	Standard
	Ca	43	163.3	30.2	**3.8240**	1.726	45.1	mg/L	53	Standard
	Fe	54	138.8	11.1	**-0.0176**	0.008	44.1	mg/L	190	Standard
	Fe	57	658.3	12.9	**-0.0920**	0.186	202.5	mg/L	638	Standard
>	**Sc-1**	45	43072.8	2.5				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	3.7	15.7				ug/L	2	Standard
	Br	81	3323.7	7.4				ug/L	2030	Standard
	P	31	541498.5	1.8				ug/L	256822	Standard
	S	34	30701.1	3.4				ug/L	33255	Standard
	Sr	88	216.7	15.7				ug/L	153	Standard
	C	12	5584.4	7.0				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	63.3	9.1				mg/L	0	Standard
	Dy	164	38.6	26.0				mg/L	6	Standard
	Ho-1	165	56.7	20.4				mg/L	10	Standard
	Er	166	30.0	57.7				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		141.540	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		113.123	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018707
Report Date/Time: Friday, April 04, 2014 17:18:12
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	98.473
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	99.224
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404018709
Sample Date/Time: Friday, April 04, 2014 17:19:04
Number of Replicates: 3
Autosampler Position: 231
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	151627.2	3.6				ug/L	113180	Standard
	Be	9	36.7	31.5	**0.0083**	0.004	45.4	ug/L	17	Standard
	Al	27	1706657.7	2.4	**7.9004**	0.136	1.7	ug/L	633	Standard
	Sc	45	39459.7	2.3				ug/L	41381	Standard
	Ti	47	158.0	5.8	**0.3750**	0.023	6.1	ug/L	30	Standard
	V	51	110250.5	2.2	**11.1072**	0.158	1.4	ug/L	1879	Standard
	Cr	52	14007.5	1.5	**0.4963**	0.011	2.2	ug/L	8035	Standard
	Cr	53	1591.8	1.8	**0.6931**	0.016	2.3	ug/L	470	Standard
	Mn	55	9363.2	1.8	**0.6581**	0.010	1.5	ug/L	1182	Standard
	Co	59	446.3	5.8	**0.0017**	0.003	197.0	ug/L	333	Standard
	Ni	60	10324.9	2.1	**3.3835**	0.049	1.4	ug/L	71	Standard
	Cu	65	8934.6	2.7	**3.0616**	0.060	2.0	ug/L	64	Standard
	Zn	66	3410.1	3.8	**1.9255**	0.062	3.2	ug/L	125	Standard
>	**Ge**	72	443569.8	0.8				ug/L	399053	Standard
	As	75	1446.5	0.5	**0.7777**	0.004	0.5	ug/L	-28	Standard
	Se	82	45.3	14.6	**0.1092**	0.031	28.4	ug/L	26	Standard
	Se-1	77	135.7	2.4	**0.1760**	0.035	19.9	ug/L	118	Standard
>	**Ga**	71	138.3	20.6				mg/L	8	Standard
	Rb	85	20672.4	1.9				ug/L	25	Standard
	Y	89	374973.8	2.7				ug/L	368853	Standard
>	**Rh**	103	15.0	66.7				ug/L	10	Standard
	Mo	98	5830.3	1.0	**2.7232**	0.026	1.0	ug/L	68	Standard
	Ag	107	80.0	4.5	**-0.0031**	0.001	18.8	ug/L	84	Standard
	Cd	111	321.3	5.9	**0.0751**	0.005	6.6	mg/L	72	Standard
	Cd	114	826.4	10.9	**0.0796**	0.013	15.8	ug/L	187	Standard
>	**In**	115	455961.3	1.6				ug/L	464664	Standard
	Sn	118	1873.4	4.1	**0.1737**	0.011	6.4	ug/L	438	Standard
	Sb	123	16443.9	1.7	**3.0332**	0.035	1.1	ug/L	433	Standard
	Ba	135	14734.5	1.6	**5.3286**	0.038	0.7	ug/L	14	Standard
	Ce	140	35.0	0.0				ug/L	20	Standard
>	**Tb**	159	603399.4	1.0				ug/L	663064	Standard
	Ho	165	13.3	114.6				ug/L	10	Standard
	Tl	203	978.7	4.0	**0.0853**	0.005	5.4	ug/L	32	Standard
	Tl	205	951.7	6.0	**0.0941**	0.006	6.8	ug/L	28	Standard
	Pb	206	286.7	7.2	**0.0057**	0.003	56.6	ug/L	190	Standard
	Pb	207	249.0	11.1	**0.0090**	0.005	54.8	ug/L	155	Standard
	Pb	208	1154.7	4.1	**0.0098**	0.002	21.0	ug/L	766	Standard
	U	238	232.0	5.4	**0.0152**	0.001	7.7	ug/L	30	Standard
>	**Bi**	209	359192.7	1.0				ug/L	364780	Standard

Sample ID: L1404018709
Report Date/Time: Friday, April 04, 2014 17:21:14
Page 1

Approved: April 07, 2014

	Na	23	20.0	43.3	**4.6332**	2.515	54.3	mg/L	0	Standard
	Mg	24	1360.1	13.5	**1.0924**	0.134	12.3	mg/L	58	Standard
	K	39	150.0	13.3	**1.2239**	0.200	16.4	mg/L	12	Standard
	Ca	43	98.3	32.7	**1.8845**	1.148	60.9	mg/L	53	Standard
	Fe	54	120.4	9.5	**-0.0215**	0.006	27.4	mg/L	190	Standard
	Fe	57	563.3	6.7	**-0.1779**	0.100	56.2	mg/L	638	Standard
>	**Sc-1**	45	39459.7	2.3				mg/L	41381	Standard
	Cl	35	1.3	173.2				ug/L	4	Standard
	Kr	83	1.0	0.0				ug/L	2	Standard
	Br	81	3037.0	1.3				ug/L	2030	Standard
	P	31	302477.9	0.9				ug/L	256822	Standard
	S	34	30330.3	2.3				ug/L	33255	Standard
	Sr	88	161.7	37.3				ug/L	153	Standard
	C	12	3590.4	0.7				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	33.3	62.5				mg/L	0	Standard
	Dy	164	-0.5	100.0				mg/L	6	Standard
	Ho-1	165	13.3	114.6				mg/L	10	Standard
	Er	166	10.0	100.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		133.970	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		111.156	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018709
Report Date/Time: Friday, April 04, 2014 17:21:14
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	98.127
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	98.468
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404018711
Sample Date/Time: Friday, April 04, 2014 17:22:06
Number of Replicates: 3
Autosampler Position: 232
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	150790.0	0.8				ug/L	113180	Standard
	Be	9	18.3	15.7	**0.0025**	0.001	37.1	ug/L	17	Standard
	Al	27	1582046.0	1.4	**7.3610**	0.162	2.2	ug/L	633	Standard
	Sc	45	38139.6	1.1				ug/L	41381	Standard
	Ti	47	74.3	19.2	**0.1406**	0.040	28.1	ug/L	30	Standard
	V	51	91033.6	2.1	**9.0521**	0.281	3.1	ug/L	1879	Standard
	Cr	52	14333.8	0.7	**0.5157**	0.022	4.3	ug/L	8035	Standard
	Cr	53	1636.8	3.7	**0.7132**	0.042	5.9	ug/L	470	Standard
	Mn	55	1655.1	1.6	**0.0158**	0.003	19.8	ug/L	1182	Standard
	Co	59	227.3	2.4	**-0.0237**	0.001	3.1	ug/L	333	Standard
	Ni	60	2505.2	0.3	**0.7875**	0.009	1.1	ug/L	71	Standard
	Cu	65	2970.6	2.2	**0.9865**	0.019	1.9	ug/L	64	Standard
	Zn	66	2435.5	3.9	**1.3225**	0.069	5.2	ug/L	125	Standard
>	**Ge**	72	447587.2	1.0				ug/L	399053	Standard
	As	75	1439.4	1.3	**0.7671**	0.005	0.7	ug/L	-28	Standard
	Se	82	38.3	17.2	**0.0732**	0.031	42.3	ug/L	26	Standard
	Se-1	77	131.0	5.5	**0.1272**	0.069	54.6	ug/L	118	Standard
>	**Ga**	71	48.3	15.8				mg/L	8	Standard
	Rb	85	16332.1	3.5				ug/L	25	Standard
	Y	89	369175.3	0.9				ug/L	368853	Standard
>	**Rh**	103	6.7	86.6				ug/L	10	Standard
	Mo	98	15278.3	1.4	**7.0707**	0.096	1.4	ug/L	68	Standard
	Ag	107	62.3	18.6	**-0.0058**	0.002	28.8	ug/L	84	Standard
	Cd	111	137.5	16.9	**0.0161**	0.007	44.3	mg/L	72	Standard
	Cd	114	402.5	11.7	**0.0240**	0.006	25.3	ug/L	187	Standard
>	**In**	115	462813.0	0.3				ug/L	464664	Standard
	Sn	118	405.0	11.0	**-0.0013**	0.005	381.1	ug/L	438	Standard
	Sb	123	2903.0	1.0	**0.5054**	0.005	1.0	ug/L	433	Standard
	Ba	135	12677.3	0.8	**4.5149**	0.048	1.1	ug/L	14	Standard
	Ce	140	16.7	96.4				ug/L	20	Standard
>	**Tb**	159	603502.8	0.3				ug/L	663064	Standard
	Ho	165	23.3	24.7				ug/L	10	Standard
	Tl	203	5411.6	3.4	**0.4910**	0.008	1.6	ug/L	32	Standard
	Tl	205	5137.5	2.3	**0.5210**	0.019	3.6	ug/L	28	Standard
	Pb	206	213.3	5.1	**-0.0057**	0.001	24.5	ug/L	190	Standard
	Pb	207	187.7	6.0	**-0.0015**	0.002	132.9	ug/L	155	Standard
	Pb	208	852.0	4.2	**-0.0018**	0.001	39.2	ug/L	766	Standard
	U	238	249.0	3.6	**0.0163**	0.001	5.6	ug/L	30	Standard
>	**Bi**	209	363704.5	1.9				ug/L	364780	Standard

Sample ID: L1404018711
Report Date/Time: Friday, April 04, 2014 17:24:16
Page 1

Approved: April 07, 2014

	Na	23	6.7	114.6	**1.0220**	2.148	210.2	mg/L	0	Standard
	Mg	24	928.4	2.7	**0.7607**	0.025	3.3	mg/L	58	Standard
	K	39	50.0	26.5	**0.3728**	0.117	31.3	mg/L	12	Standard
	Ca	43	91.7	12.6	**1.7674**	0.487	27.6	mg/L	53	Standard
	Fe	54	144.2	15.8	**-0.0049**	0.013	264.7	mg/L	190	Standard
	Fe	57	593.3	2.7	**-0.0711**	0.047	65.6	mg/L	638	Standard
>	**Sc-1**	45	38139.6	1.1				mg/L	41381	Standard
	Cl	35	4.7	137.8				ug/L	4	Standard
	Kr	83	4.3	58.1				ug/L	2	Standard
	Br	81	2790.3	8.0				ug/L	2030	Standard
	P	31	255702.2	2.6				ug/L	256822	Standard
	S	34	32008.8	1.0				ug/L	33255	Standard
	Sr	88	156.7	18.4				ug/L	153	Standard
	C	12	2716.9	2.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	-1.0	86.6				mg/L	6	Standard
	Ho-1	165	23.3	24.7				mg/L	10	Standard
	Er	166	20.0	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		133.231	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		112.162	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018711
Report Date/Time: Friday, April 04, 2014 17:24:16
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.602
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	99.705
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404018713
Sample Date/Time: Friday, April 04, 2014 17:25:08
Number of Replicates: 3
Autosampler Position: 233
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	151657.5	3.6				ug/L	113180	Standard
	Be	9	16.7	62.4	**0.0019**	0.003	175.7	ug/L	17	Standard
	Al	27	1609140.6	1.1	**7.4480**	0.185	2.5	ug/L	633	Standard
	Sc	45	38475.5	1.7				ug/L	41381	Standard
	Ti	47	65.0	15.4	**0.1164**	0.029	25.3	ug/L	30	Standard
	V	51	177264.2	2.4	**17.9666**	0.284	1.6	ug/L	1879	Standard
	Cr	52	14620.4	1.8	**0.5541**	0.024	4.4	ug/L	8035	Standard
	Cr	53	1660.1	11.1	**0.7368**	0.121	16.4	ug/L	470	Standard
	Mn	55	6389.7	2.1	**0.4102**	0.011	2.6	ug/L	1182	Standard
	Co	59	343.7	3.6	**-0.0101**	0.002	17.3	ug/L	333	Standard
	Ni	60	4793.1	2.8	**1.5502**	0.037	2.4	ug/L	71	Standard
	Cu	65	3250.7	3.5	**1.0912**	0.029	2.6	ug/L	64	Standard
	Zn	66	3480.7	1.4	**1.9659**	0.014	0.7	ug/L	125	Standard
>	**Ge**	72	444131.7	1.0				ug/L	399053	Standard
	As	75	1184.7	3.2	**0.6384**	0.025	4.0	ug/L	-28	Standard
	Se	82	26.5	35.5	**0.0179**	0.047	263.9	ug/L	26	Standard
	Se-1	77	116.3	11.2	**0.0132**	0.119	903.5	ug/L	118	Standard
>	**Ga**	71	68.3	8.4				mg/L	8	Standard
	Rb	85	17760.4	0.6				ug/L	25	Standard
	Y	89	372853.0	2.0				ug/L	368853	Standard
>	**Rh**	103	16.7	75.5				ug/L	10	Standard
	Mo	98	3961.6	1.1	**1.8624**	0.028	1.5	ug/L	68	Standard
	Ag	107	53.0	16.4	**-0.0069**	0.001	19.3	ug/L	84	Standard
	Cd	111	87.2	9.1	**0.0012**	0.002	214.6	mg/L	72	Standard
	Cd	114	241.8	3.5	**0.0043**	0.001	21.2	ug/L	187	Standard
>	**In**	115	451037.4	0.8				ug/L	464664	Standard
	Sn	118	740.0	9.1	**0.0401**	0.009	21.8	ug/L	438	Standard
	Sb	123	1419.0	1.2	**0.2401**	0.002	1.0	ug/L	433	Standard
	Ba	135	12047.1	1.4	**4.4025**	0.086	2.0	ug/L	14	Standard
	Ce	140	8.3	69.3				ug/L	20	Standard
>	**Tb**	159	599673.6	0.4				ug/L	663064	Standard
	Ho	165	16.7	91.7				ug/L	10	Standard
	Tl	203	6063.2	0.2	**0.5557**	0.007	1.2	ug/L	32	Standard
	Tl	205	5806.1	1.7	**0.5943**	0.016	2.7	ug/L	28	Standard
	Pb	206	210.7	5.6	**-0.0058**	0.002	27.5	ug/L	190	Standard
	Pb	207	183.0	2.0	**-0.0020**	0.000	18.4	ug/L	155	Standard
	Pb	208	851.3	1.6	**-0.0016**	0.000	16.7	ug/L	766	Standard
	U	238	871.7	1.2	**0.0655**	0.001	0.9	ug/L	30	Standard
>	**Bi**	209	360633.0	0.9				ug/L	364780	Standard

Sample ID: L1404018713
Report Date/Time: Friday, April 04, 2014 17:27:18
Page 1

Approved: April 07, 2014

	Na	23	23.3	53.9	**5.6694**	3.490	61.6	mg/L	0	Standard
	Mg	24	366.7	8.3	**0.2736**	0.032	11.5	mg/L	58	Standard
	K	39	71.7	8.1	**0.5613**	0.057	10.2	mg/L	12	Standard
	Ca	43	96.7	7.9	**1.9290**	0.358	18.5	mg/L	53	Standard
	Fe	54	136.8	7.6	**-0.0100**	0.005	52.9	mg/L	190	Standard
	Fe	57	635.0	8.2	**0.0072**	0.091	1268.7	mg/L	638	Standard
>	**Sc-1**	45	38475.5	1.7				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	0.7	86.6				ug/L	2	Standard
	Br	81	2573.6	9.1				ug/L	2030	Standard
	P	31	255977.6	0.5				ug/L	256822	Standard
	S	34	33051.0	0.5				ug/L	33255	Standard
	Sr	88	180.0	18.2				ug/L	153	Standard
	C	12	2786.9	0.5				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0					mg/L	0	Standard
	Dy	164	12.4	126.0				mg/L	6	Standard
	Ho-1	165	16.7	91.7				mg/L	10	Standard
	Er	166	20.0	50.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		133.997	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		111.296	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018713
Report Date/Time: Friday, April 04, 2014 17:27:18
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	97.067
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	98.863
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 17:28:12
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	149514.6	3.3				ug/L	113180	Standard
	Be	9	139035.4	3.0	**44.6601**	1.763	3.9	ug/L	17	Standard
	Al	27	8509206.0	1.9	**40.0702**	1.869	4.7	ug/L	633	Standard
	Sc	45	38463.8	1.5				ug/L	41381	Standard
	Ti	47	31999.4	2.7	**87.4654**	2.736	3.1	ug/L	30	Standard
	V	51	446577.0	1.1	**44.8969**	0.177	0.4	ug/L	1879	Standard
	Cr	52	497735.2	2.4	**46.7383**	0.955	2.0	ug/L	8035	Standard
	Cr	53	73000.6	3.3	**46.8440**	1.641	3.5	ug/L	470	Standard
	Mn	55	629548.2	1.4	**51.3829**	0.369	0.7	ug/L	1182	Standard
	Co	59	409907.2	1.1	**46.2501**	0.285	0.6	ug/L	333	Standard
	Ni	60	147427.3	2.1	**47.9739**	1.250	2.6	ug/L	71	Standard
	Cu	65	143811.0	1.2	**48.9684**	0.651	1.3	ug/L	64	Standard
	Zn	66	84519.8	1.9	**50.2260**	0.800	1.6	ug/L	125	Standard
>	Ge	72	450999.4	0.9				ug/L	399053	Standard
	As	75	94307.6	1.5	**49.1609**	0.884	1.8	ug/L	-28	Standard
	Se	82	10302.8	3.1	**49.2621**	1.238	2.5	ug/L	26	Standard
	Se-1	77	6287.0	2.5	**50.9041**	1.504	3.0	ug/L	118	Standard
>	Ga	71	61.7	26.1				mg/L	8	Standard
	Rb	85	850.0	2.6				ug/L	25	Standard
	Y	89	385458.0	2.2				ug/L	368853	Standard
>	Rh	103	33.3	22.9				ug/L	10	Standard
	Mo	98	246711.1	2.2	**113.6845**	1.792	1.6	ug/L	68	Standard
	Ag	107	323060.3	0.8	**45.7222**	0.586	1.3	ug/L	84	Standard
	Cd	111	157929.9	0.5	**48.9375**	0.215	0.4	mg/L	72	Standard
	Cd	114	385383.1	1.1	**48.6401**	0.288	0.6	ug/L	187	Standard
>	In	115	466384.0	0.6				ug/L	464664	Standard
	Sn	118	446537.6	3.4	**51.7485**	1.425	2.8	ug/L	438	Standard
	Sb	123	287234.2	1.0	**52.2298**	0.702	1.3	ug/L	433	Standard
	Ba	135	129684.7	0.8	**45.9442**	0.234	0.5	ug/L	14	Standard
	Ce	140	200.0	7.5				ug/L	20	Standard
>	Tb	159	614458.5	2.1				ug/L	663064	Standard
	Ho	165	13.3	114.6				ug/L	10	Standard
	Tl	203	545791.4	1.0	**50.3987**	0.912	1.8	ug/L	32	Standard
	Tl	205	516790.9	0.7	**53.1400**	0.212	0.4	ug/L	28	Standard
	Pb	206	345490.7	0.5	**51.3356**	0.471	0.9	ug/L	190	Standard
	Pb	207	310728.9	0.4	**50.9634**	0.689	1.4	ug/L	155	Standard
	Pb	208	1388982.0	0.7	**50.9429**	0.555	1.1	ug/L	766	Standard
	U	238	712442.4	0.4	**56.0385**	0.792	1.4	ug/L	30	Standard
>	Bi	209	361585.0	1.1				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 17:30:22
Page 1

Approved: April 07, 2014

	Na	23	33.3	8.7	**8.4588**	0.796	9.4	mg/L	0	Standard
	Mg	24	5872.8	4.2	**4.9832**	0.178	3.6	mg/L	58	Standard
	K	39	280.0	8.9	**2.4039**	0.186	7.7	mg/L	12	Standard
	Ca	43	121.7	12.6	**2.8818**	0.525	18.2	mg/L	53	Standard
	Fe	54	7939.7	2.6	**4.6179**	0.076	1.6	mg/L	190	Standard
	Fe	57	2633.6	7.5	**4.3735**	0.348	8.0	mg/L	638	Standard
>	**Sc-1**	45	38463.8	1.5				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	3.0	33.3				ug/L	2	Standard
	Br	81	2186.8	4.8				ug/L	2030	Standard
	P	31	326855.7	2.2				ug/L	256822	Standard
	S	34	41777.6	3.2				ug/L	33255	Standard
	Sr	88	150.0	26.0				ug/L	153	Standard
	C	12	1303.4	29.1				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	26.0	43.3				mg/L	6	Standard
	Ho-1	165	13.3	114.6				mg/L	10	Standard
	Er	166	13.3	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		132.104	
	Be	9	89.320		
	Al	27	80.140		
	Sc	45			
	Ti	47	87.465		
	V	51	89.794		
	Cr	52	93.477		
	Cr	53			
	Mn	55	102.766		
	Co	59	92.500		
	Ni	60	95.948		
	Cu	65	97.937		
	Zn	66	100.452		
>	Ge	72		113.017	
	As	75	98.322		
	Se	82	98.524		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 17:30:22
Page 2

Approved: April 07, 2014

Y	89			
> Rh	103			
Mo	98	113.684		
Ag	107	91.444		
Cd	111	97.875		
Cd	114			
> In	115			100.370
Sn	118	103.497		
Sb	123	104.460		
Ba	135	91.888		
Ce	140			
> Tb	159			
Ho	165			
Tl	203	100.797		
Tl	205			
Pb	206			
Pb	207			
Pb	208	101.886		
U	238	112.077		
> Bi	209			99.124
Na	23			
Mg	24			
K	39			
Ca	43			
Fe	54			
Fe	57			
> Sc-1	45			
Cl	35			
Kr	83			
Br	81			
P	31			
S	34			
Sr	88			
C	12			
N	14			
Hg	202			
Dy	164			
Ho-1	165			
Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample
QC Std 6	Be	9	
QC Std 6	Al	27	
QC Std 6	Ti	47	
QC Std 6	V	51	

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 17:30:22
Page 3

Approved: April 07, 2014

QC Std 6	Mo	98
QC Std 6	U	238

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 17:30:22
Page 4

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 17:31:14
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	141943.5	0.4				ug/L	113180	Standard
	Be	9	25.0	0.0	**0.0051**	0.000	0.7	ug/L	17	Standard
	Al	27	1403.4	17.7	**-0.0173**	0.001	7.1	ug/L	633	Standard
	Sc	45	36194.9	1.9				ug/L	41381	Standard
	Ti	47	21.0	0.0	**-0.0034**	0.001	34.6	ug/L	30	Standard
	V	51	1356.2	2.2	**-0.0710**	0.003	4.9	ug/L	1879	Standard
	Cr	52	6386.3	2.6	**-0.2188**	0.028	12.8	ug/L	8035	Standard
	Cr	53	456.7	18.7	**-0.0409**	0.055	134.3	ug/L	470	Standard
	Mn	55	995.4	5.3	**-0.0345**	0.004	12.9	ug/L	1182	Standard
	Co	59	201.0	11.7	**-0.0255**	0.003	11.5	ug/L	333	Standard
	Ni	60	167.3	13.4	**0.0231**	0.007	29.7	ug/L	71	Standard
	Cu	65	122.7	5.4	**0.0109**	0.002	21.4	ug/L	64	Standard
	Zn	66	132.7	10.2	**-0.0567**	0.007	12.4	ug/L	125	Standard
>	Ge	72	425984.7	1.9				ug/L	399053	Standard
	As	75	-34.0	10.7	**-0.0075**	0.002	24.2	ug/L	-28	Standard
	Se	82	26.8	19.9	**0.0250**	0.030	120.3	ug/L	26	Standard
	Se-1	77	113.7	8.0	**0.0319**	0.099	311.1	ug/L	118	Standard
>	Ga	71	15.0	57.7				mg/L	8	Standard
	Rb	85	25.0	52.9				ug/L	25	Standard
	Y	89	360574.9	2.4				ug/L	368853	Standard
>	Rh	103	11.7	65.5				ug/L	10	Standard
	Mo	98	119.4	38.8	**0.0316**	0.021	67.2	ug/L	68	Standard
	Ag	107	81.0	3.3	**-0.0027**	0.001	19.8	ug/L	84	Standard
	Cd	111	79.1	10.4	**-0.0011**	0.002	216.3	mg/L	72	Standard
	Cd	114	182.9	8.5	**-0.0030**	0.002	82.3	ug/L	187	Standard
>	In	115	444634.1	1.8				ug/L	464664	Standard
	Sn	118	511.7	6.2	**0.0136**	0.004	27.1	ug/L	438	Standard
	Sb	123	609.1	31.1	**0.0890**	0.034	38.1	ug/L	433	Standard
	Ba	135	20.0	26.5	**-0.0048**	0.002	37.7	ug/L	14	Standard
	Ce	140	13.3	57.3				ug/L	20	Standard
>	Tb	159	586269.2	2.3				ug/L	663064	Standard
	Ho	165	6.7	86.6				ug/L	10	Standard
	Tl	203	43.0	36.5	**-0.0016**	0.001	86.5	ug/L	32	Standard
	Tl	205	40.0	76.0	**-0.0002**	0.003	1438.3	ug/L	28	Standard
	Pb	206	203.3	5.7	**-0.0062**	0.002	31.6	ug/L	190	Standard
	Pb	207	183.7	8.0	**-0.0012**	0.002	173.4	ug/L	155	Standard
	Pb	208	817.0	3.6	**-0.0021**	0.001	24.9	ug/L	766	Standard
	U	238	56.0	16.4	**0.0013**	0.001	52.0	ug/L	30	Standard
>	Bi	209	352341.3	1.9				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 17:33:24
Page 1

Approved: April 07, 2014

	Na	23	3.3	86.6	**0.1464**	0.862	588.7	mg/L	0	Standard
	Mg	24	73.3	17.2	**0.0265**	0.013	47.3	mg/L	58	Standard
	K	39	3.3	86.6	**-0.0424**	0.027	63.3	mg/L	12	Standard
	Ca	43	26.7	43.3	**-0.7013**	0.458	65.2	mg/L	53	Standard
	Fe	54	150.9	8.5	**0.0041**	0.010	238.0	mg/L	190	Standard
	Fe	57	578.3	10.9	**-0.0358**	0.145	405.0	mg/L	638	Standard
>	**Sc-1**	45	36194.9	1.9				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	4.0	25.0				ug/L	2	Standard
	Br	81	2103.5	8.4				ug/L	2030	Standard
	P	31	302048.6	2.2				ug/L	256822	Standard
	S	34	41227.7	2.7				ug/L	33255	Standard
	Sr	88	120.0	15.0				ug/L	153	Standard
	C	12	1183.4	4.7				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	6.0	100.7				mg/L	6	Standard
	Ho-1	165	6.7	86.6				mg/L	10	Standard
	Er	166	13.3	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		125.414	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.749	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 17:33:24
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	95.689
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	96.590
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 17:33:24
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404018715
Sample Date/Time: Friday, April 04, 2014 17:34:18
Number of Replicates: 3
Autosampler Position: 234
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	151455.3	2.8				ug/L	113180	Standard
	Be	9	31.7	55.5	**0.0067**	0.006	86.9	ug/L	17	Standard
	Al	27	1757678.3	2.9	**8.1439**	0.079	1.0	ug/L	633	Standard
	Sc	45	38806.3	2.9				ug/L	41381	Standard
	Ti	47	297.3	2.9	**0.7836**	0.017	2.2	ug/L	30	Standard
	V	51	117109.2	1.2	**12.1193**	0.046	0.4	ug/L	1879	Standard
	Cr	52	9092.4	4.1	**0.0407**	0.030	72.4	ug/L	8035	Standard
	Cr	53	1150.0	8.7	**0.4225**	0.074	17.4	ug/L	470	Standard
	Mn	55	49279.0	2.6	**4.0826**	0.071	1.7	ug/L	1182	Standard
	Co	59	1655.8	0.5	**0.1455**	0.001	0.7	ug/L	333	Standard
	Ni	60	5981.5	2.3	**1.9961**	0.027	1.3	ug/L	71	Standard
	Cu	65	8844.2	2.2	**3.1087**	0.054	1.7	ug/L	64	Standard
	Zn	66	2587.9	3.4	**1.4676**	0.051	3.5	ug/L	125	Standard
>	**Ge**	72	432534.3	1.0				ug/L	399053	Standard
	As	75	2641.6	2.3	**1.4466**	0.019	1.3	ug/L	-28	Standard
	Se	82	33.4	18.5	**0.0554**	0.030	54.3	ug/L	26	Standard
	Se-1	77	134.7	3.7	**0.1962**	0.037	18.7	ug/L	118	Standard
>	**Ga**	71	20.0	43.3				mg/L	8	Standard
	Rb	85	44333.1	1.3				ug/L	25	Standard
	Y	89	366346.3	0.9				ug/L	368853	Standard
>	**Rh**	103	21.7	48.0				ug/L	10	Standard
	Mo	98	1850.8	1.5	**0.8653**	0.009	1.0	ug/L	68	Standard
	Ag	107	55.0	8.3	**-0.0066**	0.001	10.7	ug/L	84	Standard
	Cd	111	219.6	5.5	**0.0444**	0.005	10.6	mg/L	72	Standard
	Cd	114	490.2	11.2	**0.0374**	0.006	17.3	ug/L	187	Standard
>	**In**	115	446478.8	1.4				ug/L	464664	Standard
	Sn	118	1795.1	4.0	**0.1690**	0.011	6.7	ug/L	438	Standard
	Sb	123	5879.0	2.6	**1.0903**	0.016	1.4	ug/L	433	Standard
	Ba	135	17080.3	1.7	**6.3102**	0.046	0.7	ug/L	14	Standard
	Ce	140	40.0	25.0				ug/L	20	Standard
>	**Tb**	159	593936.3	0.9				ug/L	663064	Standard
	Ho	165	20.0	50.0				ug/L	10	Standard
	Tl	203	206.7	10.3	**0.0136**	0.002	12.2	ug/L	32	Standard
	Tl	205	200.0	17.5	**0.0165**	0.004	24.1	ug/L	28	Standard
	Pb	206	231.3	10.7	**-0.0024**	0.003	128.8	ug/L	190	Standard
	Pb	207	194.7	11.9	**0.0002**	0.003	1458.3	ug/L	155	Standard
	Pb	208	937.7	6.3	**0.0020**	0.001	76.2	ug/L	766	Standard
	U	238	39.0	11.8	**-0.0001**	0.000	319.4	ug/L	30	Standard
>	**Bi**	209	356728.0	2.1				ug/L	364780	Standard

Sample ID: L1404018715
Report Date/Time: Friday, April 04, 2014 17:36:28
Page 1

Approved: April 07, 2014

	Na	23	6.7	86.6	**1.0278**	1.625	158.1	mg/L	0	Standard
	Mg	24	1923.5	9.2	**1.5920**	0.165	10.4	mg/L	58	Standard
	K	39	108.3	25.4	**0.8779**	0.248	28.3	mg/L	12	Standard
	Ca	43	101.7	15.0	**2.0965**	0.682	32.5	mg/L	53	Standard
	Fe	54	116.1	9.9	**-0.0227**	0.008	35.8	mg/L	190	Standard
	Fe	57	623.3	8.9	**-0.0262**	0.153	583.6	mg/L	638	Standard
>	**Sc-1**	45	38806.3	2.9				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	2.7	21.7				ug/L	2	Standard
	Br	81	2823.6	2.8				ug/L	2030	Standard
	P	31	391225.0	0.8				ug/L	256822	Standard
	S	34	30089.9	3.1				ug/L	33255	Standard
	Sr	88	161.7	9.9				ug/L	153	Standard
	C	12	2440.2	8.0				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	36.7	41.7				mg/L	0	Standard
	Dy	164	2.7	204.8				mg/L	6	Standard
	Ho-1	165	20.0	50.0				mg/L	10	Standard
	Er	166	13.3	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		133.818	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.390	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018715
Report Date/Time: Friday, April 04, 2014 17:36:28
Page 2

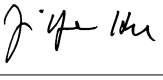
Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		96.086
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		97.793
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1404018717
Sample Date/Time: Friday, April 04, 2014 17:37:20
Number of Replicates: 3
Autosampler Position: 235
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	155022.5	1.7				ug/L	113180	Standard
	Be	9	31.7	24.1	**0.0065**	0.003	39.3	ug/L	17	Standard
	Al	27	2110789.6	2.3	**9.5598**	0.205	2.1	ug/L	633	Standard
	Sc	45	38259.9	1.2				ug/L	41381	Standard
	Ti	47	356.7	4.4	**0.9469**	0.043	4.5	ug/L	30	Standard
	V	51	135159.7	1.1	**13.9373**	0.159	1.1	ug/L	1879	Standard
	Cr	52	8885.3	1.1	**0.0151**	0.017	113.6	ug/L	8035	Standard
	Cr	53	1403.4	3.7	**0.5875**	0.040	6.8	ug/L	470	Standard
	Mn	55	55537.3	1.1	**4.5889**	0.012	0.3	ug/L	1182	Standard
	Co	59	1136.0	4.9	**0.0835**	0.007	8.5	ug/L	333	Standard
	Ni	60	4920.1	1.5	**1.6261**	0.026	1.6	ug/L	71	Standard
	Cu	65	7840.0	0.5	**2.7357**	0.026	0.9	ug/L	64	Standard
	Zn	66	2891.9	2.4	**1.6460**	0.044	2.7	ug/L	125	Standard
>	**Ge**	72	435099.9	1.0				ug/L	399053	Standard
	As	75	2764.9	0.9	**1.5049**	0.021	1.4	ug/L	-28	Standard
	Se	82	41.9	14.0	**0.0964**	0.028	29.0	ug/L	26	Standard
	Se-1	77	143.0	5.7	**0.2608**	0.073	27.9	ug/L	118	Standard
>	**Ga**	71	25.0	34.6				mg/L	8	Standard
	Rb	85	47395.7	3.2				ug/L	25	Standard
	Y	89	374380.8	1.0				ug/L	368853	Standard
>	**Rh**	103	26.7	84.5				ug/L	10	Standard
	Mo	98	2275.6	4.2	**1.0609**	0.046	4.3	ug/L	68	Standard
	Ag	107	64.3	34.1	**-0.0053**	0.003	61.8	ug/L	84	Standard
	Cd	111	262.8	10.7	**0.0576**	0.009	16.1	mg/L	72	Standard
	Cd	114	662.1	12.0	**0.0594**	0.011	17.8	ug/L	187	Standard
>	**In**	115	450132.7	0.4				ug/L	464664	Standard
	Sn	118	605.0	4.4	**0.0241**	0.003	14.3	ug/L	438	Standard
	Sb	123	6180.1	3.0	**1.1381**	0.038	3.4	ug/L	433	Standard
	Ba	135	19335.7	1.6	**7.0870**	0.100	1.4	ug/L	14	Standard
	Ce	140	31.7	18.2				ug/L	20	Standard
>	**Tb**	159	584750.5	0.7				ug/L	663064	Standard
	Ho	165	26.7	21.7				ug/L	10	Standard
	Tl	203	314.0	14.9	**0.0236**	0.004	18.9	ug/L	32	Standard
	Tl	205	290.0	19.2	**0.0257**	0.006	23.1	ug/L	28	Standard
	Pb	206	243.3	5.1	**-0.0007**	0.002	228.8	ug/L	190	Standard
	Pb	207	211.7	7.7	**0.0029**	0.003	86.8	ug/L	155	Standard
	Pb	208	960.7	9.1	**0.0027**	0.003	121.9	ug/L	766	Standard
	U	238	100.0	77.3	**0.0047**	0.006	130.6	ug/L	30	Standard
>	**Bi**	209	358141.9	0.9				ug/L	364780	Standard

Sample ID: L1404018717
Report Date/Time: Friday, April 04, 2014 17:39:30
Page 1

Approved: April 07, 2014

	Na	23	16.7	45.8	**3.8471**	2.206	57.3	mg/L	0	Standard
	Mg	24	2565.2	2.5	**2.1656**	0.030	1.4	mg/L	58	Standard
	K	39	103.3	18.3	**0.8475**	0.179	21.1	mg/L	12	Standard
	Ca	43	123.3	8.4	**2.9748**	0.383	12.9	mg/L	53	Standard
	Fe	54	127.3	5.5	**-0.0152**	0.003	22.0	mg/L	190	Standard
	Fe	57	651.7	5.6	**0.0530**	0.085	160.9	mg/L	638	Standard
>	**Sc-1**	45	38259.9	1.2				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	3.3	45.8				ug/L	2	Standard
	Br	81	2997.0	9.4				ug/L	2030	Standard
	P	31	432929.7	0.4				ug/L	256822	Standard
	S	34	29707.5	3.7				ug/L	33255	Standard
	Sr	88	191.7	10.5				ug/L	153	Standard
	C	12	2786.9	11.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	26.7	57.3				mg/L	0	Standard
	Dy	164	28.4	60.5				mg/L	6	Standard
	Ho-1	165	26.7	21.7				mg/L	10	Standard
	Er	166	33.3	17.3				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		136.970	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		109.033	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018717
Report Date/Time: Friday, April 04, 2014 17:39:30
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	96.873
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	98.180
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404018719
Sample Date/Time: Friday, April 04, 2014 17:40:22
Number of Replicates: 3
Autosampler Position: 236
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	157812.6	0.6				ug/L	113180	Standard
	Be	9	21.7	48.0	**0.0032**	0.003	99.2	ug/L	17	Standard
	Al	27	1742683.5	0.5	**7.7483**	0.084	1.1	ug/L	633	Standard
	Sc	45	42275.6	3.1				ug/L	41381	Standard
	Ti	47	452.3	5.8	**1.1987**	0.062	5.2	ug/L	30	Standard
	V	51	349973.9	2.4	**35.8828**	0.568	1.6	ug/L	1879	Standard
	Cr	52	19653.7	3.2	**1.0534**	0.045	4.3	ug/L	8035	Standard
	Cr	53	2600.2	5.1	**1.3633**	0.084	6.2	ug/L	470	Standard
	Mn	55	14579.0	1.9	**1.0972**	0.013	1.2	ug/L	1182	Standard
	Co	59	336.7	6.9	**-0.0107**	0.002	22.8	ug/L	333	Standard
	Ni	60	2300.5	3.8	**0.7303**	0.025	3.4	ug/L	71	Standard
	Cu	65	3267.0	2.5	**1.1033**	0.026	2.3	ug/L	64	Standard
	Zn	66	3006.0	1.6	**1.6890**	0.038	2.2	ug/L	125	Standard
>	**Ge**	72	441662.0	0.8				ug/L	399053	Standard
	As	75	3381.4	1.3	**1.8107**	0.013	0.7	ug/L	-28	Standard
	Se	82	48.5	11.2	**0.1258**	0.027	21.7	ug/L	26	Standard
	Se-1	77	133.3	2.4	**0.1612**	0.032	19.7	ug/L	118	Standard
>	**Ga**	71	26.7	47.2				mg/L	8	Standard
	Rb	85	38547.3	1.1				ug/L	25	Standard
	Y	89	362701.8	0.9				ug/L	368853	Standard
>	**Rh**	103	26.7	75.8				ug/L	10	Standard
	Mo	98	3987.3	2.4	**1.9061**	0.040	2.1	ug/L	68	Standard
	Ag	107	81.0	6.2	**-0.0027**	0.001	28.3	ug/L	84	Standard
	Cd	111	453.9	2.3	**0.1211**	0.003	2.2	mg/L	72	Standard
	Cd	114	1254.1	6.0	**0.1392**	0.009	6.6	ug/L	187	Standard
>	**In**	115	443651.5	0.5				ug/L	464664	Standard
	Sn	118	1526.7	4.7	**0.1375**	0.009	6.5	ug/L	438	Standard
	Sb	123	5862.8	2.0	**1.0943**	0.016	1.5	ug/L	433	Standard
	Ba	135	23358.0	1.7	**8.6889**	0.105	1.2	ug/L	14	Standard
	Ce	140	45.0	33.3				ug/L	20	Standard
>	**Tb**	159	594675.0	1.3				ug/L	663064	Standard
	Ho	165	10.0	100.0				ug/L	10	Standard
	Tl	203	386.7	2.5	**0.0303**	0.001	2.6	ug/L	32	Standard
	Tl	205	331.7	4.8	**0.0300**	0.002	5.6	ug/L	28	Standard
	Pb	206	247.3	6.1	**-0.0002**	0.002	1199.3	ug/L	190	Standard
	Pb	207	207.7	11.6	**0.0022**	0.004	170.4	ug/L	155	Standard
	Pb	208	959.3	6.2	**0.0026**	0.002	76.7	ug/L	766	Standard
	U	238	21.3	47.9	**-0.0015**	0.001	51.9	ug/L	30	Standard
>	**Bi**	209	358920.6	0.8				ug/L	364780	Standard

Sample ID: L1404018719
Report Date/Time: Friday, April 04, 2014 17:42:32
Page 1

Approved: April 07, 2014

	Na	23	20.0	25.0	**4.2454**	1.314	30.9	mg/L	0	Standard
	Mg	24	1981.8	1.6	**1.5035**	0.069	4.6	mg/L	58	Standard
	K	39	73.3	41.1	**0.5228**	0.263	50.3	mg/L	12	Standard
	Ca	43	91.7	17.5	**1.4085**	0.471	33.4	mg/L	53	Standard
	Fe	54	128.2	22.1	**-0.0219**	0.015	67.9	mg/L	190	Standard
	Fe	57	623.3	5.9	**-0.1394**	0.069	49.7	mg/L	638	Standard
>	**Sc-1**	45	42275.6	3.1				mg/L	41381	Standard
	Cl	35	2.0	0.0				ug/L	4	Standard
	Kr	83	2.7	43.3				ug/L	2	Standard
	Br	81	3160.3	6.4				ug/L	2030	Standard
	P	31	517446.1	2.6				ug/L	256822	Standard
	S	34	26578.3	4.7				ug/L	33255	Standard
	Sr	88	176.7	12.8				ug/L	153	Standard
	C	12	3723.8	7.0				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	33.3	62.5				mg/L	0	Standard
	Dy	164	9.2	101.1				mg/L	6	Standard
	Ho-1	165	10.0	100.0				mg/L	10	Standard
	Er	166	16.7	124.9				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		139.435	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		110.678	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018719
Report Date/Time: Friday, April 04, 2014 17:42:32
Page 2

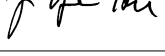
Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		95.478
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		98.394
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1404018721
Sample Date/Time: Friday, April 04, 2014 17:43:24
Number of Replicates: 3
Autosampler Position: 237
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	157632.8	2.6				ug/L	113180	Standard
	Be	9	30.0	33.3	**0.0057**	0.003	50.4	ug/L	17	Standard
	Al	27	1526529.9	0.4	**6.7952**	0.203	3.0	ug/L	633	Standard
	Sc	45	40756.4	2.2				ug/L	41381	Standard
	Ti	47	390.7	2.7	**1.0367**	0.030	2.9	ug/L	30	Standard
	V	51	352058.3	0.4	**36.4302**	0.441	1.2	ug/L	1879	Standard
	Cr	52	30937.2	0.4	**2.1832**	0.056	2.6	ug/L	8035	Standard
	Cr	53	4028.9	3.9	**2.3299**	0.071	3.0	ug/L	470	Standard
	Mn	55	12505.8	0.5	**0.9336**	0.015	1.6	ug/L	1182	Standard
	Co	59	573.3	7.9	**0.0172**	0.006	34.4	ug/L	333	Standard
	Ni	60	2209.8	4.2	**0.7072**	0.041	5.8	ug/L	71	Standard
	Cu	65	4781.1	2.0	**1.6456**	0.060	3.7	ug/L	64	Standard
	Zn	66	2413.9	1.4	**1.3417**	0.013	1.0	ug/L	125	Standard
>	**Ge**	72	437749.2	1.6				ug/L	399053	Standard
	As	75	4475.0	1.3	**2.4144**	0.051	2.1	ug/L	-28	Standard
	Se	82	46.2	5.1	**0.1166**	0.010	8.9	ug/L	26	Standard
	Se-1	77	137.0	3.2	**0.2021**	0.018	9.1	ug/L	118	Standard
>	**Ga**	71	63.3	12.1				mg/L	8	Standard
	Rb	85	37501.4	2.9				ug/L	25	Standard
	Y	89	363374.6	1.4				ug/L	368853	Standard
>	**Rh**	103	21.7	26.6				ug/L	10	Standard
	Mo	98	6423.1	1.7	**3.0424**	0.031	1.0	ug/L	68	Standard
	Ag	107	55.7	11.5	**-0.0066**	0.001	13.0	ug/L	84	Standard
	Cd	111	954.9	1.9	**0.2801**	0.010	3.5	mg/L	72	Standard
	Cd	114	2445.4	5.1	**0.2930**	0.021	7.0	ug/L	187	Standard
>	**In**	115	450022.3	1.3				ug/L	464664	Standard
	Sn	118	426.7	21.6	**0.0026**	0.011	414.9	ug/L	438	Standard
	Sb	123	3466.9	1.3	**0.6268**	0.001	0.2	ug/L	433	Standard
	Ba	135	31757.6	0.8	**11.6522**	0.186	1.6	ug/L	14	Standard
	Ce	140	23.3	12.4				ug/L	20	Standard
>	**Tb**	159	593021.5	1.0				ug/L	663064	Standard
	Ho	165	33.3	91.7				ug/L	10	Standard
	Tl	203	517.7	2.6	**0.0423**	0.002	5.6	ug/L	32	Standard
	Tl	205	441.7	4.6	**0.0412**	0.003	6.7	ug/L	28	Standard
	Pb	206	222.0	5.2	**-0.0041**	0.002	49.7	ug/L	190	Standard
	Pb	207	188.3	9.9	**-0.0011**	0.004	354.2	ug/L	155	Standard
	Pb	208	849.3	5.8	**-0.0016**	0.003	162.4	ug/L	766	Standard
	U	238	254.3	5.8	**0.0169**	0.001	8.4	ug/L	30	Standard
>	**Bi**	209	360360.3	2.4				ug/L	364780	Standard

Sample ID: L1404018721
Report Date/Time: Friday, April 04, 2014 17:45:34
Page 1

Approved: April 07, 2014

	Na	23	21.7	13.3	**4.8617**	0.755	15.5	mg/L	0	Standard
	Mg	24	2353.5	4.8	**1.8608**	0.112	6.0	mg/L	58	Standard
	K	39	98.3	20.5	**0.7473**	0.162	21.7	mg/L	12	Standard
	Ca	43	125.0	18.3	**2.7431**	0.808	29.5	mg/L	53	Standard
	Fe	54	112.4	13.6	**-0.0282**	0.008	27.9	mg/L	190	Standard
	Fe	57	608.3	5.0	**-0.1242**	0.063	50.6	mg/L	638	Standard
>	**Sc-1**	45	40756.4	2.2				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	3.3	69.3				ug/L	2	Standard
	Br	81	3113.7	3.5				ug/L	2030	Standard
	P	31	486373.5	0.9				ug/L	256822	Standard
	S	34	23842.1	2.9				ug/L	33255	Standard
	Sr	88	155.0	11.2				ug/L	153	Standard
	C	12	3883.8	8.1				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	56.7	10.2				mg/L	0	Standard
	Dy	164	9.2	182.2				mg/L	6	Standard
	Ho-1	165	33.3	91.7				mg/L	10	Standard
	Er	166	16.7	69.3				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		139.277	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		109.697	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018721
Report Date/Time: Friday, April 04, 2014 17:45:34
Page 2

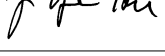
Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		96.849
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		98.788
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1404018721PS WG470019-01
Sample Date/Time: Friday, April 04, 2014 17:46:25
Number of Replicates: 3
Autosampler Position: 238
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	158427.6	2.5				ug/L	113180	Standard
	Be	9	141403.7	2.6	**42.8621**	1.689	3.9	ug/L	17	Standard
	Al	27	1958338.9	1.5	**8.6787**	0.216	2.5	ug/L	633	Standard
	Sc	45	41132.4	2.0				ug/L	41381	Standard
	Ti	47	380.3	7.4	**0.9789**	0.079	8.0	ug/L	30	Standard
	V	51	764169.1	1.1	**77.1951**	0.562	0.7	ug/L	1879	Standard
	Cr	52	490461.9	3.2	**46.1705**	1.257	2.7	ug/L	8035	Standard
	Cr	53	70930.7	1.4	**45.6295**	0.368	0.8	ug/L	470	Standard
	Mn	55	603726.1	1.3	**49.4097**	0.664	1.3	ug/L	1182	Standard
	Co	59	387908.6	1.5	**43.8859**	0.399	0.9	ug/L	333	Standard
	Ni	60	141654.9	1.4	**46.2163**	0.329	0.7	ug/L	71	Standard
	Cu	65	143447.0	1.8	**48.9757**	0.482	1.0	ug/L	64	Standard
	Zn	66	84204.7	2.1	**50.1726**	0.322	0.6	ug/L	125	Standard
>	**Ge**	72	449789.7	1.8				ug/L	399053	Standard
	As	75	95765.5	1.6	**50.0537**	0.169	0.3	ug/L	-28	Standard
	Se	82	10044.0	1.7	**48.1568**	0.247	0.5	ug/L	26	Standard
	Se-1	77	6260.0	2.7	**50.8109**	0.593	1.2	ug/L	118	Standard
>	**Ga**	71	128.3	4.5				mg/L	8	Standard
	Rb	85	37514.8	5.9				ug/L	25	Standard
	Y	89	362758.8	1.8				ug/L	368853	Standard
>	**Rh**	103	36.7	41.7				ug/L	10	Standard
	Mo	98	6312.4	3.1	**2.9707**	0.091	3.1	ug/L	68	Standard
	Ag	107	317740.5	1.4	**46.3126**	0.675	1.5	ug/L	84	Standard
	Cd	111	149516.7	1.3	**47.7158**	0.686	1.4	mg/L	72	Standard
	Cd	114	365093.2	1.0	**47.4574**	0.446	0.9	ug/L	187	Standard
>	**In**	115	452839.6	0.3				ug/L	464664	Standard
	Sn	118	701.7	13.6	**0.0351**	0.011	31.8	ug/L	438	Standard
	Sb	123	276640.4	1.3	**51.8058**	0.679	1.3	ug/L	433	Standard
	Ba	135	154048.9	1.2	**56.2120**	0.795	1.4	ug/L	14	Standard
	Ce	140	26.7	10.8				ug/L	20	Standard
>	**Tb**	159	604456.4	0.3				ug/L	663064	Standard
	Ho	165	26.7	43.3				ug/L	10	Standard
	Tl	203	525463.3	0.7	**48.4290**	0.279	0.6	ug/L	32	Standard
	Tl	205	496721.0	1.9	**50.9808**	0.712	1.4	ug/L	28	Standard
	Pb	206	333250.8	0.8	**49.4234**	0.235	0.5	ug/L	190	Standard
	Pb	207	299894.2	1.3	**49.0904**	0.287	0.6	ug/L	155	Standard
	Pb	208	1348604.7	1.4	**49.3668**	0.276	0.6	ug/L	766	Standard
	U	238	685424.5	1.8	**53.8082**	0.623	1.2	ug/L	30	Standard
>	**Bi**	209	362240.9	0.9				ug/L	364780	Standard

Sample ID: L1404018721PS WG470019-01
Report Date/Time: Friday, April 04, 2014 17:48:35
Page 1

Approved: April 07, 2014

	Na	23	8.3	34.6	**1.3222**	0.734	55.5	mg/L	0	Standard
	Mg	24	2326.8	2.9	**1.8208**	0.017	0.9	mg/L	58	Standard
	K	39	100.0	26.5	**0.7525**	0.208	27.6	mg/L	12	Standard
	Ca	43	101.7	25.2	**1.8670**	0.940	50.3	mg/L	53	Standard
	Fe	54	117.8	35.0	**-0.0259**	0.022	85.0	mg/L	190	Standard
	Fe	57	598.3	8.9	**-0.1560**	0.112	71.9	mg/L	638	Standard
>	**Sc-1**	45	41132.4	2.0				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	2.3	24.7				ug/L	2	Standard
	Br	81	3057.0	3.0				ug/L	2030	Standard
	P	31	485225.6	3.2				ug/L	256822	Standard
	S	34	21890.8	4.8				ug/L	33255	Standard
	Sr	88	181.7	10.4				ug/L	153	Standard
	C	12	3763.8	3.9				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	50.0	20.0				mg/L	0	Standard
	Dy	164	12.2	130.9				mg/L	6	Standard
	Ho-1	165	26.7	43.3				mg/L	10	Standard
	Er	166	23.3	107.9				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		139.979	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		112.714	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018721PS WG470019-01
Report Date/Time: Friday, April 04, 2014 17:48:35
Page 2

Approved: April 07, 2014

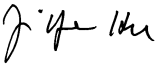
Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		97.455
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		99.304
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: L1404018721PS WG470019-01
Report Date/Time: Friday, April 04, 2014 17:48:35
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1404018721SDL WG470019-02
Sample Date/Time: Friday, April 04, 2014 17:49:27
Number of Replicates: 3
Autosampler Position: 239
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	137839.3	1.9				ug/L	113180	Standard
	Be	9	50.0	20.0	**0.0140**	0.003	22.6	ug/L	17	Standard
	Al	27	354303.5	1.4	**1.7852**	0.040	2.2	ug/L	633	Standard
	Sc	45	34088.3	4.3				ug/L	41381	Standard
	Ti	47	81.0	15.0	**0.1912**	0.036	18.9	ug/L	30	Standard
	V	51	59730.8	1.6	**6.7477**	0.096	1.4	ug/L	1879	Standard
	Cr	52	10069.0	0.7	**0.2457**	0.020	8.3	ug/L	8035	Standard
	Cr	53	1165.0	1.5	**0.5162**	0.018	3.6	ug/L	470	Standard
	Mn	55	2649.2	1.9	**0.1294**	0.003	2.1	ug/L	1182	Standard
	Co	59	252.7	7.8	**-0.0166**	0.002	13.4	ug/L	333	Standard
	Ni	60	474.7	3.3	**0.1438**	0.005	3.2	ug/L	71	Standard
	Cu	65	943.7	6.0	**0.3376**	0.020	5.8	ug/L	64	Standard
	Zn	66	2486.9	0.5	**1.5701**	0.028	1.8	ug/L	125	Standard
>	Ge	72	390794.3	1.1				ug/L	399053	Standard
	As	75	803.7	1.2	**0.4946**	0.001	0.1	ug/L	-28	Standard
	Se	82	29.2	18.4	**0.0496**	0.029	57.9	ug/L	26	Standard
	Se-1	77	114.0	9.2	**0.1236**	0.105	84.9	ug/L	118	Standard
>	Ga	71	11.7	65.5				mg/L	8	Standard
	Rb	85	6408.0	1.7				ug/L	25	Standard
	Y	89	328133.2	2.5				ug/L	368853	Standard
>	Rh	103	11.7	49.5				ug/L	10	Standard
	Mo	98	1062.1	2.2	**0.5296**	0.002	0.4	ug/L	68	Standard
	Ag	107	224.0	23.2	**0.0214**	0.009	42.3	ug/L	84	Standard
	Cd	111	201.5	14.5	**0.0440**	0.009	19.9	mg/L	72	Standard
	Cd	114	499.4	11.1	**0.0443**	0.007	16.5	ug/L	187	Standard
>	In	115	411070.2	2.2				ug/L	464664	Standard
	Sn	118	333.3	5.7	**-0.0048**	0.003	59.3	ug/L	438	Standard
	Sb	123	971.9	9.4	**0.1736**	0.014	8.2	ug/L	433	Standard
	Ba	135	5531.7	1.0	**2.2127**	0.063	2.9	ug/L	14	Standard
	Ce	140	13.3	57.3				ug/L	20	Standard
>	Tb	159	544722.4	1.7				ug/L	663064	Standard
	Ho	165	10.0	100.0				ug/L	10	Standard
	Tl	203	151.0	20.3	**0.0101**	0.003	33.3	ug/L	32	Standard
	Tl	205	116.7	42.9	**0.0092**	0.006	64.7	ug/L	28	Standard
	Pb	206	212.0	11.6	**-0.0015**	0.004	285.1	ug/L	190	Standard
	Pb	207	175.3	14.5	**0.0005**	0.005	1086.8	ug/L	155	Standard
	Pb	208	819.7	9.0	**0.0011**	0.003	299.2	ug/L	766	Standard
	U	238	112.3	38.3	**0.0068**	0.004	56.7	ug/L	30	Standard
>	Bi	209	319631.3	1.3				ug/L	364780	Standard

Sample ID: L1404018721SDL WG470019-02
Report Date/Time: Friday, April 04, 2014 17:51:37
Page 1

Approved: April 07, 2014

	Na	23	6.7	114.6	**1.1978**	2.283	190.6	mg/L	0	Standard
	Mg	24	480.0	1.0	**0.4237**	0.024	5.7	mg/L	58	Standard
	K	39	23.3	24.7	**0.1584**	0.047	29.6	mg/L	12	Standard
	Ca	43	48.3	29.9	**0.2934**	0.526	179.4	mg/L	53	Standard
	Fe	54	60.4	5.2	**-0.0506**	0.003	6.2	mg/L	190	Standard
	Fe	57	633.3	8.9	**0.1862**	0.179	96.3	mg/L	638	Standard
>	**Sc-1**	45	34088.3	4.3				mg/L	41381	Standard
	Cl	35	2.0	173.2				ug/L	4	Standard
	Kr	83	1.7	124.9				ug/L	2	Standard
	Br	81	2066.8	8.5				ug/L	2030	Standard
	P	31	140015.9	2.5				ug/L	256822	Standard
	S	34	21098.0	1.4				ug/L	33255	Standard
	Sr	88	160.0	25.6				ug/L	153	Standard
	C	12	1616.8	8.3				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13.3	86.6				mg/L	0	Standard
	Dy	164	9.7	105.8				mg/L	6	Standard
	Ho-1	165	10.0	100.0				mg/L	10	Standard
	Er	166	6.7	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		121.788	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.930	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018721SDL WG470019-02
Report Date/Time: Friday, April 04, 2014 17:51:37
Page 2

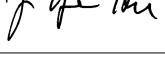
Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	88.466
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	87.623
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 17:52:31
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	150445.1	2.1				ug/L	113180	Standard
	Be	9	143883.4	1.8	**45.9074**	0.165	0.4	ug/L	17	Standard
	Al	27	8432357.6	2.1	**39.4286**	0.650	1.6	ug/L	633	Standard
	Sc	45	38163.0	2.1				ug/L	41381	Standard
	Ti	47	31661.7	2.2	**86.1708**	0.907	1.1	ug/L	30	Standard
	V	51	453963.5	2.5	**45.4488**	0.180	0.4	ug/L	1879	Standard
	Cr	52	503292.3	2.0	**47.0704**	0.347	0.7	ug/L	8035	Standard
	Cr	53	73658.7	2.3	**47.0690**	0.735	1.6	ug/L	470	Standard
	Mn	55	627495.7	0.4	**51.0165**	1.145	2.2	ug/L	1182	Standard
	Co	59	414590.9	1.3	**46.5911**	0.750	1.6	ug/L	333	Standard
	Ni	60	149685.0	2.3	**48.4981**	0.117	0.2	ug/L	71	Standard
	Cu	65	145439.3	2.3	**49.3130**	0.254	0.5	ug/L	64	Standard
	Zn	66	85666.3	2.6	**50.6942**	0.572	1.1	ug/L	125	Standard
>	**Ge**	72	452911.1	2.3				ug/L	399053	Standard
	As	75	93819.3	1.8	**48.7016**	0.357	0.7	ug/L	-28	Standard
	Se	82	10177.2	1.9	**48.4623**	0.428	0.9	ug/L	26	Standard
	Se-1	77	6367.3	2.3	**51.3420**	0.520	1.0	ug/L	118	Standard
>	**Ga**	71	53.3	37.9				mg/L	8	Standard
	Rb	85	943.4	13.0				ug/L	25	Standard
	Y	89	379008.6	2.4				ug/L	368853	Standard
>	**Rh**	103	25.0	34.6				ug/L	10	Standard
	Mo	98	250682.4	3.1	**115.4308**	2.887	2.5	ug/L	68	Standard
	Ag	107	326463.3	0.1	**46.1715**	0.452	1.0	ug/L	84	Standard
	Cd	111	159497.4	1.2	**49.3873**	0.223	0.5	mg/L	72	Standard
	Cd	114	397471.1	2.9	**50.1256**	0.983	2.0	ug/L	187	Standard
>	**In**	115	466716.7	0.9				ug/L	464664	Standard
	Sn	118	447296.8	0.9	**51.8106**	0.894	1.7	ug/L	438	Standard
	Sb	123	287220.9	0.8	**52.1882**	0.138	0.3	ug/L	433	Standard
	Ba	135	131252.1	1.0	**46.4671**	0.341	0.7	ug/L	14	Standard
	Ce	140	216.7	5.8				ug/L	20	Standard
>	**Tb**	159	622244.5	1.8				ug/L	663064	Standard
	Ho	165	13.3	114.6				ug/L	10	Standard
	Tl	203	548400.4	1.2	**50.6810**	0.236	0.5	ug/L	32	Standard
	Tl	205	516229.9	1.5	**53.1289**	0.249	0.5	ug/L	28	Standard
	Pb	206	343806.7	0.7	**51.1327**	0.504	1.0	ug/L	190	Standard
	Pb	207	311291.0	0.5	**51.1013**	0.423	0.8	ug/L	155	Standard
	Pb	208	1389466.4	0.6	**51.0076**	0.389	0.8	ug/L	766	Standard
	U	238	716181.1	1.0	**56.3811**	0.424	0.8	ug/L	30	Standard
>	**Bi**	209	361248.5	1.1				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 17:54:41
Page 1

Approved: April 07, 2014

	Na	23	15.0	33.3	**3.3937**	1.490	43.9	mg/L	0	Standard
	Mg	24	5594.4	2.3	**4.7843**	0.138	2.9	mg/L	58	Standard
	K	39	296.7	6.8	**2.5750**	0.198	7.7	mg/L	12	Standard
	Ca	43	105.0	14.3	**2.2872**	0.663	29.0	mg/L	53	Standard
	Fe	54	8006.0	4.3	**4.6936**	0.101	2.2	mg/L	190	Standard
	Fe	57	2838.6	4.0	**4.8737**	0.210	4.3	mg/L	638	Standard
>	**Sc-1**	45	38163.0	2.1				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	3.0	33.3				ug/L	2	Standard
	Br	81	2203.5	5.7				ug/L	2030	Standard
	P	31	284288.6	5.2				ug/L	256822	Standard
	S	34	32296.4	12.1				ug/L	33255	Standard
	Sr	88	143.3	20.1				ug/L	153	Standard
	C	12	1293.4	18.3				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.4	101.7				mg/L	6	Standard
	Ho-1	165	13.3	114.6				mg/L	10	Standard
	Er	166	13.3	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		132.926	
	Be	9	91.815		
	Al	27	78.857		
	Sc	45			
	Ti	47	86.171		
	V	51	90.898		
	Cr	52	94.141		
	Cr	53			
	Mn	55	102.033		
	Co	59	93.182		
	Ni	60	96.996		
	Cu	65	98.626		
	Zn	66	101.388		
>	Ge	72		113.497	
	As	75	97.403		
	Se	82	96.925		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 17:54:41
Page 2

Approved: April 07, 2014

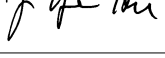
⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	115.431		
|	Ag	107	92.343		
|	Cd	111	98.775		
|	Cd	114			
|>	In	115		100.442	
|	Sn	118	103.621		
|	Sb	123	104.376		
⌊	Ba	135	92.934		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	101.362		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	102.015		
|	U	238	112.762		
⌊>	Bi	209		99.032	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample
QC Std 6	Al	27	
QC Std 6	Ti	47	
QC Std 6	Mo	98	
QC Std 6	U	238	

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 17:54:41
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 17:55:33
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	147319.4	0.9				ug/L	113180	Standard
	Be	9	100.0	88.9	**0.0291**	0.029	98.4	ug/L	17	Standard
	Al	27	9247.9	134.9	**0.0196**	0.059	300.6	ug/L	633	Standard
	Sc	45	37359.3	0.5				ug/L	41381	Standard
	Ti	47	27.7	54.3	**0.0146**	0.043	296.1	ug/L	30	Standard
	V	51	1969.8	35.9	**-0.0080**	0.077	954.1	ug/L	1879	Standard
	Cr	52	7306.8	8.5	**-0.1365**	0.071	51.7	ug/L	8035	Standard
	Cr	53	533.3	25.5	**0.0062**	0.091	1479.6	ug/L	470	Standard
	Mn	55	1416.7	47.9	**0.0004**	0.059	13306.7	ug/L	1182	Standard
	Co	59	374.7	89.1	**-0.0052**	0.040	766.4	ug/L	333	Standard
	Ni	60	204.7	39.1	**0.0351**	0.028	79.0	ug/L	71	Standard
	Cu	65	164.7	56.4	**0.0253**	0.034	132.9	ug/L	64	Standard
	Zn	66	147.3	35.7	**-0.0486**	0.034	69.1	ug/L	125	Standard
>	Ge	72	432552.9	2.3				ug/L	399053	Standard
	As	75	-17.8	126.0	**0.0017**	0.012	734.8	ug/L	-28	Standard
	Se	82	22.2	24.9	**-0.0003**	0.029	8555.6	ug/L	26	Standard
	Se-1	77	113.0	3.2	**0.0102**	0.040	389.2	ug/L	118	Standard
>	Ga	71	15.0	0.0				mg/L	8	Standard
	Rb	85	48.3	57.0				ug/L	25	Standard
	Y	89	362933.8	0.7				ug/L	368853	Standard
>	Rh	103	8.3	34.6				ug/L	10	Standard
	Mo	98	187.3	55.5	**0.0636**	0.049	77.6	ug/L	68	Standard
	Ag	107	251.3	89.5	**0.0223**	0.033	148.3	ug/L	84	Standard
	Cd	111	113.0	52.1	**0.0096**	0.019	196.2	mg/L	72	Standard
	Cd	114	282.8	40.4	**0.0099**	0.015	150.7	ug/L	187	Standard
>	In	115	448164.9	2.0				ug/L	464664	Standard
	Sn	118	701.7	9.7	**0.0360**	0.008	21.4	ug/L	438	Standard
	Sb	123	830.8	31.9	**0.1300**	0.049	37.3	ug/L	433	Standard
	Ba	135	73.7	108.5	**0.0149**	0.029	197.8	ug/L	14	Standard
	Ce	140	18.3	15.7				ug/L	20	Standard
>	Tb	159	587221.9	2.3				ug/L	663064	Standard
	Ho	165	6.7	86.6				ug/L	10	Standard
	Tl	203	242.7	125.6	**0.0177**	0.030	166.8	ug/L	32	Standard
	Tl	205	316.7	114.9	**0.0296**	0.039	132.9	ug/L	28	Standard
	Pb	206	337.3	55.2	**0.0149**	0.029	196.1	ug/L	190	Standard
	Pb	207	287.3	67.2	**0.0169**	0.033	197.5	ug/L	155	Standard
	Pb	208	1345.4	62.8	**0.0184**	0.033	177.6	ug/L	766	Standard
	U	238	367.0	127.8	**0.0269**	0.039	143.9	ug/L	30	Standard
>	Bi	209	348886.2	1.4				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 17:57:43
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.3690**	0.830	224.9	mg/L	0	Standard
	Mg	24	81.7	30.2	**0.0317**	0.022	69.8	mg/L	58	Standard
	K	39	6.7	43.3	**-0.0126**	0.027	211.6	mg/L	12	Standard
	Ca	43	28.3	56.7	**-0.6646**	0.638	96.0	mg/L	53	Standard
	Fe	54	146.0	17.6	**-0.0019**	0.016	859.7	mg/L	190	Standard
	Fe	57	565.0	2.3	**-0.1079**	0.023	21.8	mg/L	638	Standard
>	**Sc-1**	45	37359.3	0.5				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	2.7	78.1				ug/L	2	Standard
	Br	81	2030.1	7.7				ug/L	2030	Standard
	P	31	266420.4	3.5				ug/L	256822	Standard
	S	34	31449.4	6.4				ug/L	33255	Standard
	Sr	88	123.3	33.0				ug/L	153	Standard
	C	12	1276.7	2.4				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	3.0	200.7				mg/L	6	Standard
	Ho-1	165	6.7	86.6				mg/L	10	Standard
	Er	166	6.7	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		130.164	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.395	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 17:57:43
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	96.449
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	95.643
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: PBS C7 WG469722-02
Sample Date/Time: Friday, April 04, 2014 17:58:36
Number of Replicates: 3
Autosampler Position: 240
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	147304.3	0.2				ug/L	113180	Standard
	Be	9	35.0	14.3	**0.0080**	0.002	20.1	ug/L	17	Standard
	Al	27	9297.9	4.2	**0.0202**	0.002	9.0	ug/L	633	Standard
	Sc	45	38007.6	1.4				ug/L	41381	Standard
	Ti	47	31.3	1.8	**0.0238**	0.000	1.9	ug/L	30	Standard
	V	51	1669.8	4.4	**-0.0426**	0.010	23.2	ug/L	1879	Standard
	Cr	52	7792.7	0.9	**-0.0996**	0.016	16.0	ug/L	8035	Standard
	Cr	53	643.3	7.3	**0.0748**	0.038	50.6	ug/L	470	Standard
	Mn	55	2101.5	1.9	**0.0561**	0.006	10.1	ug/L	1182	Standard
	Co	59	189.7	15.3	**-0.0275**	0.003	12.5	ug/L	333	Standard
	Ni	60	259.7	5.1	**0.0524**	0.005	10.4	ug/L	71	Standard
	Cu	65	336.7	11.0	**0.0846**	0.014	16.1	ug/L	64	Standard
	Zn	66	2418.5	0.4	**1.3413**	0.029	2.2	ug/L	125	Standard
>	Ge	72	438780.8	1.6				ug/L	399053	Standard
	As	75	-38.0	91.1	**-0.0089**	0.018	206.5	ug/L	-28	Standard
	Se	82	20.6	52.0	**-0.0096**	0.054	565.8	ug/L	26	Standard
	Se-1	77	115.7	5.8	**0.0183**	0.044	239.2	ug/L	118	Standard
>	Ga	71	23.3	12.4				mg/L	8	Standard
	Rb	85	46.7	34.4				ug/L	25	Standard
	Y	89	371573.1	1.2				ug/L	368853	Standard
>	Rh	103	10.0	132.3				ug/L	10	Standard
	Mo	98	65.7	11.7	**0.0055**	0.004	64.2	ug/L	68	Standard
	Ag	107	74.3	12.2	**-0.0038**	0.001	34.2	ug/L	84	Standard
	Cd	111	78.5	13.8	**-0.0015**	0.004	233.2	mg/L	72	Standard
	Cd	114	187.8	19.6	**-0.0026**	0.005	179.9	ug/L	187	Standard
>	In	115	449040.7	0.4				ug/L	464664	Standard
	Sn	118	828.4	4.4	**0.0512**	0.005	9.1	ug/L	438	Standard
	Sb	123	274.8	2.9	**0.0251**	0.002	6.8	ug/L	433	Standard
	Ba	135	156.7	7.1	**0.0454**	0.004	9.5	ug/L	14	Standard
	Ce	140	106.7	9.8				ug/L	20	Standard
>	Tb	159	600079.4	0.6				ug/L	663064	Standard
	Ho	165	26.7	21.7				ug/L	10	Standard
	Tl	203	56.7	17.7	**-0.0003**	0.001	355.2	ug/L	32	Standard
	Tl	205	51.7	20.1	**0.0011**	0.001	100.3	ug/L	28	Standard
	Pb	206	273.0	4.0	**0.0048**	0.002	35.3	ug/L	190	Standard
	Pb	207	233.0	3.9	**0.0074**	0.002	21.2	ug/L	155	Standard
	Pb	208	1079.0	2.9	**0.0081**	0.001	15.9	ug/L	766	Standard
	U	238	27.0	44.9	**-0.0010**	0.001	96.1	ug/L	30	Standard
>	Bi	209	349586.0	0.2				ug/L	364780	Standard

Sample ID: PBS C7 WG469722-02
Report Date/Time: Friday, April 04, 2014 18:00:46
Page 1

Approved: April 07, 2014

	Na	23	3.3	86.6	**0.0867**	0.810	933.9	mg/L	0	Standard
	Mg	24	126.7	9.1	**0.0693**	0.010	14.1	mg/L	58	Standard
	K	39	8.3	91.7	**0.0015**	0.068	4501.3	mg/L	12	Standard
	Ca	43	30.0	16.7	**-0.6223**	0.179	28.8	mg/L	53	Standard
	Fe	54	160.7	24.9	**0.0053**	0.023	438.2	mg/L	190	Standard
	Fe	57	608.3	7.6	**-0.0328**	0.116	353.6	mg/L	638	Standard
>	**Sc-1**	45	38007.6	1.4				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	2.0	0.0				ug/L	2	Standard
	Br	81	2796.9	8.6				ug/L	2030	Standard
	P	31	268393.5	1.8				ug/L	256822	Standard
	S	34	28313.1	2.8				ug/L	33255	Standard
	Sr	88	173.3	11.7				ug/L	153	Standard
	C	12	1266.7	16.7				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	5.7	116.0				mg/L	6	Standard
	Ho-1	165	26.7	21.7				mg/L	10	Standard
	Er	166	20.0	100.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		130.151	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		109.956	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: PBS C7 WG469722-02
Report Date/Time: Friday, April 04, 2014 18:00:46
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	96.638
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	95.835
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: PBS C7 WG469722-02
Report Date/Time: Friday, April 04, 2014 18:00:46
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: LCSS C7 WG469722-03
Sample Date/Time: Friday, April 04, 2014 18:01:38
Number of Replicates: 3
Autosampler Position: 241
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	145830.1	1.0				ug/L	113180	Standard
	Be	9	68384.0	2.2	**22.5047**	0.278	1.2	ug/L	17	Standard
	Al	27	21939.2	0.7	**0.0816**	0.001	1.5	ug/L	633	Standard
	Sc	45	37095.4	2.3				ug/L	41381	Standard
	Ti	47	38.7	19.6	**0.0450**	0.021	46.4	ug/L	30	Standard
	V	51	217817.6	2.0	**22.5260**	0.357	1.6	ug/L	1879	Standard
	Cr	52	247340.3	2.5	**23.5838**	0.491	2.1	ug/L	8035	Standard
	Cr	53	34908.5	2.0	**22.9718**	0.356	1.6	ug/L	470	Standard
	Mn	55	309014.0	2.5	**26.0106**	0.710	2.7	ug/L	1182	Standard
	Co	59	198102.8	1.2	**23.0789**	0.348	1.5	ug/L	333	Standard
	Ni	60	71850.6	0.8	**24.1463**	0.116	0.5	ug/L	71	Standard
	Cu	65	71202.0	2.6	**25.0397**	0.502	2.0	ug/L	64	Standard
	Zn	66	45463.8	0.1	**27.8629**	0.176	0.6	ug/L	125	Standard
>	**Ge**	72	436346.5	0.7				ug/L	399053	Standard
	As	75	44672.7	0.6	**24.0745**	0.253	1.0	ug/L	-28	Standard
	Se	82	4916.2	1.8	**24.2419**	0.453	1.9	ug/L	26	Standard
	Se-1	77	3016.0	2.7	**24.7505**	0.567	2.3	ug/L	118	Standard
>	**Ga**	71	106.7	17.7				mg/L	8	Standard
	Rb	85	121.7	11.9				ug/L	25	Standard
	Y	89	370814.7	1.0				ug/L	368853	Standard
>	**Rh**	103	31.7	9.1				ug/L	10	Standard
	Mo	98	276.6	5.5	**0.1049**	0.008	7.8	ug/L	68	Standard
	Ag	107	158864.9	1.2	**23.0518**	0.292	1.3	ug/L	84	Standard
	Cd	111	74548.8	0.9	**23.6784**	0.227	1.0	mg/L	72	Standard
	Cd	114	181419.0	2.4	**23.4671**	0.281	1.2	ug/L	187	Standard
>	**In**	115	454752.3	1.2				ug/L	464664	Standard
	Sn	118	3120.3	5.6	**0.3227**	0.024	7.4	ug/L	438	Standard
	Sb	123	139705.8	0.4	**26.0414**	0.332	1.3	ug/L	433	Standard
	Ba	135	62560.2	1.7	**22.7237**	0.189	0.8	ug/L	14	Standard
	Ce	140	350.0	15.5				ug/L	20	Standard
>	**Tb**	159	600977.4	0.8				ug/L	663064	Standard
	Ho	165	40.0	25.0				ug/L	10	Standard
	Tl	203	262341.7	0.2	**24.5550**	0.170	0.7	ug/L	32	Standard
	Tl	205	251270.1	1.7	**26.1934**	0.530	2.0	ug/L	28	Standard
	Pb	206	168567.2	0.9	**25.3731**	0.098	0.4	ug/L	190	Standard
	Pb	207	145920.2	2.1	**24.2429**	0.327	1.3	ug/L	155	Standard
	Pb	208	670178.6	1.5	**24.9004**	0.177	0.7	ug/L	766	Standard
	U	238	334688.6	0.5	**26.6866**	0.276	1.0	ug/L	30	Standard
>	**Bi**	209	356653.4	0.9				ug/L	364780	Standard

Sample ID: LCSS C7 WG469722-03
Report Date/Time: Friday, April 04, 2014 18:03:48
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	123.3	9.4	**0.0690**	0.008	11.6	mg/L	58	Standard
	K	39	8.3	34.6	**0.0034**	0.028	821.1	mg/L	12	Standard
	Ca	43	35.0	57.1	**-0.3952**	0.780	197.4	mg/L	53	Standard
	Fe	54	179.6	10.5	**0.0194**	0.011	58.9	mg/L	190	Standard
	Fe	57	583.3	13.7	**-0.0573**	0.176	306.8	mg/L	638	Standard
>	**Sc-1**	45	37095.4	2.3				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	1.7	69.3				ug/L	2	Standard
	Br	81	2676.9	10.0				ug/L	2030	Standard
	P	31	262972.7	1.2				ug/L	256822	Standard
	S	34	26339.6	4.0				ug/L	33255	Standard
	Sr	88	153.3	21.0				ug/L	153	Standard
	C	12	1276.7	6.7				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	29.2	34.3				mg/L	6	Standard
	Ho-1	165	40.0	25.0				mg/L	10	Standard
	Er	166	16.7	34.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		128.848	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		109.346	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: LCSS C7 WG469722-03
Report Date/Time: Friday, April 04, 2014 18:03:48
Page 2

Approved: April 07, 2014

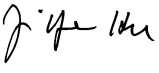
⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		97.867
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		97.772
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: LCSS C7 WG469722-03
Report Date/Time: Friday, April 04, 2014 18:03:48
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1404018722 WG469722-01
Sample Date/Time: Friday, April 04, 2014 18:04:40
Number of Replicates: 3
Autosampler Position: 242
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	168618.2	1.3				ug/L	113180	Standard
	Be	9	8053.8	3.4	**2.2890**	0.049	2.1	ug/L	17	Standard
	Al	27	15710234.9	1.7	**65.5518**	0.720	1.1	ug/L	633	Standard
	Sc	45	70450.1	0.5				ug/L	41381	Standard
	Ti	47	66329.0	3.1	**188.3490**	3.874	2.1	ug/L	30	Standard
	V	51	740686.9	1.0	**77.5113**	1.045	1.3	ug/L	1879	Standard
	Cr	52	798086.8	2.0	**78.4177**	0.856	1.1	ug/L	8035	Standard
	Cr	53	116850.7	2.7	**78.1338**	2.809	3.6	ug/L	470	Standard
	Mn	55	10191485.2	2.1	**865.9065**	10.337	1.2	ug/L	1182	Standard
	Co	59	92722.9	1.3	**10.8295**	0.120	1.1	ug/L	333	Standard
	Ni	60	373698.7	0.5	**126.3707**	1.908	1.5	ug/L	71	Standard
	Cu	65	171738.8	0.5	**60.7552**	0.934	1.5	ug/L	64	Standard
	Zn	66	845662.1	0.5	**523.3442**	3.506	0.7	ug/L	125	Standard
>	Ge	72	434183.6	1.1				ug/L	399053	Standard
	As	75	34046.7	0.7	**18.4417**	0.066	0.4	ug/L	-28	Standard
	Se	82	1236.3	2.5	**6.0442**	0.206	3.4	ug/L	26	Standard
	Se-1	77	1038.0	3.8	**7.9338**	0.384	4.8	ug/L	118	Standard
>	Ga	71	59863.1	1.9				mg/L	8	Standard
	Rb	85	1250674.6	2.3				ug/L	25	Standard
	Y	89	5613000.8	1.9				ug/L	368853	Standard
>	Rh	103	156.7	21.3				ug/L	10	Standard
	Mo	98	20546.2	1.7	**10.2948**	0.132	1.3	ug/L	68	Standard
	Ag	107	9841.5	1.3	**1.5036**	0.010	0.6	ug/L	84	Standard
	Cd	111	79090.9	2.2	**26.6943**	0.376	1.4	mg/L	72	Standard
	Cd	114	193140.0	2.1	**26.5530**	0.452	1.7	ug/L	187	Standard
>	In	115	427953.2	0.8				ug/L	464664	Standard
	Sn	118	6301.3	5.8	**0.7480**	0.045	6.0	ug/L	438	Standard
	Sb	123	762.7	1.6	**0.1244**	0.004	2.9	ug/L	433	Standard
	Ba	135	701957.7	0.9	**271.0771**	0.327	0.1	ug/L	14	Standard
	Ce	140	4633781.5	1.1				ug/L	20	Standard
>	Tb	159	725138.9	0.7				ug/L	663064	Standard
	Ho	165	362672.9	1.2				ug/L	10	Standard
	Tl	203	11130.4	2.5	**1.0473**	0.015	1.5	ug/L	32	Standard
	Tl	205	10720.5	1.2	**1.1252**	0.004	0.3	ug/L	28	Standard
	Pb	206	206772.0	0.1	**31.4671**	0.322	1.0	ug/L	190	Standard
	Pb	207	151255.6	0.8	**25.4030**	0.368	1.4	ug/L	155	Standard
	Pb	208	731980.2	0.8	**27.4927**	0.272	1.0	ug/L	766	Standard
	U	238	379584.3	1.5	**30.5875**	0.123	0.4	ug/L	30	Standard
>	Bi	209	352886.8	1.1				ug/L	364780	Standard

Sample ID: L1404018722 WG469722-01
Report Date/Time: Friday, April 04, 2014 18:06:50
Page 1

Approved: April 07, 2014

	Na	23	390.0	7.7	**58.6170**	4.820	8.2	mg/L	0	Standard
	Mg	24	741.7	7.4	**0.3061**	0.026	8.6	mg/L	58	Standard
	K	39	235.0	3.7	**1.0624**	0.036	3.4	mg/L	12	Standard
	Ca	43	1883.5	3.9	**37.7138**	1.658	4.4	mg/L	53	Standard
	Fe	54	34069.6	0.3	**10.9421**	0.069	0.6	mg/L	190	Standard
	Fe	57	10261.8	2.8	**10.8671**	0.398	3.7	mg/L	638	Standard
>	**Sc-1**	45	70450.1	0.5				mg/L	41381	Standard
	Cl	35	2.0	0.0				ug/L	4	Standard
	Kr	83	1.7	34.6				ug/L	2	Standard
	Br	81	3677.1	8.0				ug/L	2030	Standard
	P	31	292218.3	4.7				ug/L	256822	Standard
	S	34	36223.3	5.0				ug/L	33255	Standard
	Sr	88	891.7	2.1				ug/L	153	Standard
	C	12	1756.8	9.3				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	566.7	2.0				mg/L	0	Standard
	Dy	164	238944.9	2.7				mg/L	6	Standard
	Ho-1	165	362672.9	1.2				mg/L	10	Standard
	Er	166	183248.6	2.4				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		148.983	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.804	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018722 WG469722-01
Report Date/Time: Friday, April 04, 2014 18:06:50
Page 2

Approved: April 07, 2014

Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		92.100
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		96.740
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	
Ni 60 Upper, S, EEE	Ni	60	
Zn 66 Upper, S, EEE	Zn	66	

Approved: April 07, 2014

Ba 135 Upper, S, EEE	Ba	135

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404018722S WG469722-04
Sample Date/Time: Friday, April 04, 2014 18:07:41
Number of Replicates: 3
Autosampler Position: 243
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	160794.3	3.1				ug/L	113180	Standard
	Be	9	74385.6	3.5	**22.2015**	0.096	0.4	ug/L	17	Standard
	Al	27	16238959.9	0.7	**71.1093**	2.536	3.6	ug/L	633	Standard
	Sc	45	72124.6	0.9				ug/L	41381	Standard
	Ti	47	76970.8	2.6	**218.4962**	3.930	1.8	ug/L	30	Standard
	V	51	678372.9	0.2	**70.9586**	2.017	2.8	ug/L	1879	Standard
	Cr	52	682345.3	1.8	**66.8953**	1.048	1.6	ug/L	8035	Standard
	Cr	53	98774.3	0.7	**65.9644**	1.720	2.6	ug/L	470	Standard
	Mn	55	10480943.5	1.4	**890.2505**	16.604	1.9	ug/L	1182	Standard
	Co	59	271053.6	2.5	**31.7336**	0.195	0.6	ug/L	333	Standard
	Ni	60	338445.7	1.8	**114.3799**	1.081	0.9	ug/L	71	Standard
	Cu	65	195348.8	1.7	**69.0790**	1.309	1.9	ug/L	64	Standard
	Zn	66	635608.9	0.8	**393.1989**	8.595	2.2	ug/L	125	Standard
>	Ge	72	434458.4	2.7				ug/L	399053	Standard
	As	75	63655.0	1.7	**34.4538**	0.435	1.3	ug/L	-28	Standard
	Se	82	4302.0	1.8	**21.2951**	0.232	1.1	ug/L	26	Standard
	Se-1	77	2936.6	1.8	**24.1904**	0.450	1.9	ug/L	118	Standard
>	Ga	71	43243.3	3.4				mg/L	8	Standard
	Rb	85	919765.7	2.6				ug/L	25	Standard
	Y	89	6576433.7	2.8				ug/L	368853	Standard
>	Rh	103	220.0	36.4				ug/L	10	Standard
	Mo	98	6307.9	2.6	**3.1487**	0.050	1.6	ug/L	68	Standard
	Ag	107	152929.2	2.3	**23.6263**	0.469	2.0	ug/L	84	Standard
	Cd	111	157585.5	0.8	**53.3263**	0.416	0.8	mg/L	72	Standard
	Cd	114	383374.7	1.7	**52.8406**	0.679	1.3	ug/L	187	Standard
>	In	115	427117.4	1.6				ug/L	464664	Standard
	Sn	118	14046.5	3.8	**1.7303**	0.041	2.3	ug/L	438	Standard
	Sb	123	61009.6	1.6	**12.0941**	0.234	1.9	ug/L	433	Standard
	Ba	135	729969.9	0.7	**282.4751**	2.472	0.9	ug/L	14	Standard
	Ce	140	5329204.2	1.1				ug/L	20	Standard
>	Tb	159	745099.4	3.0				ug/L	663064	Standard
	Ho	165	417603.9	1.2				ug/L	10	Standard
	Tl	203	260721.1	0.5	**24.8511**	0.099	0.4	ug/L	32	Standard
	Tl	205	248277.9	1.4	**26.3568**	0.475	1.8	ug/L	28	Standard
	Pb	206	357447.3	1.2	**54.8336**	0.193	0.4	ug/L	190	Standard
	Pb	207	279148.4	0.8	**47.2630**	0.154	0.3	ug/L	155	Standard
	Pb	208	1323049.5	1.0	**50.0951**	0.096	0.2	ug/L	766	Standard
	U	238	793359.6	1.0	**64.4216**	0.187	0.3	ug/L	30	Standard
>	Bi	209	350222.3	0.9				ug/L	364780	Standard

Sample ID: L1404018722S WG469722-04
Report Date/Time: Friday, April 04, 2014 18:09:51
Page 1

Approved: April 07, 2014

	Na	23	401.7	5.9	**58.9827**	3.984	6.8	mg/L	0	Standard
	Mg	24	846.7	11.1	**0.3462**	0.046	13.2	mg/L	58	Standard
	K	39	196.7	12.8	**0.8547**	0.113	13.3	mg/L	12	Standard
	Ca	43	2210.2	5.7	**43.5019**	2.933	6.7	mg/L	53	Standard
	Fe	54	17904.1	2.0	**5.5725**	0.122	2.2	mg/L	190	Standard
	Fe	57	5846.1	3.7	**5.4365**	0.304	5.6	mg/L	638	Standard
>	**Sc-1**	45	72124.6	0.9				mg/L	41381	Standard
	Cl	35	2.7	114.6				ug/L	4	Standard
	Kr	83	2.0	50.0				ug/L	2	Standard
	Br	81	3230.3	5.0				ug/L	2030	Standard
	P	31	278634.8	2.6				ug/L	256822	Standard
	S	34	33062.7	1.1				ug/L	33255	Standard
	Sr	88	1023.4	8.5				ug/L	153	Standard
	C	12	2030.1	11.3				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	526.7	7.9				mg/L	0	Standard
	Dy	164	272561.0	0.6				mg/L	6	Standard
	Ho-1	165	417603.9	1.2				mg/L	10	Standard
	Er	166	204990.7	0.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		142.070	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.872	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018722S WG469722-04
Report Date/Time: Friday, April 04, 2014 18:09:51
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	91.920
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	96.009
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	
Ni 60 Upper, S, EEE	Ni	60	
Zn 66 Upper, S, EEE	Zn	66	

Sample ID: L1404018722S WG469722-04
Report Date/Time: Friday, April 04, 2014 18:09:51
Page 3

Approved: April 07, 2014

Ba 135 Upper, S, EEE	Ba	135

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404018722SD WG469722-05
Sample Date/Time: Friday, April 04, 2014 18:10:43
Number of Replicates: 3
Autosampler Position: 244
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	162451.4	1.9				ug/L	113180	Standard
	Be	9	73863.0	1.3	**21.8254**	0.345	1.6	ug/L	17	Standard
	Al	27	10819363.6	2.4	**46.8655**	1.588	3.4	ug/L	633	Standard
	Sc	45	69823.9	1.4				ug/L	41381	Standard
	Ti	47	71406.2	1.9	**204.5556**	3.206	1.6	ug/L	30	Standard
	V	51	611915.9	1.4	**64.5548**	1.109	1.7	ug/L	1879	Standard
	Cr	52	599169.3	2.6	**59.1762**	1.445	2.4	ug/L	8035	Standard
	Cr	53	86903.6	2.0	**58.5107**	1.019	1.7	ug/L	470	Standard
	Mn	55	10016125.4	0.7	**858.4638**	5.955	0.7	ug/L	1182	Standard
	Co	59	262723.3	0.9	**31.0439**	0.401	1.3	ug/L	333	Standard
	Ni	60	283087.4	2.4	**96.5404**	2.032	2.1	ug/L	71	Standard
	Cu	65	177431.7	1.6	**63.3107**	1.061	1.7	ug/L	64	Standard
	Zn	66	502190.0	1.1	**313.4188**	3.309	1.1	ug/L	125	Standard
>	Ge	72	430439.6	0.4				ug/L	399053	Standard
	As	75	60063.7	1.4	**32.8067**	0.331	1.0	ug/L	-28	Standard
	Se	82	4144.5	1.5	**20.6996**	0.229	1.1	ug/L	26	Standard
	Se-1	77	2788.6	4.2	**23.1407**	1.041	4.5	ug/L	118	Standard
>	Ga	71	39444.6	1.7				mg/L	8	Standard
	Rb	85	872700.8	0.9				ug/L	25	Standard
	Y	89	5915307.8	2.0				ug/L	368853	Standard
>	Rh	103	178.3	13.3				ug/L	10	Standard
	Mo	98	5284.4	0.9	**2.6425**	0.031	1.2	ug/L	68	Standard
	Ag	107	148124.2	1.1	**22.9579**	0.350	1.5	ug/L	84	Standard
	Cd	111	143598.1	2.0	**48.7386**	0.267	0.5	mg/L	72	Standard
	Cd	114	348604.5	1.4	**48.1988**	0.566	1.2	ug/L	187	Standard
>	In	115	425791.4	2.0				ug/L	464664	Standard
	Sn	118	11851.3	1.2	**1.4575**	0.018	1.2	ug/L	438	Standard
	Sb	123	56486.0	0.6	**11.2312**	0.170	1.5	ug/L	433	Standard
	Ba	135	680747.9	0.9	**264.2628**	2.986	1.1	ug/L	14	Standard
	Ce	140	4530271.4	0.7				ug/L	20	Standard
>	Tb	159	742316.4	1.8				ug/L	663064	Standard
	Ho	165	387657.2	1.4				ug/L	10	Standard
	Tl	203	258549.3	0.3	**24.5497**	0.152	0.6	ug/L	32	Standard
	Tl	205	242967.9	1.5	**25.6915**	0.221	0.9	ug/L	28	Standard
	Pb	206	345864.1	0.7	**52.8532**	0.200	0.4	ug/L	190	Standard
	Pb	207	272971.4	0.7	**46.0387**	0.128	0.3	ug/L	155	Standard
	Pb	208	1287980.7	0.9	**48.5793**	0.210	0.4	ug/L	766	Standard
	U	238	752414.3	1.5	**60.8614**	0.657	1.1	ug/L	30	Standard
>	Bi	209	351569.2	0.7				ug/L	364780	Standard

Sample ID: L1404018722SD WG469722-05
Report Date/Time: Friday, April 04, 2014 18:12:53
Page 1

Approved: April 07, 2014

	Na	23	405.0	8.1	**61.4586**	5.263	8.6	mg/L	0	Standard
	Mg	24	698.3	15.2	**0.2893**	0.054	18.8	mg/L	58	Standard
	K	39	176.7	18.0	**0.7873**	0.147	18.7	mg/L	12	Standard
	Ca	43	1916.8	2.6	**38.7718**	0.997	2.6	mg/L	53	Standard
	Fe	54	16122.7	4.4	**5.1785**	0.275	5.3	mg/L	190	Standard
	Fe	57	5426.0	2.0	**5.1539**	0.130	2.5	mg/L	638	Standard
>	**Sc-1**	45	69823.9	1.4				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	2.7	43.3				ug/L	2	Standard
	Br	81	2957.0	8.0				ug/L	2030	Standard
	P	31	273016.3	1.0				ug/L	256822	Standard
	S	34	33345.0	1.9				ug/L	33255	Standard
	Sr	88	856.7	5.9				ug/L	153	Standard
	C	12	1786.8	6.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	496.7	29.3				mg/L	0	Standard
	Dy	164	251060.5	1.8				mg/L	6	Standard
	Ho-1	165	387657.2	1.4				mg/L	10	Standard
	Er	166	193960.5	1.8				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		143.534	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		107.865	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018722SD WG469722-05
Report Date/Time: Friday, April 04, 2014 18:12:53
Page 2

Approved: April 07, 2014

Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		91.634
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		96.378
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	
Zn 66 Upper, S, EEE	Zn	66	
Ba 135 Upper, S, EEE	Ba	135	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404018702
Sample Date/Time: Friday, April 04, 2014 18:13:45
Number of Replicates: 3
Autosampler Position: 245
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	171479.9	0.1				ug/L	113180	Standard
	Be	9	8157.2	1.2	**2.2801**	0.027	1.2	ug/L	17	Standard
	Al	27	6041621.4	1.5	**24.7733**	0.395	1.6	ug/L	633	Standard
	Sc	45	92449.6	2.0				ug/L	41381	Standard
	Ti	47	265837.7	1.9	**805.4246**	12.667	1.6	ug/L	30	Standard
	V	51	11689875.7	0.3	**1308.2160**	21.391	1.6	ug/L	1879	Standard
	Cr	52	10033827.0	1.5	**1062.2808**	7.224	0.7	ug/L	8035	Standard
	Cr	53	1413674.7	2.3	**1012.1228**	20.324	2.0	ug/L	470	Standard
	Mn	55	2025106.1	6.9	**183.4291**	12.557	6.8	ug/L	1182	Standard
	Co	59	31125.9	0.4	**3.8457**	0.051	1.3	ug/L	333	Standard
	Ni	60	1151803.2	1.0	**415.4607**	4.022	1.0	ug/L	71	Standard
	Cu	65	558501.4	0.6	**210.8053**	3.130	1.5	ug/L	64	Standard
	Zn	66	3159020.1	0.5	**2085.6569**	36.042	1.7	ug/L	125	Standard
>	Ge	72	407108.9	1.4				ug/L	399053	Standard
	As	75	91517.8	0.3	**52.8524**	0.687	1.3	ug/L	-28	Standard
	Se	82	8245.7	1.8	**43.6665**	0.257	0.6	ug/L	26	Standard
	Se-1	77	5558.0	0.5	**49.8332**	0.475	1.0	ug/L	118	Standard
>	Ga	71	87748.5	2.4				mg/L	8	Standard
	Rb	85	461135.7	0.7				ug/L	25	Standard
	Y	89	14177467.5	2.2				ug/L	368853	Standard
>	Rh	103	680.0	11.5				ug/L	10	Standard
	Mo	98	177277.8	0.4	**97.8185**	0.533	0.5	ug/L	68	Standard
	Ag	107	18423.2	1.5	**3.1082**	0.044	1.4	ug/L	84	Standard
	Cd	111	142707.9	1.7	**52.9476**	0.417	0.8	mg/L	72	Standard
	Cd	114	351700.8	1.2	**53.1557**	0.761	1.4	ug/L	187	Standard
>	In	115	389507.9	0.9				ug/L	464664	Standard
	Sn	118	11240.8	2.7	**1.5127**	0.036	2.4	ug/L	438	Standard
	Sb	123	40069.8	1.5	**8.7016**	0.119	1.4	ug/L	433	Standard
	Ba	135	443334.9	0.3	**188.1091**	1.680	0.9	ug/L	14	Standard
	Ce	140	3842176.3	0.7				ug/L	20	Standard
>	Tb	159	826082.9	0.8				ug/L	663064	Standard
	Ho	165	771975.2	0.8				ug/L	10	Standard
	Tl	203	14158.6	0.9	**1.4356**	0.017	1.2	ug/L	32	Standard
	Tl	205	13290.8	1.3	**1.5023**	0.027	1.8	ug/L	28	Standard
	Pb	206	331348.3	0.2	**54.2785**	0.943	1.7	ug/L	190	Standard
	Pb	207	111761.7	0.6	**20.1880**	0.414	2.1	ug/L	155	Standard
	Pb	208	692383.5	0.3	**27.9801**	0.508	1.8	ug/L	766	Standard
	U	238	3473321.3	1.2	**301.2035**	7.679	2.5	ug/L	30	Standard
>	Bi	209	328040.8	1.7				ug/L	364780	Standard

Sample ID: L1404018702
Report Date/Time: Friday, April 04, 2014 18:15:55
Page 1

Approved: April 07, 2014

	Na	23	1400.1	8.4	**162.0181**	16.964	10.5	mg/L	0	Standard
	Mg	24	4178.9	3.4	**1.4477**	0.066	4.6	mg/L	58	Standard
	K	39	243.3	6.3	**0.8237**	0.072	8.7	mg/L	12	Standard
	Ca	43	7166.7	0.4	**112.7772**	2.764	2.5	mg/L	53	Standard
	Fe	54	35772.2	0.4	**8.7396**	0.219	2.5	mg/L	190	Standard
	Fe	57	12079.8	0.3	**9.6082**	0.233	2.4	mg/L	638	Standard
>	**Sc-1**	45	92449.6	2.0				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	4.0	50.0				ug/L	2	Standard
	Br	81	8699.2	2.6				ug/L	2030	Standard
	P	31	438566.0	1.5				ug/L	256822	Standard
	S	34	32561.6	2.8				ug/L	33255	Standard
	Sr	88	3062.0	5.3				ug/L	153	Standard
	C	12	2356.9	11.6				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	2320.2	4.1				mg/L	0	Standard
	Dy	164	479126.6	1.6				mg/L	6	Standard
	Ho-1	165	771975.2	0.8				mg/L	10	Standard
	Er	166	383496.2	0.9				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		151.511	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		102.019	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	83.826
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	89.928
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

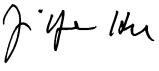
QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	

Approved: April 07, 2014

Mn 55 Upper, S, EEE	Mn	55
Ni 60 Upper, S, EEE	Ni	60
Cu 65 Upper, S, EEE	Cu	65
Zn 66 Upper, S, EEE	Zn	66
Ba 135 Upper, S, EEE	Ba	135
U 238 Upper, S, EEE	U	238

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1404018704
Sample Date/Time: Friday, April 04, 2014 18:16:46
Number of Replicates: 3
Autosampler Position: 246
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	154232.0	4.3				ug/L	113180	Standard
	Be	9	3235.3	5.8	**1.0048**	0.075	7.5	ug/L	17	Standard
	Al	27	2243330.4	0.5	**10.2253**	0.428	4.2	ug/L	633	Standard
	Sc	45	70771.6	2.4				ug/L	41381	Standard
	Ti	47	29270.6	1.3	**82.4768**	1.194	1.4	ug/L	30	Standard
	V	51	770765.9	0.1	**80.0638**	0.552	0.7	ug/L	1879	Standard
	Cr	52	1109228.3	1.7	**108.5110**	1.360	1.3	ug/L	8035	Standard
	Cr	53	162795.1	2.0	**108.1562**	2.052	1.9	ug/L	470	Standard
	Mn	55	12751816.5	0.4	**1075.5106**	8.285	0.8	ug/L	1182	Standard
	Co	59	56320.1	0.2	**6.5093**	0.032	0.5	ug/L	333	Standard
	Ni	60	1401544.7	0.3	**470.4777**	1.848	0.4	ug/L	71	Standard
	Cu	65	142390.0	1.1	**49.9861**	0.245	0.5	ug/L	64	Standard
	Zn	66	1445924.4	0.4	**888.2639**	8.412	0.9	ug/L	125	Standard
>	Ge	72	437436.6	0.7				ug/L	399053	Standard
	As	75	64490.8	0.5	**34.6620**	0.108	0.3	ug/L	-28	Standard
	Se	82	787.0	6.3	**3.7765**	0.224	5.9	ug/L	26	Standard
	Se-1	77	708.7	4.6	**5.0640**	0.237	4.7	ug/L	118	Standard
>	Ga	71	18519.7	3.8				mg/L	8	Standard
	Rb	85	91738.6	0.8				ug/L	25	Standard
	Y	89	2612180.2	3.2				ug/L	368853	Standard
>	Rh	103	91.7	16.7				ug/L	10	Standard
	Mo	98	43251.4	0.5	**21.2439**	0.036	0.2	ug/L	68	Standard
	Ag	107	1354.7	2.4	**0.1899**	0.006	3.1	ug/L	84	Standard
	Cd	111	38038.3	0.5	**12.5558**	0.124	1.0	mg/L	72	Standard
	Cd	114	91408.6	1.2	**12.2891**	0.196	1.6	ug/L	187	Standard
>	In	115	437141.8	0.6				ug/L	464664	Standard
	Sn	118	4425.6	3.0	**0.4991**	0.018	3.5	ug/L	438	Standard
	Sb	123	1983.3	0.9	**0.3581**	0.001	0.4	ug/L	433	Standard
	Ba	135	247838.0	1.0	**93.6932**	1.299	1.4	ug/L	14	Standard
	Ce	140	3384749.0	0.8				ug/L	20	Standard
>	Tb	159	680778.5	0.7				ug/L	663064	Standard
	Ho	165	196225.9	1.0				ug/L	10	Standard
	Tl	203	25049.4	0.7	**2.2978**	0.020	0.9	ug/L	32	Standard
	Tl	205	23887.2	2.3	**2.4418**	0.064	2.6	ug/L	28	Standard
	Pb	206	116103.2	0.8	**17.1545**	0.236	1.4	ug/L	190	Standard
	Pb	207	85633.3	1.3	**13.9614**	0.140	1.0	ug/L	155	Standard
	Pb	208	416480.6	0.6	**15.1875**	0.133	0.9	ug/L	766	Standard
	U	238	148081.2	1.4	**11.5948**	0.081	0.7	ug/L	30	Standard
>	Bi	209	363113.2	1.1				ug/L	364780	Standard

Sample ID: L1404018704
Report Date/Time: Friday, April 04, 2014 18:18:56
Page 1

Approved: April 07, 2014

	Na	23	138.3	59.9	**20.2868**	13.078	64.5	mg/L	0	Standard
	Mg	24	415.0	5.5	**0.1528**	0.015	9.6	mg/L	58	Standard
	K	39	58.3	42.3	**0.2088**	0.122	58.6	mg/L	12	Standard
	Ca	43	695.0	6.9	**12.7415**	1.333	10.5	mg/L	53	Standard
	Fe	54	46690.9	1.3	**14.9661**	0.398	2.7	mg/L	190	Standard
	Fe	57	13487.7	0.6	**14.6481**	0.387	2.6	mg/L	638	Standard
>	**Sc-1**	45	70771.6	2.4				mg/L	41381	Standard
	Cl	35	2.7	43.3				ug/L	4	Standard
	Kr	83	2.3	24.7				ug/L	2	Standard
	Br	81	3407.1	4.4				ug/L	2030	Standard
	P	31	313789.7	1.4				ug/L	256822	Standard
	S	34	39720.3	1.8				ug/L	33255	Standard
	Sr	88	508.3	10.6				ug/L	153	Standard
	C	12	1240.1	9.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	2446.9	7.4				mg/L	0	Standard
	Dy	164	142161.8	1.1				mg/L	6	Standard
	Ho-1	165	196225.9	1.0				mg/L	10	Standard
	Er	166	87998.2	1.1				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		136.272	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		109.619	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018704
Report Date/Time: Friday, April 04, 2014 18:18:56
Page 2

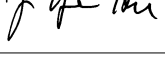
Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		94.077
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		99.543
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

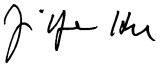
Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	
Mn 55 Upper, S, EEE	Mn	55	
Ni 60 Upper, S, EEE	Ni	60	

Approved: April 07, 2014



Zn 66 Upper, S, EEE	Zn	66

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1404018706
Sample Date/Time: Friday, April 04, 2014 18:19:48
Number of Replicates: 3
Autosampler Position: 247
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	160016.2	3.6				ug/L	113180	Standard
	Be	9	4670.7	0.4	**1.3989**	0.047	3.4	ug/L	17	Standard
	Al	27	16853728.8	0.9	**74.1623**	2.417	3.3	ug/L	633	Standard
	Sc	45	87617.7	2.7				ug/L	41381	Standard
	Ti	47	106471.8	0.8	**304.0520**	2.325	0.8	ug/L	30	Standard
	V	51	1269559.8	2.9	**133.7229**	3.902	2.9	ug/L	1879	Standard
	Cr	52	2177293.5	1.5	**216.6116**	3.310	1.5	ug/L	8035	Standard
	Cr	53	309646.5	2.3	**208.7022**	4.586	2.2	ug/L	470	Standard
	Mn	55	7157117.1	0.9	**611.3831**	6.268	1.0	ug/L	1182	Standard
	Co	59	61092.9	1.4	**7.1568**	0.088	1.2	ug/L	333	Standard
	Ni	60	1033396.0	0.7	**351.3642**	1.764	0.5	ug/L	71	Standard
	Cu	65	249795.7	0.9	**88.8520**	0.775	0.9	ug/L	64	Standard
	Zn	66	1442057.6	0.5	**897.3109**	5.682	0.6	ug/L	125	Standard
>	Ge	72	431852.9	0.2				ug/L	399053	Standard
	As	75	69166.4	1.6	**37.6539**	0.579	1.5	ug/L	-28	Standard
	Se	82	1840.2	0.8	**9.0989**	0.087	1.0	ug/L	26	Standard
	Se-1	77	1489.7	2.4	**11.8713**	0.279	2.4	ug/L	118	Standard
>	Ga	71	44916.5	0.9				mg/L	8	Standard
	Rb	85	167432.1	2.7				ug/L	25	Standard
	Y	89	10029828.5	0.9				ug/L	368853	Standard
>	Rh	103	435.0	2.0				ug/L	10	Standard
	Mo	98	79830.1	0.7	**41.3961**	0.352	0.9	ug/L	68	Standard
	Ag	107	7460.5	0.7	**1.1744**	0.024	2.1	ug/L	84	Standard
	Cd	111	57030.2	3.2	**19.8744**	0.487	2.4	mg/L	72	Standard
	Cd	114	135753.1	1.7	**19.2710**	0.299	1.6	ug/L	187	Standard
>	In	115	414340.1	1.6				ug/L	464664	Standard
	Sn	118	12255.0	1.4	**1.5517**	0.010	0.6	ug/L	438	Standard
	Sb	123	11510.8	1.0	**2.3304**	0.015	0.6	ug/L	433	Standard
	Ba	135	543154.2	1.1	**216.6557**	1.726	0.8	ug/L	14	Standard
	Ce	140	4124644.3	2.8				ug/L	20	Standard
>	Tb	159	820535.2	2.1				ug/L	663064	Standard
	Ho	165	631166.1	1.3				ug/L	10	Standard
	Tl	203	14861.0	0.7	**1.4499**	0.016	1.1	ug/L	32	Standard
	Tl	205	14024.8	2.0	**1.5256**	0.046	3.0	ug/L	28	Standard
	Pb	206	143244.7	1.0	**22.5533**	0.151	0.7	ug/L	190	Standard
	Pb	207	82672.3	0.3	**14.3584**	0.187	1.3	ug/L	155	Standard
	Pb	208	427336.6	0.7	**16.6011**	0.148	0.9	ug/L	766	Standard
	U	238	563522.3	0.6	**47.0111**	0.590	1.3	ug/L	30	Standard
>	Bi	209	340929.3	1.6				ug/L	364780	Standard

Sample ID: L1404018706
Report Date/Time: Friday, April 04, 2014 18:21:58
Page 1

Approved: April 07, 2014

	Na	23	621.7	4.8	**75.3720**	3.744	5.0	mg/L	0	Standard
	Mg	24	1201.7	6.0	**0.4116**	0.039	9.5	mg/L	58	Standard
	K	39	103.3	19.6	**0.3277**	0.073	22.3	mg/L	12	Standard
	Ca	43	3450.4	2.0	**56.4171**	1.804	3.2	mg/L	53	Standard
	Fe	54	39259.8	2.2	**10.1354**	0.308	3.0	mg/L	190	Standard
	Fe	57	12018.1	2.8	**10.1553**	0.368	3.6	mg/L	638	Standard
>	**Sc-1**	45	87617.7	2.7				mg/L	41381	Standard
	Cl	35	2.0	0.0				ug/L	4	Standard
	Kr	83	3.0	57.7				ug/L	2	Standard
	Br	81	4900.8	13.5				ug/L	2030	Standard
	P	31	321398.1	2.8				ug/L	256822	Standard
	S	34	34480.9	2.7				ug/L	33255	Standard
	Sr	88	2216.8	7.0				ug/L	153	Standard
	C	12	2196.8	9.3				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	2390.2	7.0				mg/L	0	Standard
	Dy	164	408230.1	3.4				mg/L	6	Standard
	Ho-1	165	631166.1	1.3				mg/L	10	Standard
	Er	166	304778.4	1.1				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		141.382	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.220	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	89.170
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	93.462
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

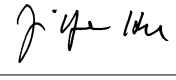
QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	

Approved: April 07, 2014

Mn 55 Upper, S, EEE	Mn	55
Ni 60 Upper, S, EEE	Ni	60
Zn 66 Upper, S, EEE	Zn	66
Ba 135 Upper, S, EEE	Ba	135

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1404018706PS WG470020-01
Sample Date/Time: Friday, April 04, 2014 18:22:50
Number of Replicates: 3
Autosampler Position: 248
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	175978.0	2.2				ug/L	113180	Standard
	Be	9	156340.8	0.6	**42.6523**	0.692	1.6	ug/L	17	Standard
	Al	27	18114425.5	0.5	**72.4509**	1.841	2.5	ug/L	633	Standard
	Sc	45	97764.4	0.8				ug/L	41381	Standard
	Ti	47	118023.4	2.6	**311.1566**	4.339	1.4	ug/L	30	Standard
	V	51	1924815.7	2.2	**187.2579**	1.542	0.8	ug/L	1879	Standard
	Cr	52	2961851.2	1.6	**272.2775**	0.644	0.2	ug/L	8035	Standard
	Cr	53	415727.4	1.8	**258.8851**	8.925	3.4	ug/L	470	Standard
	Mn	55	8740723.4	2.2	**689.3373**	6.480	0.9	ug/L	1182	Standard
	Co	59	490590.9	2.2	**53.3803**	0.828	1.6	ug/L	333	Standard
	Ni	60	1290975.7	1.8	**405.2661**	2.325	0.6	ug/L	71	Standard
	Cu	65	420767.4	0.8	**138.2121**	1.171	0.8	ug/L	64	Standard
	Zn	66	1643140.1	0.5	**944.1323**	14.926	1.6	ug/L	125	Standard
>	Ge	72	467746.4	1.6				ug/L	399053	Standard
	As	75	170637.8	1.1	**85.7596**	0.887	1.0	ug/L	-28	Standard
	Se	82	11761.5	0.3	**54.2485**	0.881	1.6	ug/L	26	Standard
	Se-1	77	7696.3	0.9	**60.2577**	0.699	1.2	ug/L	118	Standard
>	Ga	71	51572.6	1.6				mg/L	8	Standard
	Rb	85	183785.1	2.6				ug/L	25	Standard
	Y	89	10937014.8	0.2				ug/L	368853	Standard
>	Rh	103	481.7	11.8				ug/L	10	Standard
	Mo	98	88238.5	1.6	**42.7779**	0.379	0.9	ug/L	68	Standard
	Ag	107	336941.5	1.0	**50.1870**	0.445	0.9	ug/L	84	Standard
	Cd	111	211759.2	1.0	**69.0684**	0.107	0.2	mg/L	72	Standard
	Cd	114	513980.0	1.6	**68.2889**	1.342	2.0	ug/L	187	Standard
>	In	115	443144.8	0.8				ug/L	464664	Standard
	Sn	118	16145.3	4.6	**1.9229**	0.099	5.2	ug/L	438	Standard
	Sb	123	307491.6	0.8	**58.8501**	0.802	1.4	ug/L	433	Standard
	Ba	135	705660.0	0.9	**263.1660**	0.645	0.2	ug/L	14	Standard
	Ce	140	4446645.5	2.4				ug/L	20	Standard
>	Tb	159	871889.8	0.2				ug/L	663064	Standard
	Ho	165	675483.7	1.3				ug/L	10	Standard
	Tl	203	579223.4	0.6	**54.7423**	0.747	1.4	ug/L	32	Standard
	Tl	205	552314.3	2.6	**58.1234**	1.196	2.1	ug/L	28	Standard
	Pb	206	506204.1	0.8	**77.0054**	1.222	1.6	ug/L	190	Standard
	Pb	207	406873.5	0.7	**68.3107**	0.891	1.3	ug/L	155	Standard
	Pb	208	1880700.4	0.3	**70.6119**	0.712	1.0	ug/L	766	Standard
	U	238	1374556.2	0.0	**110.6583**	0.823	0.7	ug/L	30	Standard
>	Bi	209	353273.8	0.8				ug/L	364780	Standard

Sample ID: L1404018706PS WG470020-01
Report Date/Time: Friday, April 04, 2014 18:25:00
Page 1

Approved: April 07, 2014

	Na	23	730.0	4.2	**79.3305**	2.734	3.4	mg/L	0	Standard
	Mg	24	1276.7	9.1	**0.3892**	0.036	9.2	mg/L	58	Standard
	K	39	101.7	32.7	**0.2808**	0.117	41.5	mg/L	12	Standard
	Ca	43	3917.2	2.1	**57.4146**	1.577	2.7	mg/L	53	Standard
	Fe	54	43114.6	0.5	**9.9703**	0.027	0.3	mg/L	190	Standard
	Fe	57	13706.2	3.0	**10.4054**	0.282	2.7	mg/L	638	Standard
>	**Sc-1**	45	97764.4	0.8				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	2.3	65.5				ug/L	2	Standard
	Br	81	5477.7	7.5				ug/L	2030	Standard
	P	31	498477.8	2.8				ug/L	256822	Standard
	S	34	34793.2	0.1				ug/L	33255	Standard
	Sr	88	2538.5	8.6				ug/L	153	Standard
	C	12	2016.8	16.6				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	2300.2	6.1				mg/L	0	Standard
	Dy	164	441242.7	2.1				mg/L	6	Standard
	Ho-1	165	675483.7	1.3				mg/L	10	Standard
	Er	166	323459.8	1.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		155.485	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		117.214	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018706PS WG470020-01
Report Date/Time: Friday, April 04, 2014 18:25:00
Page 2

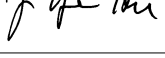
Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	95.369
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	96.846
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

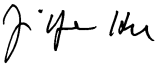
Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	

Approved: April 07, 2014



Mn 55 Upper, S, EEE	Mn	55
Ni 60 Upper, S, EEE	Ni	60
Cu 65 Upper, S, EEE	Cu	65
Zn 66 Upper, S, EEE	Zn	66
Ba 135 Upper, S, EEE	Ba	135
U 238 Upper, S, EEE	U	238

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1404018706SDL WG470020-02
Sample Date/Time: Friday, April 04, 2014 18:25:51
Number of Replicates: 3
Autosampler Position: 249
Sample Description: 5
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	136394.5	0.9				ug/L	113180	Standard
	Be	9	836.7	2.5	**0.2911**	0.005	1.6	ug/L	17	Standard
	Al	27	3190277.2	2.8	**16.4401**	0.533	3.2	ug/L	633	Standard
	Sc	45	42686.7	0.8				ug/L	41381	Standard
	Ti	47	19180.1	1.2	**59.7684**	0.631	1.1	ug/L	30	Standard
	V	51	224043.2	1.8	**25.5971**	0.330	1.3	ug/L	1879	Standard
	Cr	52	386144.1	1.2	**41.2583**	0.507	1.2	ug/L	8035	Standard
	Cr	53	56021.7	0.4	**40.9569**	0.406	1.0	ug/L	470	Standard
	Mn	55	1179206.8	1.9	**109.9144**	2.022	1.8	ug/L	1182	Standard
	Co	59	10998.0	1.5	**1.3673**	0.021	1.5	ug/L	333	Standard
	Ni	60	190765.2	1.1	**70.8143**	1.003	1.4	ug/L	71	Standard
	Cu	65	47519.4	0.8	**18.4338**	0.128	0.7	ug/L	64	Standard
	Zn	66	292441.6	0.3	**198.6298**	0.663	0.3	ug/L	125	Standard
>	Ge	72	395416.7	0.6				ug/L	399053	Standard
	As	75	13103.5	0.8	**7.7998**	0.047	0.6	ug/L	-28	Standard
	Se	82	393.1	1.1	**2.0373**	0.035	1.7	ug/L	26	Standard
	Se-1	77	360.7	2.6	**2.4315**	0.094	3.9	ug/L	118	Standard
>	Ga	71	8062.1	5.6				mg/L	8	Standard
	Rb	85	31247.2	1.2				ug/L	25	Standard
	Y	89	1910853.7	1.5				ug/L	368853	Standard
>	Rh	103	76.7	27.2				ug/L	10	Standard
	Mo	98	14594.5	1.1	**7.8425**	0.030	0.4	ug/L	68	Standard
	Ag	107	1396.7	1.7	**0.2166**	0.005	2.2	ug/L	84	Standard
	Cd	111	11285.8	0.4	**4.0663**	0.059	1.4	mg/L	72	Standard
	Cd	114	27670.1	0.9	**4.0602**	0.060	1.5	ug/L	187	Standard
>	In	115	398749.0	1.5				ug/L	464664	Standard
	Sn	118	2433.5	3.1	**0.2815**	0.010	3.4	ug/L	438	Standard
	Sb	123	2390.6	3.7	**0.4820**	0.023	4.8	ug/L	433	Standard
	Ba	135	102244.5	1.2	**42.3700**	0.638	1.5	ug/L	14	Standard
	Ce	140	707299.8	0.8				ug/L	20	Standard
>	Tb	159	593881.5	1.3				ug/L	663064	Standard
	Ho	165	115807.7	2.2				ug/L	10	Standard
	Tl	203	2822.6	2.6	**0.2786**	0.011	3.9	ug/L	32	Standard
	Tl	205	2721.9	5.6	**0.3009**	0.021	6.8	ug/L	28	Standard
	Pb	206	27779.4	2.0	**4.4674**	0.143	3.2	ug/L	190	Standard
	Pb	207	16142.6	0.9	**2.8566**	0.060	2.1	ug/L	155	Standard
	Pb	208	83174.2	1.2	**3.2958**	0.085	2.6	ug/L	766	Standard
	U	238	103086.9	1.4	**8.8393**	0.244	2.8	ug/L	30	Standard
>	Bi	209	331637.6	1.3				ug/L	364780	Standard

Sample ID: L1404018706SDL WG470020-02
Report Date/Time: Friday, April 04, 2014 18:28:01
Page 1

Approved: April 07, 2014

	Na	23	116.7	24.4	**28.4795**	6.996	24.6	mg/L	0	Standard
	Mg	24	263.3	9.4	**0.1626**	0.018	11.1	mg/L	58	Standard
	K	39	23.3	24.7	**0.1129**	0.047	41.8	mg/L	12	Standard
	Ca	43	685.0	8.3	**21.9336**	2.156	9.8	mg/L	53	Standard
	Fe	54	7261.8	1.1	**3.7900**	0.021	0.6	mg/L	190	Standard
	Fe	57	2786.9	4.0	**4.1083**	0.172	4.2	mg/L	638	Standard
>	**Sc-1**	45	42686.7	0.8				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	0.7	86.6				ug/L	2	Standard
	Br	81	2283.5	12.1				ug/L	2030	Standard
	P	31	111766.3	4.8				ug/L	256822	Standard
	S	34	33268.2	2.4				ug/L	33255	Standard
	Sr	88	501.7	7.2				ug/L	153	Standard
	C	12	1300.1	16.2				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	486.7	10.3				mg/L	0	Standard
	Dy	164	77933.3	2.0				mg/L	6	Standard
	Ho-1	165	115807.7	2.2				mg/L	10	Standard
	Er	166	54491.2	1.9				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		120.511	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.089	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018706SDL WG470020-02
Report Date/Time: Friday, April 04, 2014 18:28:01
Page 2

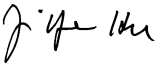
Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		85.815
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		90.914
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Mn 55 Upper, S, EEE	Mn	55	
Zn 66 Upper, S, EEE	Zn	66	

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 18:28:55
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	154819.3	3.6				ug/L	113180	Standard
	Be	9	143405.2	5.6	**44.4833**	2.562	5.8	ug/L	17	Standard
	Al	27	8598330.5	0.7	**39.1042**	1.663	4.3	ug/L	633	Standard
	Sc	45	39321.0	1.6				ug/L	41381	Standard
	Ti	47	32587.3	0.7	**87.9268**	1.143	1.3	ug/L	30	Standard
	V	51	453418.7	1.7	**45.0085**	1.179	2.6	ug/L	1879	Standard
	Cr	52	499957.6	0.7	**46.3478**	1.077	2.3	ug/L	8035	Standard
	Cr	53	69931.0	1.9	**44.2729**	0.065	0.1	ug/L	470	Standard
	Mn	55	632012.4	1.0	**50.9269**	0.847	1.7	ug/L	1182	Standard
	Co	59	412506.3	1.0	**45.9473**	0.409	0.9	ug/L	333	Standard
	Ni	60	148093.3	0.8	**47.5699**	0.533	1.1	ug/L	71	Standard
	Cu	65	145583.6	2.0	**48.9330**	0.706	1.4	ug/L	64	Standard
	Zn	66	86710.1	0.3	**50.8784**	1.102	2.2	ug/L	125	Standard
>	**Ge**	72	456897.5	1.9				ug/L	399053	Standard
	As	75	94666.0	1.1	**48.7131**	0.414	0.9	ug/L	-28	Standard
	Se	82	10374.0	0.9	**48.9714**	0.464	0.9	ug/L	26	Standard
	Se-1	77	6361.7	1.5	**50.8400**	0.188	0.4	ug/L	118	Standard
>	**Ga**	71	65.0	50.4				mg/L	8	Standard
	Rb	85	1108.4	19.1				ug/L	25	Standard
	Y	89	382200.8	0.9				ug/L	368853	Standard
>	**Rh**	103	25.0	20.0				ug/L	10	Standard
	Mo	98	253895.5	1.7	**119.8231**	1.096	0.9	ug/L	68	Standard
	Ag	107	325839.1	0.6	**47.2286**	0.437	0.9	ug/L	84	Standard
	Cd	111	156613.2	1.5	**49.6990**	0.367	0.7	mg/L	72	Standard
	Cd	114	377789.8	2.4	**48.8327**	1.051	2.2	ug/L	187	Standard
>	**In**	115	455390.6	0.8				ug/L	464664	Standard
	Sn	118	441100.4	0.5	**52.3625**	0.682	1.3	ug/L	438	Standard
	Sb	123	289290.1	1.1	**53.8712**	0.183	0.3	ug/L	433	Standard
	Ba	135	128530.6	1.2	**46.6336**	0.193	0.4	ug/L	14	Standard
	Ce	140	1886.9	139.9				ug/L	20	Standard
>	**Tb**	159	609763.8	1.2				ug/L	663064	Standard
	Ho	165	206.7	152.3				ug/L	10	Standard
	Tl	203	549234.5	1.5	**51.0001**	0.119	0.2	ug/L	32	Standard
	Tl	205	516876.0	1.2	**53.4513**	0.062	0.1	ug/L	28	Standard
	Pb	206	344628.5	1.4	**51.4995**	0.662	1.3	ug/L	190	Standard
	Pb	207	313300.7	1.3	**51.6746**	0.146	0.3	ug/L	155	Standard
	Pb	208	1390689.6	1.5	**51.2935**	0.248	0.5	ug/L	766	Standard
	U	238	722997.3	1.5	**57.1901**	0.716	1.3	ug/L	30	Standard
>	**Bi**	209	359532.5	1.4				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 18:31:05
Page 1

Approved: April 07, 2014

	Na	23	31.7	63.8	**7.7639**	5.397	69.5	mg/L	0	Standard
	Mg	24	5919.5	4.2	**4.9119**	0.137	2.8	mg/L	58	Standard
	K	39	328.3	16.8	**2.7746**	0.516	18.6	mg/L	12	Standard
	Ca	43	96.7	16.6	**1.8424**	0.570	31.0	mg/L	53	Standard
	Fe	54	8091.0	0.2	**4.6043**	0.084	1.8	mg/L	190	Standard
	Fe	57	2741.9	5.5	**4.4819**	0.282	6.3	mg/L	638	Standard
>	**Sc-1**	45	39321.0	1.6				mg/L	41381	Standard
	Cl	35	2.7	114.6				ug/L	4	Standard
	Kr	83	3.0	0.0				ug/L	2	Standard
	Br	81	2243.5	12.0				ug/L	2030	Standard
	P	31	317569.4	2.0				ug/L	256822	Standard
	S	34	41042.2	3.0				ug/L	33255	Standard
	Sr	88	138.3	9.1				ug/L	153	Standard
	C	12	1313.4	9.0				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13.3	43.3				mg/L	0	Standard
	Dy	164	154.7	140.8				mg/L	6	Standard
	Ho-1	165	206.7	152.3				mg/L	10	Standard
	Er	166	110.0	141.7				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		136.791	
	Be	9	88.967		
	Al	27	78.208		
	Sc	45			
	Ti	47	87.927		
	V	51	90.017		
	Cr	52	92.696		
	Cr	53			
	Mn	55	101.854		
	Co	59	91.895		
	Ni	60	95.140		
	Cu	65	97.866		
	Zn	66	101.757		
>	Ge	72		114.495	
	As	75	97.426		
	Se	82	97.943		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 18:31:05
Page 2

Approved: April 07, 2014

⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	119.823		
|	Ag	107	94.457		
|	Cd	111	99.398		
|	Cd	114			
|>	In	115			98.004
|	Sn	118	104.725		
|	Sb	123	107.742		
⌊	Ba	135	93.267		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	102.000		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	102.587		
|	U	238	114.380		
⌊>	Bi	209			98.561
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample
QC Std 6	Be	9	
QC Std 6	Al	27	
QC Std 6	Ti	47	
QC Std 6	Mo	98	

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 18:31:05
Page 3

Approved: April 07, 2014

QC Std 6	U	238

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 18:31:05
Page 4

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 18:31:56
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	149054.9	2.7				ug/L	113180	Standard
	Be	9	41.7	100.6	**0.0100**	0.013	133.4	ug/L	17	Standard
	Al	27	5565.5	127.6	**0.0018**	0.033	1846.9	ug/L	633	Standard
	Sc	45	37581.6	1.0				ug/L	41381	Standard
	Ti	47	41.0	66.8	**0.0498**	0.075	150.2	ug/L	30	Standard
	V	51	2096.4	47.7	**-0.0002**	0.100	53881.5	ug/L	1879	Standard
	Cr	52	7435.8	13.9	**-0.1390**	0.092	66.2	ug/L	8035	Standard
	Cr	53	333.3	22.6	**-0.1331**	0.047	35.0	ug/L	470	Standard
	Mn	55	2571.3	93.3	**0.0929**	0.197	211.8	ug/L	1182	Standard
	Co	59	269.3	51.3	**-0.0186**	0.015	83.4	ug/L	333	Standard
	Ni	60	331.3	66.8	**0.0753**	0.072	95.5	ug/L	71	Standard
	Cu	65	151.0	85.6	**0.0189**	0.044	233.1	ug/L	64	Standard
	Zn	66	639.4	130.9	**0.2453**	0.502	204.7	ug/L	125	Standard
>	Ge	72	440866.5	1.4				ug/L	399053	Standard
	As	75	25.7	524.5	**0.0244**	0.071	291.8	ug/L	-28	Standard
	Se	82	29.9	61.7	**0.0345**	0.088	255.6	ug/L	26	Standard
	Se-1	77	102.0	30.6	**-0.1037**	0.252	242.7	ug/L	118	Standard
>	Ga	71	35.0	86.9				mg/L	8	Standard
	Rb	85	301.7	148.8				ug/L	25	Standard
	Y	89	354038.8	2.7				ug/L	368853	Standard
>	Rh	103	10.0	50.0				ug/L	10	Standard
	Mo	98	149.8	70.3	**0.0461**	0.049	106.9	ug/L	68	Standard
	Ag	107	112.0	86.6	**0.0018**	0.014	785.8	ug/L	84	Standard
	Cd	111	150.0	79.9	**0.0216**	0.038	174.7	mg/L	72	Standard
	Cd	114	408.1	93.8	**0.0263**	0.049	187.5	ug/L	187	Standard
>	In	115	443893.5	1.8				ug/L	464664	Standard
	Sn	118	570.0	29.5	**0.0206**	0.019	93.1	ug/L	438	Standard
	Sb	123	674.6	32.2	**0.1017**	0.039	38.6	ug/L	433	Standard
	Ba	135	276.3	146.3	**0.0889**	0.147	165.6	ug/L	14	Standard
	Ce	140	1226.8	155.9				ug/L	20	Standard
>	Tb	159	582678.0	1.7				ug/L	663064	Standard
	Ho	165	180.0	158.8				ug/L	10	Standard
	Tl	203	178.3	136.3	**0.0113**	0.023	203.9	ug/L	32	Standard
	Tl	205	76.7	134.0	**0.0037**	0.011	290.5	ug/L	28	Standard
	Pb	206	334.7	72.0	**0.0143**	0.037	255.1	ug/L	190	Standard
	Pb	207	262.3	57.7	**0.0125**	0.025	202.0	ug/L	155	Standard
	Pb	208	1198.7	62.2	**0.0127**	0.028	219.5	ug/L	766	Standard
	U	238	285.7	128.7	**0.0200**	0.030	148.7	ug/L	30	Standard
>	Bi	209	347506.9	1.0				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 18:34:07
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	78.3	25.8	**0.0282**	0.017	61.0	mg/L	58	Standard
	K	39	5.0	100.0	**-0.0279**	0.046	164.3	mg/L	12	Standard
	Ca	43	33.3	96.4	**-0.4818**	1.254	260.2	mg/L	53	Standard
	Fe	54	172.3	14.6	**0.0135**	0.015	107.8	mg/L	190	Standard
	Fe	57	545.0	2.4	**-0.1598**	0.042	26.0	mg/L	638	Standard
>	**Sc-1**	45	37581.6	1.0				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	1.0	100.0				ug/L	2	Standard
	Br	81	2343.5	6.6				ug/L	2030	Standard
	P	31	301203.8	2.3				ug/L	256822	Standard
	S	34	39691.9	1.7				ug/L	33255	Standard
	Sr	88	163.3	20.8				ug/L	153	Standard
	C	12	1136.7	7.6				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	150.9	157.4				mg/L	6	Standard
	Ho-1	165	180.0	158.8				mg/L	10	Standard
	Er	166	120.0	137.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		131.698	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		110.478	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 18:34:07
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	95.530
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	95.265
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

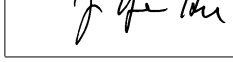
Sample ID: L1404018708
Sample Date/Time: Friday, April 04, 2014 18:34:59
Number of Replicates: 3
Autosampler Position: 250
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	163287.3	3.0				ug/L	113180	Standard
	Be	9	5005.8	1.2	**1.4689**	0.038	2.6	ug/L	17	Standard
	Al	27	15447779.2	1.5	**66.5809**	0.989	1.5	ug/L	633	Standard
	Sc	45	58964.5	1.5				ug/L	41381	Standard
	Ti	47	48984.4	1.0	**135.5804**	1.283	0.9	ug/L	30	Standard
	V	51	358222.5	0.7	**36.4233**	0.290	0.8	ug/L	1879	Standard
	Cr	52	371581.9	1.2	**35.1201**	0.715	2.0	ug/L	8035	Standard
	Cr	53	53676.7	3.4	**34.7779**	1.057	3.0	ug/L	470	Standard
	Mn	55	11205537.7	0.9	**928.0482**	6.205	0.7	ug/L	1182	Standard
	Co	59	98796.1	2.0	**11.2478**	0.129	1.1	ug/L	333	Standard
	Ni	60	174572.0	0.6	**57.5191**	0.766	1.3	ug/L	71	Standard
	Cu	65	69437.8	1.5	**23.9231**	0.542	2.3	ug/L	64	Standard
	Zn	66	335045.1	0.9	**202.0126**	2.362	1.2	ug/L	125	Standard
>	**Ge**	72	445454.6	0.8				ug/L	399053	Standard
	As	75	10562.0	1.4	**5.5841**	0.071	1.3	ug/L	-28	Standard
	Se	82	243.6	2.9	**1.0703**	0.033	3.1	ug/L	26	Standard
	Se-1	77	348.7	7.3	**1.9500**	0.213	10.9	ug/L	118	Standard
>	**Ga**	71	35276.1	3.7				mg/L	8	Standard
	Rb	85	707909.6	1.1				ug/L	25	Standard
	Y	89	3251403.9	0.7				ug/L	368853	Standard
>	**Rh**	103	123.3	29.9				ug/L	10	Standard
	Mo	98	6335.4	2.5	**3.0145**	0.059	2.0	ug/L	68	Standard
	Ag	107	11397.3	1.0	**1.6653**	0.021	1.2	ug/L	84	Standard
	Cd	111	40790.7	1.7	**13.1442**	0.420	3.2	mg/L	72	Standard
	Cd	114	99029.5	1.6	**12.9958**	0.324	2.5	ug/L	187	Standard
>	**In**	115	447958.5	1.6				ug/L	464664	Standard
	Sn	118	4555.7	4.9	**0.5020**	0.036	7.1	ug/L	438	Standard
	Sb	123	822.3	1.5	**0.1289**	0.001	0.5	ug/L	433	Standard
	Ba	135	615112.4	0.4	**226.9782**	4.465	2.0	ug/L	14	Standard
	Ce	140	3283211.0	0.9				ug/L	20	Standard
>	**Tb**	159	675489.9	0.9				ug/L	663064	Standard
	Ho	165	199903.4	0.4				ug/L	10	Standard
	Tl	203	4675.4	0.9	**0.4348**	0.004	0.9	ug/L	32	Standard
	Tl	205	4582.4	2.0	**0.4764**	0.011	2.3	ug/L	28	Standard
	Pb	206	162376.5	0.9	**24.5980**	0.290	1.2	ug/L	190	Standard
	Pb	207	121390.0	0.7	**20.2936**	0.104	0.5	ug/L	155	Standard
	Pb	208	585293.3	0.4	**21.8837**	0.147	0.7	ug/L	766	Standard
	U	238	200590.4	0.3	**16.0954**	0.114	0.7	ug/L	30	Standard
>	**Bi**	209	354370.2	0.4				ug/L	364780	Standard

Sample ID: L1404018708
Report Date/Time: Friday, April 04, 2014 18:37:10
Page 1

Approved: April 07, 2014



	Na	23	333.3	12.1	**59.8914**	7.699	12.9	mg/L	0	Standard
	Mg	24	1325.1	3.7	**0.6991**	0.025	3.6	mg/L	58	Standard
	K	39	200.0	36.3	**1.0832**	0.429	39.6	mg/L	12	Standard
	Ca	43	1591.8	2.0	**38.0960**	0.628	1.6	mg/L	53	Standard
	Fe	54	19844.0	1.3	**7.5877**	0.126	1.7	mg/L	190	Standard
	Fe	57	6419.7	0.9	**7.7750**	0.183	2.3	mg/L	638	Standard
>	**Sc-1**	45	58964.5	1.5				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	2.7	108.3				ug/L	2	Standard
	Br	81	3290.4	0.8				ug/L	2030	Standard
	P	31	303066.6	3.4				ug/L	256822	Standard
	S	34	36656.0	1.0				ug/L	33255	Standard
	Sr	88	563.3	3.1				ug/L	153	Standard
	C	12	1920.1	6.4				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	216.7	26.6				mg/L	0	Standard
	Dy	164	137310.4	1.5				mg/L	6	Standard
	Ho-1	165	199903.4	0.4				mg/L	10	Standard
	Er	166	97036.5	1.9				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		144.273	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		111.628	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018708
Report Date/Time: Friday, April 04, 2014 18:37:10
Page 2

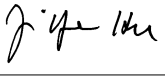
Approved: April 07, 2014

	Y	89	
>	Rh	103	
	Mo	98	
	Ag	107	
	Cd	111	
	Cd	114	
>	In	115	96.405
	Sn	118	
	Sb	123	
	Ba	135	
	Ce	140	
>	Tb	159	
	Ho	165	
	Tl	203	
	Tl	205	
	Pb	206	
	Pb	207	
	Pb	208	
	U	238	
>	Bi	209	97.146
	Na	23	
	Mg	24	
	K	39	
	Ca	43	
	Fe	54	
	Fe	57	
>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Ti 47 Upper, S, EEE	Ti	47	
Mn 55 Upper, S, EEE	Mn	55	
Zn 66 Upper, S, EEE	Zn	66	
Ba 135 Upper, S, EEE	Ba	135	

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1404018710
Sample Date/Time: Friday, April 04, 2014 18:38:01
Number of Replicates: 3
Autosampler Position: 251
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	150268.2	1.2				ug/L	113180	Standard
	Be	9	3750.5	6.5	**1.1948**	0.078	6.5	ug/L	17	Standard
	Al	27	47024061.4	1.9	**220.2690**	6.234	2.8	ug/L	633	Standard
	Sc	45	82289.6	2.2				ug/L	41381	Standard
	Ti	47	106121.1	1.7	**302.5153**	6.940	2.3	ug/L	30	Standard
	V	51	837030.9	1.8	**87.9462**	2.772	3.2	ug/L	1879	Standard
	Cr	52	2317114.2	0.4	**230.1560**	2.126	0.9	ug/L	8035	Standard
	Cr	53	331657.7	1.4	**223.1722**	4.700	2.1	ug/L	470	Standard
	Mn	55	5886902.9	0.9	**501.9628**	8.943	1.8	ug/L	1182	Standard
	Co	59	73909.9	1.9	**8.6539**	0.242	2.8	ug/L	333	Standard
	Ni	60	903019.6	0.6	**306.4914**	5.262	1.7	ug/L	71	Standard
	Cu	65	305063.4	1.2	**108.3189**	1.413	1.3	ug/L	64	Standard
	Zn	66	1767001.8	0.7	**1097.5542**	14.920	1.4	ug/L	125	Standard
>	Ge	72	432676.3	1.3				ug/L	399053	Standard
	As	75	36492.0	1.1	**19.8344**	0.111	0.6	ug/L	-28	Standard
	Se	82	2101.0	1.4	**10.3853**	0.164	1.6	ug/L	26	Standard
	Se-1	77	1508.1	3.7	**12.0066**	0.515	4.3	ug/L	118	Standard
>	Ga	71	23084.2	0.7				mg/L	8	Standard
	Rb	85	75976.7	1.1				ug/L	25	Standard
	Y	89	5792227.9	2.2				ug/L	368853	Standard
>	Rh	103	443.3	3.6				ug/L	10	Standard
	Mo	98	63704.8	0.5	**32.4189**	0.334	1.0	ug/L	68	Standard
	Ag	107	7126.3	1.3	**1.1000**	0.015	1.4	ug/L	84	Standard
	Cd	111	134093.4	1.2	**45.9061**	0.267	0.6	mg/L	72	Standard
	Cd	114	329310.3	0.8	**45.9227**	0.499	1.1	ug/L	187	Standard
>	In	115	422115.2	0.8				ug/L	464664	Standard
	Sn	118	4702.4	5.4	**0.5540**	0.030	5.4	ug/L	438	Standard
	Sb	123	29838.6	1.2	**5.9710**	0.085	1.4	ug/L	433	Standard
	Ba	135	329187.0	0.7	**128.8786**	1.052	0.8	ug/L	14	Standard
	Ce	140	3680768.6	0.3				ug/L	20	Standard
>	Tb	159	730491.1	1.1				ug/L	663064	Standard
	Ho	165	370410.0	1.0				ug/L	10	Standard
	Tl	203	14462.6	0.5	**1.4618**	0.014	1.0	ug/L	32	Standard
	Tl	205	13696.2	5.1	**1.5433**	0.080	5.2	ug/L	28	Standard
	Pb	206	95909.3	0.7	**15.6328**	0.130	0.8	ug/L	190	Standard
	Pb	207	61445.0	0.3	**11.0478**	0.079	0.7	ug/L	155	Standard
	Pb	208	309060.3	0.1	**12.4301**	0.066	0.5	ug/L	766	Standard
	U	238	392069.6	0.3	**33.8824**	0.099	0.3	ug/L	30	Standard
>	Bi	209	329063.3	0.5				ug/L	364780	Standard

Sample ID: L1404018710
Report Date/Time: Friday, April 04, 2014 18:40:11
Page 1

Approved: April 07, 2014

	Na	23	1195.0	8.7	**155.0059**	10.875	7.0	mg/L	0	Standard
	Mg	24	1450.1	2.1	**0.5397**	0.021	3.8	mg/L	58	Standard
	K	39	61.7	44.7	**0.1824**	0.115	62.9	mg/L	12	Standard
	Ca	43	6264.6	1.0	**110.7376**	3.603	3.3	mg/L	53	Standard
	Fe	54	19535.1	2.2	**5.3279**	0.221	4.1	mg/L	190	Standard
	Fe	57	7133.3	0.6	**5.9108**	0.187	3.2	mg/L	638	Standard
>	**Sc-1**	45	82289.6	2.2				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	1.3	86.6				ug/L	2	Standard
	Br	81	4850.8	6.2				ug/L	2030	Standard
	P	31	389515.1	0.6				ug/L	256822	Standard
	S	34	37102.0	1.2				ug/L	33255	Standard
	Sr	88	2030.1	7.6				ug/L	153	Standard
	C	12	4607.4	8.1				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	1210.0	3.0				mg/L	0	Standard
	Dy	164	247756.2	1.0				mg/L	6	Standard
	Ho-1	165	370410.0	1.0				mg/L	10	Standard
	Er	166	179062.0	1.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		132.770	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.426	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018710
Report Date/Time: Friday, April 04, 2014 18:40:11
Page 2

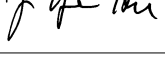
Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		90.843
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		90.209
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

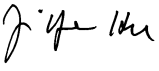
Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Ti 47 Upper, S, EEE	Ti	47	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	

Approved: April 07, 2014



Mn 55 Upper, S, EEE	Mn	55
Ni 60 Upper, S, EEE	Ni	60
Cu 65 Upper, S, EEE	Cu	65
Zn 66 Upper, S, EEE	Zn	66
Ba 135 Upper, S, EEE	Ba	135

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1404018712
Sample Date/Time: Friday, April 04, 2014 18:41:03
Number of Replicates: 3
Autosampler Position: 252
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	142577.7	0.4				ug/L	113180	Standard
	Be	9	2610.2	2.3	**0.8754**	0.021	2.4	ug/L	17	Standard
	Al	27	227724141.4	1.0	**1124.1633**	15.807	1.4	ug/L	633	Standard
	Sc	45	57256.3	2.0				ug/L	41381	Standard
	Ti	47	89738.6	0.8	**267.3262**	1.869	0.7	ug/L	30	Standard
	V	51	2091883.9	1.4	**230.0138**	3.872	1.7	ug/L	1879	Standard
	Cr	52	1899019.3	0.4	**197.0171**	2.314	1.2	ug/L	8035	Standard
	Cr	53	273976.7	1.0	**192.6265**	3.460	1.8	ug/L	470	Standard
	Mn	55	9453302.7	1.1	**842.4740**	12.663	1.5	ug/L	1182	Standard
	Co	59	26157.6	0.5	**3.1693**	0.021	0.7	ug/L	333	Standard
	Ni	60	798424.0	1.4	**283.1845**	3.133	1.1	ug/L	71	Standard
	Cu	65	163866.2	1.7	**60.7894**	0.514	0.8	ug/L	64	Standard
	Zn	66	3208572.5	0.8	**2082.8881**	7.130	0.3	ug/L	125	Standard
>	**Ge**	72	413984.8	0.9				ug/L	399053	Standard
	As	75	35319.4	1.0	**20.0633**	0.133	0.7	ug/L	-28	Standard
	Se	82	3760.0	1.8	**19.5198**	0.242	1.2	ug/L	26	Standard
	Se-1	77	2403.2	1.4	**20.6372**	0.482	2.3	ug/L	118	Standard
>	**Ga**	71	21845.7	2.2				mg/L	8	Standard
	Rb	85	135913.6	0.7				ug/L	25	Standard
	Y	89	4553973.4	0.5				ug/L	368853	Standard
>	**Rh**	103	276.7	17.6				ug/L	10	Standard
	Mo	98	93503.2	0.4	**48.3937**	0.478	1.0	ug/L	68	Standard
	Ag	107	9345.9	1.3	**1.4717**	0.028	1.9	ug/L	84	Standard
	Cd	111	226727.3	0.7	**78.9436**	0.766	1.0	mg/L	72	Standard
	Cd	114	543868.1	1.5	**77.1358**	1.474	1.9	ug/L	187	Standard
>	**In**	115	415154.2	0.8				ug/L	464664	Standard
	Sn	118	3887.2	3.0	**0.4580**	0.019	4.2	ug/L	438	Standard
	Sb	123	15538.2	0.6	**3.1490**	0.044	1.4	ug/L	433	Standard
	Ba	135	320378.4	1.2	**127.5375**	2.042	1.6	ug/L	14	Standard
	Ce	140	1119248.6	1.6				ug/L	20	Standard
>	**Tb**	159	655937.8	0.5				ug/L	663064	Standard
	Ho	165	221483.8	1.0				ug/L	10	Standard
	Tl	203	18891.4	1.0	**2.0122**	0.012	0.6	ug/L	32	Standard
	Tl	205	17184.7	2.2	**2.0396**	0.031	1.5	ug/L	28	Standard
	Pb	206	77449.4	0.6	**13.2838**	0.117	0.9	ug/L	190	Standard
	Pb	207	33412.5	1.1	**6.3103**	0.061	1.0	ug/L	155	Standard
	Pb	208	189161.7	0.3	**7.9972**	0.061	0.8	ug/L	766	Standard
	U	238	457343.4	0.8	**41.6064**	0.065	0.2	ug/L	30	Standard
>	**Bi**	209	312590.7	0.8				ug/L	364780	Standard

Sample ID: L1404018712
Report Date/Time: Friday, April 04, 2014 18:43:13
Page 1

Approved: April 07, 2014

	Na	23	1433.4	5.1	**268.2414**	18.697	7.0	mg/L	0	Standard
	Mg	24	1933.5	9.6	**1.0697**	0.086	8.0	mg/L	58	Standard
	K	39	78.3	3.7	**0.3928**	0.025	6.4	mg/L	12	Standard
	Ca	43	7870.4	4.4	**201.2341**	5.496	2.7	mg/L	53	Standard
	Fe	54	14191.7	0.9	**5.5649**	0.097	1.7	mg/L	190	Standard
	Fe	57	6611.4	3.8	**8.3330**	0.501	6.0	mg/L	638	Standard
>	**Sc-1**	45	57256.3	2.0				mg/L	41381	Standard
	Cl	35	1.3	173.2				ug/L	4	Standard
	Kr	83	2.0	86.6				ug/L	2	Standard
	Br	81	3987.2	1.0				ug/L	2030	Standard
	P	31	335620.2	1.3				ug/L	256822	Standard
	S	34	35959.3	1.2				ug/L	33255	Standard
	Sr	88	1215.0	1.8				ug/L	153	Standard
	C	12	5991.2	6.6				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	660.0	18.9				mg/L	0	Standard
	Dy	164	138534.1	1.5				mg/L	6	Standard
	Ho-1	165	221483.8	1.0				mg/L	10	Standard
	Er	166	113990.6	1.4				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		125.975	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		103.742	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018712
Report Date/Time: Friday, April 04, 2014 18:43:13
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	89.345
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	85.693
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

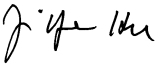
QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Al 27 Upper, S, EEE	Al	27	
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Cr 52 Upper, S, EEE	Cr	52	

Approved: April 07, 2014

Cr 53 Upper, S, EEE	Cr	53
Mn 55 Upper, S, EEE	Mn	55
Ni 60 Upper, S, EEE	Ni	60
Zn 66 Upper, S, EEE	Zn	66
Ba 135 Upper, S, EEE	Ba	135

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1404018714
Sample Date/Time: Friday, April 04, 2014 18:44:05
Number of Replicates: 3
Autosampler Position: 253
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	131075.1	4.1				ug/L	113180	Standard
	Be	9	1126.7	8.2	**0.4088**	0.018	4.3	ug/L	17	Standard
	Al	27	371041938.7	0.9	**1994.1416**	67.451	3.4	ug/L	633	Standard
	Sc	45	52633.0	3.8				ug/L	41381	Standard
	Ti	47	26165.9	0.5	**79.3798**	0.741	0.9	ug/L	30	Standard
	V	51	866264.1	0.7	**96.9273**	0.724	0.7	ug/L	1879	Standard
	Cr	52	908115.0	0.4	**95.5591**	1.626	1.7	ug/L	8035	Standard
	Cr	53	131521.7	0.7	**94.0333**	0.618	0.7	ug/L	470	Standard
	Mn	55	15268946.2	0.9	**1386.5821**	14.933	1.1	ug/L	1182	Standard
	Co	59	25004.0	1.7	**3.0853**	0.010	0.3	ug/L	333	Standard
	Ni	60	593415.2	1.0	**214.4509**	1.465	0.7	ug/L	71	Standard
	Cu	65	30610.2	2.7	**11.5423**	0.147	1.3	ug/L	64	Standard
	Zn	66	1899255.3	1.1	**1256.2241**	11.074	0.9	ug/L	125	Standard
>	**Ge**	72	406305.0	1.4				ug/L	399053	Standard
	As	75	32238.3	2.1	**18.6592**	0.243	1.3	ug/L	-28	Standard
	Se	82	495.1	0.5	**2.5227**	0.025	1.0	ug/L	26	Standard
	Se-1	77	416.7	8.9	**2.8568**	0.389	13.6	ug/L	118	Standard
>	**Ga**	71	8218.9	3.7				mg/L	8	Standard
	Rb	85	55566.7	1.3				ug/L	25	Standard
	Y	89	3561911.9	0.4				ug/L	368853	Standard
>	**Rh**	103	230.0	11.5				ug/L	10	Standard
	Mo	98	134678.2	2.2	**68.9011**	1.588	2.3	ug/L	68	Standard
	Ag	107	1019.4	1.6	**0.1455**	0.003	1.7	ug/L	84	Standard
	Cd	111	53162.3	0.5	**18.2738**	0.129	0.7	mg/L	72	Standard
	Cd	114	129503.7	0.5	**18.1315**	0.147	0.8	ug/L	187	Standard
>	**In**	115	420047.4	0.3				ug/L	464664	Standard
	Sn	118	2972.0	4.3	**0.3342**	0.017	5.2	ug/L	438	Standard
	Sb	123	1924.4	6.4	**0.3619**	0.026	7.2	ug/L	433	Standard
	Ba	135	557610.6	1.3	**219.3882**	2.934	1.3	ug/L	14	Standard
	Ce	140	969448.6	1.5				ug/L	20	Standard
>	**Tb**	159	652069.7	0.7				ug/L	663064	Standard
	Ho	165	195905.2	1.4				ug/L	10	Standard
	Tl	203	13843.3	1.3	**1.5565**	0.009	0.6	ug/L	32	Standard
	Tl	205	12455.1	1.8	**1.5608**	0.004	0.2	ug/L	28	Standard
	Pb	206	62080.3	1.3	**11.2435**	0.065	0.6	ug/L	190	Standard
	Pb	207	35323.8	1.3	**7.0520**	0.045	0.6	ug/L	155	Standard
	Pb	208	183019.0	1.2	**8.1754**	0.054	0.7	ug/L	766	Standard
	U	238	147398.0	2.0	**14.1649**	0.198	1.4	ug/L	30	Standard
>	**Bi**	209	295888.5	1.8				ug/L	364780	Standard

Sample ID: L1404018714
Report Date/Time: Friday, April 04, 2014 18:46:15
Page 1

Approved: April 07, 2014

	Na	23	1775.1	5.9	**362.1943**	34.007	9.4	mg/L	0	Standard
	Mg	24	1141.7	5.3	**0.6740**	0.044	6.5	mg/L	58	Standard
	K	39	70.0	14.3	**0.3809**	0.075	19.6	mg/L	12	Standard
	Ca	43	9261.2	2.0	**258.3020**	5.728	2.2	mg/L	53	Standard
	Fe	54	9952.1	2.8	**4.2244**	0.091	2.2	mg/L	190	Standard
	Fe	57	6126.2	3.4	**8.4131**	0.446	5.3	mg/L	638	Standard
>	**Sc-1**	45	52633.0	3.8				mg/L	41381	Standard
	Cl	35	4.0	86.6				ug/L	4	Standard
	Kr	83	3.0	100.0				ug/L	2	Standard
	Br	81	4360.6	12.7				ug/L	2030	Standard
	P	31	314128.5	1.6				ug/L	256822	Standard
	S	34	36438.8	0.6				ug/L	33255	Standard
	Sr	88	918.4	8.7				ug/L	153	Standard
	C	12	8182.2	6.4				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	136.7	27.7				mg/L	0	Standard
	Dy	164	129147.8	0.9				mg/L	6	Standard
	Ho-1	165	195905.2	1.4				mg/L	10	Standard
	Er	166	94765.5	1.7				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		115.812	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		101.817	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018714
Report Date/Time: Friday, April 04, 2014 18:46:15
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	90.398
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	81.114
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Al 27 Upper, S, EEE	Al	27	
Mn 55 Upper, S, EEE	Mn	55	
Ni 60 Upper, S, EEE	Ni	60	
Zn 66 Upper, S, EEE	Zn	66	
Ba 135 Upper, S, EEE	Ba	135	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404018716
Sample Date/Time: Friday, April 04, 2014 18:47:06
Number of Replicates: 3
Autosampler Position: 254
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	151495.4	1.8				ug/L	113180	Standard
	Be	9	7580.2	2.9	**2.3996**	0.104	4.3	ug/L	17	Standard
	Al	27	9706295.3	1.8	**45.0892**	1.601	3.6	ug/L	633	Standard
	Sc	45	69684.9	0.4				ug/L	41381	Standard
	Ti	47	14254.0	2.4	**39.3796**	1.065	2.7	ug/L	30	Standard
	V	51	153847.4	2.5	**15.5076**	0.379	2.4	ug/L	1879	Standard
	Cr	52	267618.9	0.8	**25.0304**	0.271	1.1	ug/L	8035	Standard
	Cr	53	39003.5	1.5	**25.1592**	0.524	2.1	ug/L	470	Standard
	Mn	55	4367662.9	0.9	**361.3818**	0.193	0.1	ug/L	1182	Standard
	Co	59	36568.4	0.9	**4.1292**	0.030	0.7	ug/L	333	Standard
	Ni	60	70000.4	2.0	**23.0261**	0.522	2.3	ug/L	71	Standard
	Cu	65	67304.8	0.7	**23.1675**	0.124	0.5	ug/L	64	Standard
	Zn	66	206131.7	0.4	**124.1389**	1.224	1.0	ug/L	125	Standard
>	**Ge**	72	445792.1	0.9				ug/L	399053	Standard
	As	75	5309.0	2.9	**2.8100**	0.058	2.1	ug/L	-28	Standard
	Se	82	199.9	6.7	**0.8575**	0.058	6.7	ug/L	26	Standard
	Se-1	77	375.0	7.6	**2.1671**	0.229	10.6	ug/L	118	Standard
>	**Ga**	71	39451.3	3.8				mg/L	8	Standard
	Rb	85	1346676.5	2.1				ug/L	25	Standard
	Y	89	2749673.9	2.6				ug/L	368853	Standard
>	**Rh**	103	60.0	14.4				ug/L	10	Standard
	Mo	98	1179.3	0.1	**0.5246**	0.005	1.0	ug/L	68	Standard
	Ag	107	3410.7	0.9	**0.4743**	0.008	1.8	ug/L	84	Standard
	Cd	111	20302.8	0.3	**6.3481**	0.036	0.6	mg/L	72	Standard
	Cd	114	48556.2	1.5	**6.1826**	0.061	1.0	ug/L	187	Standard
>	**In**	115	460522.4	0.8				ug/L	464664	Standard
	Sn	118	1676.8	8.1	**0.1483**	0.015	10.1	ug/L	438	Standard
	Sb	123	131.7	3.2	**-0.0025**	0.001	31.9	ug/L	433	Standard
	Ba	135	531792.6	0.3	**190.8458**	1.547	0.8	ug/L	14	Standard
	Ce	140	4126254.6	1.1				ug/L	20	Standard
>	**Tb**	159	690570.2	0.4				ug/L	663064	Standard
	Ho	165	203909.9	1.8				ug/L	10	Standard
	Tl	203	5942.5	0.8	**0.5610**	0.006	1.0	ug/L	32	Standard
	Tl	205	5522.7	5.1	**0.5822**	0.034	5.9	ug/L	28	Standard
	Pb	206	121560.1	1.6	**18.6264**	0.311	1.7	ug/L	190	Standard
	Pb	207	96686.9	1.3	**16.3515**	0.214	1.3	ug/L	155	Standard
	Pb	208	459798.4	1.3	**17.3908**	0.233	1.3	ug/L	766	Standard
	U	238	78459.0	0.8	**6.3696**	0.113	1.8	ug/L	30	Standard
>	**Bi**	209	350182.1	1.0				ug/L	364780	Standard

Sample ID: L1404018716
Report Date/Time: Friday, April 04, 2014 18:49:17
Page 1

Approved: April 07, 2014

	Na	23	70.0	18.9	**9.9398**	2.035	20.5	mg/L	0	Standard
	Mg	24	403.3	3.6	**0.1501**	0.008	5.1	mg/L	58	Standard
	K	39	275.0	17.3	**1.2711**	0.239	18.8	mg/L	12	Standard
	Ca	43	586.7	6.0	**10.6499**	0.708	6.7	mg/L	53	Standard
	Fe	54	15750.0	2.3	**5.0651**	0.096	1.9	mg/L	190	Standard
	Fe	57	5269.3	3.5	**4.9770**	0.202	4.1	mg/L	638	Standard
>	**Sc-1**	45	69684.9	0.4				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	1.0	100.0				ug/L	2	Standard
	Br	81	3003.6	6.3				ug/L	2030	Standard
	P	31	323336.4	2.3				ug/L	256822	Standard
	S	34	39316.0	4.1				ug/L	33255	Standard
	Sr	88	306.7	12.2				ug/L	153	Standard
	C	12	1330.1	4.0				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	170.0	23.5				mg/L	0	Standard
	Dy	164	144651.7	0.9				mg/L	6	Standard
	Ho-1	165	203909.9	1.8				mg/L	10	Standard
	Er	166	99609.7	1.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		133.854	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		111.713	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018716
Report Date/Time: Friday, April 04, 2014 18:49:17
Page 2

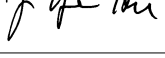
Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		99.109
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		95.998
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Mn 55 Upper, S, EEE	Mn	55	
Zn 66 Upper, S, EEE	Zn	66	
Ba 135 Upper, S, EEE	Ba	135	

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1404018718
Sample Date/Time: Friday, April 04, 2014 18:50:08
Number of Replicates: 3
Autosampler Position: 255
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	148933.5	1.5				ug/L	113180	Standard
	Be	9	6939.9	0.7	**2.2338**	0.043	1.9	ug/L	17	Standard
	Al	27	7945963.2	1.4	**37.5361**	1.000	2.7	ug/L	633	Standard
	Sc	45	61693.9	4.8				ug/L	41381	Standard
	Ti	47	11073.7	0.9	**30.2548**	0.244	0.8	ug/L	30	Standard
	V	51	141389.5	0.7	**14.0823**	0.087	0.6	ug/L	1879	Standard
	Cr	52	156096.0	0.4	**14.0805**	0.211	1.5	ug/L	8035	Standard
	Cr	53	22383.2	2.4	**14.1332**	0.378	2.7	ug/L	470	Standard
	Mn	55	5413225.7	1.1	**443.2190**	5.360	1.2	ug/L	1182	Standard
	Co	59	39312.9	1.2	**4.3957**	0.066	1.5	ug/L	333	Standard
	Ni	60	67747.2	2.0	**22.0461**	0.271	1.2	ug/L	71	Standard
	Cu	65	61025.7	2.4	**20.7801**	0.399	1.9	ug/L	64	Standard
	Zn	66	111962.2	0.9	**66.6496**	0.391	0.6	ug/L	125	Standard
>	Ge	72	450537.8	1.0				ug/L	399053	Standard
	As	75	4385.4	1.9	**2.2989**	0.020	0.9	ug/L	-28	Standard
	Se	82	129.5	5.3	**0.5097**	0.027	5.3	ug/L	26	Standard
	Se-1	77	297.0	6.9	**1.4895**	0.143	9.6	ug/L	118	Standard
>	Ga	71	24695.1	5.1				mg/L	8	Standard
	Rb	85	646092.2	2.3				ug/L	25	Standard
	Y	89	2568558.0	0.8				ug/L	368853	Standard
>	Rh	103	61.7	12.4				ug/L	10	Standard
	Mo	98	485.7	7.4	**0.1989**	0.015	7.7	ug/L	68	Standard
	Ag	107	2583.9	1.5	**0.3526**	0.004	1.3	ug/L	84	Standard
	Cd	111	20285.9	1.3	**6.2891**	0.078	1.2	mg/L	72	Standard
	Cd	114	49076.8	0.8	**6.1970**	0.100	1.6	ug/L	187	Standard
>	In	115	464442.5	1.1				ug/L	464664	Standard
	Sn	118	1653.4	0.9	**0.1440**	0.004	2.7	ug/L	438	Standard
	Sb	123	268.1	9.5	**0.0222**	0.005	23.4	ug/L	433	Standard
	Ba	135	630382.1	0.7	**224.3280**	2.981	1.3	ug/L	14	Standard
	Ce	140	4677747.5	1.1				ug/L	20	Standard
>	Tb	159	683558.8	1.1				ug/L	663064	Standard
	Ho	165	184746.3	1.2				ug/L	10	Standard
	Tl	203	3645.1	1.7	**0.3405**	0.007	1.9	ug/L	32	Standard
	Tl	205	3455.4	4.9	**0.3609**	0.015	4.0	ug/L	28	Standard
	Pb	206	124351.9	0.9	**18.9766**	0.060	0.3	ug/L	190	Standard
	Pb	207	99974.1	0.2	**16.8400**	0.183	1.1	ug/L	155	Standard
	Pb	208	472810.7	0.5	**17.8111**	0.170	1.0	ug/L	766	Standard
	U	238	60654.2	1.0	**4.9033**	0.093	1.9	ug/L	30	Standard
>	Bi	209	351620.9	1.2				ug/L	364780	Standard

Sample ID: L1404018718
Report Date/Time: Friday, April 04, 2014 18:52:18
Page 1

Approved: April 07, 2014

	Na	23	93.3	26.4	**15.2913**	3.675	24.0	mg/L	0	Standard
	Mg	24	458.3	4.1	**0.2048**	0.022	10.8	mg/L	58	Standard
	K	39	193.3	16.8	**0.9996**	0.224	22.4	mg/L	12	Standard
	Ca	43	580.0	6.0	**12.1184**	0.945	7.8	mg/L	53	Standard
	Fe	54	7892.7	0.5	**2.8321**	0.140	4.9	mg/L	190	Standard
	Fe	57	2768.6	0.2	**2.3995**	0.193	8.0	mg/L	638	Standard
>	**Sc-1**	45	61693.9	4.8				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	1.7	69.3				ug/L	2	Standard
	Br	81	2593.6	3.5				ug/L	2030	Standard
	P	31	308165.5	2.7				ug/L	256822	Standard
	S	34	37508.0	1.9				ug/L	33255	Standard
	Sr	88	358.3	5.6				ug/L	153	Standard
	C	12	1136.7	12.1				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	120.0	22.0				mg/L	0	Standard
	Dy	164	128048.3	1.2				mg/L	6	Standard
	Ho-1	165	184746.3	1.2				mg/L	10	Standard
	Er	166	93289.7	1.8				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		131.590	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		112.902	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404018718
Report Date/Time: Friday, April 04, 2014 18:52:18
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.952
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	96.393
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Mn 55 Upper, S, EEE	Mn	55	
Ba 135 Upper, S, EEE	Ba	135	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404018720
Sample Date/Time: Friday, April 04, 2014 18:53:10
Number of Replicates: 3
Autosampler Position: 256
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	164201.9	2.3				ug/L	113180	Standard
	Be	9	8313.9	2.9	**2.4284**	0.106	4.3	ug/L	17	Standard
	Al	27	14755911.3	0.6	**63.2409**	1.073	1.7	ug/L	633	Standard
	Sc	45	82170.6	2.6				ug/L	41381	Standard
	Ti	47	105868.3	1.9	**300.7467**	0.935	0.3	ug/L	30	Standard
	V	51	1856856.8	2.8	**194.6433**	2.805	1.4	ug/L	1879	Standard
	Cr	52	1495403.0	2.0	**147.7381**	2.959	2.0	ug/L	8035	Standard
	Cr	53	218721.2	2.1	**146.5562**	2.611	1.8	ug/L	470	Standard
	Mn	55	7396615.5	1.9	**628.5922**	10.885	1.7	ug/L	1182	Standard
	Co	59	87868.1	1.6	**10.2627**	0.201	2.0	ug/L	333	Standard
	Ni	60	655087.0	1.1	**221.5889**	2.901	1.3	ug/L	71	Standard
	Cu	65	287396.3	1.1	**101.7075**	0.951	0.9	ug/L	64	Standard
	Zn	66	1450453.8	1.6	**897.8908**	12.011	1.3	ug/L	125	Standard
>	Ge	72	434109.4	1.6				ug/L	399053	Standard
	As	75	48170.3	1.4	**26.0935**	0.392	1.5	ug/L	-28	Standard
	Se	82	3630.2	0.8	**17.9674**	0.370	2.1	ug/L	26	Standard
	Se-1	77	2593.9	3.0	**21.2740**	0.869	4.1	ug/L	118	Standard
>	Ga	71	74906.4	1.5				mg/L	8	Standard
	Rb	85	1314563.1	1.1				ug/L	25	Standard
	Y	89	7575702.1	2.0				ug/L	368853	Standard
>	Rh	103	245.0	34.0				ug/L	10	Standard
	Mo	98	60228.9	0.7	**30.0627**	0.465	1.5	ug/L	68	Standard
	Ag	107	23217.1	1.4	**3.5480**	0.099	2.8	ug/L	84	Standard
	Cd	111	166582.1	1.3	**55.9434**	0.501	0.9	mg/L	72	Standard
	Cd	114	404551.1	1.3	**55.3383**	0.386	0.7	ug/L	187	Standard
>	In	115	430384.3	1.7				ug/L	464664	Standard
	Sn	118	171930.5	2.9	**21.5655**	0.515	2.4	ug/L	438	Standard
	Sb	123	1735.6	4.4	**0.3153**	0.013	4.3	ug/L	433	Standard
	Ba	135	715104.4	0.7	**274.6542**	5.348	1.9	ug/L	14	Standard
	Ce	140	4851567.0	1.4				ug/L	20	Standard
>	Tb	159	759703.8	0.6				ug/L	663064	Standard
	Ho	165	454042.9	0.8				ug/L	10	Standard
	Tl	203	14010.5	0.3	**1.3757**	0.011	0.8	ug/L	32	Standard
	Tl	205	13407.6	0.4	**1.4678**	0.016	1.1	ug/L	28	Standard
	Pb	206	222192.8	0.9	**35.2379**	0.441	1.3	ug/L	190	Standard
	Pb	207	151062.0	0.6	**26.4356**	0.101	0.4	ug/L	155	Standard
	Pb	208	745599.7	0.4	**29.1825**	0.274	0.9	ug/L	766	Standard
	U	238	557648.3	1.6	**46.8288**	0.834	1.8	ug/L	30	Standard
>	Bi	209	338659.4	0.8				ug/L	364780	Standard

Sample ID: L1404018720
Report Date/Time: Friday, April 04, 2014 18:55:20
Page 1

Approved: April 07, 2014

	Na	23	565.0	10.2	**73.1540**	9.458	12.9	mg/L	0	Standard
	Mg	24	1440.1	4.0	**0.5370**	0.038	7.0	mg/L	58	Standard
	K	39	303.3	5.8	**1.1845**	0.083	7.0	mg/L	12	Standard
	Ca	43	2738.6	1.8	**47.4836**	1.985	4.2	mg/L	53	Standard
	Fe	54	41009.6	2.7	**11.3055**	0.606	5.4	mg/L	190	Standard
	Fe	57	12481.8	0.9	**11.3982**	0.446	3.9	mg/L	638	Standard
>	**Sc-1**	45	82170.6	2.6				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	1.3	114.6				ug/L	2	Standard
	Br	81	4270.6	2.3				ug/L	2030	Standard
	P	31	303350.9	2.2				ug/L	256822	Standard
	S	34	34848.4	3.7				ug/L	33255	Standard
	Sr	88	1236.7	5.1				ug/L	153	Standard
	C	12	1456.7	14.7				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	946.7	7.5				mg/L	0	Standard
	Dy	164	296473.3	1.8				mg/L	6	Standard
	Ho-1	165	454042.9	0.8				mg/L	10	Standard
	Er	166	230608.7	1.8				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		145.081	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.785	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		92.623
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		92.839
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

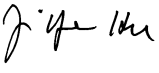
QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Ti 47 Upper, S, EEE	Ti	47	
V 51 Upper, S, EEE	V	51	
Cr 52 Upper, S, EEE	Cr	52	
Cr 53 Upper, S, EEE	Cr	53	

Approved: April 07, 2014

Mn 55 Upper, S, EEE	Mn	55
Ni 60 Upper, S, EEE	Ni	60
Cu 65 Upper, S, EEE	Cu	65
Zn 66 Upper, S, EEE	Zn	66
Ba 135 Upper, S, EEE	Ba	135

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 18:56:14
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	143478.1	2.7				ug/L	113180	Standard
	Be	9	131711.8	1.7	**44.0771**	1.053	2.4	ug/L	17	Standard
	Al	27	8292968.9	0.9	**40.6758**	1.120	2.8	ug/L	633	Standard
	Sc	45	37382.7	1.7				ug/L	41381	Standard
	Ti	47	31610.6	1.7	**89.3772**	0.810	0.9	ug/L	30	Standard
	V	51	442176.9	1.1	**45.9976**	0.348	0.8	ug/L	1879	Standard
	Cr	52	489012.6	1.0	**47.5254**	0.699	1.5	ug/L	8035	Standard
	Cr	53	70302.8	2.5	**46.6633**	0.707	1.5	ug/L	470	Standard
	Mn	55	613445.8	1.5	**51.8033**	0.810	1.6	ug/L	1182	Standard
	Co	59	402140.0	0.9	**46.9437**	0.216	0.5	ug/L	333	Standard
	Ni	60	143806.3	1.3	**48.4085**	0.414	0.9	ug/L	71	Standard
	Cu	65	141093.0	1.7	**49.7007**	0.473	1.0	ug/L	64	Standard
	Zn	66	82662.2	0.5	**50.8260**	0.619	1.2	ug/L	125	Standard
>	**Ge**	72	435940.5	1.3				ug/L	399053	Standard
	As	75	91008.6	1.7	**49.0756**	0.251	0.5	ug/L	-28	Standard
	Se	82	9815.1	2.5	**48.5498**	0.760	1.6	ug/L	26	Standard
	Se-1	77	6047.2	2.9	**50.6397**	1.025	2.0	ug/L	118	Standard
>	**Ga**	71	61.7	24.8				mg/L	8	Standard
	Rb	85	1055.0	10.7				ug/L	25	Standard
	Y	89	364284.9	1.9				ug/L	368853	Standard
>	**Rh**	103	25.0	52.9				ug/L	10	Standard
	Mo	98	239652.7	0.8	**115.1531**	2.780	2.4	ug/L	68	Standard
	Ag	107	314550.3	1.5	**46.4076**	0.655	1.4	ug/L	84	Standard
	Cd	111	152895.3	2.4	**49.3825**	0.383	0.8	mg/L	72	Standard
	Cd	114	370113.2	2.7	**48.6894**	0.622	1.3	ug/L	187	Standard
>	**In**	115	447432.8	2.1				ug/L	464664	Standard
	Sn	118	432192.5	3.0	**52.2306**	1.950	3.7	ug/L	438	Standard
	Sb	123	274149.3	0.9	**51.9808**	1.555	3.0	ug/L	433	Standard
	Ba	135	126777.9	1.5	**46.8256**	0.887	1.9	ug/L	14	Standard
	Ce	140	991.7	55.3				ug/L	20	Standard
>	**Tb**	159	588296.1	1.1				ug/L	663064	Standard
	Ho	165	76.7	74.2				ug/L	10	Standard
	Tl	203	518923.2	0.9	**50.9062**	0.231	0.5	ug/L	32	Standard
	Tl	205	486499.6	1.3	**53.1577**	1.253	2.4	ug/L	28	Standard
	Pb	206	323012.0	1.5	**50.9893**	0.306	0.6	ug/L	190	Standard
	Pb	207	293638.9	0.8	**51.1656**	0.254	0.5	ug/L	155	Standard
	Pb	208	1305919.4	1.2	**50.8850**	0.124	0.2	ug/L	766	Standard
	U	238	672686.0	1.4	**56.2138**	0.850	1.5	ug/L	30	Standard
>	**Bi**	209	340328.8	1.2				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 18:58:24
Page 1

Approved: April 07, 2014

	Na	23	21.7	26.6	**5.3729**	1.641	30.5	mg/L	0	Standard
	Mg	24	5581.0	2.7	**4.8716**	0.053	1.1	mg/L	58	Standard
	K	39	323.3	13.0	**2.8698**	0.354	12.3	mg/L	12	Standard
	Ca	43	141.7	19.4	**3.8211**	1.146	30.0	mg/L	53	Standard
	Fe	54	7528.2	0.4	**4.5044**	0.094	2.1	mg/L	190	Standard
	Fe	57	2768.6	5.3	**4.8492**	0.380	7.8	mg/L	638	Standard
>	**Sc-1**	45	37382.7	1.7				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	3.7	87.7				ug/L	2	Standard
	Br	81	2380.2	4.0				ug/L	2030	Standard
	P	31	305097.8	5.0				ug/L	256822	Standard
	S	34	39688.6	3.1				ug/L	33255	Standard
	Sr	88	138.3	30.3				ug/L	153	Standard
	C	12	1020.0	12.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	20.0	50.0				mg/L	0	Standard
	Dy	164	54.1	84.1				mg/L	6	Standard
	Ho-1	165	76.7	74.2				mg/L	10	Standard
	Er	166	53.3	39.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		126.770	
	Be	9	88.154		
	Al	27	81.352		
	Sc	45			
	Ti	47	89.377		
	V	51	91.995		
	Cr	52	95.051		
	Cr	53			
	Mn	55	103.607		
	Co	59	93.887		
	Ni	60	96.817		
	Cu	65	99.401		
	Zn	66	101.652		
>	Ge	72		109.244	
	As	75	98.151		
	Se	82	97.100		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 18:58:24
Page 2

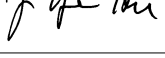
Approved: April 07, 2014

⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	115.153		
|	Ag	107	92.815		
|	Cd	111	98.765		
|	Cd	114			
|>	In	115			96.292
|	Sn	118	104.461		
|	Sb	123	103.962		
⌊	Ba	135	93.651		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	101.812		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	101.770		
|	U	238	112.428		
⌊>	Bi	209			93.297
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample
QC Std 6	Be	9	
QC Std 6	Al	27	
QC Std 6	Ti	47	
QC Std 6	Mo	98	

Approved: April 07, 2014



QC Std 6	U	238

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 18:58:24
Page 4

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 18:59:16
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	146006.9	1.2				ug/L	113180	Standard
	Be	9	36.7	20.8	**0.0087**	0.003	30.7	ug/L	17	Standard
	Al	27	4997.5	29.7	**-0.0002**	0.007	3226.7	ug/L	633	Standard
	Sc	45	38906.6	2.5				ug/L	41381	Standard
	Ti	47	27.0	23.1	**0.0104**	0.016	154.6	ug/L	30	Standard
	V	51	1597.0	2.2	**-0.0525**	0.001	1.0	ug/L	1879	Standard
	Cr	52	7163.7	1.4	**-0.1710**	0.017	9.8	ug/L	8035	Standard
	Cr	53	295.0	16.9	**-0.1601**	0.029	18.1	ug/L	470	Standard
	Mn	55	1397.7	13.1	**-0.0049**	0.013	272.3	ug/L	1182	Standard
	Co	59	211.7	4.1	**-0.0253**	0.001	4.5	ug/L	333	Standard
	Ni	60	167.3	13.0	**0.0207**	0.006	29.8	ug/L	71	Standard
	Cu	65	86.0	17.2	**-0.0037**	0.005	122.9	ug/L	64	Standard
	Zn	66	174.7	11.1	**-0.0349**	0.010	27.6	ug/L	125	Standard
>	**Ge**	72	444812.8	2.0				ug/L	399053	Standard
	As	75	-51.2	42.0	**-0.0156**	0.011	68.7	ug/L	-28	Standard
	Se	82	24.9	25.6	**0.0098**	0.032	324.8	ug/L	26	Standard
	Se-1	77	102.7	15.0	**-0.1015**	0.144	141.7	ug/L	118	Standard
>	**Ga**	71	15.0	57.7				mg/L	8	Standard
	Rb	85	70.0	18.9				ug/L	25	Standard
	Y	89	382269.8	1.7				ug/L	368853	Standard
>	**Rh**	103	13.3	57.3				ug/L	10	Standard
	Mo	98	123.0	31.6	**0.0312**	0.018	56.1	ug/L	68	Standard
	Ag	107	67.7	18.5	**-0.0051**	0.002	33.2	ug/L	84	Standard
	Cd	111	68.4	11.8	**-0.0054**	0.002	43.3	mg/L	72	Standard
	Cd	114	177.6	1.8	**-0.0046**	0.000	7.0	ug/L	187	Standard
>	**In**	115	462033.2	1.3				ug/L	464664	Standard
	Sn	118	588.3	16.4	**0.0202**	0.011	53.5	ug/L	438	Standard
	Sb	123	618.8	27.7	**0.0866**	0.030	35.0	ug/L	433	Standard
	Ba	135	50.3	23.9	**0.0057**	0.004	74.2	ug/L	14	Standard
	Ce	140	163.3	40.8				ug/L	20	Standard
>	**Tb**	159	598884.0	1.1				ug/L	663064	Standard
	Ho	165	23.3	24.7				ug/L	10	Standard
	Tl	203	38.7	44.5	**-0.0020**	0.002	81.7	ug/L	32	Standard
	Tl	205	30.0	72.6	**-0.0012**	0.002	190.2	ug/L	28	Standard
	Pb	206	202.7	5.8	**-0.0059**	0.001	25.5	ug/L	190	Standard
	Pb	207	179.3	5.6	**-0.0015**	0.001	97.4	ug/L	155	Standard
	Pb	208	808.3	4.6	**-0.0020**	0.001	55.5	ug/L	766	Standard
	U	238	55.0	27.3	**0.0013**	0.001	92.9	ug/L	30	Standard
>	**Bi**	209	347512.0	1.0				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 19:01:26
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	71.7	28.2	**0.0204**	0.018	86.8	mg/L	58	Standard
	K	39	5.0	100.0	**-0.0291**	0.044	151.7	mg/L	12	Standard
	Ca	43	25.0	20.0	**-0.8342**	0.211	25.3	mg/L	53	Standard
	Fe	54	157.5	27.0	**0.0012**	0.024	2055.7	mg/L	190	Standard
	Fe	57	533.3	9.2	**-0.2252**	0.127	56.5	mg/L	638	Standard
>	**Sc-1**	45	38906.6	2.5				mg/L	41381	Standard
	Cl	35	2.7	173.2				ug/L	4	Standard
	Kr	83	2.7	21.7				ug/L	2	Standard
	Br	81	2203.5	8.4				ug/L	2030	Standard
	P	31	301601.8	3.9				ug/L	256822	Standard
	S	34	39865.7	3.3				ug/L	33255	Standard
	Sr	88	146.7	17.2				ug/L	153	Standard
	C	12	803.4	2.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	19.4	90.9				mg/L	6	Standard
	Ho-1	165	23.3	24.7				mg/L	10	Standard
	Er	166	13.3	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		129.004	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		111.467	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 19:01:26
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	99.434
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	95.266
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: PBW 6R WG469777-02
Sample Date/Time: Friday, April 04, 2014 19:02:20
Number of Replicates: 3
Autosampler Position: 257
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	116424.1	2.6				ug/L	113180	Standard
	Be	9	11.7	65.5	**0.0014**	0.003	216.6	ug/L	17	Standard
	Al	27	2083.5	14.0	**-0.0117**	0.002	14.9	ug/L	633	Standard
	Sc	45	33552.1	3.1				ug/L	41381	Standard
	Ti	47	17.7	16.3	**-0.0046**	0.008	180.2	ug/L	30	Standard
	V	51	2309.6	29.1	**0.0741**	0.090	121.2	ug/L	1879	Standard
	Cr	52	7164.0	4.9	**-0.0166**	0.059	353.9	ug/L	8035	Standard
	Cr	53	12293.4	19.0	**9.5206**	2.080	21.8	ug/L	470	Standard
	Mn	55	826.0	9.4	**-0.0371**	0.006	15.6	ug/L	1182	Standard
	Co	59	161.3	9.2	**-0.0270**	0.002	7.8	ug/L	333	Standard
	Ni	60	138.7	7.9	**0.0214**	0.004	18.7	ug/L	71	Standard
	Cu	65	109.3	9.8	**0.0129**	0.005	41.3	ug/L	64	Standard
	Zn	66	1696.4	4.3	**1.1111**	0.026	2.3	ug/L	125	Standard
>	**Ge**	72	364229.9	2.4				ug/L	399053	Standard
	As	75	-6.4	276.7	**0.0070**	0.011	163.8	ug/L	-28	Standard
	Se	82	18.4	15.4	**-0.0020**	0.019	949.2	ug/L	26	Standard
	Se-1	77	1054.0	13.5	**9.8312**	1.690	17.2	ug/L	118	Standard
>	**Ga**	71	31.7	32.9				mg/L	8	Standard
	Rb	85	41.7	25.0				ug/L	25	Standard
	Y	89	313053.7	2.2				ug/L	368853	Standard
>	**Rh**	103	13.3	43.3				ug/L	10	Standard
	Mo	98	26.1	32.5	**-0.0116**	0.005	41.2	ug/L	68	Standard
	Ag	107	54.0	10.3	**-0.0057**	0.001	16.3	ug/L	84	Standard
	Cd	111	21.3	23.2	**-0.0190**	0.002	9.9	mg/L	72	Standard
	Cd	114	46.4	10.5	**-0.0203**	0.001	4.0	ug/L	187	Standard
>	**In**	115	394179.3	1.2				ug/L	464664	Standard
	Sn	118	321.7	3.9	**-0.0045**	0.002	45.6	ug/L	438	Standard
	Sb	123	93.1	4.3	**-0.0068**	0.001	11.6	ug/L	433	Standard
	Ba	135	27.3	16.5	**-0.0008**	0.002	257.4	ug/L	14	Standard
	Ce	140	51.7	48.7				ug/L	20	Standard
>	**Tb**	159	524133.6	0.9				ug/L	663064	Standard
	Ho	165	20.0	132.3				ug/L	10	Standard
	Tl	203	181.3	1.7	**0.0145**	0.001	3.5	ug/L	32	Standard
	Tl	205	171.7	9.4	**0.0169**	0.002	12.2	ug/L	28	Standard
	Pb	206	310.0	1.9	**0.0183**	0.002	8.9	ug/L	190	Standard
	Pb	207	260.0	11.1	**0.0193**	0.006	33.0	ug/L	155	Standard
	Pb	208	1214.7	3.4	**0.0208**	0.003	12.3	ug/L	766	Standard
	U	238	11.7	27.6	**-0.0021**	0.000	14.9	ug/L	30	Standard
>	**Bi**	209	300393.6	1.4				ug/L	364780	Standard

Sample ID: PBW 6R WG469777-02
Report Date/Time: Friday, April 04, 2014 19:04:30
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	50.0	45.8	**0.0091**	0.024	261.1	mg/L	58	Standard
	K	39	1.7	173.2	**-0.0569**	0.029	50.4	mg/L	12	Standard
	Ca	43	35.0	24.7	**-0.2494**	0.351	140.6	mg/L	53	Standard
	Fe	54	49.3	18.1	**-0.0577**	0.005	8.8	mg/L	190	Standard
	Fe	57	685.0	18.1	**0.3397**	0.324	95.2	mg/L	638	Standard
>	**Sc-1**	45	33552.1	3.1				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	3.0	33.3				ug/L	2	Standard
	Br	81	1993.5	4.7				ug/L	2030	Standard
	P	31	67324.4	4.4				ug/L	256822	Standard
	S	34	38243.2	2.9				ug/L	33255	Standard
	Sr	88	151.7	13.3				ug/L	153	Standard
	C	12	823.4	22.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	16.3	36.2				mg/L	6	Standard
	Ho-1	165	20.0	132.3				mg/L	10	Standard
	Er	166	6.7	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		102.867	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		91.274	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: PBW 6R WG469777-02
Report Date/Time: Friday, April 04, 2014 19:04:30
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		84.831
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		82.349
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: PBW 6R WG469777-02
Report Date/Time: Friday, April 04, 2014 19:04:30
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: F BLANK WG469586-02
Sample Date/Time: Friday, April 04, 2014 19:05:22
Number of Replicates: 3
Autosampler Position: 258
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	116459.6	3.7				ug/L	113180	Standard
	Be	9	25.0	34.6	**0.0069**	0.003	50.5	ug/L	17	Standard
	Al	27	1300.1	2.1	**-0.0164**	0.000	1.5	ug/L	633	Standard
	Sc	45	33121.2	3.4				ug/L	41381	Standard
	Ti	47	24.3	28.0	**0.0202**	0.025	122.0	ug/L	30	Standard
	V	51	3029.6	13.3	**0.1707**	0.043	25.3	ug/L	1879	Standard
	Cr	52	8002.8	2.6	**0.1034**	0.046	44.8	ug/L	8035	Standard
	Cr	53	21231.7	11.3	**17.0506**	2.330	13.7	ug/L	470	Standard
	Mn	55	696.7	5.3	**-0.0486**	0.003	6.1	ug/L	1182	Standard
	Co	59	156.3	7.4	**-0.0272**	0.001	4.3	ug/L	333	Standard
	Ni	60	128.0	4.8	**0.0182**	0.001	7.5	ug/L	71	Standard
	Cu	65	110.3	6.6	**0.0143**	0.004	29.0	ug/L	64	Standard
	Zn	66	1424.7	2.8	**0.9342**	0.033	3.5	ug/L	125	Standard
>	**Ge**	72	356411.6	2.3				ug/L	399053	Standard
	As	75	-149.7	25.1	**-0.0877**	0.027	30.4	ug/L	-28	Standard
	Se	82	15.5	27.4	**-0.0179**	0.025	140.3	ug/L	26	Standard
	Se-1	77	1511.7	14.7	**14.8537**	2.641	17.8	ug/L	118	Standard
>	**Ga**	71	26.7	28.6				mg/L	8	Standard
	Rb	85	33.3	31.2				ug/L	25	Standard
	Y	89	318477.4	2.9				ug/L	368853	Standard
>	**Rh**	103	5.0	100.0				ug/L	10	Standard
	Mo	98	22.2	22.2	**-0.0137**	0.003	19.0	ug/L	68	Standard
	Ag	107	51.7	7.8	**-0.0060**	0.001	11.5	ug/L	84	Standard
	Cd	111	21.3	9.8	**-0.0189**	0.001	4.2	mg/L	72	Standard
	Cd	114	27.8	1.7	**-0.0231**	0.000	0.2	ug/L	187	Standard
>	**In**	115	392167.6	0.7				ug/L	464664	Standard
	Sn	118	266.7	6.6	**-0.0119**	0.003	22.7	ug/L	438	Standard
	Sb	123	61.7	12.4	**-0.0135**	0.002	12.6	ug/L	433	Standard
	Ba	135	24.7	18.3	**-0.0019**	0.002	100.4	ug/L	14	Standard
	Ce	140	31.7	45.6				ug/L	20	Standard
>	**Tb**	159	517756.8	1.1				ug/L	663064	Standard
	Ho	165	20.0	100.0				ug/L	10	Standard
	Tl	203	165.7	4.0	**0.0128**	0.001	8.7	ug/L	32	Standard
	Tl	205	161.7	15.6	**0.0157**	0.003	18.5	ug/L	28	Standard
	Pb	206	285.3	4.4	**0.0141**	0.003	23.6	ug/L	190	Standard
	Pb	207	239.0	8.0	**0.0153**	0.005	30.5	ug/L	155	Standard
	Pb	208	1106.3	4.4	**0.0162**	0.003	19.6	ug/L	766	Standard
	U	238	6.3	24.1	**-0.0026**	0.000	6.0	ug/L	30	Standard
>	**Bi**	209	299162.8	2.1				ug/L	364780	Standard

Sample ID: F BLANK WG469586-02
Report Date/Time: Friday, April 04, 2014 19:07:32

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	80.0	12.5	**0.0391**	0.009	22.0	mg/L	58	Standard
	K	39	6.7	43.3	**-0.0043**	0.032	743.7	mg/L	12	Standard
	Ca	43	21.7	35.3	**-0.8215**	0.338	41.2	mg/L	53	Standard
	Fe	54	56.1	37.5	**-0.0526**	0.013	25.1	mg/L	190	Standard
	Fe	57	680.0	6.3	**0.3496**	0.150	43.0	mg/L	638	Standard
>	**Sc-1**	45	33121.2	3.4				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	0.7	173.2				ug/L	2	Standard
	Br	81	2070.1	3.0				ug/L	2030	Standard
	P	31	65082.8	1.1				ug/L	256822	Standard
	S	34	38427.0	2.4				ug/L	33255	Standard
	Sr	88	176.7	4.3				ug/L	153	Standard
	C	12	820.0	12.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0					mg/L	0	Standard
	Dy	164	9.5	107.6				mg/L	6	Standard
	Ho-1	165	20.0	100.0				mg/L	10	Standard
	Er	166	10.0	100.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		102.898	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		89.314	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: F BLANK WG469586-02
Report Date/Time: Friday, April 04, 2014 19:07:32
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		84.398
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		82.012
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: F BLANK WG469586-02
Report Date/Time: Friday, April 04, 2014 19:07:32
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: LCSW 6R WG469777-03
Sample Date/Time: Friday, April 04, 2014 19:08:23
Number of Replicates: 3
Autosampler Position: 259
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	161201.4	1.2				ug/L	113180	Standard
	Be	9	1466.7	5.2	**0.4333**	0.020	4.7	ug/L	17	Standard
	Al	27	258301.6	0.8	**1.1036**	0.016	1.4	ug/L	633	Standard
	Sc	45	41003.7	0.5				ug/L	41381	Standard
	Ti	47	5020.5	1.9	**14.6070**	0.431	2.9	ug/L	30	Standard
	V	51	99013.8	1.2	**10.4698**	0.172	1.6	ug/L	1879	Standard
	Cr	52	62784.2	1.2	**5.5494**	0.109	2.0	ug/L	8035	Standard
	Cr	53	81835.0	9.4	**56.1969**	5.821	10.4	ug/L	470	Standard
	Mn	55	64458.5	2.0	**5.5123**	0.058	1.1	ug/L	1182	Standard
	Co	59	16802.3	0.9	**1.9778**	0.011	0.5	ug/L	333	Standard
	Ni	60	14773.5	0.8	**5.1045**	0.064	1.3	ug/L	71	Standard
	Cu	65	14478.9	2.1	**5.2373**	0.139	2.6	ug/L	64	Standard
	Zn	66	17875.5	2.8	**11.2381**	0.246	2.2	ug/L	125	Standard
>	Ge	72	422189.3	1.0				ug/L	399053	Standard
	As	75	6741.3	6.6	**3.7627**	0.213	5.7	ug/L	-28	Standard
	Se	82	813.2	4.5	**4.0509**	0.146	3.6	ug/L	26	Standard
	Se-1	77	5234.9	7.6	**45.1907**	3.926	8.7	ug/L	118	Standard
>	Ga	71	103.3	21.8				mg/L	8	Standard
	Rb	85	185.0	14.3				ug/L	25	Standard
	Y	89	370498.3	2.2				ug/L	368853	Standard
>	Rh	103	26.7	43.3				ug/L	10	Standard
	Mo	98	31327.0	0.3	**14.4112**	0.195	1.4	ug/L	68	Standard
	Ag	107	25818.6	0.7	**3.6395**	0.023	0.6	ug/L	84	Standard
	Cd	111	1619.3	1.9	**0.4751**	0.008	1.8	mg/L	72	Standard
	Cd	114	4302.3	5.0	**0.5157**	0.021	4.1	ug/L	187	Standard
>	In	115	466515.4	1.1				ug/L	464664	Standard
	Sn	118	94160.1	1.9	**10.8742**	0.325	3.0	ug/L	438	Standard
	Sb	123	68812.8	1.1	**12.4886**	0.100	0.8	ug/L	433	Standard
	Ba	135	27028.1	0.6	**9.5634**	0.056	0.6	ug/L	14	Standard
	Ce	140	51.7	27.9				ug/L	20	Standard
>	Tb	159	627566.7	0.7				ug/L	663064	Standard
	Ho	165	20.0	100.0				ug/L	10	Standard
	Tl	203	54658.1	0.3	**5.1080**	0.035	0.7	ug/L	32	Standard
	Tl	205	48604.5	2.3	**5.0601**	0.149	3.0	ug/L	28	Standard
	Pb	206	34910.8	1.5	**5.2216**	0.044	0.8	ug/L	190	Standard
	Pb	207	31387.5	0.9	**5.1862**	0.023	0.4	ug/L	155	Standard
	Pb	208	140536.4	0.9	**5.1922**	0.019	0.4	ug/L	766	Standard
	U	238	12.7	64.3	**-0.0022**	0.001	28.9	ug/L	30	Standard
>	Bi	209	356894.9	0.7				ug/L	364780	Standard

Sample ID: LCSW 6R WG469777-03
Report Date/Time: Friday, April 04, 2014 19:10:33
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	811.7	12.5	**0.6108**	0.078	12.7	mg/L	58	Standard
	K	39	40.0	37.5	**0.2583**	0.123	47.6	mg/L	12	Standard
	Ca	43	28.3	44.4	**-0.7666**	0.452	59.0	mg/L	53	Standard
	Fe	54	234.4	20.8	**0.0393**	0.027	69.0	mg/L	190	Standard
	Fe	57	778.4	3.3	**0.2168**	0.061	28.0	mg/L	638	Standard
>	**Sc-1**	45	41003.7	0.5				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	3.0	57.7				ug/L	2	Standard
	Br	81	2526.9	8.1				ug/L	2030	Standard
	P	31	303119.3	1.7				ug/L	256822	Standard
	S	34	40547.5	1.8				ug/L	33255	Standard
	Sr	88	151.7	5.0				ug/L	153	Standard
	C	12	983.4	3.1				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	16.7	91.7				mg/L	0	Standard
	Dy	164	-0.3	86.6				mg/L	6	Standard
	Ho-1	165	20.0	100.0				mg/L	10	Standard
	Er	166	6.7	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		142.430	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.798	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: LCSW 6R WG469777-03
Report Date/Time: Friday, April 04, 2014 19:10:33
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.398
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	97.838
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: LCSW 6R WG469777-03
Report Date/Time: Friday, April 04, 2014 19:10:33
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404016401 WG469777-01
Sample Date/Time: Friday, April 04, 2014 19:11:25
Number of Replicates: 3
Autosampler Position: 260
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	126378.4	2.3				ug/L	113180	Standard
	Be	9	23.3	86.6	**0.0054**	0.008	141.1	ug/L	17	Standard
	Al	27	401040.0	13.1	**2.2083**	0.277	12.6	ug/L	633	Standard
	Sc	45	34873.4	1.0				ug/L	41381	Standard
	Ti	47	41.7	63.6	**0.0753**	0.090	118.9	ug/L	30	Standard
	V	51	4457.8	30.9	**0.3324**	0.157	47.2	ug/L	1879	Standard
	Cr	52	9824.9	1.7	**0.2842**	0.042	14.7	ug/L	8035	Standard
	Cr	53	48225.0	1.0	**37.7974**	1.005	2.7	ug/L	470	Standard
	Mn	55	75359.0	2.0	**7.4229**	0.202	2.7	ug/L	1182	Standard
	Co	59	519.7	7.8	**0.0222**	0.005	20.7	ug/L	333	Standard
	Ni	60	373.3	50.3	**0.1145**	0.076	66.2	ug/L	71	Standard
	Cu	65	198.0	42.9	**0.0493**	0.036	72.9	ug/L	64	Standard
	Zn	66	2883.9	19.0	**1.9638**	0.413	21.1	ug/L	125	Standard
>	**Ge**	72	368701.7	2.4				ug/L	399053	Standard
	As	75	185.6	38.0	**0.1303**	0.047	36.3	ug/L	-28	Standard
	Se	82	19.8	55.9	**0.0043**	0.065	1522.7	ug/L	26	Standard
	Se-1	77	3509.7	2.4	**34.4740**	1.538	4.5	ug/L	118	Standard
>	**Ga**	71	95.0	38.0				mg/L	8	Standard
	Rb	85	1740.1	12.8				ug/L	25	Standard
	Y	89	327217.7	1.4				ug/L	368853	Standard
>	**Rh**	103	28.3	56.7				ug/L	10	Standard
	Mo	98	352.2	3.8	**0.1573**	0.008	4.9	ug/L	68	Standard
	Ag	107	58.7	37.6	**-0.0053**	0.003	64.9	ug/L	84	Standard
	Cd	111	47.8	80.3	**-0.0101**	0.013	132.0	mg/L	72	Standard
	Cd	114	128.1	74.8	**-0.0090**	0.014	150.9	ug/L	187	Standard
>	**In**	115	413425.4	1.5				ug/L	464664	Standard
	Sn	118	381.7	31.4	**0.0012**	0.015	1241.5	ug/L	438	Standard
	Sb	123	143.1	15.3	**0.0026**	0.004	175.9	ug/L	433	Standard
	Ba	135	69403.6	0.9	**27.7344**	0.167	0.6	ug/L	14	Standard
	Ce	140	725.0	139.6				ug/L	20	Standard
>	**Tb**	159	551065.0	2.1				ug/L	663064	Standard
	Ho	165	73.3	150.2				ug/L	10	Standard
	Tl	203	188.0	28.2	**0.0141**	0.005	38.8	ug/L	32	Standard
	Tl	205	136.7	37.0	**0.0116**	0.006	49.6	ug/L	28	Standard
	Pb	206	370.0	17.8	**0.0255**	0.011	41.5	ug/L	190	Standard
	Pb	207	291.7	8.9	**0.0225**	0.005	20.7	ug/L	155	Standard
	Pb	208	1363.0	19.6	**0.0241**	0.011	44.4	ug/L	766	Standard
	U	238	331.7	35.4	**0.0265**	0.010	38.5	ug/L	30	Standard
>	**Bi**	209	316886.9	1.4				ug/L	364780	Standard

Sample ID: L1404016401 WG469777-01
Report Date/Time: Friday, April 04, 2014 19:13:35
Page 1

Approved: April 07, 2014

	Na	23	3.3	173.2	**0.1742**	1.771	1016.3	mg/L	0	Standard
	Mg	24	3638.8	4.3	**3.3933**	0.154	4.5	mg/L	58	Standard
	K	39	15.0	33.3	**0.0731**	0.049	66.8	mg/L	12	Standard
	Ca	43	56.7	27.0	**0.6102**	0.629	103.1	mg/L	53	Standard
	Fe	54	58.9	25.6	**-0.0526**	0.010	18.5	mg/L	190	Standard
	Fe	57	763.4	9.4	**0.4615**	0.179	38.8	mg/L	638	Standard
>	**Sc-1**	45	34873.4	1.0				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	4.0	25.0				ug/L	2	Standard
	Br	81	2376.9	7.4				ug/L	2030	Standard
	P	31	68909.9	4.1				ug/L	256822	Standard
	S	34	36968.4	2.2				ug/L	33255	Standard
	Sr	88	198.3	10.5				ug/L	153	Standard
	C	12	770.0	22.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	16.7	34.6				mg/L	0	Standard
	Dy	164	75.2	129.0				mg/L	6	Standard
	Ho-1	165	73.3	150.2				mg/L	10	Standard
	Er	166	30.0	120.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		111.662	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		92.394	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404016401 WG469777-01
Report Date/Time: Friday, April 04, 2014 19:13:35
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	88.973
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	86.871
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: L1404016401 WG469777-01
Report Date/Time: Friday, April 04, 2014 19:13:35
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404016401S WG469777-04
Sample Date/Time: Friday, April 04, 2014 19:14:27
Number of Replicates: 3
Autosampler Position: 301
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	164338.4	2.2				ug/L	113180	Standard
	Be	9	1491.7	5.8	**0.4324**	0.025	5.7	ug/L	17	Standard
	Al	27	681238.1	0.2	**2.8942**	0.060	2.1	ug/L	633	Standard
	Sc	45	40818.3	1.9				ug/L	41381	Standard
	Ti	47	4965.5	1.2	**14.4915**	0.160	1.1	ug/L	30	Standard
	V	51	95975.7	5.0	**10.1713**	0.364	3.6	ug/L	1879	Standard
	Cr	52	63051.9	0.4	**5.5983**	0.114	2.0	ug/L	8035	Standard
	Cr	53	86372.6	5.1	**59.5386**	4.110	6.9	ug/L	470	Standard
	Mn	55	146964.3	2.7	**12.7636**	0.162	1.3	ug/L	1182	Standard
	Co	59	16651.5	3.0	**1.9659**	0.038	1.9	ug/L	333	Standard
	Ni	60	14597.4	0.8	**5.0602**	0.091	1.8	ug/L	71	Standard
	Cu	65	14175.0	1.7	**5.1430**	0.064	1.3	ug/L	64	Standard
	Zn	66	18152.2	1.8	**11.4543**	0.270	2.4	ug/L	125	Standard
>	Ge	72	420844.1	2.0				ug/L	399053	Standard
	As	75	6781.6	4.5	**3.7978**	0.111	2.9	ug/L	-28	Standard
	Se	82	811.8	2.0	**4.0578**	0.001	0.0	ug/L	26	Standard
	Se-1	77	5753.8	2.6	**49.9316**	2.286	4.6	ug/L	118	Standard
>	Ga	71	115.0	8.7				mg/L	8	Standard
	Rb	85	1945.1	8.7				ug/L	25	Standard
	Y	89	378147.3	2.3				ug/L	368853	Standard
>	Rh	103	38.3	37.7				ug/L	10	Standard
	Mo	98	31235.3	2.9	**14.2603**	0.307	2.2	ug/L	68	Standard
	Ag	107	24727.2	3.2	**3.4584**	0.065	1.9	ug/L	84	Standard
	Cd	111	1597.9	1.7	**0.4648**	0.004	0.9	mg/L	72	Standard
	Cd	114	4443.1	6.9	**0.5296**	0.037	7.1	ug/L	187	Standard
>	In	115	469994.7	1.5				ug/L	464664	Standard
	Sn	118	92265.1	1.8	**10.5736**	0.181	1.7	ug/L	438	Standard
	Sb	123	67710.9	1.4	**12.1969**	0.018	0.2	ug/L	433	Standard
	Ba	135	102824.1	1.1	**36.1487**	0.420	1.2	ug/L	14	Standard
	Ce	140	185.0	24.8				ug/L	20	Standard
>	Tb	159	626303.6	1.2				ug/L	663064	Standard
	Ho	165	23.3	99.0				ug/L	10	Standard
	Tl	203	54168.0	1.0	**5.0285**	0.043	0.8	ug/L	32	Standard
	Tl	205	48566.0	0.6	**5.0225**	0.088	1.8	ug/L	28	Standard
	Pb	206	34549.3	1.0	**5.1330**	0.049	1.0	ug/L	190	Standard
	Pb	207	30869.4	1.0	**5.0663**	0.048	0.9	ug/L	155	Standard
	Pb	208	139041.2	0.9	**5.1026**	0.050	1.0	ug/L	766	Standard
	U	238	290.7	2.9	**0.0198**	0.001	3.5	ug/L	30	Standard
>	Bi	209	359302.6	1.9				ug/L	364780	Standard

Sample ID: L1404016401S WG469777-04
Report Date/Time: Friday, April 04, 2014 19:16:37
Page 1

Approved: April 07, 2014

	Na	23	5.0	173.2	**0.4406**	2.232	506.6	mg/L	0	Standard
	Mg	24	4910.8	1.1	**3.9188**	0.040	1.0	mg/L	58	Standard
	K	39	58.3	42.3	**0.4158**	0.213	51.2	mg/L	12	Standard
	Ca	43	53.3	51.6	**0.1482**	1.010	681.7	mg/L	53	Standard
	Fe	54	251.8	28.1	**0.0502**	0.042	83.5	mg/L	190	Standard
	Fe	57	721.7	10.8	**0.1057**	0.137	130.0	mg/L	638	Standard
>	**Sc-1**	45	40818.3	1.9				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	0.7	86.6				ug/L	2	Standard
	Br	81	2993.6	11.8				ug/L	2030	Standard
	P	31	294774.9	0.7				ug/L	256822	Standard
	S	34	38503.9	2.0				ug/L	33255	Standard
	Sr	88	241.7	5.2				ug/L	153	Standard
	C	12	1020.0	12.3				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	12.9	44.9				mg/L	6	Standard
	Ho-1	165	23.3	99.0				mg/L	10	Standard
	Er	166	10.0					mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		145.201	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		105.461	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404016401S WG469777-04
Report Date/Time: Friday, April 04, 2014 19:16:37
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.147
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	98.498
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404016401SD WG469777-05
Sample Date/Time: Friday, April 04, 2014 19:17:29
Number of Replicates: 3
Autosampler Position: 302
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	163773.7	0.6				ug/L	113180	Standard
	Be	9	1506.7	4.5	**0.4382**	0.017	4.0	ug/L	17	Standard
	Al	27	699578.9	1.1	**2.9822**	0.025	0.8	ug/L	633	Standard
	Sc	45	42571.4	2.9				ug/L	41381	Standard
	Ti	47	5007.8	2.2	**14.2423**	0.196	1.4	ug/L	30	Standard
	V	51	96175.0	1.0	**9.9330**	0.010	0.1	ug/L	1879	Standard
	Cr	52	62783.8	0.3	**5.4073**	0.064	1.2	ug/L	8035	Standard
	Cr	53	98714.0	2.4	**66.3246**	2.181	3.3	ug/L	470	Standard
	Mn	55	150440.2	1.0	**12.7376**	0.230	1.8	ug/L	1182	Standard
	Co	59	16808.7	0.3	**1.9338**	0.013	0.7	ug/L	333	Standard
	Ni	60	14469.9	0.2	**4.8875**	0.045	0.9	ug/L	71	Standard
	Cu	65	14072.5	1.7	**4.9755**	0.074	1.5	ug/L	64	Standard
	Zn	66	18006.0	1.3	**11.0683**	0.066	0.6	ug/L	125	Standard
>	Ge	72	431737.0	0.9				ug/L	399053	Standard
	As	75	7049.3	1.1	**3.8487**	0.012	0.3	ug/L	-28	Standard
	Se	82	816.0	3.3	**3.9748**	0.166	4.2	ug/L	26	Standard
	Se-1	77	6301.3	2.3	**53.3459**	1.680	3.1	ug/L	118	Standard
>	Ga	71	116.7	17.8				mg/L	8	Standard
	Rb	85	1973.5	4.8				ug/L	25	Standard
	Y	89	378756.2	1.4				ug/L	368853	Standard
>	Rh	103	41.7	25.0				ug/L	10	Standard
	Mo	98	31087.7	1.8	**14.2707**	0.250	1.8	ug/L	68	Standard
	Ag	107	24911.1	1.3	**3.5038**	0.044	1.3	ug/L	84	Standard
	Cd	111	1574.6	2.4	**0.4603**	0.011	2.4	mg/L	72	Standard
	Cd	114	4258.2	3.4	**0.5093**	0.019	3.6	ug/L	187	Standard
>	In	115	467450.7	0.1				ug/L	464664	Standard
	Sn	118	91638.0	0.5	**10.5580**	0.063	0.6	ug/L	438	Standard
	Sb	123	67848.4	0.2	**12.2882**	0.040	0.3	ug/L	433	Standard
	Ba	135	105189.6	1.2	**37.1785**	0.430	1.2	ug/L	14	Standard
	Ce	140	106.7	23.1				ug/L	20	Standard
>	Tb	159	627185.4	1.8				ug/L	663064	Standard
	Ho	165	26.7	21.7				ug/L	10	Standard
	Tl	203	54776.5	0.7	**5.0693**	0.036	0.7	ug/L	32	Standard
	Tl	205	47930.7	1.8	**4.9407**	0.068	1.4	ug/L	28	Standard
	Pb	206	34529.0	1.0	**5.1138**	0.028	0.5	ug/L	190	Standard
	Pb	207	31258.9	1.0	**5.1145**	0.031	0.6	ug/L	155	Standard
	Pb	208	140029.0	0.7	**5.1230**	0.014	0.3	ug/L	766	Standard
	U	238	276.7	2.8	**0.0186**	0.001	3.3	ug/L	30	Standard
>	Bi	209	360381.6	0.5				ug/L	364780	Standard

Sample ID: L1404016401SD WG469777-05
Report Date/Time: Friday, April 04, 2014 19:19:39
Page 1

Approved: April 07, 2014

	Na	23	13.3	78.1	**2.4802**	2.553	102.9	mg/L	0	Standard
	Mg	24	5087.5	7.4	**3.8930**	0.287	7.4	mg/L	58	Standard
	K	39	55.0	31.5	**0.3655**	0.132	36.1	mg/L	12	Standard
	Ca	43	50.0	52.0	**-0.0424**	0.921	2171.7	mg/L	53	Standard
	Fe	54	259.0	10.9	**0.0481**	0.019	40.0	mg/L	190	Standard
	Fe	57	843.4	0.9	**0.2868**	0.035	12.1	mg/L	638	Standard
>	**Sc-1**	45	42571.4	2.9				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	2.3	24.7				ug/L	2	Standard
	Br	81	2970.3	3.4				ug/L	2030	Standard
	P	31	298010.6	0.6				ug/L	256822	Standard
	S	34	38467.1	1.0				ug/L	33255	Standard
	Sr	88	236.7	21.7				ug/L	153	Standard
	C	12	930.0	26.3				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	16.0	35.2				mg/L	6	Standard
	Ho-1	165	26.7	21.7				mg/L	10	Standard
	Er	166	13.3	43.3				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		144.702	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.190	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404016401SD WG469777-05
Report Date/Time: Friday, April 04, 2014 19:19:39
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.600
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	98.794
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: L1404016401SD WG469777-05
Report Date/Time: Friday, April 04, 2014 19:19:39
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1404008501
Sample Date/Time: Friday, April 04, 2014 19:20:30
Number of Replicates: 3
Autosampler Position: 303
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	155670.7	1.0				ug/L	113180	Standard
	Be	9	21.7	58.1	**0.0033**	0.004	116.1	ug/L	17	Standard
	Al	27	4674.1	26.6	**-0.0031**	0.006	179.5	ug/L	633	Standard
	Sc	45	41730.7	2.1				ug/L	41381	Standard
	Ti	47	36.7	15.0	**0.0394**	0.016	41.4	ug/L	30	Standard
	V	51	6584.1	17.1	**0.4697**	0.109	23.2	ug/L	1879	Standard
	Cr	52	12573.9	4.9	**0.3761**	0.073	19.5	ug/L	8035	Standard
	Cr	53	31504.4	4.6	**20.6656**	0.719	3.5	ug/L	470	Standard
	Mn	55	2529.5	11.3	**0.0928**	0.022	23.7	ug/L	1182	Standard
	Co	59	277.0	1.3	**-0.0172**	0.000	0.9	ug/L	333	Standard
	Ni	60	736.7	5.6	**0.2132**	0.015	7.2	ug/L	71	Standard
	Cu	65	252.3	3.7	**0.0554**	0.002	4.1	ug/L	64	Standard
	Zn	66	5347.9	0.2	**3.1498**	0.045	1.4	ug/L	125	Standard
>	**Ge**	72	436901.5	1.2				ug/L	399053	Standard
	As	75	119.7	120.3	**0.0752**	0.077	102.7	ug/L	-28	Standard
	Se	82	830.8	1.0	**3.9989**	0.070	1.7	ug/L	26	Standard
	Se-1	77	3758.1	0.9	**31.0407**	0.315	1.0	ug/L	118	Standard
>	**Ga**	71	133.3	15.2				mg/L	8	Standard
	Rb	85	18933.5	3.6				ug/L	25	Standard
	Y	89	383331.9	2.3				ug/L	368853	Standard
>	**Rh**	103	10.0	86.6				ug/L	10	Standard
	Mo	98	291.7	4.9	**0.1073**	0.007	6.2	ug/L	68	Standard
	Ag	107	46.7	13.6	**-0.0082**	0.001	10.8	ug/L	84	Standard
	Cd	111	68.3	6.4	**-0.0058**	0.001	23.5	mg/L	72	Standard
	Cd	114	165.1	16.1	**-0.0066**	0.003	51.4	ug/L	187	Standard
>	**In**	115	470817.2	0.3				ug/L	464664	Standard
	Sn	118	928.4	3.8	**0.0580**	0.004	7.1	ug/L	438	Standard
	Sb	123	94.1	4.8	**-0.0099**	0.001	7.8	ug/L	433	Standard
	Ba	135	6289.0	0.2	**2.1954**	0.003	0.1	ug/L	14	Standard
	Ce	140	56.7	41.7				ug/L	20	Standard
>	**Tb**	159	621107.4	1.1				ug/L	663064	Standard
	Ho	165	0.0					ug/L	10	Standard
	Tl	203	374.0	3.0	**0.0286**	0.001	3.6	ug/L	32	Standard
	Tl	205	353.3	21.2	**0.0316**	0.007	23.2	ug/L	28	Standard
	Pb	206	4051.5	1.3	**0.5599**	0.007	1.3	ug/L	190	Standard
	Pb	207	3365.4	1.7	**0.5152**	0.004	0.7	ug/L	155	Standard
	Pb	208	15749.2	1.8	**0.5399**	0.003	0.6	ug/L	766	Standard
	U	238	12.7	57.1	**-0.0022**	0.001	24.7	ug/L	30	Standard
>	**Bi**	209	364832.2	1.2				ug/L	364780	Standard

Sample ID: L1404008501
Report Date/Time: Friday, April 04, 2014 19:22:41
Page 1

Approved: April 07, 2014

	Na	23	31.7	63.8	**7.3495**	5.350	72.8	mg/L	0	Standard
	Mg	24	9159.4	3.9	**7.1845**	0.341	4.8	mg/L	58	Standard
	K	39	318.3	10.5	**2.5225**	0.240	9.5	mg/L	12	Standard
	Ca	43	185.0	8.1	**4.7591**	0.435	9.1	mg/L	53	Standard
	Fe	54	182.1	17.5	**0.0087**	0.019	218.2	mg/L	190	Standard
	Fe	57	753.4	5.7	**0.1399**	0.115	82.1	mg/L	638	Standard
>	**Sc-1**	45	41730.7	2.1				mg/L	41381	Standard
	Cl	35	1.3	173.2				ug/L	4	Standard
	Kr	83	6.0	16.7				ug/L	2	Standard
	Br	81	3507.1	1.6				ug/L	2030	Standard
	P	31	290338.8	0.6				ug/L	256822	Standard
	S	34	40119.7	1.8				ug/L	33255	Standard
	Sr	88	153.3	13.2				ug/L	153	Standard
	C	12	1213.4	8.5				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	5.5	110.4				mg/L	6	Standard
	Ho-1	165	0.0					mg/L	10	Standard
	Er	166	23.3	89.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		137.543	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		109.485	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1404008501
Report Date/Time: Friday, April 04, 2014 19:22:41
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.324
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	100.014
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

Sample ID: L1404008501
Report Date/Time: Friday, April 04, 2014 19:22:41
Page 3

Approved: April 07, 2014

L1404008601

Method 6020 - Summary Report

Sample ID: ~~L1404008502~~

Sample Date/Time: Friday, April 04, 2014 19:23:32
Number of Replicates: 3
Autosampler Position: 304
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	159499.4	4.0				ug/L	113180	Standard
	Be	9	31.7	48.2	**0.0062**	0.005	78.1	ug/L	17	Standard
	Al	27	8249.6	68.2	**0.0128**	0.027	208.6	ug/L	633	Standard
	Sc	45	41889.5	0.9				ug/L	41381	Standard
	Ti	47	36.3	27.6	**0.0386**	0.029	75.4	ug/L	30	Standard
	V	51	5722.0	23.9	**0.3818**	0.146	38.2	ug/L	1879	Standard
	Cr	52	14597.0	2.9	**0.5768**	0.061	10.7	ug/L	8035	Standard
	Cr	53	32628.4	2.3	**21.4333**	0.244	1.1	ug/L	470	Standard
	Mn	55	3131.0	18.6	**0.1439**	0.049	33.9	ug/L	1182	Standard
	Co	59	305.3	4.0	**-0.0139**	0.001	6.9	ug/L	333	Standard
	Ni	60	985.0	7.1	**0.2969**	0.025	8.5	ug/L	71	Standard
	Cu	65	299.7	6.2	**0.0721**	0.007	9.6	ug/L	64	Standard
	Zn	66	6040.2	1.0	**3.5781**	0.074	2.1	ug/L	125	Standard
>	**Ge**	72	436635.6	1.4				ug/L	399053	Standard
	As	75	30.0	100.7	**0.0276**	0.017	60.1	ug/L	-28	Standard
	Se	82	610.3	3.1	**2.9092**	0.055	1.9	ug/L	26	Standard
	Se-1	77	3985.2	2.6	**33.0057**	1.339	4.1	ug/L	118	Standard
>	**Ga**	71	103.3	22.9				mg/L	8	Standard
	Rb	85	18950.2	0.7				ug/L	25	Standard
	Y	89	386219.4	1.4				ug/L	368853	Standard
>	**Rh**	103	11.7	65.5				ug/L	10	Standard
	Mo	98	217.3	12.8	**0.0741**	0.013	17.4	ug/L	68	Standard
	Ag	107	64.3	24.4	**-0.0056**	0.002	41.8	ug/L	84	Standard
	Cd	111	73.2	25.8	**-0.0041**	0.006	146.5	mg/L	72	Standard
	Cd	114	170.9	13.8	**-0.0057**	0.003	59.4	ug/L	187	Standard
>	**In**	115	467413.2	2.0				ug/L	464664	Standard
	Sn	118	2388.5	7.6	**0.2276**	0.016	6.9	ug/L	438	Standard
	Sb	123	92.5	13.6	**-0.0100**	0.003	25.1	ug/L	433	Standard
	Ba	135	23949.9	0.4	**8.4586**	0.179	2.1	ug/L	14	Standard
	Ce	140	225.0	112.6				ug/L	20	Standard
>	**Tb**	159	617291.6	1.3				ug/L	663064	Standard
	Ho	165	30.0	0.0				ug/L	10	Standard
	Tl	203	391.7	8.4	**0.0312**	0.003	10.8	ug/L	32	Standard
	Tl	205	365.0	15.8	**0.0339**	0.007	19.6	ug/L	28	Standard
	Pb	206	2159.2	1.7	**0.2897**	0.011	3.8	ug/L	190	Standard
	Pb	207	1722.8	3.0	**0.2558**	0.013	5.1	ug/L	155	Standard
	Pb	208	8243.9	1.4	**0.2751**	0.006	2.0	ug/L	766	Standard
	U	238	39.3	94.8	**-0.0000**	0.003	6727.8	ug/L	30	Standard
>	**Bi**	209	355231.2	1.8				ug/L	364780	Standard

Sample ID: L1404008502
Report Date/Time: Friday, April 04, 2014 19:25:42
Page 1

Approved: April 07, 2014

	Na	23	38.3	27.2	**8.9656**	2.576	28.7	mg/L	0	Standard
	Mg	24	9069.4	4.3	**7.0854**	0.353	5.0	mg/L	58	Standard
	K	39	311.7	3.3	**2.4610**	0.107	4.3	mg/L	12	Standard
	Ca	43	223.3	22.6	**6.1008**	1.844	30.2	mg/L	53	Standard
	Fe	54	202.2	4.0	**0.0190**	0.005	23.7	mg/L	190	Standard
	Fe	57	773.4	10.9	**0.1738**	0.181	104.4	mg/L	638	Standard
>	**Sc-1**	45	41889.5	0.9				mg/L	41381	Standard
	Cl	35	2.0	173.2				ug/L	4	Standard
	Kr	83	2.0	50.0				ug/L	2	Standard
	Br	81	3277.0	2.7				ug/L	2030	Standard
	P	31	288231.0	1.2				ug/L	256822	Standard
	S	34	40773.1	2.2				ug/L	33255	Standard
	Sr	88	158.3	6.6				ug/L	153	Standard
	C	12	1416.7	18.6				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	15.7	34.4				mg/L	6	Standard
	Ho-1	165	30.0	0.0				mg/L	10	Standard
	Er	166	20.0	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		140.926	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		109.418	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71	L1404008601		
	Rb	85			

Sample ID: ~~L1404008502~~

Report Date/Time: Friday, April 04, 2014 19:25:42

Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	100.592
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	97.382
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

L1404008601

Sample ID: ~~L1404008~~502
Report Date/Time: Friday, April 04, 2014 19:25:42
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

L1404008601PS

Sample ID: ~~L1404008502~~PS WG470070-01

Sample Date/Time: Friday, April 04, 2014 19:26:34
Number of Replicates: 3
Autosampler Position: 305
Sample Description: 50
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	157030.0	3.1				ug/L	113180	Standard
	Be	9	142714.0	0.9	**43.6562**	1.649	3.8	ug/L	17	Standard
	Al	27	3450.4	4.6	**-0.0088**	0.001	7.7	ug/L	633	Standard
	Sc	45	42237.1	1.7				ug/L	41381	Standard
	Ti	47	34.3	27.1	**0.0332**	0.027	80.0	ug/L	30	Standard
	V	51	461972.7	2.5	**48.2137**	1.069	2.2	ug/L	1879	Standard
	Cr	52	515155.4	0.5	**50.2675**	0.307	0.6	ug/L	8035	Standard
	Cr	53	104799.6	2.2	**69.9589**	1.574	2.3	ug/L	470	Standard
	Mn	55	625372.8	2.2	**52.9735**	1.055	2.0	ug/L	1182	Standard
	Co	59	405404.8	2.0	**47.4703**	0.835	1.8	ug/L	333	Standard
	Ni	60	146663.1	0.5	**49.5242**	0.113	0.2	ug/L	71	Standard
	Cu	65	142256.8	1.2	**50.2698**	0.760	1.5	ug/L	64	Standard
	Zn	66	85913.9	0.1	**52.9916**	0.107	0.2	ug/L	125	Standard
>	**Ge**	72	434581.3	0.3				ug/L	399053	Standard
	As	75	90727.1	0.7	**49.0794**	0.483	1.0	ug/L	-28	Standard
	Se	82	10462.7	0.4	**51.9271**	0.332	0.6	ug/L	26	Standard
	Se-1	77	10051.0	2.1	**85.0834**	2.008	2.4	ug/L	118	Standard
>	**Ga**	71	135.0	7.4				mg/L	8	Standard
	Rb	85	18356.1	0.7				ug/L	25	Standard
	Y	89	389206.1	1.3				ug/L	368853	Standard
>	**Rh**	103	38.3	39.8				ug/L	10	Standard
	Mo	98	226.2	4.0	**0.0780**	0.004	5.2	ug/L	68	Standard
	Ag	107	319652.7	1.3	**45.0922**	0.542	1.2	ug/L	84	Standard
	Cd	111	158548.1	1.0	**48.9708**	0.411	0.8	mg/L	72	Standard
	Cd	114	386353.8	0.8	**48.6077**	0.484	1.0	ug/L	187	Standard
>	**In**	115	467882.4	0.2				ug/L	464664	Standard
	Sn	118	775.0	8.2	**0.0410**	0.007	17.7	ug/L	438	Standard
	Sb	123	276548.9	0.5	**50.1223**	0.166	0.3	ug/L	433	Standard
	Ba	135	153828.0	0.6	**54.3257**	0.454	0.8	ug/L	14	Standard
	Ce	140	30.0	60.1				ug/L	20	Standard
>	**Tb**	159	617611.9	0.9				ug/L	663064	Standard
	Ho	165	3.3	173.2				ug/L	10	Standard
	Tl	203	530780.7	0.8	**49.6055**	0.462	0.9	ug/L	32	Standard
	Tl	205	486809.7	1.6	**50.6685**	0.968	1.9	ug/L	28	Standard
	Pb	206	330115.3	0.9	**49.6459**	0.531	1.1	ug/L	190	Standard
	Pb	207	297603.7	0.5	**49.4008**	0.246	0.5	ug/L	155	Standard
	Pb	208	1336081.1	0.5	**49.5964**	0.081	0.2	ug/L	766	Standard
	U	238	651185.9	1.3	**51.8430**	0.972	1.9	ug/L	30	Standard
>	**Bi**	209	357228.9	0.6				ug/L	364780	Standard

Sample ID: ~~L1404008502~~PS WG470070-01
Report Date/Time: Friday, April 04, 2014 19:28:44
Page 1

Approved: April 07, 2014

	Na	23	26.7	43.3	**5.9047**	2.812	47.6	mg/L	0	Standard
	Mg	24	9051.0	3.3	**7.0119**	0.251	3.6	mg/L	58	Standard
	K	39	295.0	10.3	**2.3081**	0.281	12.2	mg/L	12	Standard
	Ca	43	188.3	10.7	**4.8049**	0.748	15.6	mg/L	53	Standard
	Fe	54	191.4	11.0	**0.0122**	0.010	83.3	mg/L	190	Standard
	Fe	57	745.0	7.9	**0.1026**	0.093	90.5	mg/L	638	Standard
>	**Sc-1**	45	42237.1	1.7				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	4.0	0.0				ug/L	2	Standard
	Br	81	3330.4	8.3				ug/L	2030	Standard
	P	31	307822.1	4.1				ug/L	256822	Standard
	S	34	42984.2	2.7				ug/L	33255	Standard
	Sr	88	156.7	1.8				ug/L	153	Standard
	C	12	1236.7	11.0				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	16.7	91.7				mg/L	0	Standard
	Dy	164	9.8	101.7				mg/L	6	Standard
	Ho-1	165	3.3	173.2				mg/L	10	Standard
	Er	166	3.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		138.744	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.903	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

L1404008601PS

Sample ID: ~~L1404008502PS~~ WG470070-01
Report Date/Time: Friday, April 04, 2014 19:28:44
Page 2

Approved: April 07, 2014

Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115	100.693	
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209	97.930	
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample

L1404008601PS

Sample ID: ~~L1404008502PS~~ **WG470070-01**
Report Date/Time: Friday, April 04, 2014 19:28:44
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

L1404008601SDL

Sample ID: ~~L1404008502SDL~~ WG470070-02

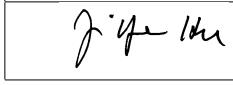
Sample Date/Time: Friday, April 04, 2014 19:29:36
Number of Replicates: 3
Autosampler Position: 306
Sample Description: 250
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	124879.5	3.1				ug/L	113180	Standard
	Be	9	31.7	107.5	**0.0088**	0.013	147.3	ug/L	17	Standard
	Al	27	18810.9	163.9	**0.0813**	0.173	212.8	ug/L	633	Standard
	Sc	45	35575.1	1.3				ug/L	41381	Standard
	Ti	47	35.3	63.1	**0.0484**	0.071	147.3	ug/L	30	Standard
	V	51	4060.3	7.3	**0.2617**	0.036	13.6	ug/L	1879	Standard
	Cr	52	11142.4	4.9	**0.3754**	0.063	16.7	ug/L	8035	Standard
	Cr	53	12855.5	4.2	**9.3278**	0.446	4.8	ug/L	470	Standard
	Mn	55	2671.4	94.0	**0.1341**	0.240	178.9	ug/L	1182	Standard
	Co	59	269.7	37.4	**-0.0141**	0.013	95.1	ug/L	333	Standard
	Ni	60	380.3	56.7	**0.1098**	0.082	74.8	ug/L	71	Standard
	Cu	65	185.7	41.2	**0.0404**	0.031	75.7	ug/L	64	Standard
	Zn	66	3157.3	16.3	**2.0515**	0.362	17.6	ug/L	125	Standard
>	**Ge**	72	387224.1	0.4				ug/L	399053	Standard
	As	75	-26.1	362.6	**-0.0047**	0.057	1215.9	ug/L	-28	Standard
	Se	82	135.3	6.4	**0.6438**	0.050	7.8	ug/L	26	Standard
	Se-1	77	1191.7	2.5	**10.4869**	0.245	2.3	ug/L	118	Standard
>	**Ga**	71	63.3	27.7				mg/L	8	Standard
	Rb	85	3357.0	5.8				ug/L	25	Standard
	Y	89	339770.9	0.7				ug/L	368853	Standard
>	**Rh**	103	13.3	21.7				ug/L	10	Standard
	Mo	98	63.3	68.0	**0.0068**	0.022	326.7	ug/L	68	Standard
	Ag	107	105.3	65.0	**0.0020**	0.011	543.3	ug/L	84	Standard
	Cd	111	75.8	98.3	**-0.0004**	0.026	6169.1	mg/L	72	Standard
	Cd	114	220.8	87.7	**0.0040**	0.027	682.0	ug/L	187	Standard
>	**In**	115	416159.4	0.6				ug/L	464664	Standard
	Sn	118	528.3	10.5	**0.0200**	0.007	35.3	ug/L	438	Standard
	Sb	123	385.9	8.8	**0.0518**	0.007	12.6	ug/L	433	Standard
	Ba	135	4404.6	5.4	**1.7371**	0.097	5.6	ug/L	14	Standard
	Ce	140	728.4	169.0				ug/L	20	Standard
>	**Tb**	159	536620.2	1.4				ug/L	663064	Standard
	Ho	165	93.3	145.5				ug/L	10	Standard
	Tl	203	392.7	24.1	**0.0359**	0.010	27.0	ug/L	32	Standard
	Tl	205	375.0	21.5	**0.0398**	0.009	23.3	ug/L	28	Standard
	Pb	206	707.7	17.0	**0.0834**	0.019	23.3	ug/L	190	Standard
	Pb	207	592.0	18.4	**0.0792**	0.020	24.9	ug/L	155	Standard
	Pb	208	2755.1	16.8	**0.0830**	0.018	22.3	ug/L	766	Standard
	U	238	190.0	121.9	**0.0138**	0.021	149.6	ug/L	30	Standard
>	**Bi**	209	315225.6	1.0				ug/L	364780	Standard

Sample ID: ~~L1404008502~~SDL WG470070-02
Report Date/Time: Friday, April 04, 2014 19:31:46
Page 1

Approved: April 07, 2014



	Na	23	6.7	43.3	**1.1687**	0.889	76.1	mg/L	0	Standard
	Mg	24	1538.4	10.2	**1.3817**	0.130	9.4	mg/L	58	Standard
	K	39	65.0	15.4	**0.5488**	0.096	17.6	mg/L	12	Standard
	Ca	43	43.3	17.6	**0.0110**	0.300	2736.9	mg/L	53	Standard
	Fe	54	70.7	26.3	**-0.0458**	0.012	25.3	mg/L	190	Standard
	Fe	57	725.0	1.2	**0.3343**	0.037	10.9	mg/L	638	Standard
>	**Sc-1**	45	35575.1	1.3				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	3.0	57.7				ug/L	2	Standard
	Br	81	1950.1	2.7				ug/L	2030	Standard
	P	31	103859.8	0.6				ug/L	256822	Standard
	S	34	40482.4	2.3				ug/L	33255	Standard
	Sr	88	178.3	16.2				ug/L	153	Standard
	C	12	760.0	15.5				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	51.9	142.6				mg/L	6	Standard
	Ho-1	165	93.3	145.5				mg/L	10	Standard
	Er	166	30.0	120.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		110.337	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.036	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

L1404008601SDL

Sample ID: ~~L1404008502SD~~L WG470070-02
Report Date/Time: Friday, April 04, 2014 19:31:46
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	89.561
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	86.415
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

L1404008601SDL

Sample ID: ~~L1404008502SDL~~ WG470070-02
Report Date/Time: Friday, April 04, 2014 19:31:46
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 19:32:40
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	131602.8	3.2				ug/L	113180	Standard
	Be	9	125638.9	2.3	**45.8608**	2.040	4.4	ug/L	17	Standard
	Al	27	7867416.7	2.3	**42.0611**	0.534	1.3	ug/L	633	Standard
	Sc	45	39737.0	1.2				ug/L	41381	Standard
	Ti	47	33744.2	2.0	**92.9318**	0.437	0.5	ug/L	30	Standard
	V	51	483794.6	1.2	**49.0343**	0.374	0.8	ug/L	1879	Standard
	Cr	52	516138.7	1.8	**48.8783**	0.455	0.9	ug/L	8035	Standard
	Cr	53	74546.3	2.4	**48.2054**	0.376	0.8	ug/L	470	Standard
	Mn	55	661028.0	2.5	**54.3693**	0.576	1.1	ug/L	1182	Standard
	Co	59	431994.1	1.5	**49.1243**	0.865	1.8	ug/L	333	Standard
	Ni	60	150750.3	1.2	**49.4294**	0.282	0.6	ug/L	71	Standard
	Cu	65	147697.4	0.5	**50.6857**	0.887	1.8	ug/L	64	Standard
	Zn	66	85361.5	1.7	**51.1174**	0.020	0.0	ug/L	125	Standard
>	**Ge**	72	447571.5	1.6				ug/L	399053	Standard
	As	75	92379.4	1.9	**48.5205**	0.136	0.3	ug/L	-28	Standard
	Se	82	9951.5	1.8	**47.9489**	0.569	1.2	ug/L	26	Standard
	Se-1	77	6387.7	2.0	**52.1328**	0.487	0.9	ug/L	118	Standard
>	**Ga**	71	55.0	36.4				mg/L	8	Standard
	Rb	85	1000.0	5.8				ug/L	25	Standard
	Y	89	384523.9	1.5				ug/L	368853	Standard
>	**Rh**	103	33.3	8.7				ug/L	10	Standard
	Mo	98	234941.5	0.7	**108.8041**	2.877	2.6	ug/L	68	Standard
	Ag	107	314723.9	1.5	**44.7493**	0.461	1.0	ug/L	84	Standard
	Cd	111	159465.1	1.3	**49.6459**	0.453	0.9	mg/L	72	Standard
	Cd	114	386400.3	3.5	**49.0011**	1.733	3.5	ug/L	187	Standard
>	**In**	115	464252.4	2.1				ug/L	464664	Standard
	Sn	118	448992.1	2.0	**52.2806**	0.429	0.8	ug/L	438	Standard
	Sb	123	272864.9	0.8	**49.8574**	1.201	2.4	ug/L	433	Standard
	Ba	135	131319.0	1.4	**46.7420**	0.359	0.8	ug/L	14	Standard
	Ce	140	246.7	2.3				ug/L	20	Standard
>	**Tb**	159	585968.5	2.5				ug/L	663064	Standard
	Ho	165	30.0	33.3				ug/L	10	Standard
	Tl	203	503297.5	0.6	**50.6857**	0.862	1.7	ug/L	32	Standard
	Tl	205	488892.8	1.0	**54.8292**	0.861	1.6	ug/L	28	Standard
	Pb	206	306839.8	0.3	**49.7273**	0.992	2.0	ug/L	190	Standard
	Pb	207	278477.2	1.4	**49.8091**	0.811	1.6	ug/L	155	Standard
	Pb	208	1241833.7	1.1	**49.6723**	0.778	1.6	ug/L	766	Standard
	U	238	638168.5	1.0	**54.7456**	1.062	1.9	ug/L	30	Standard
>	**Bi**	209	331590.7	2.2				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 19:34:50
Page 1

Approved: April 07, 2014

	Na	23	21.7	53.3	**4.9833**	3.030	60.8	mg/L	0	Standard
	Mg	24	5887.8	1.3	**4.8357**	0.097	2.0	mg/L	58	Standard
	K	39	340.0	6.7	**2.8412**	0.212	7.5	mg/L	12	Standard
	Ca	43	158.3	23.7	**4.1018**	1.415	34.5	mg/L	53	Standard
	Fe	54	8415.4	2.3	**4.7418**	0.166	3.5	mg/L	190	Standard
	Fe	57	3072.0	2.4	**5.1215**	0.232	4.5	mg/L	638	Standard
>	**Sc-1**	45	39737.0	1.2				mg/L	41381	Standard
	Cl	35	1.3	173.2				ug/L	4	Standard
	Kr	83	2.0	50.0				ug/L	2	Standard
	Br	81	2260.2	3.8				ug/L	2030	Standard
	P	31	345902.9	3.1				ug/L	256822	Standard
	S	34	47260.3	1.9				ug/L	33255	Standard
	Sr	88	165.0	18.9				ug/L	153	Standard
	C	12	640.0	23.6				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	13.2	89.8				mg/L	6	Standard
	Ho-1	165	30.0	33.3				mg/L	10	Standard
	Er	166	3.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		116.278	
	Be	9	91.722		
	Al	27	84.122		
	Sc	45			
	Ti	47	92.932		
	V	51	98.069		
	Cr	52	97.757		
	Cr	53			
	Mn	55	108.739		
	Co	59	98.249		
	Ni	60	98.859		
	Cu	65	101.371		
	Zn	66	102.235		
>	Ge	72		112.158	
	As	75	97.041		
	Se	82	95.898		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 19:34:50
Page 2

Approved: April 07, 2014

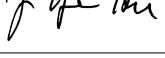
⌈	Y	89			
⌊>	Rh	103			
⌈	Mo	98	108.804		
|	Ag	107	89.499		
|	Cd	111	99.292		
|	Cd	114			
|>	In	115		99.911	
|	Sn	118	104.561		
|	Sb	123	99.715		
⌊	Ba	135	93.484		
⌈	Ce	140			
⌊>	Tb	159			
⌈	Ho	165			
|	Tl	203	101.371		
|	Tl	205			
|	Pb	206			
|	Pb	207			
|	Pb	208	99.345		
|	U	238	109.491		
⌊>	Bi	209		90.902	
⌈	Na	23			
|	Mg	24			
|	K	39			
|	Ca	43			
|	Fe	54			
|	Fe	57			
⌊>	Sc-1	45			
	Cl	35			
	Kr	83			
	Br	81			
	P	31			
	S	34			
	Sr	88			
	C	12			
	N	14			
	Hg	202			
	Dy	164			
	Ho-1	165			
	Er	166			

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 6	Al	27	
QC Std 6	Ag	107	

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 19:34:50
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 19:35:42
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	124959.9	0.7				ug/L	113180	Standard
	Be	9	30.0	16.7	**0.0081**	0.002	22.6	ug/L	17	Standard
	Al	27	1688.4	22.7	**-0.0148**	0.002	14.1	ug/L	633	Standard
	Sc	45	38014.3	1.5				ug/L	41381	Standard
	Ti	47	26.7	53.3	**0.0130**	0.042	321.6	ug/L	30	Standard
	V	51	1452.9	6.9	**-0.0609**	0.010	16.5	ug/L	1879	Standard
	Cr	52	6466.0	1.3	**-0.2122**	0.002	1.0	ug/L	8035	Standard
	Cr	53	1086.7	3.9	**0.3896**	0.035	8.9	ug/L	470	Standard
	Mn	55	1050.0	6.3	**-0.0299**	0.006	21.4	ug/L	1182	Standard
	Co	59	227.0	3.6	**-0.0225**	0.001	3.3	ug/L	333	Standard
	Ni	60	129.3	8.5	**0.0100**	0.004	42.2	ug/L	71	Standard
	Cu	65	91.0	11.5	**-0.0006**	0.003	577.0	ug/L	64	Standard
	Zn	66	106.3	2.7	**-0.0734**	0.002	3.4	ug/L	125	Standard
>	**Ge**	72	426723.7	1.0				ug/L	399053	Standard
	As	75	-5.8	624.2	**0.0081**	0.020	244.5	ug/L	-28	Standard
	Se	82	24.9	15.7	**0.0149**	0.021	140.6	ug/L	26	Standard
	Se-1	77	156.0	14.8	**0.3994**	0.214	53.7	ug/L	118	Standard
>	**Ga**	71	13.3	21.7				mg/L	8	Standard
	Rb	85	25.0	20.0				ug/L	25	Standard
	Y	89	366415.6	2.1				ug/L	368853	Standard
>	**Rh**	103	8.3	34.6				ug/L	10	Standard
	Mo	98	121.0	29.9	**0.0319**	0.017	52.3	ug/L	68	Standard
	Ag	107	80.7	9.3	**-0.0029**	0.001	36.5	ug/L	84	Standard
	Cd	111	85.1	4.7	**0.0006**	0.001	212.5	mg/L	72	Standard
	Cd	114	210.2	19.2	**0.0003**	0.005	1866.6	ug/L	187	Standard
>	**In**	115	449575.9	1.1				ug/L	464664	Standard
	Sn	118	615.0	2.2	**0.0254**	0.002	6.6	ug/L	438	Standard
	Sb	123	678.8	28.4	**0.1011**	0.035	35.0	ug/L	433	Standard
	Ba	135	21.0	41.5	**-0.0046**	0.003	69.2	ug/L	14	Standard
	Ce	140	11.7	49.5				ug/L	20	Standard
>	**Tb**	159	560649.9	0.9				ug/L	663064	Standard
	Ho	165	10.0	100.0				ug/L	10	Standard
	Tl	203	101.7	12.7	**0.0048**	0.001	24.0	ug/L	32	Standard
	Tl	205	115.0	17.4	**0.0087**	0.002	23.6	ug/L	28	Standard
	Pb	206	184.3	10.6	**-0.0067**	0.003	40.2	ug/L	190	Standard
	Pb	207	158.0	4.4	**-0.0033**	0.001	24.7	ug/L	155	Standard
	Pb	208	741.0	5.8	**-0.0027**	0.001	49.3	ug/L	766	Standard
	U	238	56.0	40.8	**0.0017**	0.002	115.2	ug/L	30	Standard
>	**Bi**	209	325024.1	1.7				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 19:37:52
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	63.3	22.8	**0.0145**	0.013	88.0	mg/L	58	Standard
	K	39	5.0	173.2	**-0.0294**	0.076	259.5	mg/L	12	Standard
	Ca	43	25.0	40.0	**-0.8114**	0.402	49.5	mg/L	53	Standard
	Fe	54	172.6	4.4	**0.0126**	0.006	46.4	mg/L	190	Standard
	Fe	57	628.3	17.5	**0.0110**	0.249	2265.1	mg/L	638	Standard
>	**Sc-1**	45	38014.3	1.5				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	1.0	0.0				ug/L	2	Standard
	Br	81	2246.8	8.7				ug/L	2030	Standard
	P	31	321494.3	2.1				ug/L	256822	Standard
	S	34	45394.6	2.3				ug/L	33255	Standard
	Sr	88	178.3	28.1				ug/L	153	Standard
	C	12	693.3	26.2				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	2.4	260.7				mg/L	6	Standard
	Ho-1	165	10.0	100.0				mg/L	10	Standard
	Er	166	20.0	50.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		110.408	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		106.934	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 19:37:52
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107		
|	Cd	111		
|	Cd	114		
|>	In	115		96.753
|	Sn	118		
|	Sb	123		
⌊	Ba	135		
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203		
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208		
|	U	238		
⌊>	Bi	209		89.101
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 19:37:52
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: PBS 47 WG468797-01
Sample Date/Time: Friday, April 04, 2014 19:38:45
Number of Replicates: 3
Autosampler Position: 307
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	169631.6	6.1				ug/L	113180	Standard
	Be	9	31.7	77.9	**0.0057**	0.007	125.8	ug/L	17	Standard
	Al	27	9768.2	4.5	**0.0164**	0.004	25.1	ug/L	633	Standard
	Sc	45	35804.0	5.7				ug/L	41381	Standard
	Ti	47	101.7	7.1	**0.2660**	0.027	10.1	ug/L	30	Standard
	V	51	9067.7	12.9	**0.8704**	0.126	14.5	ug/L	1879	Standard
	Cr	52	15226.6	0.1	**0.8632**	0.028	3.2	ug/L	8035	Standard
	Cr	53	110358.9	2.2	**84.3635**	2.807	3.3	ug/L	470	Standard
	Mn	55	4253.6	0.4	**0.2925**	0.005	1.8	ug/L	1182	Standard
	Co	59	219.7	4.5	**-0.0201**	0.002	7.9	ug/L	333	Standard
	Ni	60	425.0	2.1	**0.1298**	0.004	3.4	ug/L	71	Standard
	Cu	65	881.0	4.4	**0.3230**	0.015	4.7	ug/L	64	Standard
	Zn	66	2569.6	2.2	**1.6777**	0.051	3.1	ug/L	125	Standard
>	Ge	72	379924.3	1.5				ug/L	399053	Standard
	As	75	-821.0	32.6	**-0.4952**	0.158	31.9	ug/L	-28	Standard
	Se	82	19.0	21.1	**-0.0036**	0.021	591.7	ug/L	26	Standard
	Se-1	77	13773.9	5.6	**133.9953**	9.216	6.9	ug/L	118	Standard
>	Ga	71	320.0	15.9				mg/L	8	Standard
	Rb	85	123.3	11.7				ug/L	25	Standard
	Y	89	326587.4	0.9				ug/L	368853	Standard
>	Rh	103	26.7	57.3				ug/L	10	Standard
	Mo	98	65.1	11.1	**0.0084**	0.003	39.0	ug/L	68	Standard
	Ag	107	80.7	13.0	**-0.0017**	0.002	92.6	ug/L	84	Standard
	Cd	111	73.5	10.2	**-0.0007**	0.002	300.4	mg/L	72	Standard
	Cd	114	184.5	21.8	**-0.0006**	0.006	1055.4	ug/L	187	Standard
>	In	115	407949.9	1.7				ug/L	464664	Standard
	Sn	118	1321.7	10.8	**0.1267**	0.019	15.1	ug/L	438	Standard
	Sb	123	306.2	11.5	**0.0368**	0.006	17.1	ug/L	433	Standard
	Ba	135	590.0	3.1	**0.2269**	0.011	4.9	ug/L	14	Standard
	Ce	140	160.0	25.6				ug/L	20	Standard
>	Tb	159	598876.9	1.8				ug/L	663064	Standard
	Ho	165	16.7	124.9				ug/L	10	Standard
	Tl	203	521.0	11.2	**0.0431**	0.006	13.0	ug/L	32	Standard
	Tl	205	375.0	9.3	**0.0347**	0.004	11.1	ug/L	28	Standard
	Pb	206	699.3	10.8	**0.0683**	0.012	17.2	ug/L	190	Standard
	Pb	207	593.3	10.3	**0.0666**	0.011	15.9	ug/L	155	Standard
	Pb	208	2735.4	10.5	**0.0689**	0.011	16.0	ug/L	766	Standard
	U	238	45.7	29.7	**0.0004**	0.001	256.6	ug/L	30	Standard
>	Bi	209	356616.8	0.6				ug/L	364780	Standard

Sample ID: PBS 47 WG468797-01
Report Date/Time: Friday, April 04, 2014 19:40:55

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.3539**	0.856	241.9	mg/L	0	Standard
	Mg	24	208.3	19.5	**0.1529**	0.049	32.1	mg/L	58	Standard
	K	39	5.0	100.0	**-0.0270**	0.047	174.1	mg/L	12	Standard
	Ca	43	30.0	28.9	**-0.5565**	0.298	53.6	mg/L	53	Standard
	Fe	54	180.3	6.8	**0.0239**	0.007	28.6	mg/L	190	Standard
	Fe	57	815.0	10.1	**0.5329**	0.124	23.2	mg/L	638	Standard
>	**Sc-1**	45	35804.0	5.7				mg/L	41381	Standard
	Cl	35	2.7	43.3				ug/L	4	Standard
	Kr	83	3.7	31.5				ug/L	2	Standard
	Br	81	3403.7	4.9				ug/L	2030	Standard
	P	31	349140.2	0.2				ug/L	256822	Standard
	S	34	47942.4	3.0				ug/L	33255	Standard
	Sr	88	183.3	4.2				ug/L	153	Standard
	C	12	1963.5	9.6				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0					mg/L	0	Standard
	Dy	164	19.5	103.7				mg/L	6	Standard
	Ho-1	165	16.7	124.9				mg/L	10	Standard
	Er	166	10.0	100.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		149.878	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.207	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: PBS 47 WG468797-01
Report Date/Time: Friday, April 04, 2014 19:40:55
Page 2

Approved: April 07, 2014

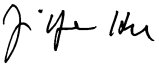
Y	89		
Rh	103		
Mo	98		
Ag	107		
Cd	111		
Cd	114		
In	115		87.795
Sn	118		
Sb	123		
Ba	135		
Ce	140		
Tb	159		
Ho	165		
Tl	203		
Tl	205		
Pb	206		
Pb	207		
Pb	208		
U	238		
Bi	209		97.762
Na	23		
Mg	24		
K	39		
Ca	43		
Fe	54		
Fe	57		
Sc-1	45		
Cl	35		
Kr	83		
Br	81		
P	31		
S	34		
Sr	88		
C	12		
N	14		
Hg	202		
Dy	164		
Ho-1	165		
Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
As 75 Lower	As	75	
Se-1 77 Upper, S, EEE	Se-1	77	

Sample ID: PBS 47 WG468797-01
Report Date/Time: Friday, April 04, 2014 19:40:55
Page 3

Approved: April 07, 2014



Method 6020 - Summary Report

Sample ID: L1403003273
Sample Date/Time: Friday, April 04, 2014 19:41:47
Number of Replicates: 3
Autosampler Position: 308
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	179723.0	0.7				ug/L	113180	Standard
	Be	9	81857.3	2.7	**21.8588**	0.497	2.3	ug/L	17	Standard
	Al	27	15545.9	49.0	**0.0367**	0.030	82.3	ug/L	633	Standard
	Sc	45	35182.5	2.0				ug/L	41381	Standard
	Ti	47	108.3	9.1	**0.2849**	0.036	12.5	ug/L	30	Standard
	V	51	194075.3	3.6	**22.8628**	0.697	3.0	ug/L	1879	Standard
	Cr	52	227884.8	1.2	**24.7937**	0.152	0.6	ug/L	8035	Standard
	Cr	53	169538.6	2.4	**128.7190**	4.702	3.7	ug/L	470	Standard
	Mn	55	277138.7	0.4	**26.5751**	0.428	1.6	ug/L	1182	Standard
	Co	59	179478.5	0.9	**23.8172**	0.168	0.7	ug/L	333	Standard
	Ni	60	63252.8	0.8	**24.2133**	0.231	1.0	ug/L	71	Standard
	Cu	65	63044.6	0.9	**25.2562**	0.183	0.7	ug/L	64	Standard
	Zn	66	37713.6	2.0	**26.3157**	0.203	0.8	ug/L	125	Standard
>	**Ge**	72	383094.9	1.3				ug/L	399053	Standard
	As	75	38447.5	1.1	**23.6016**	0.388	1.6	ug/L	-28	Standard
	Se	82	4366.8	1.1	**24.5272**	0.079	0.3	ug/L	26	Standard
	Se-1	77	19871.4	3.6	**192.0885**	9.346	4.9	ug/L	118	Standard
>	**Ga**	71	473.3	7.6				mg/L	8	Standard
	Rb	85	201.7	100.2				ug/L	25	Standard
	Y	89	329974.7	1.1				ug/L	368853	Standard
>	**Rh**	103	26.7	43.3				ug/L	10	Standard
	Mo	98	94.6	43.9	**0.0233**	0.022	93.2	ug/L	68	Standard
	Ag	107	142761.8	0.6	**22.7819**	0.348	1.5	ug/L	84	Standard
	Cd	111	69019.6	1.1	**24.1077**	0.109	0.5	mg/L	72	Standard
	Cd	114	169745.3	1.3	**24.1499**	0.213	0.9	ug/L	187	Standard
>	**In**	115	413529.6	1.5				ug/L	464664	Standard
	Sn	118	2525.2	3.9	**0.2819**	0.016	5.7	ug/L	438	Standard
	Sb	123	132191.3	0.7	**27.1003**	0.510	1.9	ug/L	433	Standard
	Ba	135	58900.6	1.7	**23.5277**	0.047	0.2	ug/L	14	Standard
	Ce	140	858.4	152.1				ug/L	20	Standard
>	**Tb**	159	611526.9	2.6				ug/L	663064	Standard
	Ho	165	120.0	137.7				ug/L	10	Standard
	Tl	203	266887.5	0.9	**24.6957**	0.289	1.2	ug/L	32	Standard
	Tl	205	223778.8	0.4	**23.0622**	0.404	1.8	ug/L	28	Standard
	Pb	206	180904.7	1.4	**26.9205**	0.062	0.2	ug/L	190	Standard
	Pb	207	157279.5	1.5	**25.8349**	0.141	0.5	ug/L	155	Standard
	Pb	208	719526.1	1.7	**26.4302**	0.167	0.6	ug/L	766	Standard
	U	238	331506.6	1.6	**26.1309**	0.446	1.7	ug/L	30	Standard
>	**Bi**	209	360783.8	1.4				ug/L	364780	Standard

Sample ID: L1403003273
Report Date/Time: Friday, April 04, 2014 19:43:57
Page 1

Approved: April 07, 2014

	Na	23	3.3	86.6	**0.1659**	0.879	529.7	mg/L	0	Standard
	Mg	24	203.3	29.6	**0.1497**	0.056	37.5	mg/L	58	Standard
	K	39	15.0	33.3	**0.0712**	0.046	64.1	mg/L	12	Standard
	Ca	43	35.0	51.5	**-0.3162**	0.766	242.2	mg/L	53	Standard
	Fe	54	200.4	3.2	**0.0389**	0.007	16.8	mg/L	190	Standard
	Fe	57	813.4	17.1	**0.5611**	0.301	53.7	mg/L	638	Standard
>	**Sc-1**	45	35182.5	2.0				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	4.3	74.2				ug/L	2	Standard
	Br	81	3130.3	4.0				ug/L	2030	Standard
	P	31	352077.3	1.2				ug/L	256822	Standard
	S	34	46730.3	1.6				ug/L	33255	Standard
	Sr	88	151.7	16.9				ug/L	153	Standard
	C	12	2060.1	18.2				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	20.0	50.0				mg/L	0	Standard
	Dy	164	101.6	173.6				mg/L	6	Standard
	Ho-1	165	120.0	137.7				mg/L	10	Standard
	Er	166	36.7	150.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		158.794	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.001	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403003273
Report Date/Time: Friday, April 04, 2014 19:43:57
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	88.995
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	98.905
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Cr 53 Upper, S, EEE	Cr	53	
Se-1 77 Upper, S, EEE	Se-1	77	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403003274
Sample Date/Time: Friday, April 04, 2014 19:44:49
Number of Replicates: 3
Autosampler Position: 309
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	181588.7	2.1				ug/L	113180	Standard
	Be	9	84689.4	1.1	**22.3874**	0.263	1.2	ug/L	17	Standard
	Al	27	8490.7	0.6	**0.0086**	0.001	7.5	ug/L	633	Standard
	Sc	45	36266.7	4.6				ug/L	41381	Standard
	Ti	47	113.7	0.5	**0.3047**	0.001	0.4	ug/L	30	Standard
	V	51	201623.9	0.6	**23.9597**	0.126	0.5	ug/L	1879	Standard
	Cr	52	235806.5	0.9	**25.9033**	0.152	0.6	ug/L	8035	Standard
	Cr	53	190930.8	2.1	**146.1631**	3.541	2.4	ug/L	470	Standard
	Mn	55	280484.5	1.0	**27.1157**	0.222	0.8	ug/L	1182	Standard
	Co	59	185029.1	1.6	**24.7561**	0.341	1.4	ug/L	333	Standard
	Ni	60	64083.2	0.3	**24.7321**	0.023	0.1	ug/L	71	Standard
	Cu	65	64636.6	1.1	**26.1073**	0.309	1.2	ug/L	64	Standard
	Zn	66	36786.3	1.1	**25.8787**	0.199	0.8	ug/L	125	Standard
>	**Ge**	72	379970.2	0.4				ug/L	399053	Standard
	As	75	38239.4	2.6	**23.6633**	0.538	2.3	ug/L	-28	Standard
	Se	82	4338.4	1.5	**24.5685**	0.436	1.8	ug/L	26	Standard
	Se-1	77	22481.7	1.8	**219.1521**	3.603	1.6	ug/L	118	Standard
>	**Ga**	71	546.7	2.3				mg/L	8	Standard
	Rb	85	85.0	25.6				ug/L	25	Standard
	Y	89	328968.2	1.2				ug/L	368853	Standard
>	**Rh**	103	26.7	28.6				ug/L	10	Standard
	Mo	98	63.2	9.0	**0.0074**	0.003	34.5	ug/L	68	Standard
	Ag	107	142885.0	1.4	**23.1074**	0.498	2.2	ug/L	84	Standard
	Cd	111	69301.6	0.5	**24.5320**	0.263	1.1	mg/L	72	Standard
	Cd	114	172657.2	1.9	**24.8916**	0.152	0.6	ug/L	187	Standard
>	**In**	115	408065.6	1.3				ug/L	464664	Standard
	Sn	118	580031.7	2.0	**76.8604**	1.416	1.8	ug/L	438	Standard
	Sb	123	131701.3	0.6	**27.3596**	0.361	1.3	ug/L	433	Standard
	Ba	135	59763.0	1.2	**24.1930**	0.096	0.4	ug/L	14	Standard
	Ce	140	93.3	29.5				ug/L	20	Standard
>	**Tb**	159	606872.4	0.9				ug/L	663064	Standard
	Ho	165	6.7	86.6				ug/L	10	Standard
	Tl	203	270351.5	1.0	**25.2139**	0.282	1.1	ug/L	32	Standard
	Tl	205	224017.5	1.4	**23.2686**	0.451	1.9	ug/L	28	Standard
	Pb	206	184838.3	0.7	**27.7264**	0.211	0.8	ug/L	190	Standard
	Pb	207	159736.8	1.8	**26.4482**	0.459	1.7	ug/L	155	Standard
	Pb	208	735255.9	0.8	**27.2252**	0.275	1.0	ug/L	766	Standard
	U	238	332458.7	0.9	**26.4124**	0.128	0.5	ug/L	30	Standard
>	**Bi**	209	357934.6	0.6				ug/L	364780	Standard

Sample ID: L1403003274
Report Date/Time: Friday, April 04, 2014 19:46:59
Page 1

Approved: April 07, 2014

	Na	23	3.3	86.6	**0.1179**	0.837	710.3	mg/L	0	Standard
	Mg	24	168.3	1.7	**0.1125**	0.005	4.4	mg/L	58	Standard
	K	39	11.7	65.5	**0.0384**	0.077	201.6	mg/L	12	Standard
	Ca	43	30.0	16.7	**-0.5660**	0.187	33.1	mg/L	53	Standard
	Fe	54	187.0	16.0	**0.0265**	0.017	64.4	mg/L	190	Standard
	Fe	57	830.0	5.7	**0.5444**	0.047	8.6	mg/L	638	Standard
>	**Sc-1**	45	36266.7	4.6				mg/L	41381	Standard
	Cl	35	1.3	86.6				ug/L	4	Standard
	Kr	83	4.7	44.6				ug/L	2	Standard
	Br	81	3063.6	1.6				ug/L	2030	Standard
	P	31	355080.7	2.4				ug/L	256822	Standard
	S	34	45738.9	1.5				ug/L	33255	Standard
	Sr	88	146.7	17.2				ug/L	153	Standard
	C	12	2076.8	12.6				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	10.0					mg/L	0	Standard
	Dy	164	10.0	100.0				mg/L	6	Standard
	Ho-1	165	6.7	86.6				mg/L	10	Standard
	Er	166	0.0					mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		160.443	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.218	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403003274
Report Date/Time: Friday, April 04, 2014 19:46:59
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	87.820
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	98.123
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Cr 53 Upper, S, EEE	Cr	53	
Se-1 77 Upper, S, EEE	Se-1	77	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403003275
Sample Date/Time: Friday, April 04, 2014 19:47:51
Number of Replicates: 3
Autosampler Position: 310
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	179013.0	0.3				ug/L	113180	Standard
	Be	9	85554.4	3.8	**22.9373**	0.842	3.7	ug/L	17	Standard
	Al	27	7960.4	1.3	**0.0070**	0.000	4.4	ug/L	633	Standard
	Sc	45	36286.8	3.7				ug/L	41381	Standard
	Ti	47	97.3	11.0	**0.2499**	0.033	13.0	ug/L	30	Standard
	V	51	191512.4	1.8	**22.6244**	0.499	2.2	ug/L	1879	Standard
	Cr	52	232422.9	1.1	**25.3781**	0.410	1.6	ug/L	8035	Standard
	Cr	53	191143.3	1.6	**145.5442**	3.620	2.5	ug/L	470	Standard
	Mn	55	279675.0	0.8	**26.8917**	0.359	1.3	ug/L	1182	Standard
	Co	59	181638.4	1.5	**24.1729**	0.556	2.3	ug/L	333	Standard
	Ni	60	62821.7	1.5	**24.1138**	0.395	1.6	ug/L	71	Standard
	Cu	65	61665.2	1.2	**24.7710**	0.347	1.4	ug/L	64	Standard
	Zn	66	37030.9	0.8	**25.9119**	0.367	1.4	ug/L	125	Standard
>	**Ge**	72	382043.9	0.9				ug/L	399053	Standard
	As	75	37767.5	1.7	**23.2446**	0.214	0.9	ug/L	-28	Standard
	Se	82	4310.8	1.7	**24.2762**	0.199	0.8	ug/L	26	Standard
	Se-1	77	22383.9	2.1	**217.0344**	5.780	2.7	ug/L	118	Standard
>	**Ga**	71	568.3	18.9				mg/L	8	Standard
	Rb	85	76.7	48.9				ug/L	25	Standard
	Y	89	340506.3	2.0				ug/L	368853	Standard
>	**Rh**	103	25.0	34.6				ug/L	10	Standard
	Mo	98	56.7	3.1	**0.0037**	0.001	33.0	ug/L	68	Standard
	Ag	107	141767.5	0.9	**22.6889**	0.184	0.8	ug/L	84	Standard
	Cd	111	68739.8	1.1	**24.0838**	0.430	1.8	mg/L	72	Standard
	Cd	114	169780.7	1.0	**24.2271**	0.138	0.6	ug/L	187	Standard
>	**In**	115	412297.4	1.3				ug/L	464664	Standard
	Sn	118	578.3	7.3	**0.0273**	0.006	21.7	ug/L	438	Standard
	Sb	123	131573.8	1.0	**27.0508**	0.245	0.9	ug/L	433	Standard
	Ba	135	58963.9	1.3	**23.6239**	0.080	0.3	ug/L	14	Standard
	Ce	140	83.3	21.1				ug/L	20	Standard
>	**Tb**	159	607016.3	0.9				ug/L	663064	Standard
	Ho	165	3.3	173.2				ug/L	10	Standard
	Tl	203	268645.0	0.3	**24.8399**	0.325	1.3	ug/L	32	Standard
	Tl	205	224374.3	1.2	**23.1055**	0.469	2.0	ug/L	28	Standard
	Pb	206	181390.4	0.9	**26.9736**	0.208	0.8	ug/L	190	Standard
	Pb	207	156896.8	0.5	**25.7546**	0.315	1.2	ug/L	155	Standard
	Pb	208	722229.1	0.7	**26.5116**	0.237	0.9	ug/L	766	Standard
	U	238	325237.5	1.0	**25.6170**	0.312	1.2	ug/L	30	Standard
>	**Bi**	209	361071.0	1.6				ug/L	364780	Standard

Sample ID: L1403003275
Report Date/Time: Friday, April 04, 2014 19:50:01
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.3722**	0.824	221.4	mg/L	0	Standard
	Mg	24	141.7	26.0	**0.0876**	0.031	35.0	mg/L	58	Standard
	K	39	15.0	57.7	**0.0658**	0.075	114.8	mg/L	12	Standard
	Ca	43	33.3	17.3	**-0.4287**	0.237	55.3	mg/L	53	Standard
	Fe	54	200.9	16.0	**0.0358**	0.025	69.8	mg/L	190	Standard
	Fe	57	845.0	9.8	**0.5759**	0.131	22.7	mg/L	638	Standard
>	**Sc-1**	45	36286.8	3.7				mg/L	41381	Standard
	Cl	35	3.3	91.7				ug/L	4	Standard
	Kr	83	2.0	50.0				ug/L	2	Standard
	Br	81	3007.0	9.8				ug/L	2030	Standard
	P	31	363669.8	1.2				ug/L	256822	Standard
	S	34	45983.0	1.3				ug/L	33255	Standard
	Sr	88	173.3	12.0				ug/L	153	Standard
	C	12	2113.5	15.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	2.9	203.0				mg/L	6	Standard
	Ho-1	165	3.3	173.2				mg/L	10	Standard
	Er	166	10.0	100.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		158.167	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		95.738	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403003275
Report Date/Time: Friday, April 04, 2014 19:50:01
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	88.730
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	98.983
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Cr 53 Upper, S, EEE	Cr	53	
Se-1 77 Upper, S, EEE	Se-1	77	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403003276
Sample Date/Time: Friday, April 04, 2014 19:50:53
Number of Replicates: 3
Autosampler Position: 311
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	177966.4	3.0				ug/L	113180	Standard
	Be	9	86164.4	2.1	**23.2444**	0.475	2.0	ug/L	17	Standard
	Al	27	6766.5	2.7	**0.0025**	0.001	36.8	ug/L	633	Standard
	Sc	45	36323.5	1.8				ug/L	41381	Standard
	Ti	47	93.0	1.9	**0.2303**	0.010	4.5	ug/L	30	Standard
	V	51	202140.8	1.1	**23.4267**	0.375	1.6	ug/L	1879	Standard
	Cr	52	244965.3	1.4	**26.2660**	0.819	3.1	ug/L	8035	Standard
	Cr	53	201990.9	1.0	**150.8456**	2.937	1.9	ug/L	470	Standard
	Mn	55	287151.0	1.7	**27.0847**	0.895	3.3	ug/L	1182	Standard
	Co	59	191508.2	1.4	**24.9988**	0.698	2.8	ug/L	333	Standard
	Ni	60	65952.2	0.5	**24.8312**	0.527	2.1	ug/L	71	Standard
	Cu	65	66671.0	0.7	**26.2677**	0.332	1.3	ug/L	64	Standard
	Zn	66	36941.0	1.5	**25.3449**	0.254	1.0	ug/L	125	Standard
>	Ge	72	389593.0	1.9				ug/L	399053	Standard
	As	75	39873.1	1.7	**24.0661**	0.096	0.4	ug/L	-28	Standard
	Se	82	4484.9	0.3	**24.7772**	0.499	2.0	ug/L	26	Standard
	Se-1	77	23768.6	1.9	**226.0990**	7.892	3.5	ug/L	118	Standard
>	Ga	71	636.7	13.1				mg/L	8	Standard
	Rb	85	61.7	12.4				ug/L	25	Standard
	Y	89	344441.8	1.6				ug/L	368853	Standard
>	Rh	103	36.7	7.9				ug/L	10	Standard
	Mo	98	40.7	23.2	**-0.0049**	0.005	102.7	ug/L	68	Standard
	Ag	107	147091.2	1.0	**23.3056**	0.538	2.3	ug/L	84	Standard
	Cd	111	71868.6	1.1	**24.9250**	0.438	1.8	mg/L	72	Standard
	Cd	114	178988.2	1.8	**25.2875**	0.745	2.9	ug/L	187	Standard
>	In	115	416534.1	1.4				ug/L	464664	Standard
	Sn	118	553.3	10.6	**0.0233**	0.008	35.3	ug/L	438	Standard
	Sb	123	135946.9	1.9	**27.6737**	0.925	3.3	ug/L	433	Standard
	Ba	135	61388.1	0.1	**24.3489**	0.369	1.5	ug/L	14	Standard
	Ce	140	71.7	26.4				ug/L	20	Standard
>	Tb	159	621820.6	1.0				ug/L	663064	Standard
	Ho	165	23.3	89.2				ug/L	10	Standard
	Tl	203	276747.9	0.1	**25.1940**	0.035	0.1	ug/L	32	Standard
	Tl	205	227094.7	2.0	**23.0241**	0.492	2.1	ug/L	28	Standard
	Pb	206	189490.2	0.5	**27.7457**	0.164	0.6	ug/L	190	Standard
	Pb	207	164296.0	0.3	**26.5541**	0.113	0.4	ug/L	155	Standard
	Pb	208	750774.3	0.5	**27.1359**	0.201	0.7	ug/L	766	Standard
	U	238	335389.6	0.8	**26.0094**	0.173	0.7	ug/L	30	Standard
>	Bi	209	366684.7	0.2				ug/L	364780	Standard

Sample ID: L1403003276
Report Date/Time: Friday, April 04, 2014 19:53:03
Page 1

Approved: April 07, 2014

	Na	23	3.3	173.2	**0.1195**	1.676	1402.1	mg/L	0	Standard
	Mg	24	113.3	6.7	**0.0623**	0.005	8.3	mg/L	58	Standard
	K	39	15.0	33.3	**0.0666**	0.044	66.5	mg/L	12	Standard
	Ca	43	18.3	41.7	**-1.0384**	0.317	30.5	mg/L	53	Standard
	Fe	54	220.3	34.5	**0.0468**	0.046	98.4	mg/L	190	Standard
	Fe	57	871.7	11.8	**0.6361**	0.204	32.1	mg/L	638	Standard
>	**Sc-1**	45	36323.5	1.8				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	2.3	49.5				ug/L	2	Standard
	Br	81	3093.6	2.6				ug/L	2030	Standard
	P	31	369979.8	2.7				ug/L	256822	Standard
	S	34	45663.7	0.5				ug/L	33255	Standard
	Sr	88	175.0	20.6				ug/L	153	Standard
	C	12	1966.8	10.7				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.2	8.0				mg/L	6	Standard
	Ho-1	165	23.3	89.2				mg/L	10	Standard
	Er	166	16.7	91.7				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		157.242	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.629	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403003276
Report Date/Time: Friday, April 04, 2014 19:53:03
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	89.642
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	100.522
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Cr 53 Upper, S, EEE	Cr	53	
Se-1 77 Upper, S, EEE	Se-1	77	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: PBS 03 WG468747-01
Sample Date/Time: Friday, April 04, 2014 19:53:55
Number of Replicates: 3
Autosampler Position: 312
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	177541.3	5.7				ug/L	113180	Standard
	Be	9	61.7	32.8	**0.0135**	0.006	44.5	ug/L	17	Standard
	Al	27	9633.1	8.6	**0.0140**	0.004	27.6	ug/L	633	Standard
	Sc	45	36701.2	5.7				ug/L	41381	Standard
	Ti	47	256.7	0.9	**0.7581**	0.022	2.9	ug/L	30	Standard
	V	51	10134.9	12.4	**0.9837**	0.157	15.9	ug/L	1879	Standard
	Cr	52	22952.7	1.7	**1.7054**	0.049	2.9	ug/L	8035	Standard
	Cr	53	157934.0	1.6	**119.2664**	4.053	3.4	ug/L	470	Standard
	Mn	55	2991.6	2.3	**0.1659**	0.002	1.1	ug/L	1182	Standard
	Co	59	266.3	22.9	**-0.0142**	0.009	60.7	ug/L	333	Standard
	Ni	60	396.0	9.2	**0.1166**	0.015	13.0	ug/L	71	Standard
	Cu	65	1791.4	3.0	**0.6814**	0.008	1.2	ug/L	64	Standard
	Zn	66	3269.0	1.6	**2.1411**	0.008	0.4	ug/L	125	Standard
>	**Ge**	72	385113.6	1.8				ug/L	399053	Standard
	As	75	-1149.7	36.3	**-0.6874**	0.242	35.2	ug/L	-28	Standard
	Se	82	13.7	38.4	**-0.0342**	0.031	90.5	ug/L	26	Standard
	Se-1	77	18510.3	1.5	**177.9212**	5.810	3.3	ug/L	118	Standard
>	**Ga**	71	561.7	8.6				mg/L	8	Standard
	Rb	85	265.0	0.0				ug/L	25	Standard
	Y	89	338484.6	1.5				ug/L	368853	Standard
>	**Rh**	103	15.0	33.3				ug/L	10	Standard
	Mo	98	72.9	21.8	**0.0115**	0.008	68.8	ug/L	68	Standard
	Ag	107	92.0	55.9	**-0.0002**	0.008	4055.4	ug/L	84	Standard
	Cd	111	71.5	22.1	**-0.0021**	0.006	261.9	mg/L	72	Standard
	Cd	114	193.1	42.4	**-0.0001**	0.012	13429.0	ug/L	187	Standard
>	**In**	115	418933.5	0.6				ug/L	464664	Standard
	Sn	118	878.4	7.8	**0.0648**	0.009	13.3	ug/L	438	Standard
	Sb	123	115.5	33.7	**-0.0034**	0.008	234.1	ug/L	433	Standard
	Ba	135	177.0	14.3	**0.0576**	0.010	17.7	ug/L	14	Standard
	Ce	140	151.7	15.6				ug/L	20	Standard
>	**Tb**	159	604988.5	2.5				ug/L	663064	Standard
	Ho	165	13.3	43.3				ug/L	10	Standard
	Tl	203	515.3	9.8	**0.0418**	0.005	11.6	ug/L	32	Standard
	Tl	205	381.7	12.7	**0.0348**	0.005	14.8	ug/L	28	Standard
	Pb	206	597.0	4.4	**0.0514**	0.004	8.4	ug/L	190	Standard
	Pb	207	491.3	6.6	**0.0483**	0.006	11.6	ug/L	155	Standard
	Pb	208	2352.1	7.7	**0.0532**	0.007	13.3	ug/L	766	Standard
	U	238	112.0	90.1	**0.0056**	0.008	142.6	ug/L	30	Standard
>	**Bi**	209	362366.4	0.5				ug/L	364780	Standard

Sample ID: PBS 03 WG468747-01
Report Date/Time: Friday, April 04, 2014 19:56:05
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.3896**	0.794	203.8	mg/L	0	Standard
	Mg	24	153.3	6.8	**0.0971**	0.001	1.5	mg/L	58	Standard
	K	39	15.0	33.3	**0.0655**	0.046	70.5	mg/L	12	Standard
	Ca	43	28.3	20.4	**-0.6418**	0.255	39.8	mg/L	53	Standard
	Fe	54	233.7	21.6	**0.0539**	0.028	51.2	mg/L	190	Standard
	Fe	57	821.7	6.7	**0.5076**	0.175	34.4	mg/L	638	Standard
>	**Sc-1**	45	36701.2	5.7				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	3.3	17.3				ug/L	2	Standard
	Br	81	2776.9	6.7				ug/L	2030	Standard
	P	31	342715.9	4.4				ug/L	256822	Standard
	S	34	45147.2	0.4				ug/L	33255	Standard
	Sr	88	151.7	22.0				ug/L	153	Standard
	C	12	1913.5	18.6				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	20.0	50.0				mg/L	6	Standard
	Ho-1	165	13.3	43.3				mg/L	10	Standard
	Er	166	0.0					mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		156.867	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		96.507	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: PBS 03 WG468747-01
Report Date/Time: Friday, April 04, 2014 19:56:05
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	90.158
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	99.338
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Cr 53 Upper, S, EEE	Cr	53	
As 75 Lower	As	75	
Se-1 77 Upper, S, EEE	Se-1	77	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403003281
Sample Date/Time: Friday, April 04, 2014 19:56:57
Number of Replicates: 3
Autosampler Position: 313
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	181745.5	2.2				ug/L	113180	Standard
	Be	9	84322.4	2.2	**22.2682**	0.198	0.9	ug/L	17	Standard
	Al	27	26170.9	2.5	**0.0771**	0.004	4.9	ug/L	633	Standard
	Sc	45	38032.7	2.1				ug/L	41381	Standard
	Ti	47	171.3	8.8	**0.4737**	0.048	10.1	ug/L	30	Standard
	V	51	207596.0	3.0	**23.8599**	0.738	3.1	ug/L	1879	Standard
	Cr	52	239946.4	0.1	**25.4803**	0.050	0.2	ug/L	8035	Standard
	Cr	53	200160.3	1.3	**148.2000**	1.798	1.2	ug/L	470	Standard
	Mn	55	286161.5	2.1	**26.7554**	0.532	2.0	ug/L	1182	Standard
	Co	59	185643.2	1.4	**24.0225**	0.328	1.4	ug/L	333	Standard
	Ni	60	64110.7	2.0	**23.9297**	0.440	1.8	ug/L	71	Standard
	Cu	65	64577.3	0.4	**25.2264**	0.086	0.3	ug/L	64	Standard
	Zn	66	39872.1	0.9	**27.1368**	0.221	0.8	ug/L	125	Standard
>	**Ge**	72	392854.2	0.1				ug/L	399053	Standard
	As	75	39132.0	0.9	**23.4228**	0.246	1.1	ug/L	-28	Standard
	Se	82	4427.6	0.9	**24.2487**	0.198	0.8	ug/L	26	Standard
	Se-1	77	22149.5	0.3	**208.7915**	0.713	0.3	ug/L	118	Standard
>	**Ga**	71	708.3	2.3				mg/L	8	Standard
	Rb	85	913.4	9.4				ug/L	25	Standard
	Y	89	348060.1	2.0				ug/L	368853	Standard
>	**Rh**	103	33.3	8.7				ug/L	10	Standard
	Mo	98	76.1	18.7	**0.0123**	0.007	60.6	ug/L	68	Standard
	Ag	107	142855.4	1.4	**21.9484**	0.155	0.7	ug/L	84	Standard
	Cd	111	70729.6	1.5	**23.7875**	0.052	0.2	mg/L	72	Standard
	Cd	114	172623.9	1.7	**23.6474**	0.232	1.0	ug/L	187	Standard
>	**In**	115	429448.8	1.3				ug/L	464664	Standard
	Sn	118	1095.0	8.7	**0.0894**	0.014	15.4	ug/L	438	Standard
	Sb	123	133021.3	0.5	**26.2560**	0.220	0.8	ug/L	433	Standard
	Ba	135	60890.8	1.3	**23.4218**	0.117	0.5	ug/L	14	Standard
	Ce	140	2506.9	2.9				ug/L	20	Standard
>	**Tb**	159	630478.6	1.4				ug/L	663064	Standard
	Ho	165	73.3	28.4				ug/L	10	Standard
	Tl	203	269477.3	0.6	**24.4443**	0.300	1.2	ug/L	32	Standard
	Tl	205	223389.8	0.8	**22.5666**	0.252	1.1	ug/L	28	Standard
	Pb	206	182793.4	0.6	**26.6675**	0.266	1.0	ug/L	190	Standard
	Pb	207	159478.3	0.8	**25.6807**	0.110	0.4	ug/L	155	Standard
	Pb	208	727391.4	0.8	**26.1947**	0.259	1.0	ug/L	766	Standard
	U	238	320140.3	1.5	**24.7361**	0.231	0.9	ug/L	30	Standard
>	**Bi**	209	368018.3	0.6				ug/L	364780	Standard

Sample ID: L1403003281
Report Date/Time: Friday, April 04, 2014 19:59:07
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	145.0	22.6	**0.0855**	0.031	36.4	mg/L	58	Standard
	K	39	26.7	54.1	**0.1663**	0.131	78.9	mg/L	12	Standard
	Ca	43	21.7	58.1	**-0.9505**	0.476	50.1	mg/L	53	Standard
	Fe	54	278.6	7.2	**0.0763**	0.016	20.4	mg/L	190	Standard
	Fe	57	873.4	1.8	**0.5513**	0.008	1.4	mg/L	638	Standard
>	**Sc-1**	45	38032.7	2.1				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	3.7	103.3				ug/L	2	Standard
	Br	81	2840.3	10.2				ug/L	2030	Standard
	P	31	353682.6	1.5				ug/L	256822	Standard
	S	34	45097.0	1.4				ug/L	33255	Standard
	Sr	88	181.7	22.2				ug/L	153	Standard
	C	12	2080.1	22.1				mg/L	573	Standard
	N	14	6.7	86.6				mg/L	0	Standard
	Hg	202	6.7	173.2				mg/L	0	Standard
	Dy	164	35.2	87.6				mg/L	6	Standard
	Ho-1	165	73.3	28.4				mg/L	10	Standard
	Er	166	30.0	66.7				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		160.581	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.447	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403003281
Report Date/Time: Friday, April 04, 2014 19:59:07
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	92.421
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	100.888
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Cr 53 Upper, S, EEE	Cr	53	
Se-1 77 Upper, S, EEE	Se-1	77	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403003281
Sample Date/Time: Friday, April 04, 2014 19:59:58
Number of Replicates: 3
Autosampler Position: 314
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	183950.8	3.4				ug/L	113180	Standard
	Be	9	88787.9	3.2	**23.1985**	1.474	6.4	ug/L	17	Standard
	Al	27	14458.6	0.9	**0.0311**	0.001	4.6	ug/L	633	Standard
	Sc	45	37538.1	1.1				ug/L	41381	Standard
	Ti	47	109.3	3.5	**0.2800**	0.014	4.9	ug/L	30	Standard
	V	51	219222.1	2.1	**25.2778**	0.763	3.0	ug/L	1879	Standard
	Cr	52	254340.1	1.1	**27.1367**	0.621	2.3	ug/L	8035	Standard
	Cr	53	221032.7	2.1	**164.1008**	1.716	1.0	ug/L	470	Standard
	Mn	55	301447.4	1.0	**28.2643**	0.108	0.4	ug/L	1182	Standard
	Co	59	195661.8	1.5	**25.3889**	0.482	1.9	ug/L	333	Standard
	Ni	60	67824.5	1.2	**25.3832**	0.083	0.3	ug/L	71	Standard
	Cu	65	66789.9	0.6	**26.1613**	0.370	1.4	ug/L	64	Standard
	Zn	66	42587.8	1.7	**29.0715**	0.588	2.0	ug/L	125	Standard
>	**Ge**	72	391860.6	1.4				ug/L	399053	Standard
	As	75	41192.1	1.1	**24.7228**	0.594	2.4	ug/L	-28	Standard
	Se	82	4632.1	2.1	**25.4404**	0.552	2.2	ug/L	26	Standard
	Se-1	77	26220.3	1.1	**248.0232**	5.834	2.4	ug/L	118	Standard
>	**Ga**	71	851.7	5.3				mg/L	8	Standard
	Rb	85	503.3	10.3				ug/L	25	Standard
	Y	89	349616.3	1.1				ug/L	368853	Standard
>	**Rh**	103	23.3	44.6				ug/L	10	Standard
	Mo	98	35.5	10.0	**-0.0082**	0.002	20.7	ug/L	68	Standard
	Ag	107	148331.9	1.0	**22.7214**	0.237	1.0	ug/L	84	Standard
	Cd	111	74753.6	1.0	**25.0660**	0.114	0.5	mg/L	72	Standard
	Cd	114	184684.3	1.8	**25.2283**	0.670	2.7	ug/L	187	Standard
>	**In**	115	430761.2	0.9				ug/L	464664	Standard
	Sn	118	1120.0	5.4	**0.0920**	0.008	8.4	ug/L	438	Standard
	Sb	123	138315.9	0.6	**27.2178**	0.230	0.8	ug/L	433	Standard
	Ba	135	64075.2	0.8	**24.5741**	0.402	1.6	ug/L	14	Standard
	Ce	140	1743.4	5.3				ug/L	20	Standard
>	**Tb**	159	635099.6	1.7				ug/L	663064	Standard
	Ho	165	60.0	33.3				ug/L	10	Standard
	Tl	203	284910.5	0.5	**25.9035**	0.083	0.3	ug/L	32	Standard
	Tl	205	234956.6	2.1	**23.7879**	0.317	1.3	ug/L	28	Standard
	Pb	206	195801.5	1.1	**28.6331**	0.181	0.6	ug/L	190	Standard
	Pb	207	169148.7	1.4	**27.3026**	0.214	0.8	ug/L	155	Standard
	Pb	208	774519.4	0.6	**27.9585**	0.093	0.3	ug/L	766	Standard
	U	238	342466.7	1.0	**26.5247**	0.350	1.3	ug/L	30	Standard
>	**Bi**	209	367168.1	0.9				ug/L	364780	Standard

Sample ID: L1403003281
Report Date/Time: Friday, April 04, 2014 20:02:09
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.3771**	0.816	216.3	mg/L	0	Standard
	Mg	24	128.3	20.0	**0.0721**	0.022	30.2	mg/L	58	Standard
	K	39	11.7	24.7	**0.0322**	0.025	77.3	mg/L	12	Standard
	Ca	43	23.3	32.7	**-0.8663**	0.309	35.7	mg/L	53	Standard
	Fe	54	235.0	13.5	**0.0517**	0.019	37.4	mg/L	190	Standard
	Fe	57	830.0	10.7	**0.4788**	0.185	38.6	mg/L	638	Standard
>	**Sc-1**	45	37538.1	1.1				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	2.7	21.7				ug/L	2	Standard
	Br	81	3050.3	2.9				ug/L	2030	Standard
	P	31	382854.7	2.0				ug/L	256822	Standard
	S	34	45456.4	2.0				ug/L	33255	Standard
	Sr	88	173.3	8.8				ug/L	153	Standard
	C	12	2163.5	15.7				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	49.2	20.3				mg/L	6	Standard
	Ho-1	165	60.0	33.3				mg/L	10	Standard
	Er	166	16.7	34.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		162.530	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.198	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403003281
Report Date/Time: Friday, April 04, 2014 20:02:09
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	92.704
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	100.655
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Cr 53 Upper, S, EEE	Cr	53	
Se-1 77 Upper, S, EEE	Se-1	77	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403003281
Sample Date/Time: Friday, April 04, 2014 20:03:00
Number of Replicates: 3
Autosampler Position: 315
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	179267.8	1.7				ug/L	113180	Standard
	Be	9	85391.6	1.2	**22.8632**	0.126	0.6	ug/L	17	Standard
	Al	27	19190.7	66.1	**0.0517**	0.052	99.8	ug/L	633	Standard
	Sc	45	38711.1	0.7				ug/L	41381	Standard
	Ti	47	238.3	6.1	**0.6748**	0.057	8.4	ug/L	30	Standard
	V	51	204272.0	1.9	**23.1607**	0.128	0.6	ug/L	1879	Standard
	Cr	52	244936.4	1.2	**25.6787**	0.584	2.3	ug/L	8035	Standard
	Cr	53	203977.2	0.3	**149.0815**	3.809	2.6	ug/L	470	Standard
	Mn	55	291548.0	2.0	**26.9102**	0.943	3.5	ug/L	1182	Standard
	Co	59	186834.7	1.6	**23.8594**	0.367	1.5	ug/L	333	Standard
	Ni	60	64695.8	0.9	**23.8362**	0.597	2.5	ug/L	71	Standard
	Cu	65	65098.6	0.5	**25.1032**	0.716	2.9	ug/L	64	Standard
	Zn	66	38327.8	1.1	**25.7388**	0.503	2.0	ug/L	125	Standard
>	Ge	72	398150.8	2.4				ug/L	399053	Standard
	As	75	39590.3	1.2	**23.3890**	0.520	2.2	ug/L	-28	Standard
	Se	82	4548.0	0.5	**24.5903**	0.718	2.9	ug/L	26	Standard
	Se-1	77	23279.5	0.4	**216.6582**	6.067	2.8	ug/L	118	Standard
>	Ga	71	825.0	10.0				mg/L	8	Standard
	Rb	85	365.0	13.1				ug/L	25	Standard
	Y	89	344851.5	2.2				ug/L	368853	Standard
>	Rh	103	25.0	69.3				ug/L	10	Standard
	Mo	98	84.6	52.2	**0.0164**	0.023	138.8	ug/L	68	Standard
	Ag	107	147751.6	0.6	**22.5540**	0.424	1.9	ug/L	84	Standard
	Cd	111	72351.1	1.0	**24.1761**	0.484	2.0	mg/L	72	Standard
	Cd	114	177618.0	0.6	**24.1728**	0.258	1.1	ug/L	187	Standard
>	In	115	432322.7	1.5				ug/L	464664	Standard
	Sn	118	580.0	31.3	**0.0242**	0.024	99.2	ug/L	438	Standard
	Sb	123	136558.5	0.1	**26.7778**	0.434	1.6	ug/L	433	Standard
	Ba	135	61981.9	0.7	**23.6863**	0.391	1.7	ug/L	14	Standard
	Ce	140	583.3	65.0				ug/L	20	Standard
>	Tb	159	630088.0	0.4				ug/L	663064	Standard
	Ho	165	60.0	104.1				ug/L	10	Standard
	Tl	203	274354.1	1.0	**24.9257**	0.241	1.0	ug/L	32	Standard
	Tl	205	226186.2	2.0	**22.8885**	0.647	2.8	ug/L	28	Standard
	Pb	206	186215.1	1.0	**27.2105**	0.286	1.1	ug/L	190	Standard
	Pb	207	160796.1	0.6	**25.9359**	0.276	1.1	ug/L	155	Standard
	Pb	208	736922.9	0.4	**26.5811**	0.189	0.7	ug/L	766	Standard
	U	238	329219.7	0.5	**25.4800**	0.206	0.8	ug/L	30	Standard
>	Bi	209	367438.7	1.1				ug/L	364780	Standard

Sample ID: L1403003281
Report Date/Time: Friday, April 04, 2014 20:05:10
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	133.3	4.3	**0.0730**	0.004	5.9	mg/L	58	Standard
	K	39	6.7	86.6	**-0.0148**	0.051	343.9	mg/L	12	Standard
	Ca	43	38.3	19.9	**-0.3251**	0.283	86.9	mg/L	53	Standard
	Fe	54	199.9	18.1	**0.0268**	0.022	81.9	mg/L	190	Standard
	Fe	57	873.4	3.2	**0.5176**	0.068	13.1	mg/L	638	Standard
>	**Sc-1**	45	38711.1	0.7				mg/L	41381	Standard
	Cl	35	1.3	173.2				ug/L	4	Standard
	Kr	83	5.3	21.7				ug/L	2	Standard
	Br	81	2947.0	10.8				ug/L	2030	Standard
	P	31	373546.2	1.7				ug/L	256822	Standard
	S	34	45443.1	1.5				ug/L	33255	Standard
	Sr	88	170.0	12.8				ug/L	153	Standard
	C	12	2170.2	13.0				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	29.4	114.2				mg/L	6	Standard
	Ho-1	165	60.0	104.1				mg/L	10	Standard
	Er	166	13.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		158.392	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		99.774	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403003281
Report Date/Time: Friday, April 04, 2014 20:05:10
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	93.040
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	100.729
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Cr 53 Upper, S, EEE	Cr	53	
Se-1 77 Upper, S, EEE	Se-1	77	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403003281
Sample Date/Time: Friday, April 04, 2014 20:06:02
Number of Replicates: 3
Autosampler Position: 316
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	189834.0	2.6				ug/L	113180	Standard
	Be	9	88739.1	1.1	**22.4433**	0.487	2.2	ug/L	17	Standard
	Al	27	33971.5	6.3	**0.1016**	0.005	5.3	ug/L	633	Standard
	Sc	45	38734.5	4.5				ug/L	41381	Standard
	Ti	47	302.0	6.1	**0.8628**	0.065	7.5	ug/L	30	Standard
	V	51	212028.5	3.8	**23.8045**	0.453	1.9	ug/L	1879	Standard
	Cr	52	248890.3	2.3	**25.8476**	0.990	3.8	ug/L	8035	Standard
	Cr	53	204944.5	3.4	**148.2737**	4.259	2.9	ug/L	470	Standard
	Mn	55	298638.6	1.7	**27.2900**	0.539	2.0	ug/L	1182	Standard
	Co	59	188675.1	2.0	**23.8579**	0.389	1.6	ug/L	333	Standard
	Ni	60	66598.5	3.1	**24.2910**	0.629	2.6	ug/L	71	Standard
	Cu	65	66000.5	2.3	**25.1958**	0.615	2.4	ug/L	64	Standard
	Zn	66	39845.7	2.3	**26.4970**	0.528	2.0	ug/L	125	Standard
>	**Ge**	72	402075.5	2.3				ug/L	399053	Standard
	As	75	40166.0	0.5	**23.4994**	0.624	2.7	ug/L	-28	Standard
	Se	82	4568.0	2.4	**24.4479**	0.473	1.9	ug/L	26	Standard
	Se-1	77	22819.5	0.9	**210.2243**	2.945	1.4	ug/L	118	Standard
>	**Ga**	71	846.7	6.0				mg/L	8	Standard
	Rb	85	1138.4	4.2				ug/L	25	Standard
	Y	89	356350.8	1.6				ug/L	368853	Standard
>	**Rh**	103	10.0	50.0				ug/L	10	Standard
	Mo	98	58.7	10.0	**0.0034**	0.002	72.5	ug/L	68	Standard
	Ag	107	146649.5	1.9	**22.4479**	0.200	0.9	ug/L	84	Standard
	Cd	111	72404.2	2.4	**24.2593**	0.103	0.4	mg/L	72	Standard
	Cd	114	178608.2	1.0	**24.3815**	0.445	1.8	ug/L	187	Standard
>	**In**	115	431110.5	2.7				ug/L	464664	Standard
	Sn	118	946.7	10.0	**0.0702**	0.012	17.2	ug/L	438	Standard
	Sb	123	136823.8	0.9	**26.9097**	0.481	1.8	ug/L	433	Standard
	Ba	135	62147.6	2.7	**23.8137**	0.222	0.9	ug/L	14	Standard
	Ce	140	3623.8	3.4				ug/L	20	Standard
>	**Tb**	159	641096.1	3.5				ug/L	663064	Standard
	Ho	165	103.3	48.7				ug/L	10	Standard
	Tl	203	274599.0	2.1	**24.7195**	0.329	1.3	ug/L	32	Standard
	Tl	205	230725.3	1.2	**23.1350**	0.485	2.1	ug/L	28	Standard
	Pb	206	187531.7	1.9	**27.1520**	0.321	1.2	ug/L	190	Standard
	Pb	207	163195.6	0.9	**26.0837**	0.255	1.0	ug/L	155	Standard
	Pb	208	745844.7	1.2	**26.6576**	0.141	0.5	ug/L	766	Standard
	U	238	329983.3	2.1	**25.3037**	0.168	0.7	ug/L	30	Standard
>	**Bi**	209	370822.4	1.7				ug/L	364780	Standard

Sample ID: L1403003281
Report Date/Time: Friday, April 04, 2014 20:08:12
Page 1

Approved: April 07, 2014

	Na	23	3.3	86.6	**0.0748**	0.802	1071.6	mg/L	0	Standard
	Mg	24	171.7	19.4	**0.1049**	0.022	20.6	mg/L	58	Standard
	K	39	18.3	56.8	**0.0876**	0.092	105.2	mg/L	12	Standard
	Ca	43	31.7	55.5	**-0.5840**	0.669	114.5	mg/L	53	Standard
	Fe	54	299.6	8.2	**0.0856**	0.016	18.3	mg/L	190	Standard
	Fe	57	883.4	3.1	**0.5388**	0.029	5.4	mg/L	638	Standard
>	**Sc-1**	45	38734.5	4.5				mg/L	41381	Standard
	Cl	35	2.0	100.0				ug/L	4	Standard
	Kr	83	1.7	124.9				ug/L	2	Standard
	Br	81	3200.3	6.2				ug/L	2030	Standard
	P	31	366138.2	1.2				ug/L	256822	Standard
	S	34	46422.7	0.5				ug/L	33255	Standard
	Sr	88	158.3	18.5				ug/L	153	Standard
	C	12	2080.1	13.3				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	100.8	39.7				mg/L	6	Standard
	Ho-1	165	103.3	48.7				mg/L	10	Standard
	Er	166	53.3	60.3				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		167.728	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.757	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403003281
Report Date/Time: Friday, April 04, 2014 20:08:12
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	92.779
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	101.656
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Cr 53 Upper, S, EEE	Cr	53	
Se-1 77 Upper, S, EEE	Se-1	77	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 20:09:06
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	142802.2	4.1				ug/L	113180	Standard
	Be	9	135602.7	2.7	**45.6020**	1.096	2.4	ug/L	17	Standard
	Al	27	8862901.8	3.4	**43.6670**	0.322	0.7	ug/L	633	Standard
	Sc	45	41921.3	1.6				ug/L	41381	Standard
	Ti	47	34954.3	2.6	**96.7246**	2.363	2.4	ug/L	30	Standard
	V	51	490154.5	1.6	**49.9175**	0.931	1.9	ug/L	1879	Standard
	Cr	52	541100.0	2.0	**51.5305**	0.969	1.9	ug/L	8035	Standard
	Cr	53	86226.7	4.6	**56.0865**	2.599	4.6	ug/L	470	Standard
	Mn	55	676556.3	1.7	**55.9155**	0.597	1.1	ug/L	1182	Standard
	Co	59	444266.3	1.4	**50.7566**	0.772	1.5	ug/L	333	Standard
	Ni	60	153274.1	0.6	**50.4943**	0.333	0.7	ug/L	71	Standard
	Cu	65	147559.9	2.0	**50.8670**	0.775	1.5	ug/L	64	Standard
	Zn	66	85214.3	1.1	**51.2724**	0.538	1.0	ug/L	125	Standard
>	Ge	72	445459.6	0.7				ug/L	399053	Standard
	As	75	93750.3	0.6	**49.4763**	0.363	0.7	ug/L	-28	Standard
	Se	82	10355.1	2.2	**50.1329**	1.007	2.0	ug/L	26	Standard
	Se-1	77	7117.3	4.8	**58.4706**	2.550	4.4	ug/L	118	Standard
>	Ga	71	80.0	12.5				mg/L	8	Standard
	Rb	85	1033.4	9.8				ug/L	25	Standard
	Y	89	394050.1	0.6				ug/L	368853	Standard
>	Rh	103	33.3	31.2				ug/L	10	Standard
	Mo	98	235982.6	1.3	**104.3896**	0.883	0.8	ug/L	68	Standard
	Ag	107	324781.4	0.6	**44.1233**	0.272	0.6	ug/L	84	Standard
	Cd	111	167155.0	1.2	**49.7238**	0.681	1.4	mg/L	72	Standard
	Cd	114	411043.4	0.9	**49.8059**	0.744	1.5	ug/L	187	Standard
>	In	115	485834.0	0.6				ug/L	464664	Standard
	Sn	118	467313.0	1.4	**51.9927**	0.453	0.9	ug/L	438	Standard
	Sb	123	282421.1	0.3	**49.2954**	0.120	0.2	ug/L	433	Standard
	Ba	135	136989.2	0.6	**46.5890**	0.054	0.1	ug/L	14	Standard
	Ce	140	175.0	19.8				ug/L	20	Standard
>	Tb	159	610872.8	0.1				ug/L	663064	Standard
	Ho	165	26.7	21.7				ug/L	10	Standard
	Tl	203	530881.1	1.3	**51.0005**	0.309	0.6	ug/L	32	Standard
	Tl	205	498940.6	1.9	**53.3973**	1.869	3.5	ug/L	28	Standard
	Pb	206	320941.8	1.3	**49.6141**	0.217	0.4	ug/L	190	Standard
	Pb	207	291601.5	1.7	**49.7541**	0.055	0.1	ug/L	155	Standard
	Pb	208	1297926.5	1.3	**49.5257**	0.172	0.3	ug/L	766	Standard
	U	238	637718.7	0.7	**52.1890**	0.482	0.9	ug/L	30	Standard
>	Bi	209	347532.5	1.6				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 20:11:16
Page 1

Approved: April 07, 2014

	Na	23	20.0	0.0	**4.2764**	0.084	2.0	mg/L	0	Standard
	Mg	24	6454.7	2.8	**5.0277**	0.199	4.0	mg/L	58	Standard
	K	39	408.3	17.8	**3.2394**	0.548	16.9	mg/L	12	Standard
	Ca	43	136.7	18.8	**3.0206**	0.820	27.2	mg/L	53	Standard
	Fe	54	8801.2	3.5	**4.7012**	0.241	5.1	mg/L	190	Standard
	Fe	57	3133.7	4.3	**4.9066**	0.314	6.4	mg/L	638	Standard
>	**Sc-1**	45	41921.3	1.6				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	4.7	32.7				ug/L	2	Standard
	Br	81	2253.5	6.4				ug/L	2030	Standard
	P	31	366118.5	2.1				ug/L	256822	Standard
	S	34	47740.1	0.4				ug/L	33255	Standard
	Sr	88	163.3	17.4				ug/L	153	Standard
	C	12	740.0	38.7				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	12.7	46.9				mg/L	6	Standard
	Ho-1	165	26.7	21.7				mg/L	10	Standard
	Er	166	13.3	114.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		126.173	
	Be	9	91.204		
	Al	27	87.334		
	Sc	45			
	Ti	47	96.725		
	V	51	99.835		
	Cr	52	103.061		
	Cr	53			
	Mn	55	111.831		
	Co	59	101.513		
	Ni	60	100.989		
	Cu	65	101.734		
	Zn	66	102.545		
>	Ge	72		111.629	
	As	75	98.953		
	Se	82	100.266		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 20:11:16
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	104.390	
|	Ag	107	88.247	
|	Cd	111	99.448	
|	Cd	114		
|>	In	115		104.556
|	Sn	118	103.985	
|	Sb	123	98.591	
⌊	Ba	135	93.178	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	102.001	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	99.051	
|	U	238	104.378	
⌊>	Bi	209		95.272
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample
QC Std 6	Al	27	
QC Std 6	Mn	55	
QC Std 6	Ag	107	

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 20:11:16
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 20:12:08
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	134301.1	2.1				ug/L	113180	Standard
	Be	9	48.3	31.6	**0.0138**	0.005	36.6	ug/L	17	Standard
	Al	27	1495.1	24.9	**-0.0165**	0.002	11.1	ug/L	633	Standard
	Sc	45	41986.4	1.8				ug/L	41381	Standard
	Ti	47	28.7	17.9	**0.0174**	0.014	82.7	ug/L	30	Standard
	V	51	2248.7	9.8	**0.0205**	0.023	112.5	ug/L	1879	Standard
	Cr	52	7072.0	2.2	**-0.1615**	0.014	8.7	ug/L	8035	Standard
	Cr	53	6533.1	7.6	**4.0444**	0.317	7.8	ug/L	470	Standard
	Mn	55	1713.4	6.8	**0.0253**	0.009	37.3	ug/L	1182	Standard
	Co	59	248.0	4.0	**-0.0204**	0.001	6.0	ug/L	333	Standard
	Ni	60	133.7	10.9	**0.0108**	0.005	44.2	ug/L	71	Standard
	Cu	65	87.0	16.9	**-0.0025**	0.005	208.0	ug/L	64	Standard
	Zn	66	98.0	9.8	**-0.0795**	0.006	7.2	ug/L	125	Standard
>	**Ge**	72	433085.4	0.4				ug/L	399053	Standard
	As	75	-43.1	169.6	**-0.0121**	0.040	328.1	ug/L	-28	Standard
	Se	82	15.3	47.2	**-0.0353**	0.036	102.0	ug/L	26	Standard
	Se-1	77	498.3	3.6	**3.3185**	0.139	4.2	ug/L	118	Standard
>	**Ga**	71	33.3	8.7				mg/L	8	Standard
	Rb	85	26.7	10.8				ug/L	25	Standard
	Y	89	384893.2	1.6				ug/L	368853	Standard
>	**Rh**	103	13.3	21.7				ug/L	10	Standard
	Mo	98	103.3	48.6	**0.0208**	0.022	103.9	ug/L	68	Standard
	Ag	107	77.0	15.6	**-0.0040**	0.001	36.0	ug/L	84	Standard
	Cd	111	79.1	6.9	**-0.0026**	0.001	49.4	mg/L	72	Standard
	Cd	114	208.1	22.5	**-0.0012**	0.006	487.8	ug/L	187	Standard
>	**In**	115	471899.3	2.4				ug/L	464664	Standard
	Sn	118	568.3	8.6	**0.0164**	0.004	26.2	ug/L	438	Standard
	Sb	123	622.1	32.3	**0.0845**	0.033	39.5	ug/L	433	Standard
	Ba	135	24.3	21.1	**-0.0037**	0.002	54.1	ug/L	14	Standard
	Ce	140	13.3	86.6				ug/L	20	Standard
>	**Tb**	159	584005.0	2.0				ug/L	663064	Standard
	Ho	165	10.0	100.0				ug/L	10	Standard
	Tl	203	386.7	10.8	**0.0326**	0.004	11.1	ug/L	32	Standard
	Tl	205	408.3	19.5	**0.0406**	0.008	20.0	ug/L	28	Standard
	Pb	206	219.0	10.2	**-0.0023**	0.003	137.0	ug/L	190	Standard
	Pb	207	210.0	7.0	**0.0049**	0.003	55.2	ug/L	155	Standard
	Pb	208	900.3	5.8	**0.0026**	0.002	63.0	ug/L	766	Standard
	U	238	65.3	46.7	**0.0023**	0.002	109.7	ug/L	30	Standard
>	**Bi**	209	336641.2	1.5				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 20:14:18
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	76.7	21.0	**0.0196**	0.012	59.3	mg/L	58	Standard
	K	39	10.0	86.6	**0.0070**	0.069	974.5	mg/L	12	Standard
	Ca	43	31.7	24.1	**-0.6753**	0.250	37.0	mg/L	53	Standard
	Fe	54	187.9	27.0	**0.0108**	0.027	245.9	mg/L	190	Standard
	Fe	57	665.0	7.2	**-0.0463**	0.119	257.9	mg/L	638	Standard
>	**Sc-1**	45	41986.4	1.8				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	2.0	50.0				ug/L	2	Standard
	Br	81	2230.2	7.5				ug/L	2030	Standard
	P	31	327026.9	1.2				ug/L	256822	Standard
	S	34	45922.9	3.6				ug/L	33255	Standard
	Sr	88	136.7	24.4				ug/L	153	Standard
	C	12	666.7	14.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	6.7	86.6				mg/L	0	Standard
	Dy	164	-0.2	173.2				mg/L	6	Standard
	Ho-1	165	10.0	100.0				mg/L	10	Standard
	Er	166	3.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		118.662	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		108.528	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 20:14:18
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.557
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	92.286
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 20:14:18
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: PBS 7R WG469216-01
Sample Date/Time: Friday, April 04, 2014 20:15:11
Number of Replicates: 3
Autosampler Position: 317
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	Li	6	179170.3	5.6				ug/L	113180	Standard
	Be	9	51.7	34.0	**0.0103**	0.004	38.7	ug/L	17	Standard
	Al	27	5337.6	6.1	**-0.0033**	0.001	23.9	ug/L	633	Standard
	Sc	45	37309.2	2.6				ug/L	41381	Standard
	Ti	47	143.3	14.7	**0.3854**	0.066	17.2	ug/L	30	Standard
	V	51	9944.5	21.8	**0.9362**	0.252	26.9	ug/L	1879	Standard
	Cr	52	15748.8	1.6	**0.8618**	0.026	3.0	ug/L	8035	Standard
	Cr	53	126967.0	3.9	**93.7957**	3.708	4.0	ug/L	470	Standard
	Mn	55	2803.3	5.9	**0.1423**	0.015	10.8	ug/L	1182	Standard
	Co	59	195.3	12.9	**-0.0242**	0.003	13.4	ug/L	333	Standard
	Ni	60	362.7	5.5	**0.1009**	0.007	7.3	ug/L	71	Standard
	Cu	65	1295.1	2.5	**0.4728**	0.013	2.7	ug/L	64	Standard
	Zn	66	2056.1	2.3	**1.2650**	0.032	2.5	ug/L	125	Standard
>	Ge	72	393207.5	0.1				ug/L	399053	Standard
	As	75	-928.0	24.1	**-0.5434**	0.134	24.7	ug/L	-28	Standard
	Se	82	14.1	10.7	**-0.0343**	0.008	24.3	ug/L	26	Standard
	Se-1	77	14153.0	5.6	**132.9477**	7.637	5.7	ug/L	118	Standard
>	Ga	71	288.3	10.6				mg/L	8	Standard
	Rb	85	118.3	10.6				ug/L	25	Standard
	Y	89	352228.6	3.5				ug/L	368853	Standard
>	Rh	103	10.0					ug/L	10	Standard
	Mo	98	72.9	6.7	**0.0106**	0.002	21.1	ug/L	68	Standard
	Ag	107	56.7	11.3	**-0.0060**	0.001	14.6	ug/L	84	Standard
	Cd	111	59.8	16.1	**-0.0067**	0.003	45.8	mg/L	72	Standard
	Cd	114	156.3	17.8	**-0.0059**	0.004	60.1	ug/L	187	Standard
>	In	115	429852.6	1.6				ug/L	464664	Standard
	Sn	118	633.3	9.2	**0.0310**	0.006	20.3	ug/L	438	Standard
	Sb	123	228.6	6.4	**0.0183**	0.003	15.8	ug/L	433	Standard
	Ba	135	76.0	18.3	**0.0170**	0.006	33.0	ug/L	14	Standard
	Ce	140	91.7	24.6				ug/L	20	Standard
>	Tb	159	622540.3	1.5				ug/L	663064	Standard
	Ho	165	10.0					ug/L	10	Standard
	Tl	203	299.3	5.6	**0.0215**	0.001	6.1	ug/L	32	Standard
	Tl	205	248.3	18.2	**0.0207**	0.004	21.4	ug/L	28	Standard
	Pb	206	662.0	3.6	**0.0597**	0.004	7.1	ug/L	190	Standard
	Pb	207	552.7	2.7	**0.0572**	0.002	3.3	ug/L	155	Standard
	Pb	208	2615.8	3.2	**0.0616**	0.003	4.7	ug/L	766	Standard
	U	238	16.0	43.8	**-0.0020**	0.001	27.6	ug/L	30	Standard
>	Bi	209	367252.1	0.9				ug/L	364780	Standard

Sample ID: PBS 7R WG469216-01
Report Date/Time: Friday, April 04, 2014 20:17:21
Page 1

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.3707**	0.827	223.1	mg/L	0	Standard
	Mg	24	128.3	9.8	**0.0729**	0.011	14.7	mg/L	58	Standard
	K	39	11.7	24.7	**0.0335**	0.029	87.6	mg/L	12	Standard
	Ca	43	23.3	53.9	**-0.8586**	0.502	58.5	mg/L	53	Standard
	Fe	54	218.5	26.6	**0.0423**	0.034	80.4	mg/L	190	Standard
	Fe	57	826.7	4.2	**0.4830**	0.031	6.5	mg/L	638	Standard
>	**Sc-1**	45	37309.2	2.6				mg/L	41381	Standard
	Cl	35	2.0	173.2				ug/L	4	Standard
	Kr	83	2.0	0.0				ug/L	2	Standard
	Br	81	3067.0	2.2				ug/L	2030	Standard
	P	31	352479.7	0.8				ug/L	256822	Standard
	S	34	44769.5	4.8				ug/L	33255	Standard
	Sr	88	170.0	15.6				ug/L	153	Standard
	C	12	1926.8	17.5				mg/L	573	Standard
	N	14	6.7	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.2	93.6				mg/L	6	Standard
	Ho-1	165	10.0					mg/L	10	Standard
	Er	166	10.0	100.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		158.306	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.535	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: PBS 7R WG469216-01
Report Date/Time: Friday, April 04, 2014 20:17:21
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	92.508
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	100.678
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
As 75 Lower	As	75	
Se-1 77 Upper, S, EEE	Se-1	77	

Sample ID: PBS 7R WG469216-01
Report Date/Time: Friday, April 04, 2014 20:17:21
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

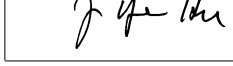
Sample ID: L1403003285
Sample Date/Time: Friday, April 04, 2014 20:18:13
Number of Replicates: 3
Autosampler Position: 318
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	186371.6	3.0				ug/L	113180	Standard
	Be	9	88276.4	0.9	**22.7459**	0.654	2.9	ug/L	17	Standard
	Al	27	44090.7	2.1	**0.1423**	0.003	1.8	ug/L	633	Standard
	Sc	45	38213.2	4.3				ug/L	41381	Standard
	Ti	47	246.0	7.6	**0.6911**	0.048	7.0	ug/L	30	Standard
	V	51	207408.3	3.1	**23.3192**	0.660	2.8	ug/L	1879	Standard
	Cr	52	242979.4	1.4	**25.2455**	0.761	3.0	ug/L	8035	Standard
	Cr	53	196744.1	4.5	**142.6057**	8.583	6.0	ug/L	470	Standard
	Mn	55	299035.2	0.9	**27.3634**	0.489	1.8	ug/L	1182	Standard
	Co	59	187964.4	0.8	**23.8004**	0.280	1.2	ug/L	333	Standard
	Ni	60	66271.3	0.6	**24.2060**	0.265	1.1	ug/L	71	Standard
	Cu	65	66636.6	2.4	**25.4680**	0.282	1.1	ug/L	64	Standard
	Zn	66	40270.1	0.7	**26.8177**	0.307	1.1	ug/L	125	Standard
>	**Ge**	72	401517.4	1.6				ug/L	399053	Standard
	As	75	41196.6	3.4	**24.1233**	0.558	2.3	ug/L	-28	Standard
	Se	82	4560.8	2.1	**24.4439**	0.610	2.5	ug/L	26	Standard
	Se-1	77	20775.6	2.5	**191.6057**	7.399	3.9	ug/L	118	Standard
>	**Ga**	71	505.0	8.1				mg/L	8	Standard
	Rb	85	1346.7	4.5				ug/L	25	Standard
	Y	89	352410.2	1.5				ug/L	368853	Standard
>	**Rh**	103	21.7	13.3				ug/L	10	Standard
	Mo	98	155.7	9.5	**0.0520**	0.007	12.6	ug/L	68	Standard
	Ag	107	143908.9	0.9	**22.1074**	0.205	0.9	ug/L	84	Standard
	Cd	111	72195.3	1.3	**24.2770**	0.106	0.4	mg/L	72	Standard
	Cd	114	178190.2	1.4	**24.4112**	0.613	2.5	ug/L	187	Standard
>	**In**	115	429541.7	1.6				ug/L	464664	Standard
	Sn	118	753.4	6.5	**0.0462**	0.005	11.8	ug/L	438	Standard
	Sb	123	135890.6	1.6	**26.8210**	0.674	2.5	ug/L	433	Standard
	Ba	135	62123.5	1.9	**23.8924**	0.412	1.7	ug/L	14	Standard
	Ce	140	4930.8	2.7				ug/L	20	Standard
>	**Tb**	159	628209.1	0.6				ug/L	663064	Standard
	Ho	165	120.0	22.0				ug/L	10	Standard
	Tl	203	278648.6	1.3	**24.9642**	0.264	1.1	ug/L	32	Standard
	Tl	205	231844.0	1.7	**23.1306**	0.193	0.8	ug/L	28	Standard
	Pb	206	190335.7	0.4	**27.4271**	0.137	0.5	ug/L	190	Standard
	Pb	207	165335.2	0.5	**26.2979**	0.143	0.5	ug/L	155	Standard
	Pb	208	758386.8	1.1	**26.9749**	0.074	0.3	ug/L	766	Standard
	U	238	339512.2	0.7	**25.9113**	0.062	0.2	ug/L	30	Standard
>	**Bi**	209	372602.7	0.9				ug/L	364780	Standard

Sample ID: L1403003285
Report Date/Time: Friday, April 04, 2014 20:20:23
Page 1

Approved: April 07, 2014



	Na	23	1.7	173.2	**-0.4016**	0.773	192.6	mg/L	0	Standard
	Mg	24	118.3	13.6	**0.0615**	0.012	20.2	mg/L	58	Standard
	K	39	13.3	43.3	**0.0460**	0.054	117.0	mg/L	12	Standard
	Ca	43	21.7	13.3	**-0.9512**	0.074	7.8	mg/L	53	Standard
	Fe	54	291.0	8.3	**0.0832**	0.020	24.6	mg/L	190	Standard
	Fe	57	838.4	3.4	**0.4691**	0.139	29.7	mg/L	638	Standard
>	**Sc-1**	45	38213.2	4.3				mg/L	41381	Standard
	Cl	35	1.3	173.2				ug/L	4	Standard
	Kr	83	3.0	100.0				ug/L	2	Standard
	Br	81	3107.0	7.1				ug/L	2030	Standard
	P	31	348219.9	2.9				ug/L	256822	Standard
	S	34	43343.6	0.7				ug/L	33255	Standard
	Sr	88	188.3	21.5				ug/L	153	Standard
	C	12	1953.5	15.4				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	13.3	43.3				mg/L	0	Standard
	Dy	164	78.1	59.7				mg/L	6	Standard
	Ho-1	165	120.0	22.0				mg/L	10	Standard
	Er	166	40.0	90.1				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		164.669	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		100.618	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403003285
Report Date/Time: Friday, April 04, 2014 20:20:23
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	92.441
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	102.145
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Cr 53 Upper, S, EEE	Cr	53	
Se-1 77 Upper, S, EEE	Se-1	77	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403003286
Sample Date/Time: Friday, April 04, 2014 20:21:14
Number of Replicates: 3
Autosampler Position: 319
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	186231.7	3.3				ug/L	113180	Standard
	Be	9	88447.5	2.5	**22.8228**	1.313	5.8	ug/L	17	Standard
	Al	27	16031.8	3.6	**0.0364**	0.003	8.6	ug/L	633	Standard
	Sc	45	36804.7	1.2				ug/L	41381	Standard
	Ti	47	179.3	8.4	**0.4991**	0.042	8.4	ug/L	30	Standard
	V	51	212530.6	3.4	**24.4564**	0.836	3.4	ug/L	1879	Standard
	Cr	52	251035.3	0.9	**26.7271**	0.442	1.7	ug/L	8035	Standard
	Cr	53	217565.9	0.4	**161.2936**	2.562	1.6	ug/L	470	Standard
	Mn	55	297220.7	0.8	**27.8233**	0.343	1.2	ug/L	1182	Standard
	Co	59	193869.8	0.3	**25.1155**	0.257	1.0	ug/L	333	Standard
	Ni	60	66929.2	1.4	**25.0071**	0.076	0.3	ug/L	71	Standard
	Cu	65	67274.0	0.8	**26.3085**	0.338	1.3	ug/L	64	Standard
	Zn	66	38023.7	1.1	**25.9005**	0.499	1.9	ug/L	125	Standard
>	**Ge**	72	392478.1	1.2				ug/L	399053	Standard
	As	75	40792.1	2.9	**24.4425**	0.813	3.3	ug/L	-28	Standard
	Se	82	4636.5	1.2	**25.4229**	0.130	0.5	ug/L	26	Standard
	Se-1	77	23276.9	4.3	**219.7652**	11.751	5.3	ug/L	118	Standard
>	**Ga**	71	623.3	15.9				mg/L	8	Standard
	Rb	85	226.7	22.2				ug/L	25	Standard
	Y	89	349441.1	1.7				ug/L	368853	Standard
>	**Rh**	103	21.7	58.1				ug/L	10	Standard
	Mo	98	98.6	8.3	**0.0241**	0.004	14.6	ug/L	68	Standard
	Ag	107	145006.3	0.7	**22.5842**	0.198	0.9	ug/L	84	Standard
	Cd	111	72927.3	2.1	**24.8606**	0.126	0.5	mg/L	72	Standard
	Cd	114	182905.5	3.0	**25.4082**	1.066	4.2	ug/L	187	Standard
>	**In**	115	423686.1	1.6				ug/L	464664	Standard
	Sn	118	660.0	5.5	**0.0356**	0.004	11.0	ug/L	438	Standard
	Sb	123	138280.7	2.0	**27.6654**	0.425	1.5	ug/L	433	Standard
	Ba	135	62475.2	0.2	**24.3620**	0.359	1.5	ug/L	14	Standard
	Ce	140	195.0	6.8				ug/L	20	Standard
>	**Tb**	159	638770.9	0.9				ug/L	663064	Standard
	Ho	165	33.3	45.8				ug/L	10	Standard
	Tl	203	284741.0	0.5	**25.6408**	0.369	1.4	ug/L	32	Standard
	Tl	205	233521.1	1.6	**23.4219**	0.686	2.9	ug/L	28	Standard
	Pb	206	194949.2	0.8	**28.2352**	0.336	1.2	ug/L	190	Standard
	Pb	207	168878.0	0.7	**26.9979**	0.245	0.9	ug/L	155	Standard
	Pb	208	774169.8	0.8	**27.6773**	0.266	1.0	ug/L	766	Standard
	U	238	345173.8	1.5	**26.4747**	0.109	0.4	ug/L	30	Standard
>	**Bi**	209	370746.6	1.3				ug/L	364780	Standard

Sample ID: L1403003286
Report Date/Time: Friday, April 04, 2014 20:23:25
Page 1

Approved: April 07, 2014

	Na	23	3.3	86.6	**0.1261**	0.844	669.4	mg/L	0	Standard
	Mg	24	143.3	17.2	**0.0878**	0.022	25.3	mg/L	58	Standard
	K	39	18.3	68.6	**0.0960**	0.115	120.2	mg/L	12	Standard
	Ca	43	26.7	84.5	**-0.7231**	0.894	123.6	mg/L	53	Standard
	Fe	54	230.0	11.8	**0.0514**	0.015	30.2	mg/L	190	Standard
	Fe	57	865.0	2.6	**0.5972**	0.074	12.5	mg/L	638	Standard
>	**Sc-1**	45	36804.7	1.2				mg/L	41381	Standard
	Cl	35	3.3	91.7				ug/L	4	Standard
	Kr	83	1.7	34.6				ug/L	2	Standard
	Br	81	2990.3	11.1				ug/L	2030	Standard
	P	31	348240.3	1.3				ug/L	256822	Standard
	S	34	42116.8	1.1				ug/L	33255	Standard
	Sr	88	130.0	10.2				ug/L	153	Standard
	C	12	2430.2	12.9				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	16.2	68.8				mg/L	6	Standard
	Ho-1	165	33.3	45.8				mg/L	10	Standard
	Er	166	10.0	100.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		164.545	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.352	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403003286
Report Date/Time: Friday, April 04, 2014 20:23:25
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	91.181
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	101.636
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Cr 53 Upper, S, EEE	Cr	53	
Se-1 77 Upper, S, EEE	Se-1	77	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403003287
Sample Date/Time: Friday, April 04, 2014 20:24:16
Number of Replicates: 3
Autosampler Position: 320
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	194838.5	2.4				ug/L	113180	Standard
	Be	9	92328.9	2.2	**22.7459**	0.322	1.4	ug/L	17	Standard
	Al	27	4862.4	1.2	**-0.0067**	0.000	4.6	ug/L	633	Standard
	Sc	45	37713.6	3.7				ug/L	41381	Standard
	Ti	47	105.0	4.2	**0.2703**	0.015	5.4	ug/L	30	Standard
	V	51	209654.1	4.8	**24.4529**	1.203	4.9	ug/L	1879	Standard
	Cr	52	248682.0	0.9	**26.8379**	0.297	1.1	ug/L	8035	Standard
	Cr	53	235084.9	1.4	**176.6658**	2.480	1.4	ug/L	470	Standard
	Mn	55	296122.2	0.8	**28.0970**	0.235	0.8	ug/L	1182	Standard
	Co	59	193981.6	1.0	**25.4720**	0.408	1.6	ug/L	333	Standard
	Ni	60	66401.2	0.7	**25.1487**	0.255	1.0	ug/L	71	Standard
	Cu	65	66757.8	0.8	**26.4608**	0.309	1.2	ug/L	64	Standard
	Zn	66	37715.6	1.3	**26.0374**	0.288	1.1	ug/L	125	Standard
>	**Ge**	72	387217.1	0.9				ug/L	399053	Standard
	As	75	39741.2	1.6	**24.1328**	0.292	1.2	ug/L	-28	Standard
	Se	82	4492.4	3.1	**24.9626**	0.575	2.3	ug/L	26	Standard
	Se-1	77	25893.8	1.8	**247.8364**	5.339	2.2	ug/L	118	Standard
>	**Ga**	71	666.7	7.9				mg/L	8	Standard
	Rb	85	108.3	25.4				ug/L	25	Standard
	Y	89	339832.4	1.2				ug/L	368853	Standard
>	**Rh**	103	20.0	25.0				ug/L	10	Standard
	Mo	98	67.9	10.1	**0.0087**	0.004	43.6	ug/L	68	Standard
	Ag	107	145766.4	2.1	**22.7633**	0.235	1.0	ug/L	84	Standard
	Cd	111	72414.2	0.6	**24.7594**	0.384	1.5	mg/L	72	Standard
	Cd	114	179218.5	1.3	**24.9581**	0.345	1.4	ug/L	187	Standard
>	**In**	115	422511.7	1.7				ug/L	464664	Standard
	Sn	118	1645.1	4.1	**0.1619**	0.005	3.4	ug/L	438	Standard
	Sb	123	135763.6	0.4	**27.2403**	0.359	1.3	ug/L	433	Standard
	Ba	135	62746.0	1.8	**24.5416**	0.851	3.5	ug/L	14	Standard
	Ce	140	126.7	4.6				ug/L	20	Standard
>	**Tb**	159	638986.1	0.7				ug/L	663064	Standard
	Ho	165	26.7	21.7				ug/L	10	Standard
	Tl	203	283939.6	0.9	**25.9426**	0.367	1.4	ug/L	32	Standard
	Tl	205	236276.5	0.9	**24.0402**	0.142	0.6	ug/L	28	Standard
	Pb	206	194116.7	1.2	**28.5271**	0.462	1.6	ug/L	190	Standard
	Pb	207	166783.3	0.3	**27.0535**	0.154	0.6	ug/L	155	Standard
	Pb	208	767413.1	0.3	**27.8379**	0.215	0.8	ug/L	766	Standard
	U	238	342875.6	0.6	**26.6853**	0.091	0.3	ug/L	30	Standard
>	**Bi**	209	365377.1	0.5				ug/L	364780	Standard

Approved: April 07, 2014

	Na	23	1.7	173.2	**-0.3634**	0.839	231.0	mg/L	0	Standard
	Mg	24	133.3	18.9	**0.0765**	0.025	33.2	mg/L	58	Standard
	K	39	25.0	34.6	**0.1515**	0.075	49.7	mg/L	12	Standard
	Ca	43	28.3	27.0	**-0.6815**	0.269	39.5	mg/L	53	Standard
	Fe	54	239.5	13.9	**0.0535**	0.016	29.6	mg/L	190	Standard
	Fe	57	775.0	11.2	**0.3455**	0.133	38.5	mg/L	638	Standard
>	**Sc-1**	45	37713.6	3.7				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	2.3	24.7				ug/L	2	Standard
	Br	81	3007.0	6.0				ug/L	2030	Standard
	P	31	358261.8	1.5				ug/L	256822	Standard
	S	34	42389.2	2.4				ug/L	33255	Standard
	Sr	88	153.3	24.9				ug/L	153	Standard
	C	12	1716.8	13.8				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	9.7	100.8				mg/L	6	Standard
	Ho-1	165	26.7	21.7				mg/L	10	Standard
	Er	166	6.7	86.6				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		172.150	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		97.034	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403003287
Report Date/Time: Friday, April 04, 2014 20:26:26
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	90.928
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	100.164
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Cr 53 Upper, S, EEE	Cr	53	
Se-1 77 Upper, S, EEE	Se-1	77	

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: L1403003288
Sample Date/Time: Friday, April 04, 2014 20:27:18
Number of Replicates: 3
Autosampler Position: 321
Sample Description: 1
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	187409.7	3.8				ug/L	113180	Standard
	Be	9	93331.6	0.5	**23.9225**	0.796	3.3	ug/L	17	Standard
	Al	27	6217.9	0.7	**-0.0009**	0.001	98.5	ug/L	633	Standard
	Sc	45	37309.2	1.3				ug/L	41381	Standard
	Ti	47	156.3	12.2	**0.4281**	0.067	15.6	ug/L	30	Standard
	V	51	212324.6	2.5	**24.4563**	0.607	2.5	ug/L	1879	Standard
	Cr	52	256326.0	0.1	**27.3366**	0.426	1.6	ug/L	8035	Standard
	Cr	53	234335.4	2.1	**173.9043**	3.334	1.9	ug/L	470	Standard
	Mn	55	296581.4	1.1	**27.7889**	0.141	0.5	ug/L	1182	Standard
	Co	59	197686.0	0.6	**25.6375**	0.466	1.8	ug/L	333	Standard
	Ni	60	67304.5	0.5	**25.1753**	0.366	1.5	ug/L	71	Standard
	Cu	65	67230.8	1.0	**26.3164**	0.256	1.0	ug/L	64	Standard
	Zn	66	38298.0	2.2	**26.1093**	0.370	1.4	ug/L	125	Standard
>	**Ge**	72	392104.5	1.4				ug/L	399053	Standard
	As	75	40177.6	0.9	**24.0962**	0.287	1.2	ug/L	-28	Standard
	Se	82	4615.6	1.0	**25.3366**	0.532	2.1	ug/L	26	Standard
	Se-1	77	26495.5	1.1	**250.4839**	6.133	2.4	ug/L	118	Standard
>	**Ga**	71	828.4	10.0				mg/L	8	Standard
	Rb	85	125.0	14.4				ug/L	25	Standard
	Y	89	342431.8	1.4				ug/L	368853	Standard
>	**Rh**	103	25.0	34.6				ug/L	10	Standard
	Mo	98	93.6	19.5	**0.0217**	0.010	44.6	ug/L	68	Standard
	Ag	107	146518.8	1.4	**22.8207**	0.360	1.6	ug/L	84	Standard
	Cd	111	72814.0	1.0	**24.8259**	0.278	1.1	mg/L	72	Standard
	Cd	114	182115.9	1.5	**25.2913**	0.366	1.4	ug/L	187	Standard
>	**In**	115	423664.4	1.3				ug/L	464664	Standard
	Sn	118	713.4	10.3	**0.0424**	0.008	19.8	ug/L	438	Standard
	Sb	123	138125.8	0.6	**27.6372**	0.287	1.0	ug/L	433	Standard
	Ba	135	62905.0	2.0	**24.5262**	0.257	1.0	ug/L	14	Standard
	Ce	140	166.7	33.5				ug/L	20	Standard
>	**Tb**	159	645058.8	2.9				ug/L	663064	Standard
	Ho	165	20.0	0.0				ug/L	10	Standard
	Tl	203	288703.0	0.6	**26.1318**	0.183	0.7	ug/L	32	Standard
	Tl	205	234276.6	2.9	**23.6142**	0.616	2.6	ug/L	28	Standard
	Pb	206	195371.3	1.0	**28.4434**	0.282	1.0	ug/L	190	Standard
	Pb	207	170425.5	0.4	**27.3878**	0.189	0.7	ug/L	155	Standard
	Pb	208	780513.8	0.6	**28.0495**	0.099	0.4	ug/L	766	Standard
	U	238	346843.6	1.1	**26.7429**	0.216	0.8	ug/L	30	Standard
>	**Bi**	209	368802.9	0.3				ug/L	364780	Standard

Sample ID: L1403003288
Report Date/Time: Friday, April 04, 2014 20:29:28
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	143.3	16.5	**0.0859**	0.019	22.3	mg/L	58	Standard
	K	39	13.3	21.7	**0.0481**	0.025	52.4	mg/L	12	Standard
	Ca	43	26.7	28.6	**-0.7325**	0.291	39.7	mg/L	53	Standard
	Fe	54	223.4	17.8	**0.0458**	0.026	57.0	mg/L	190	Standard
	Fe	57	825.0	4.6	**0.4807**	0.109	22.8	mg/L	638	Standard
>	**Sc-1**	45	37309.2	1.3				mg/L	41381	Standard
	Cl	35	2.0	0.0				ug/L	4	Standard
	Kr	83	1.7	34.6				ug/L	2	Standard
	Br	81	3173.7	2.5				ug/L	2030	Standard
	P	31	374128.2	2.7				ug/L	256822	Standard
	S	34	42720.2	1.7				ug/L	33255	Standard
	Sr	88	168.3	16.4				ug/L	153	Standard
	C	12	2463.5	7.6				mg/L	573	Standard
	N	14	3.3	173.2				mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.2	86.7				mg/L	6	Standard
	Ho-1	165	20.0	0.0				mg/L	10	Standard
	Er	166	10.0	100.0				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		165.586	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		98.259	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: L1403003288
Report Date/Time: Friday, April 04, 2014 20:29:28
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	91.177
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	101.103
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for sample	Li	6	Rerun sample
Cr 53 Upper, S, EEE	Cr	53	
Se-1 77 Upper, S, EEE	Se-1	77	

Sample ID: L1403003288
Report Date/Time: Friday, April 04, 2014 20:29:28
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 6
Sample Date/Time: Friday, April 04, 2014 20:30:22
Number of Replicates: 3
Autosampler Position: 101
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	143530.7	7.4				ug/L	113180	Standard
	Be	9	139439.9	5.4	**46.6990**	2.119	4.5	ug/L	17	Standard
	Al	27	8759923.8	3.8	**43.0045**	1.507	3.5	ug/L	633	Standard
	Sc	45	43418.8	3.6				ug/L	41381	Standard
	Ti	47	35231.3	2.3	**96.2708**	0.414	0.4	ug/L	30	Standard
	V	51	493381.7	0.4	**49.6261**	0.845	1.7	ug/L	1879	Standard
	Cr	52	542319.6	1.0	**51.0000**	0.582	1.1	ug/L	8035	Standard
	Cr	53	87436.9	4.5	**56.1501**	1.796	3.2	ug/L	470	Standard
	Mn	55	683145.0	1.7	**55.7594**	0.377	0.7	ug/L	1182	Standard
	Co	59	442962.2	0.9	**49.9822**	0.767	1.5	ug/L	333	Standard
	Ni	60	154594.3	2.2	**50.2905**	0.165	0.3	ug/L	71	Standard
	Cu	65	148826.4	1.2	**50.6701**	0.415	0.8	ug/L	64	Standard
	Zn	66	86155.1	3.1	**51.1826**	0.550	1.1	ug/L	125	Standard
>	**Ge**	72	451097.4	2.0				ug/L	399053	Standard
	As	75	95040.8	2.7	**49.5250**	0.431	0.9	ug/L	-28	Standard
	Se	82	10329.8	2.4	**49.3825**	0.232	0.5	ug/L	26	Standard
	Se-1	77	6988.6	3.8	**56.6623**	1.135	2.0	ug/L	118	Standard
>	**Ga**	71	91.7	17.5				mg/L	8	Standard
	Rb	85	950.0	8.7				ug/L	25	Standard
	Y	89	400070.0	2.4				ug/L	368853	Standard
>	**Rh**	103	26.7	10.8				ug/L	10	Standard
	Mo	98	237632.4	0.9	**104.2285**	1.481	1.4	ug/L	68	Standard
	Ag	107	328192.2	0.9	**44.2074**	0.638	1.4	ug/L	84	Standard
	Cd	111	167285.0	2.3	**49.3276**	0.115	0.2	mg/L	72	Standard
	Cd	114	415485.3	4.4	**49.8867**	1.070	2.1	ug/L	187	Standard
>	**In**	115	490103.3	2.3				ug/L	464664	Standard
	Sn	118	458719.2	3.5	**50.5829**	0.633	1.3	ug/L	438	Standard
	Sb	123	283076.6	1.1	**48.9875**	0.576	1.2	ug/L	433	Standard
	Ba	135	136620.9	1.4	**46.0671**	0.668	1.5	ug/L	14	Standard
	Ce	140	206.7	6.1				ug/L	20	Standard
>	**Tb**	159	610408.3	0.6				ug/L	663064	Standard
	Ho	165	16.7	91.7				ug/L	10	Standard
	Tl	203	532397.3	2.0	**51.0036**	0.663	1.3	ug/L	32	Standard
	Tl	205	497301.7	1.1	**53.0584**	0.136	0.3	ug/L	28	Standard
	Pb	206	324005.2	2.0	**49.9470**	0.403	0.8	ug/L	190	Standard
	Pb	207	294801.2	1.7	**50.1625**	0.294	0.6	ug/L	155	Standard
	Pb	208	1311555.4	1.7	**49.9066**	0.272	0.5	ug/L	766	Standard
	U	238	648182.7	0.3	**52.9005**	0.569	1.1	ug/L	30	Standard
>	**Bi**	209	348481.4	1.3				ug/L	364780	Standard

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 20:32:33
Page 1

Approved: April 07, 2014

	Na	23	18.3	15.7	**3.7067**	0.857	23.1	mg/L	0	Standard
	Mg	24	6234.6	4.5	**4.6890**	0.284	6.1	mg/L	58	Standard
	K	39	460.0	10.4	**3.5346**	0.356	10.1	mg/L	12	Standard
	Ca	43	128.3	8.1	**2.5876**	0.456	17.6	mg/L	53	Standard
	Fe	54	8631.2	1.9	**4.4499**	0.242	5.4	mg/L	190	Standard
	Fe	57	3063.6	1.7	**4.5569**	0.210	4.6	mg/L	638	Standard
>	**Sc-1**	45	43418.8	3.6				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	3.3	75.5				ug/L	2	Standard
	Br	81	2350.2	8.9				ug/L	2030	Standard
	P	31	340630.8	2.1				ug/L	256822	Standard
	S	34	45555.1	2.0				ug/L	33255	Standard
	Sr	88	158.3	16.2				ug/L	153	Standard
	C	12	813.4	25.2				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	3.3	173.2				mg/L	0	Standard
	Dy	164	6.5	179.6				mg/L	6	Standard
	Ho-1	165	16.7	91.7				mg/L	10	Standard
	Er	166	3.3	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		126.817	
	Be	9	93.398		
	Al	27	86.009		
	Sc	45			
	Ti	47	96.271		
	V	51	99.252		
	Cr	52	102.000		
	Cr	53			
	Mn	55	111.519		
	Co	59	99.964		
	Ni	60	100.581		
	Cu	65	101.340		
	Zn	66	102.365		
>	Ge	72		113.042	
	As	75	99.050		
	Se	82	98.765		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 20:32:33
Page 2

Approved: April 07, 2014

⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98	104.228	
|	Ag	107	88.415	
|	Cd	111	98.655	
|	Cd	114		
|>	In	115		105.475
|	Sn	118	101.166	
|	Sb	123	97.975	
⌊	Ba	135	92.134	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	102.007	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	99.813	
|	U	238	105.801	
⌊>	Bi	209		95.532
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
Li 6 Int Std for QC Std	Li	6	Rerun sample
QC Std 6	Al	27	
QC Std 6	Mn	55	
QC Std 6	Ag	107	

Sample ID: QC Std 6
Report Date/Time: Friday, April 04, 2014 20:32:33
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 7
Sample Date/Time: Friday, April 04, 2014 20:33:24
Number of Replicates: 3
Autosampler Position: 102
Sample Description:
Method File: C:\NexIONData\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	133438.5	2.1				ug/L	113180	Standard
	Be	9	46.7	27.0	**0.0134**	0.005	35.7	ug/L	17	Standard
	Al	27	1423.4	12.5	**-0.0168**	0.001	4.6	ug/L	633	Standard
	Sc	45	41082.4	6.5				ug/L	41381	Standard
	Ti	47	19.7	28.0	**-0.0088**	0.016	182.6	ug/L	30	Standard
	V	51	2602.8	6.7	**0.0548**	0.018	33.1	ug/L	1879	Standard
	Cr	52	7075.3	1.2	**-0.1686**	0.021	12.3	ug/L	8035	Standard
	Cr	53	7350.1	5.2	**4.5378**	0.106	2.3	ug/L	470	Standard
	Mn	55	1614.8	5.7	**0.0153**	0.007	44.3	ug/L	1182	Standard
	Co	59	252.0	5.9	**-0.0203**	0.001	4.0	ug/L	333	Standard
	Ni	60	143.3	18.9	**0.0134**	0.008	56.5	ug/L	71	Standard
	Cu	65	86.7	13.4	**-0.0029**	0.005	163.2	ug/L	64	Standard
	Zn	66	100.3	8.3	**-0.0787**	0.005	7.0	ug/L	125	Standard
>	**Ge**	72	437986.9	3.1				ug/L	399053	Standard
	As	75	-11.0	640.3	**0.0049**	0.037	767.3	ug/L	-28	Standard
	Se	82	21.8	49.4	**-0.0050**	0.050	998.3	ug/L	26	Standard
	Se-1	77	521.3	3.9	**3.4687**	0.210	6.1	ug/L	118	Standard
>	**Ga**	71	33.3	22.9				mg/L	8	Standard
	Rb	85	21.7	35.3				ug/L	25	Standard
	Y	89	381056.2	1.4				ug/L	368853	Standard
>	**Rh**	103	10.0	50.0				ug/L	10	Standard
	Mo	98	104.7	40.4	**0.0217**	0.019	86.2	ug/L	68	Standard
	Ag	107	84.3	17.3	**-0.0029**	0.002	66.8	ug/L	84	Standard
	Cd	111	87.1	4.5	**-0.0001**	0.001	1029.9	mg/L	72	Standard
	Cd	114	212.4	26.2	**-0.0008**	0.007	889.0	ug/L	187	Standard
>	**In**	115	471653.1	1.0				ug/L	464664	Standard
	Sn	118	656.7	6.2	**0.0266**	0.004	15.6	ug/L	438	Standard
	Sb	123	596.0	29.2	**0.0802**	0.030	37.5	ug/L	433	Standard
	Ba	135	22.0	19.8	**-0.0046**	0.001	31.7	ug/L	14	Standard
	Ce	140	8.3	124.9				ug/L	20	Standard
>	**Tb**	159	591947.4	1.8				ug/L	663064	Standard
	Ho	165	10.0	100.0				ug/L	10	Standard
	Tl	203	396.0	12.1	**0.0333**	0.004	11.4	ug/L	32	Standard
	Tl	205	326.7	9.2	**0.0314**	0.003	8.4	ug/L	28	Standard
	Pb	206	217.3	9.8	**-0.0028**	0.003	92.7	ug/L	190	Standard
	Pb	207	191.7	7.1	**0.0014**	0.002	118.0	ug/L	155	Standard
	Pb	208	875.3	5.3	**0.0013**	0.001	77.2	ug/L	766	Standard
	U	238	68.0	31.8	**0.0025**	0.002	68.3	ug/L	30	Standard
>	**Bi**	209	338990.9	2.3				ug/L	364780	Standard

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 20:35:34
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	46.7	22.3	**-0.0032**	0.007	215.5	mg/L	58	Standard
	K	39	6.7	86.6	**-0.0200**	0.046	231.6	mg/L	12	Standard
	Ca	43	33.3	52.7	**-0.6039**	0.601	99.6	mg/L	53	Standard
	Fe	54	165.8	25.4	**0.0023**	0.030	1334.3	mg/L	190	Standard
	Fe	57	640.0	4.8	**-0.0683**	0.040	59.0	mg/L	638	Standard
>	**Sc-1**	45	41082.4	6.5				mg/L	41381	Standard
	Cl	35	0.7	173.2				ug/L	4	Standard
	Kr	83	0.7	86.6				ug/L	2	Standard
	Br	81	2180.2	10.0				ug/L	2030	Standard
	P	31	308070.7	4.2				ug/L	256822	Standard
	S	34	43290.1	2.2				ug/L	33255	Standard
	Sr	88	155.0	24.4				ug/L	153	Standard
	C	12	743.4	18.7				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	6.3	173.2				mg/L	6	Standard
	Ho-1	165	10.0	100.0				mg/L	10	Standard
	Er	166	6.7	173.2				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		117.900	
	Be	9			
	Al	27			
	Sc	45			
	Ti	47			
	V	51			
	Cr	52			
	Cr	53			
	Mn	55			
	Co	59			
	Ni	60			
	Cu	65			
	Zn	66			
>	Ge	72		109.757	
	As	75			
	Se	82			
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 20:35:34
Page 2

Approved: April 07, 2014

⌈	Y	89	
⌊>	Rh	103	
⌈	Mo	98	
|	Ag	107	
|	Cd	111	
|	Cd	114	
|>	In	115	101.504
|	Sn	118	
|	Sb	123	
⌊	Ba	135	
⌈	Ce	140	
⌊>	Tb	159	
⌈	Ho	165	
|	Tl	203	
|	Tl	205	
|	Pb	206	
|	Pb	207	
|	Pb	208	
|	U	238	
⌊>	Bi	209	92.930
⌈	Na	23	
|	Mg	24	
|	K	39	
|	Ca	43	
|	Fe	54	
|	Fe	57	
⌊>	Sc-1	45	
	Cl	35	
	Kr	83	
	Br	81	
	P	31	
	S	34	
	Sr	88	
	C	12	
	N	14	
	Hg	202	
	Dy	164	
	Ho-1	165	
	Er	166	

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message

Sample ID: QC Std 7
Report Date/Time: Friday, April 04, 2014 20:35:34
Page 3

Approved: April 07, 2014

Method 6020 - Summary Report

Sample ID: QC Std 8
Sample Date/Time: Friday, April 04, 2014 20:36:28
Number of Replicates: 3
Autosampler Position: 202
Sample Description:
Method File: C:\NexION Data\Method\6020a.mth
Aliquot Volume (mL):
Diluted to Volume (mL):
User Name: JYH user
Cumulative Autodilution Factor: 1
Nexion-ICP 200.8\6020

Concentration Results

IS	Analyte	Mass	Intensity	RSD	Conc.	SD	RSD	Units	Blank Intens.	Mode
>	**Li**	6	130342.3	4.3				ug/L	113180	Standard
	Be	9	515.0	12.7	**0.1863**	0.022	12.0	ug/L	17	Standard
	Al	27	913.4	8.7	**-0.0193**	0.000	2.1	ug/L	633	Standard
	Sc	45	39722.0	2.7				ug/L	41381	Standard
	Ti	47	24.3	16.6	**0.0046**	0.012	256.7	ug/L	30	Standard
	V	51	5976.1	0.9	**0.4081**	0.007	1.7	ug/L	1879	Standard
	Cr	52	14887.3	2.3	**0.6064**	0.050	8.3	ug/L	8035	Standard
	Cr	53	7130.0	2.0	**4.4115**	0.034	0.8	ug/L	470	Standard
	Mn	55	7757.0	2.6	**0.5352**	0.009	1.6	ug/L	1182	Standard
	Co	59	3534.1	2.7	**0.3630**	0.006	1.6	ug/L	333	Standard
	Ni	60	4713.7	2.6	**1.5521**	0.039	2.5	ug/L	71	Standard
	Cu	65	2344.2	4.7	**0.7921**	0.028	3.6	ug/L	64	Standard
	Zn	66	10698.1	1.2	**6.4499**	0.034	0.5	ug/L	125	Standard
>	**Ge**	72	436291.8	1.3				ug/L	399053	Standard
	As	75	761.5	9.7	**0.4218**	0.044	10.5	ug/L	-28	Standard
	Se	82	104.2	5.4	**0.4046**	0.030	7.5	ug/L	26	Standard
	Se-1	77	462.0	4.4	**2.9767**	0.135	4.5	ug/L	118	Standard
>	**Ga**	71	31.7	9.1				mg/L	8	Standard
	Rb	85	33.3	17.3				ug/L	25	Standard
	Y	89	383393.4	2.3				ug/L	368853	Standard
>	**Rh**	103	13.3	43.3				ug/L	10	Standard
	Mo	98	41.4	1.0	**-0.0068**	0.001	7.4	ug/L	68	Standard
	Ag	107	2528.2	2.8	**0.3427**	0.006	1.7	ug/L	84	Standard
	Cd	111	803.3	3.4	**0.2219**	0.003	1.3	mg/L	72	Standard
	Cd	114	2012.6	7.5	**0.2264**	0.015	6.5	ug/L	187	Standard
>	**In**	115	467005.8	2.3				ug/L	464664	Standard
	Sn	118	528.3	11.2	**0.0126**	0.007	59.3	ug/L	438	Standard
	Sb	123	2276.3	3.1	**0.3867**	0.007	1.9	ug/L	433	Standard
	Ba	135	1939.1	3.1	**0.6741**	0.023	3.4	ug/L	14	Standard
	Ce	140	15.0	66.7				ug/L	20	Standard
>	**Tb**	159	579956.1	1.5				ug/L	663064	Standard
	Ho	165	10.0	100.0				ug/L	10	Standard
	Tl	203	1116.0	4.1	**0.1059**	0.005	4.9	ug/L	32	Standard
	Tl	205	1053.4	3.2	**0.1129**	0.004	3.3	ug/L	28	Standard
	Pb	206	1453.7	2.5	**0.1968**	0.005	2.5	ug/L	190	Standard
	Pb	207	1282.4	2.7	**0.1957**	0.004	2.1	ug/L	155	Standard
	Pb	208	5822.4	2.8	**0.1984**	0.004	2.0	ug/L	766	Standard
	U	238	5018.5	1.0	**0.4241**	0.003	0.6	ug/L	30	Standard
>	**Bi**	209	334029.1	1.1				ug/L	364780	Standard

Sample ID: QC Std 8
Report Date/Time: Friday, April 04, 2014 20:38:38
Page 1

Approved: April 07, 2014

	Na	23	0.0		**-0.8481**	0.000	0.0	mg/L	0	Standard
	Mg	24	60.0	50.7	**0.0095**	0.025	268.3	mg/L	58	Standard
	K	39	3.3	86.6	**-0.0452**	0.024	54.1	mg/L	12	Standard
	Ca	43	21.7	26.6	**-0.9808**	0.215	21.9	mg/L	53	Standard
	Fe	54	154.1	11.9	**-0.0027**	0.009	331.0	mg/L	190	Standard
	Fe	57	613.3	0.9	**-0.0805**	0.037	45.8	mg/L	638	Standard
>	**Sc-1**	45	39722.0	2.7				mg/L	41381	Standard
	Cl	35	0.0					ug/L	4	Standard
	Kr	83	3.0	88.2				ug/L	2	Standard
	Br	81	2010.1	4.3				ug/L	2030	Standard
	P	31	284156.9	1.4				ug/L	256822	Standard
	S	34	40614.4	2.9				ug/L	33255	Standard
	Sr	88	158.3	45.7				ug/L	153	Standard
	C	12	743.4	18.4				mg/L	573	Standard
	N	14	0.0					mg/L	0	Standard
	Hg	202	0.0					mg/L	0	Standard
	Dy	164	2.5	255.2				mg/L	6	Standard
	Ho-1	165	10.0	100.0				mg/L	10	Standard
	Er	166	16.7	91.7				mg/L	7	Standard

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery
>	Li	6		115.164	
	Be	9	93.148		
	Al	27			
	Sc	45			
	Ti	47			
	V	51	102.020		
	Cr	52	75.804		
	Cr	53			
	Mn	55	107.048		
	Co	59	90.760		
	Ni	60	97.007		
	Cu	65	99.007		
	Zn	66	103.198		
>	Ge	72		109.332	
	As	75	105.457		
	Se	82	101.142		
	Se-1	77			
>	Ga	71			
	Rb	85			

Sample ID: QC Std 8
Report Date/Time: Friday, April 04, 2014 20:38:38
Page 2

Approved: April 07, 2014

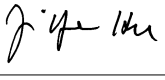
⌈	Y	89		
⌊>	Rh	103		
⌈	Mo	98		
|	Ag	107	85.681	
|	Cd	111	92.452	
|	Cd	114		
|>	In	115		100.504
|	Sn	118		
|	Sb	123	96.681	
⌊	Ba	135	89.887	
⌈	Ce	140		
⌊>	Tb	159		
⌈	Ho	165		
|	Tl	203	132.381	
|	Tl	205		
|	Pb	206		
|	Pb	207		
|	Pb	208	99.182	
|	U	238	106.019	
⌊>	Bi	209		91.570
⌈	Na	23		
|	Mg	24		
|	K	39		
|	Ca	43		
|	Fe	54		
|	Fe	57		
⌊>	Sc-1	45		
	Cl	35		
	Kr	83		
	Br	81		
	P	31		
	S	34		
	Sr	88		
	C	12		
	N	14		
	Hg	202		
	Dy	164		
	Ho-1	165		
	Er	166		

QC Out of Limits

Measurement Type	Analyte	Mass	Out of Limits Message
QC Std 8	Tl	203	

Sample ID: QC Std 8
Report Date/Time: Friday, April 04, 2014 20:38:38
Page 3

Approved: April 07, 2014



3.0 Attachments

Microbac Laboratories Inc.
Ohio Valley Division Analyst List
April 8, 2014

---

001 – BIO-CHEM TESTING WVDEP 220
002 – REIC Consultants, Inc. WVDEP 060
003 – Sturm Environmental
004 – MICROBAC PITTSBURGH
005 – ES LABORATORIES
006 – ALCOSAN LABORATORIES
007 – ALS LABORATORIES
008 – BENCHMARK LABORATORIES
010 – MICROBAC CHICAGOLAND
ADC – ANTHONY D. CANTER
ADG – APRIL D. GREENE
AWE – ANDREW W. ESSIG
AZH – AFTER HOURS
BAF – BRICE A. FENTON
BJO – BRIAN J. OGDEN
BKT – BRENDAN TORRENCE
BLG – BRENDA L. GREENWALT
BRG – BRENDA R. GREGORY
CAA – CASSIE A. AUGENSTEIN
CAF – CHERYL A. FLOWERS
CEB – CHAD E. BARNES
CLC – CHRYS L. CRAWFORD
CLS – CARA L. STRICKLER
CLW – CHARISSA L. WINTERS
CPD – CHAD P. DAVIS
CSH – CHRIS S. HILL
DAK – DEAN A. K
DCM – DAVID C. MERCKLE
DEV – DAVID E. VANDENBERG
DIH – DEANNA I. HESSON
DLB – DAVID L. BUMGARNER
DLP – DOROTHY L. PAYNE
DSM – DAVID S. MOSSOR
ECL – ERIC C. LAWSON
ENY – EMILY N. YOAK
EPT – ETHAN P. TIDD
ERP – ERIN R. PORTER
FJB – FRANCES J. BOLDEN
JBK – JEREMY B. KINNEY
JDH – JUSTIN D. HESSON
JDS – JARED D. SMITH
JLL – JOHN L. LENT
JWR – JOHN W. RICHARDS
JWS – JACK W. SHEAVES
JYH – JI Y. HU
KAJ – KELLIE A. JOHNSON
KDW – KATHRYN D. WELCH
KEB – KATIE E. BARNES
KHR – KIM H. RHODES
KRA – KATHY R. ALBERTSON
KRB – KAELY R. BECKER
KRP – KATHY R. PARSONS
LKN – LINDA K. NEDEFF
LLS – LARRY L. STEPHENS
LSB – LESLIE S. BUCINA
MBK – MORGAN B. KNOWLTON
MDA – MIKE D. ALBERTSON
MDC – MIKE D. COCHRAN
MES – MARY E. SCHILLING
MMB – MAREN M. BEERY
MRT – MICHELLE R. TAYLOR
MSW – MATT S. WILSON
PDM – PIERCE D. MORRIS
PIT – MICROBAC WARRENDALE
PSW – PEGGY S. WEBB
QX – QIN XU
RAH – ROY A. HALSTEAD
REK – BOB E. KYER
RLB – BOB BUCHANAN
RM – RAYMOND MALEKE
RNP – RICK N. PETTY
RS – ROSEMARY SCOTT
SAV – SARAH A. VANDENBERG
SEP – SUZANNE J. PAUGH
SLM – STEPHANIE L. MOSSBURG
SLP – SHERI L. PFALZGRAF
TLC – TYLER L. CORDELL
TMB – TIFFANY M. BAILEY
TMM – TAMMY M. MORRIS
TPA – TYLER P. AMRINE
VC – VICKI COLLIER
WJB – WILL J. BEASLEY
WRR – WESLEY R. RICHARDS
WTD – WADE T. DELONG
XXX – UNAVAILABLE OR SUBCONTRACT

Microbac Laboratories Inc.
List of Valid Qualifiers
April 08, 2014

Qualkey: DOD

Qualifier	Description
*	Surrogate or spike compound out of range
+	Correlation coefficient for the MSA is less than 0.995
<	Result is less than the associated numerical value.
>	Greater than
A	See the report narrative
B	The reported result is associated with a contaminated method blank.
B1	Target analyte detected in method blank at or above the method reporting limit
B3	Target analyte detected in calibration blank at or above the method reporting limit
B4	The BOD unseeded dilution water blank exceeded 0.2 mg/L
C	Confirmed by GC/MS
CG	Confluent growth
CT1	The cooler temperature at receipt exceeded regulatory guidelines for requested testing.
DL	Surrogate or spike compound was diluted out
E	Estimated concentration due to sample matrix interference
EDL	Elevated sample reporting limits, presence of non-target analytes
EMPC	Estimated Maximum Possible Concentration
F, S	Estimated result below quantitation limit; method of standard additions(MSA)
F,CT1	Estimated value; the analyte concentration was less than the RL/LOQ. The cooler temperature at receipt exceeded regula
FL	Free Liquid
H1	Sample analysis performed past holding time.
I	Semiquantitative result (out of instrument calibration range)
J	Estimated concentration; sample matrix interference.
J	Estimated value ; the analyte concentration was greater than the highest standard
J	Estimated value ; the analyte concentration was less than the LOQ.
J	The reported result is an estimated value.
J,B	Analyte detected in both the method blank and sample above the MDL.
J,CT1	Estimated value; the analyte concentration was less than the RL/LOQ.
J,CT1	Estimated value; the analyte concentration was less than the RL/LOQ. The cooler temperature at receipt exceeded regula
J,P	Estimate; columns don't agree to within 40%
J,S	Estimated concentration; analyzed by method of standard addition (MSA)
JB	The reported result is an estimated value. The reported result is also associated with a contaminated method blank.
JQ	The reported result is an estimated value and one or more quality control criteria failed. See narrative.
L	Sample reporting limits elevated due to matrix interference
L1	The associated blank spike (LCS) recovery was above the laboratory acceptance limits.
L2	The associated blank spike (LCS) recovery was below the laboratory acceptance limits.
M	Matrix effect; the concentration is an estimate due to matrix effect.
N	Nontarget analyte; the analyte is a tentativlely identified compound (TIC) by GC/MS
NA	Not applicable
ND	Not detected at or above the reporting limit (RL).
ND, CT1	Analyte was not detected. The concentration is below the reported LOD. The cooler temperature at receipt exceeded reg
ND, H1	Not detected; Sample analysis performed past holding time.
ND, L	Not detected; sample reporting limit (RL) elevated due to interference
ND, S	Not detected; analyzed by method of standard addition (MSA)
NF	Not found by library search
NFL	No free liquid
NI	Non-ignitable
NR	Analyte is not required to be analyzed
NS	Not spiked
P	Concentrations >40% difference between the two GC columns
Q	One or more quality control criteria failed. See narrative.
QNS	Quantity of sample not sufficient to perform analysis
RA	Reanalysis confirms reported results
RE	Reanalysis confirms sample matrix interference
S	Analyzed by method of standard addition (MSA)
SMI	Sample matrix interference on surrogate
SP	Reported results are for spike compounds only
TIC	Library Search Compound
TNTC	Too numerous to count
U	Analyte was not detected. The concentration is below the reported LOD.
U,H1	Not detected; Sample analysis performed past holding time.
UJ	Undetected; the MDL and RL are estimated due to quality control discrepancies.
UQ	Undetected; the analyte was analyzed for, but not detected.
W	Post-digestion spike for furnace AA out of control limits
X	Exceeds regulatory limit
X, S	Exceeds regulatory limit; method of standard additions (MSA)
Z	Cannot be resolved from isomer - see below

L14031621 / Revision: 0 / 2003 total pages

Page 1989

COC No. A 5625

2343-A State Route 821
Marietta, OH 45750

KEMRON
ENVIRONMENTAL SERVICES

CHAIN-OF-CUSTODY RECORD

Phone: 740-373-4308
Fax: 740-376-2536

Company Name: UXB - KEMRON

Project Contact: MARY LOU ROCHOTTE
Contact Phone #: 740 - 373 - 4308

Turn Around Requirements: 14 - DAY
Location: RADFORD, VA

Project ID: MR01669 - 300 - 003 SWMU 40 (RFAAP) LTM YR 3

Sampler (print): JONAH ANDERSON
Signature:

Program: ☐ CWA ☐ RCRA ☐ DOD ☐ AFCEE ☐ Other

Sample I.D. No.	Comp	Grab	Date	Time	Matrix*	NUMBER OF CONTAINERS	Hold	VOC-8260* UNPRESERVED	SVOC - PAH	PERCHLORATE	METALS - (TOTAL)	TOTAL # (LAB USE)
40 TB 32714			3-27-14		W	2		2				
40MW76W32714		X	3-27-14	957	W	7		3	2	1	1	
40EQR 32714		X	3-27-14	1045	W	7		3	2	1	1	
40 FB 32714		X	3-27-14	1100	W	7		3	2	1	1	
40MW5GW32714		X	3-27-14	1402	W	7		3	2	1	1	
40DUPGW32714		X	3-27-14	1402	W	7		3	2	1	1	
40MW6GW32714		X	3-27-14	1542	W	7		3	2	1	1	
LFMW01GW32714		X	3-27-14	1750	W	7		3	2	1	1	
LFMW01MSGW32714		X	3-27-14	1815	W	7		3	2	1	1	
LFMW01MSDGW32714		X	3-27-14	1815	W	7		3	2	1	1	

ADDITIONAL REQUIREMENTS

★PER QAPP SWMU 40 RFAAP★

SEE ATTACHED LIST FOR SPECIFIC ANALYTE LIST

Microbac OVD
Received: 03/28/2014 13:24
By: BOB BUCHANAN
221000051728
RF Buchanan

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
	3-28-14	1259			
Relinquished by: (Signature)	Date	Time	Received for Laboratory by: (Signature)	Date	Time
			Cara Strickler	3/28/14	1258

Remarks:

*Water (W), Soil (S), Solid Waste (SD), Unknown (X)

Page _____ of _____

Generated: 04/08/2014 12:56

3.0 CONCLUSIONS

The following Table 5 represents the remaining analytes for Year 3 long term monitoring at RFAAP SWMU 40. All screening of the data was completed in accordance with the approved IMWP, Section 9.1.

Table 5 Year 3 LTM Analytes

Constituent	LTM Plan	Note
Volatile Organic Compounds		
2-Chloroethyl Vinyl Ether	Continue Monitoring	Continue monitoring to confirm validated Non detect data.
Acetone	Continue Monitoring	Continue monitoring to confirm validated Non detect data.
Metals		
Aluminum	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
Arsenic	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
Barium	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
Calcium	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
Cobalt	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
Iron	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
Lead	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
Magnesium	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
Manganese	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
Potassium	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
Selenium	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
Sodium	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
Vanadium	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
SVOC PAHs		
Benzo(a)anthracene	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
Benzo(a)pyrene	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
Benzo(b)fluoranthene	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
Benzo(k)fluoranthene	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
Chrysene	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.
Other		
Perchlorate	Continue Monitoring	Exceeded LOD, LOQ, or ½ the MCL in at least one prior sampling event.

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L14031621
Account: 2820
Project: 2820.216
Samples: 10
Due Date: 04-APR-2014

Samplenum	Container ID	Products
L14031621-01	342125	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Samplenum	Container ID	Products
L14031621-01	342126	827-PAHL-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	EXT	31-MAR-2014 10:15	CSH	CLS	
3	ANALYZ*	EXT	SEMI	01-APR-2014 09:04	CAA	CSH	
4	DISP	EXT	DISP	01-APR-2014 09:19	BJO	BJO	

***Sample extract/digestate/leachate**

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	STORE	W1	A1	01-APR-2014 11:45	CLS	CLS	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L14031621-01	342127	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	ANALYZ	W1	SEM	02-APR-2014 10:36	JWR	ERP	
3	STORE	SEM	A2	03-APR-2014 14:04	ERP	JWR	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L14031621
Account: 2820
Project: 2820.216
Samples: 10
Due Date: 04-APR-2014

Samplenum	Container ID	Products
L14031621-01	342128	AL AS-MS BA-MS CA CO-MS FE K MG MN-MS NA PB-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	DIG	31-MAR-2014 08:44	VC	CLS	
3	ANALYZ*	DIG	METALS	01-APR-2014 08:43	JYH	VC	
4	STORE	DIG	A2	02-APR-2014 15:21	ERP	BRG	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L14031621-02	342129	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Samplenum	Container ID	Products
L14031621-02	342130	827-PAHL-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	EXT	31-MAR-2014 10:16	CSH	CLS	
3	ANALYZ*	EXT	SEMI	01-APR-2014 09:04	CAA	CSH	
4	DISP	EXT	DISP	01-APR-2014 09:19	BJO	BJO	

***Sample extract/digestate/leachate**

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	STORE	W1	A1	01-APR-2014 11:45	CLS	CLS	

***Sample extract/digestate/leachate**

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L14031621
Account: 2820
Project: 2820.216
Samples: 10
Due Date: 04-APR-2014

Samplenum	Container ID	Products
L14031621-02	342131	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	ANALYZ	W1	SEM	02-APR-2014 10:36	JWR	ERP	
3	STORE	SEM	A2	03-APR-2014 14:04	ERP	JWR	

Samplenum	Container ID	Products
L14031621-02	342132	AL AS-MS BA-MS CA CO-MS FE K MG MN-MS NA PB-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	DIG	31-MAR-2014 08:44	VC	CLS	
3	ANALYZ*	DIG	METALS	01-APR-2014 08:43	JYH	VC	
4	STORE	DIG	A2	02-APR-2014 15:21	ERP	BRG	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L14031621-03	342133	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L14031621
Account: 2820
Project: 2820.216
Samples: 10
Due Date: 04-APR-2014

Samplenum	Container ID	Products
L14031621-03	342134	827-PAHL-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	EXT	31-MAR-2014 10:16	CSH	CLS	
3	ANALYZ*	EXT	SEMI	01-APR-2014 09:04	CAA	CSH	
4	DISP	EXT	DISP	01-APR-2014 09:19	BJO	BJO	

***Sample extract/digestate/leachate**

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	STORE	W1	A1	01-APR-2014 11:45	CLS	CLS	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L14031621-03	342135	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	ANALYZ	W1	SEM	02-APR-2014 10:36	JWR	ERP	
3	STORE	SEM	A2	03-APR-2014 14:04	ERP	JWR	

Samplenum	Container ID	Products
L14031621-03	342136	AL AS-MS BA-MS CA CO-MS FE K MG MN-MS NA PB-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	DIG	31-MAR-2014 08:44	VC	CLS	
3	ANALYZ*	DIG	METALS	01-APR-2014 08:43	JYH	VC	
4	STORE	DIG	A2	02-APR-2014 15:22	ERP	BRG	

***Sample extract/digestate/leachate**

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Internal Chain of Custody Report

Login: L14031621
Account: 2820
Project: 2820.216
Samples: 10
Due Date: 04-APR-2014

Samplenum	Container ID	Products
L14031621-04	342137	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Samplenum	Container ID	Products
L14031621-04	342138	827-PAHL-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	EXT	31-MAR-2014 10:16	CSH	CLS	
3	ANALYZ*	EXT	SEMI	01-APR-2014 09:04	CAA	CSH	
4	DISP	EXT	DISP	01-APR-2014 09:19	BJO	BJO	

***Sample extract/digestate/leachate**

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	STORE	W1	A1	01-APR-2014 11:45	CLS	CLS	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L14031621-04	342139	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	ANALYZ	W1	SEM	02-APR-2014 10:37	JWR	ERP	
3	STORE	SEM	A2	03-APR-2014 14:04	ERP	JWR	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L14031621
Account: 2820
Project: 2820.216
Samples: 10
Due Date: 04-APR-2014

Samplenum	Container ID	Products
L14031621-04	342140	AL AS-MS BA-MS CA CO-MS FE K MG MN-MS NA PB-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	DIG	31-MAR-2014 08:44	VC	CLS	
3	ANALYZ*	DIG	METALS	01-APR-2014 08:43	JYH	VC	
4	STORE	DIG	A2	02-APR-2014 15:22	ERP	BRG	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L14031621-05	342141	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Samplenum	Container ID	Products
L14031621-05	342142	827-PAHL-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	EXT	31-MAR-2014 10:16	CSH	CLS	
3	ANALYZ*	EXT	SEMI	01-APR-2014 09:04	CAA	CSH	
4	DISP	EXT	DISP	01-APR-2014 09:18	BJO	BJO	

***Sample extract/digestate/leachate**

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	STORE	W1	A1	01-APR-2014 11:45	CLS	CLS	

***Sample extract/digestate/leachate**

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L14031621
Account: 2820
Project: 2820.216
Samples: 10
Due Date: 04-APR-2014

Samplenum	Container ID	Products
L14031621-05	342143	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	ANALYZ	W1	SEM	02-APR-2014 10:37	JWR	ERP	
3	STORE	SEM	A2	03-APR-2014 14:04	ERP	JWR	

Samplenum	Container ID	Products
L14031621-05	342144	AL AS-MS BA-MS CA CO-MS FE K MG MN-MS NA PB-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	DIG	31-MAR-2014 08:44	VC	CLS	
3	ANALYZ*	DIG	METALS	01-APR-2014 08:43	JYH	VC	
4	STORE	DIG	A2	02-APR-2014 15:22	ERP	BRG	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L14031621-06	342145	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L14031621
Account: 2820
Project: 2820.216
Samples: 10
Due Date: 04-APR-2014

Samplenum	Container ID	Products
L14031621-06	342146	827-PAHL-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	EXT	31-MAR-2014 10:16	CSH	CLS	
3	ANALYZ*	EXT	SEMI	01-APR-2014 09:04	CAA	CSH	
4	DISP	EXT	DISP	01-APR-2014 09:18	BJO	BJO	

***Sample extract/digestate/leachate**

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	STORE	W1	A1	01-APR-2014 11:45	CLS	CLS	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L14031621-06	342147	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	ANALYZ	W1	SEM	02-APR-2014 10:37	JWR	ERP	
3	STORE	SEM	A2	03-APR-2014 14:04	ERP	JWR	

Samplenum	Container ID	Products
L14031621-06	342148	AL AS-MS BA-MS CA CO-MS FE K MG MN-MS NA PB-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	DIG	31-MAR-2014 08:44	VC	CLS	
3	ANALYZ*	DIG	METALS	01-APR-2014 08:43	JYH	VC	
4	STORE	DIG	A2	02-APR-2014 15:22	ERP	BRG	

***Sample extract/digestate/leachate**

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Internal Chain of Custody Report

Login: L14031621
Account: 2820
Project: 2820.216
Samples: 10
Due Date: 04-APR-2014

Samplenum	Container ID	Products
L14031621-07	342149	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Samplenum	Container ID	Products
L14031621-07	342150	827-PAHL-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	EXT	31-MAR-2014 10:16	CSH	CLS	
3	ANALYZ*	EXT	SEMI	01-APR-2014 09:04	CAA	CSH	
4	DISP	EXT	DISP	01-APR-2014 09:18	BJO	BJO	

***Sample extract/digestate/leachate**

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	STORE	W1	A1	01-APR-2014 11:45	CLS	CLS	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L14031621-07	342151	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	ANALYZ	W1	SEM	02-APR-2014 10:37	JWR	ERP	
3	STORE	SEM	A2	03-APR-2014 14:04	ERP	JWR	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L14031621
Account: 2820
Project: 2820.216
Samples: 10
Due Date: 04-APR-2014

Samplenum	Container ID	Products
L14031621-07	342152	AL AS-MS BA-MS CA CO-MS FE K MG MN-MS NA PB-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	DIG	31-MAR-2014 08:44	VC	CLS	
3	ANALYZ*	DIG	METALS	01-APR-2014 08:43	JYH	VC	
4	STORE	DIG	A2	02-APR-2014 15:22	ERP	BRG	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L14031621-08	342153	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:18	MES	AZH	

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:17	MES	AZH	

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:17	MES	AZH	

Samplenum	Container ID	Products
L14031621-08	342154	827-PAHL-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	EXT	31-MAR-2014 10:16	CSH	CLS	
3	ANALYZ*	EXT	SEMI	01-APR-2014 09:04	CAA	CSH	
4	DISP	EXT	DISP	01-APR-2014 09:18	BJO	BJO	

***Sample extract/digestate/leachate**

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	STORE	W1	A1	01-APR-2014 11:45	CLS	CLS	

***Sample extract/digestate/leachate**

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L14031621
Account: 2820
Project: 2820.216
Samples: 10
Due Date: 04-APR-2014

Samplenum	Container ID	Products
L14031621-08	342155	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	ANALYZ	W1	SEM	02-APR-2014 10:37	JWR	ERP	
3	STORE	SEM	A2	03-APR-2014 14:04	ERP	JWR	

Samplenum	Container ID	Products
L14031621-08	342156	AL AS-MS BA-MS CA CO-MS FE K MG MN-MS NA PB-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	DIG	31-MAR-2014 08:44	VC	CLS	
3	ANALYZ*	DIG	METALS	01-APR-2014 08:43	JYH	VC	
4	STORE	DIG	A2	02-APR-2014 15:22	ERP	BRG	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L14031621-09	342157	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:17	MES	AZH	

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:17	MES	AZH	

Bottle: 3

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:17	MES	AZH	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L14031621
Account: 2820
Project: 2820.216
Samples: 10
Due Date: 04-APR-2014

Samplenum	Container ID	Products
L14031621-09	342158	827-PAHL-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	EXT	31-MAR-2014 10:16	CSH	CLS	
3	ANALYZ*	EXT	SEMI	01-APR-2014 09:04	CAA	CSH	

***Sample extract/digestate/leachate**

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	STORE	W1	A1	01-APR-2014 11:45	CLS	CLS	

***Sample extract/digestate/leachate**

Samplenum	Container ID	Products
L14031621-09	342159	6850

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	ANALYZ	W1	SEM	02-APR-2014 10:37	JWR	ERP	
3	STORE	SEM	A2	03-APR-2014 14:04	ERP	JWR	

Samplenum	Container ID	Products
L14031621-09	342160	AL AS-MS BA-MS CA CO-MS FE K MG MN-MS NA PB-MS

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	W1	28-MAR-2014 15:30	CLS		
2	PREP	W1	DIG	31-MAR-2014 08:44	VC	CLS	
3	ANALYZ*	DIG	METALS	01-APR-2014 08:43	JYH	VC	
4	STORE	DIG	A2	02-APR-2014 15:22	ERP	BRG	

***Sample extract/digestate/leachate**

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login

Microbac Laboratories Inc.

Internal Chain of Custody Report

Login: L14031621
Account: 2820
Project: 2820.216
Samples: 10
Due Date: 04-APR-2014

Samplenum	Container ID	Products
L14031621-10	342161	826-SPE

Bottle: 1

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:17	MES	AZH	

Bottle: 2

Seq.	Purpose	From	To	Date/Time	Accept	Relinquish	pH
1	LOGIN	COOLER	V1	28-MAR-2014 15:30	CLS		NA
2	ANALYZ	V1	ORG4	29-MAR-2014 13:17	MES	AZH	

A1 - Sample Archive (COLD)
A2 - Sample Archive (AMBIENT)
F1 - Volatiles Freezer in Login
V1 - Volatiles Refrigerator in Login
W1 - Walkin Cooler in Login